

FEDERAL REGISTER

VOLUME 35 • NUMBER 38

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Pages 3641-3740

Part I

(Part II begins on page 3705)

Agencies in this issue—

The President
Agricultural Research Service
Agriculture Department
Atomic Energy Commission
Business and Defense Services
Administration
Civil Aeronautics Board
Civil Service Commission
Coast Guard
Consumer and Marketing Service
Federal Aviation Administration
Federal Communications Commission
Federal Power Commission
Fiscal Service
Fish and Wildlife Service
Health, Education, and Welfare
Department
Interstate Commerce Commission
Mines Bureau
Securities and Exchange Commission

Detailed list of Contents appears inside.



Now Available

LIST OF CFR SECTIONS AFFECTED

1949-1963

This volume contains a compilation of the "List of Sections Affected" for all titles of the Code of Federal Regulations for the years 1949 through 1963. All sections of the CFR which have been expressly affected by documents published in the daily Federal Register are enumerated.

Reference to this list will enable the user to find the precise text of CFR provisions which were in force and effect on any given date during the period covered.

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Contents

THE PRESIDENT

PROCLAMATIONS

Modification of trade agreement concession and adjustment of duty on certain pianos.....	3645
Save Your Vision Week, 1970....	3649

EXECUTIVE AGENCIES

AGRICULTURAL RESEARCH SERVICE

Rules and Regulations	
Hog cholera and other communicable swine diseases; areas quarantined	3654
Swine destroyed because of hog cholera; payment of indemnities	3654

AGRICULTURE DEPARTMENT

<i>See also Agricultural Research Service; Consumer and Marketing Service.</i>	
Rules and Regulations	
Procurement; miscellaneous amendments (2 documents)....	3679-3683

ATOMIC ENERGY COMMISSION

Notices	
Long Island Lighting Co.; hearing on application for provisional construction permit.....	3693

BUSINESS AND DEFENSE SERVICES ADMINISTRATION

Notices	
Veterans Administration Hospital, San Francisco, Calif., et al.; applications for duty-free entry of scientific articles; correction....	3685

CIVIL AERONAUTICS BOARD

Notices	
Century Air Freight, Inc., et al.; proposed approval.....	3694

CIVIL SERVICE COMMISSION

Notices	
Noncareer executive assignments; revocation of authority: Department of Housing and Urban Development.....	3697
Office of Economic Opportunity	3697

COAST GUARD

Rules and Regulations	
Drawbridge operation; Tacoma Harbor, Tacoma, Wash.....	3678
Shipping; certain bulk dangerous cargoes on unmanned tank barges	3706

COMMERCE DEPARTMENT

See Business and Defense Services Administration.

CONSUMER AND MARKETING SERVICE

Rules and Regulations	
Handling limitations:	
Grapefruit grown in Florida....	3653
Lemons grown in California and Arizona	3652
Raisins produced from grapes grown in California; free and reserve percentages for 1969-70 crop year.....	3653
Tomato products, concentrated; standards for grades; miscellaneous amendments.....	3651

FEDERAL AVIATION ADMINISTRATION

Rules and Regulations	
Federal airways, jet routes, and jet advisory area; alteration....	3659

FEDERAL COMMUNICATIONS COMMISSION

Notices	
Alabama Microwave, Inc., and Newhouse Alabama Microwave, Inc.; hearing, etc.....	3694

FEDERAL POWER COMMISSION

Notices	
<i>Hearings, etc.:</i>	
Lake Superior District Power Co.....	3697
Southern Natural Gas Co.....	3697
Tennessee Valley Municipal Gas Association et al.....	3698
Willbros Terminal Co., Inc.....	3698

FISCAL SERVICE

Notices	
Farmers Home Mutual Insurance Co.; surety company acceptable on Federal bonds.....	3685

FISH AND WILDLIFE SERVICE

Rules and Regulations	
Arrowwood National Wildlife Refuge, N. Dak.; sport fishing.....	3684
Notices	
Frankie Cecil Jordan; loan application	3685

HEALTH, EDUCATION, AND WELFARE DEPARTMENT

Notices	
Food and Drug Administration; statement of organization, functions, and delegations of authority	3685

INTERIOR DEPARTMENT

See Fish and Wildlife Service; Mines Bureau.

INTERSTATE COMMERCE COMMISSION

Notices	
Fourth section application for relief	3699
Incentive per diem charges, 1968..	3701
Motor carriers:	
Temporary authority applications	3699
Transfer proceedings.....	3700

MINES BUREAU

Rules and Regulations	
Mining health and safety standards; miscellaneous amendments:	
Metal and nonmetallic mines:	
Open pit.....	3660
Underground	3670
Sand, gravel, and crushed stone operations	3665

SECURITIES AND EXCHANGE COMMISSION

Rules and Regulations	
Organization, conduct and ethics, and information and requests; public records and information..	3659
Securities Exchange Act of 1934; proxy rules; correction.....	3660

TRANSPORTATION DEPARTMENT

See Coast Guard; Federal Aviation Administration.

TREASURY DEPARTMENT

See Fiscal Service.

List of CFR Parts Affected

The following numerical guide is a list of the parts of each title of the Code of Federal Regulations affected by documents published in today's issue. A cumulative list of parts affected, covering the current month to date, appears at the end of each issue beginning with the second issue of the month.

A cumulative guide is published separately at the end of each month. The guide lists the parts and sections affected by documents published since January 1, 1970, and specifies how they are affected.

3 CFR

PROCLAMATIONS:

2929 (see Proc. 3964)	3645
3140 (see Proc. 3964)	3645
3822 (modified by Proc. 3964)	3645
3964	3645
3965	3649

7 CFR

52	3651
910	3652
913	3653
989	3653

9 CFR

56	3654
76	3654

14 CFR

71	3659
75	3659

17 CFR

200	3659
240	3660

30 CFR

55	3660
56	3665
57	3670

33 CFR

117	3678
-----------	------

41 CFR

4-1	3679
4-2	3680
4-3	3681
4-4	3682
4-12 (2 documents)	3682, 3683
4-16	3683

46 CFR

2	3706
24	3707
30	3707
31	3709
32	3709
35	3709
38	3709
39	3709
40	3710
70	3710
90	3710
98	3711
110	3712
146	3712
151	3714
175	3713

50 CFR

33	3684
----------	------

Presidential Documents

Title 3—THE PRESIDENT

Proclamation 3964

MODIFICATION OF TRADE AGREEMENT CONCESSION AND ADJUSTMENT OF DUTY ON CERTAIN PIANOS

By the President of the United States of America

A Proclamation

1. WHEREAS, pursuant to the authority vested in him by the Constitution and the statutes, including section 350 of the Tariff Act of 1930, as amended, and section 201 of the Trade Expansion Act of 1962 (19 U.S.C. 1821), the President, by Proclamation No. 2929 of June 2, 1951, No. 3140 of June 13, 1956, and No. 3822 of December 16, 1967 (65 Stat. c12, 70 Stat. c33, and 82 Stat. 1455), proclaimed such modifications of existing duties as were found to be required or appropriate to carry out trade agreements into which he had entered;

2. WHEREAS among the proclaimed modifications were modifications in the rate of duty on pianos which are now provided for in item 725.02 of the Tariff Schedules of the United States (TSUS);

3. WHEREAS the United States Tariff Commission has submitted to me a report of its Investigation No. TEA-I-14 under section 301 of the Trade Expansion Act of 1962 (19 U.S.C. 1901), on the basis of which investigation and a hearing duly held in connection therewith the said Commission has determined that pianos provided for in TSUS item 725.02 are, as a result in major part of concessions granted under trade agreements, being imported into the United States in such increased quantities as to threaten to cause serious injury to the domestic industry producing like or directly competitive products; and

4. WHEREAS I have determined that an increase in the prevailing rate of duty on pianos, except grand pianos, provided for in TSUS item 725.02, to a rate of duty of 13.5 percent ad valorem as hereinafter proclaimed is necessary to prevent serious injury to the piano industry:

NOW, THEREFORE, I, RICHARD NIXON, President of the United States of America, acting under the authority vested in me by the Constitution and the statutes, including sections 201(a)(2), 302(a)(2) and (3), and 351(a)(1) of the Trade Expansion Act of 1962 (19 U.S.C. 1821(a)(2), 19 U.S.C. 1902(a)(2) and (3), and 1981(a)(1)), and in accordance with section 253(d) of said Act (19 U.S.C. 1883(d)), and Article XIX of the General Agreement on Tariffs and Trade (61 Stat. (pt. 5) A58; 8 UST (pt. 2) 1786), do proclaim that—

(1) Item 725.02 in Part I of Schedule XX to the Geneva (1967) Protocol to the General Agreement on Tariffs and Trade (19 UST (pt. 2) 1723) is superseded by the same article descriptions and item numbers as are provided for in the modification of Proclamation 3822 set forth in paragraph (2) (a) hereof, with "8.5% ad val." in the rate of duty column in each of the new items 725.01 and 725.03; except that, (i) so long as the articles provided for in new item 725.01 in Schedule XX are dutiable under item 924.00 (added to the Appendix to the Tariff Schedules by paragraph (3) hereof), the rate in said item 725.01 shall be the rate in said item 924.00, and (ii) thereafter the staging of further reductions in the duty applicable to such articles shall be subject to general note 3(d) (ii) to the said Schedule XX;

(2) Proclamation No. 3822 is modified—

(a) In Annex II, by inserting after section E the following new section:

"Section F. Effective as to articles entered, or withdrawn from warehouse, for consumption on and after February 21, 1970:

Schedule 7, Part 3, Subpart A

1. Item 725.02 is superseded by:

	[Stringed musical instruments:]		
	Pianos (including player pianos, whether or not with keyboards); harpsichords, clavichords, and other keyboard stringed instruments:		
725.01	Pianos (including player pianos, whether or not with keyboards), except grand pianos	[See Annex III]	[40% ad val.];
725.03	Other	[See Annex III]	[40% ad val.]"

(b) In Annex III of said proclamation, by redesignating item "725.02" as "725.03" and adding immediately preceding item 725.03 the following new item and headings applicable solely thereto:

"

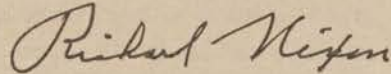
Rate of duty effective on and after—			
	Feb. 21, 1970	Jan. 1, 1974	Jan. 1, 1975
725.01	11.5% ad val.	10% ad val.	8.5% ad val.";

(3) Effective with respect to articles entered, or withdrawn from warehouse, for consumption during the three-year period commencing on the date of this proclamation, the TSUS is modified by inserting immediately after item 923.77 in part 2A of the appendix to the TSUS the following new item:

"924.00	Pianos (including player pianos, whether or not with keyboards), except grand pianos, provided for in item 725.01	13.5% ad val.	No change".
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(4) Provision is hereby made, with respect to the piano (including player pianos, whether or not with keyboards) industry, that: (a) its firms may request the Secretary of Commerce for certifications of eligibility to apply for adjustment assistance under Chapter 2 of Title III of the Trade Expansion Act of 1962; and (b) its workers may request the Secretary of Labor for certifications of eligibility to apply for adjustment assistance under Chapter 3 of Title III of the Trade Expansion Act of 1962.

IN WITNESS WHEREOF, I have hereunto set my hand this 21st day of February in the year of our Lord nineteen hundred and seventy, and of the Independence of the United States of America the one hundred and ninety-fourth.



[F.R. Doc. 70-2392; Filed, Feb. 24, 1970; 12:20 p.m.]

Proclamation 3965

SAVE YOUR VISION WEEK, 1970

By the President of the United States of America

A Proclamation

Sight is one of man's greatest gifts. The preservation of that gift is one of his greatest challenges.

Modern research has developed the technology for preventing nearly one-half of all new cases of blindness in this country. Cataracts that cruelly deprive older people of their sight can now be corrected surgically. Regular examinations can detect visual disorders, especially among school children who need good sight in order to learn.

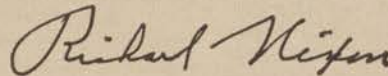
In the case of disorders such as glaucoma—which can rob a person of much of his sight before he is aware that a problem exists—early detection is essential if treatment is to be effective.

To impress upon each person in this country the urgent need for eye care, the Congress by joint resolution approved December 30, 1963 (77 Stat. 629), has requested the President to proclaim the first week in March of each year as Save Your Vision Week.

NOW, THEREFORE, I, RICHARD NIXON, President of the United States of America, do hereby proclaim the week of March 1, 1970, as Save Your Vision Week; and I invite appropriate officials of State and local governments to issue similar proclamations.

I also call upon all our citizens, especially those in the communications media, the health care professions, and other interested organizations to unite during that week in support of programs to improve and protect the vision of Americans.

IN WITNESS WHEREOF, I have hereunto set my hand this twenty-third day of February, in the year of our Lord nineteen hundred seventy, and of the Independence of the United States of America the one hundred ninety-fourth.



[F.R. Doc. 70-2393; Filed, Feb. 24, 1970; 12:21 p.m.]

Rules and Regulations

Title 7—AGRICULTURE

Chapter I—Consumer and Marketing Service (Standards, Inspections, Marketing Practices), Department of Agriculture

PART 52—PROCESSED FRUITS AND VEGETABLES, PROCESSED PRODUCTS THEREOF, AND CERTAIN OTHER PROCESSED FOOD PRODUCTS

Standards for Grades of Various Concentrated Tomato Products; Miscellaneous Amendments¹

The following U.S. Standards for Grades of concentrated tomato products are hereby amended pursuant to the authority contained in the Agricultural Marketing Act of 1946 (sec. 205, 60 Stat. 1090, as amended, 7 U.S.C. 1624):

Canned Tomato Puree (Tomato Pulp) (7 CFR 52.5081-52.5091).

Tomato Paste (7 CFR 52.5041-52.5051).

Concentrated Tomato Juice (7 CFR 52.5201-52.5210).

Statement of consideration leading to the amended standards. The Food and Drug Administration Standards of Identity for tomato puree (tomato pulp) and tomato paste have recently been revised to set the limits of concentration in terms of natural tomato soluble solids, determined by refractometer. The concentration of the product, less the amount of any added salt, is expressed as natural tomato soluble solids. Under the revised standards of identity, tomato puree (tomato pulp) contains not less than 8 percent, but less than 24 percent, of natural tomato soluble solids, and tomato paste contains not less than 24 percent of natural tomato soluble solids. These limits correspond closely to previous limits for tomato puree (tomato pulp) of not less than 8.37 percent, but less than 25 percent and of not less than 25 percent, for tomato paste, expressed as salt-free tomato solids.

The revised standards of identity further provide that tomato puree (tomato pulp) which contains not less than 20 percent, but less than 24 percent of natural tomato soluble solids may be considered as "concentrated tomato juice" in lieu of the names "tomato puree" or "tomato pulp". These limits correspond closely to previous limits for concentrated tomato juice of not less than 21

percent but less than 25 percent, expressed as salt-free tomato solids.

The amendments to the U.S. Standards for Grades of Tomato Puree (Tomato Pulp), Tomato Paste, and Concentrated Tomato Juice as hereinafter set forth provide for expressing the concentration of the product in terms of natural tomato soluble solids—to coincide with Food and Drug limits.

The designation of groupings of light, medium, heavy, and extra heavy concentration of Tomato Puree (Tomato Pulp) and Tomato Paste are also converted from salt-free solids classification to nearly equivalent concentrations expressed as natural tomato soluble solids.

It is hereby found that it is impracticable and contrary to the public interest to give preliminary notice, engage in public rule making procedure, and postpone the effective date beyond the date of publication hereof in the FEDERAL REGISTER (5 U.S.C. 1000-1011), in that:

(1) Equivalent conversions to, and the method of expression of, concentration of the product in terms of natural tomato soluble solids constitute the only amendments to the grade standards;

(2) The processing industry affected by the revised grade standards is familiar with the revised Food and Drug Standards of Identity, having initiated the action for the revisions made in the Food and Drug Standards of Identity;

(3) Additional time will not be needed for the industry to make preparations for compliance with these standards;

(4) It is in the interest of the public and the industry that these standards be made effective at the earliest possible date since the revised standards of identity are now in effect.

Accordingly, the amendments to the U.S. Standards for Grades of Canned Tomato Puree (Tomato Pulp), Tomato Paste, and Concentrated Tomato Juice set forth herein shall become effective upon publication in the FEDERAL REGISTER.

The following sections (in whole or in part) in the respective subpart are revised to read:

Subpart—U.S. Standards for Grades of Canned Tomato Puree

§ 52.5082 Concentration.

(a) The degree of concentration is not considered a factor of quality for the purposes of these standards, but tomato puree contains not less than 8 percent, but less than 24 percent of natural tomato soluble solids.

(b) The following designations of concentration may be used in connection with these standards for the applicable natural tomato soluble solids group:

NATURAL TOMATO SOLUBLE SOLIDS

Extra heavy concentration.	15.0 percent or more, but less than 24.0 percent.
Heavy concentration.	11.3 percent or more, but less than 15.0 percent.
Medium concentration.	10.1 percent or more, but less than 11.3 percent.
Light concentration.	8 percent or more, but less than 10.1 percent.

§ 52.5083 Texture.

(a) *General.* Texture is the degree of fineness or coarseness of the product. Texture is classified when the product is diluted with water, when necessary, to between 8 percent and 9 percent, inclusive, of natural tomato soluble solids.

§ 52.5086 Ascertaining the grade of a sample unit.

(b) *Factors not rated by score points—(1) Flavor and odor.* (i) The flavor and odor of the product is determined on undiluted samples and also after dilution with water to between 8 percent and 9 percent, inclusive, of natural tomato soluble solids.

§ 52.5088 Color.

(a) *General.* The amount of red in tomato puree is determined by comparing the color of the product, diluted with water, when necessary, to between 8 percent and 9 percent, inclusive, of natural tomato soluble solids, with that produced by spinning a combination of the following Munsell color discs:

- Disc 1—Red (5R 2.6/13) (glossy finish).
- Disc 2—Yellow (2.5YR 5/12) (glossy finish).
- Disc 3—Black (N1) (glossy finish).
- Disc 4—Grey (N4) (mat finish).

Such comparison is made under a diffused light source of approximately 250 foot-candle (candela) intensity and having a spectral quality approximating that of daylight under a moderately overcast sky, and a color temperature of 7,500° Kelvin $\pm 200^\circ$. With the light source directly over the disc and diluted product, observation is made at an angle of 45° and at a distance of 12 or more inches from the product.

(b) *Availability of color references.* The colors referred to in this section are available from the approved supplier under license from the U.S. Department of Agriculture:

Munsell Color Co., 2441 North Calvert Street, Baltimore, Md. 21218.

¹ Compliance with the provisions of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act or with applicable State laws and regulations.

§ 52.5091 Score sheet for tomato puree.

Size and kind of container.....
 Label.....
 Container mark or identification.....
 Net weight.....
 Vacuum (inches).....
 Texture (fine or coarse).....
 Natural tomato soluble solids (percent).....

Factors	Score points
Color.....	50 { (A) 45-50 (C) 40-44 (SStd) 10-39
Defects.....	50 { (A) 45-50 (C) 40-44 (SStd) 10-39
Total score.....	100
Flavor and odor.....	{ Good Fairly good Off
Grade.....	

¹ Indicates limiting rule.

Subpart—U.S. Standards for Grades of Tomato Paste

§ 52.5041 Product description.

(a) "Tomato Paste" is the clean, sound wholesome product as defined in the Standard of Identity for Tomato Paste (21 CFR 53.30) issued pursuant to the Federal Food, Drug, and Cosmetic Act and contains not less than 24 percent of natural tomato soluble solids.

(b) The standards in this subpart cover canned tomato paste processed by heat to assure preservation in hermetically sealed containers as well as tomato paste which may be preserved by other means.

§ 52.5042 Concentration.

The degree of concentration is not considered a factor of quality for the purposes of these standards but the following designations of concentration may be used in connection with these standards for the applicable natural tomato soluble solids group:

NATURAL TOMATO SOLUBLE SOLIDS	
Extra heavy concentration.....	38.5 percent or more.
Heavy concentration.....	32 percent or more, but less than 38.5 percent.
Medium concentration.....	28 percent or more, but less than 32 percent.
Light concentration.....	24 percent or more, but less than 28 percent.

§ 52.5043 Texture.

(a) General. Texture is the degree of fineness or coarseness of the product. Texture is classified when the product is diluted with water to between 8 percent and 9 percent, inclusive, of natural tomato soluble solids.

§ 52.5046 Ascertaining the grade of a sample unit.

(b) Factors not rated by score points—
 (1) Flavor and odor. (i) The flavor and odor of the product is determined on undiluted samples and also after dilution with water to between 8 percent and 9

percent, inclusive, of natural tomato soluble solids.

§ 52.5048 Color.

(a) General. The amount of red in tomato paste is determined by comparing the color or the product, diluted with water to between 8 percent and 9 percent, inclusive, of natural tomato soluble solids, with that produced by spinning a combination of the following Munsell color discs:

Disc 1—Red (5R 2.6/13) (glossy finish).
 Disc 2—Yellow (2.5YR 5/12) (glossy finish).
 Disc 3—Black (N1) (glossy finish).
 Disc 4—Grey (N4) (mat finish).

Such comparison is made under a diffused light source of approximately 250 foot-candle (candela) intensity and having a spectral quality approximating that of daylight under a moderately overcast sky, and a color temperature of 7,500° Kelvin $\pm 200^\circ$. With the light source directly over the disc and diluted product, observation is made at an angle of 45° and at a distance of 12 or more inches from the product.

(b) Availability of color references. The colors referred to in this section are available from the approved supplier under a license from the U.S. Department of Agriculture:

Munsell Color Co., 2441 North Calvert Street, Baltimore, Md. 21218.

§ 52.5051 Score sheet for tomato paste.

Size and kind of container.....
 Label.....
 Container mark or identification.....
 Net weight.....
 Vacuum (inches).....
 Texture (fine or coarse).....
 Natural tomato soluble solids (percent).....

Factors	Score points
Color.....	50 { (A) 45-50 (C) 40-44 (SStd) 10-39
Defects.....	50 { (A) 45-50 (C) 40-44 (SStd) 10-39
Total score.....	100
Flavor and odor.....	{ Good Fairly Good Off
Grade.....	

¹ Indicates limiting rule.

Subpart—U.S. Standards for Grades of Concentrated Tomato Juice

§ 52.5201 Product description.

"Concentrated tomato juice" means the product prepared from clean, sound, whole tomatoes of the red or reddish varieties as such product is defined in the Standard of Identity for Tomato Puree (21 CFR 53.20; 34 F.R. 18420) issued pursuant to the Federal Food, Drug, and Cosmetic Act. The product contains not less than 20 percent but less than 24 percent of natural tomato soluble solids. When packed in hermetically sealed containers, it is sufficiently processed by heat, before or after sealing, to assure preservation of the product.

§ 52.5210 Score sheet for concentrated tomato juice.

Type of container.....
 Container size.....
 Label.....
 Code.....
 Volume (fluid ounces).....
 Vacuum (inches).....
 Natural tomato soluble solids (percent).....

Factors	Score points
Color.....	30 { (A) 26-30 (C) 23-25 (SStd) 20-22
Consistency.....	15 { (A) 13-15 (C) 10-12 (SStd) 7-9
Defects.....	15 { (A) 13-15 (C) 10-12 (SStd) 7-9
Flavor.....	40 { (A) 33-40 (C) 27-32 (SStd) 20-26
Total score.....	100
Grade.....	

¹ Indicates partial limiting rule.
² Indicates limiting rule.

The U.S. Standards for grades as hereby amended shall become effective on the date of publication in the FEDERAL REGISTER and thereupon will supersede: U.S. Standards for Grades of Canned Tomato Puree which have been in effect since August 22, 1964;

U.S. Standards for Grades of Tomato Paste which have been in effect since August 22, 1964; and

U.S. Standards for Grades of Concentrated Tomato Juice which have been in effect since July 15, 1960.

(Sec. 205, 60 Stat. 1090, as amended, 7 U.S.C. 1624)

Dated: February 17, 1970.

G. R. GRANGE,
 Deputy Administrator,
 Marketing Services.

[F.R. Doc. 70-2209; Filed, Feb. 24, 1970; 8:45 a.m.]

Chapter IX—Consumer and Marketing Service (Marketing Agreements and Orders; Fruits, Vegetables, Nuts), Department of Agriculture

[Lemon Reg. 414, Amdt. 1]

PART 910—LEMONS GROWN IN CALIFORNIA AND ARIZONA

Limitation of Handling

Findings. (1) Pursuant to the marketing agreement, as amended, and Order No. 910, as amended (7 CFR Part 910), regulating the handling of lemons grown in California and Arizona, effective under the applicable provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601-674), and upon the basis of the recommendations and information submitted by the Lemon Administrative Committee, established under the said amended marketing agreement and order, and upon other available information, it is hereby found that the limitation of handling of such lemons, as hereinafter provided, will tend to effectuate the declared policy of the act.

(2) It is hereby further found that it is impracticable and contrary to the public interest to give preliminary notice, engage in public rule-making procedure, and postpone the effective date of this amendment until 30 days after publication hereof in the *FEDERAL REGISTER* (5 U.S.C. 553) because the time intervening between the date when information upon which this amendment is based became available and the time when this amendment must become effective in order to effectuate the declared policy of the act is insufficient, and this amendment relieves restriction on the handling of lemons grown in California and Arizona.

Order, as amended. The provisions in paragraph (b) (1) (i) and (ii) of § 910.714 (Lemon Reg. 414, 35 F.R. 3021) are hereby amended to read as follows:

§ 910.714 Lemon Regulation 414.

- (b) Order. (1) * * *
- (i) District 1: 39,060 cartons.
- (ii) District 2: 151,590 cartons.

(Secs. 1-19, 48 Stat. 31, as amended; 7 U.S.C. 601-674)

Dated: February 19, 1970.

PAUL A. NICHOLSON,
Deputy Director, Fruit and Vegetable Division, Consumer and Marketing Service.

[F.R. Doc. 70-2267; Filed, Feb. 24, 1970; 8:47 a.m.]

[Grapefruit Reg. 36]

PART 913—GRAPEFRUIT GROWN IN THE INTERIOR DISTRICT IN FLORIDA

Limitation of Handling

§ 913.336 Grapefruit Regulation 36.

(a) Findings. (1) Pursuant to the marketing agreement, as amended, and Order No. 913, as amended (7 CFR Part 913; 34 F.R. 12428), regulating the handling of grapefruit grown in the Interior District in Florida, effective under the applicable provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601-674), and upon the Interior Grapefruit Marketing Committee, established under said marketing agreement and order, and upon other available information, it is hereby found that the limitation of handling of such grapefruit, as hereinafter provided, will tend to effectuate the declared policy of the act.

(2) It is hereby further found that it is impracticable and contrary to the public interest to give preliminary notice, engage in public rule-making procedure, and postpone the effective date of this section until 30 days after publication hereof in the *FEDERAL REGISTER* (5 U.S.C. 553) because the time intervening between the date when information upon which this section is based became available and the time when this section must become effective in order to effectuate the declared policy of the act is insufficient, and a reasonable time is permitted,

under the circumstances, for preparation for such effective time; and good cause exists for making the provisions hereof effective as hereinafter set forth. The committee held an open meeting during the current week, after giving due notice thereof, to consider supply and market conditions for Interior grapefruit, and the need for regulation; interested persons were afforded an opportunity to submit information and views at this meeting; the recommendation and supporting information for regulation during the period specified herein were promptly submitted to the Department after such meeting was held; the provisions of this section, including its effective time, are identical with the aforesaid recommendation of the committee; and information concerning such provisions and effective time has been disseminated among handlers of such Interior grapefruit; it is necessary, in order to effectuate the declared policy of the act, to make this section effective during the period herein specified; and compliance with this section will not require any special preparation on the part of persons subject hereto which cannot be completed on or before the effective date hereof. Such committee meeting was held on February 19, 1970.

(b) Order. (1) The quantity of grapefruit grown in the Interior District which may be handled during the period February 23, 1970, through March 1, 1970, is hereby fixed at 250,000 standard packed boxes.

(2) As used in this section, "handled," "Interior District," "grapefruit," and "standard packed box" have the same meaning as when used in said marketing agreement and order.

(Secs. 1-19, 48 Stat. 31, as amended; 7 U.S.C. 601-674)

Dated: February 19, 1970.

PAUL A. NICHOLSON,
Deputy Director, Fruit and Vegetable Division, Consumer and Marketing Service.

[F.R. Doc. 70-2307; Filed, Feb. 20, 1970; 11:19 a.m.]

PART 989—RAISINS PRODUCED FROM GRAPES GROWN IN CALIFORNIA

Free and Reserve Percentages for 1969-70 Crop Year

Pursuant to §§ 989.54(b) and 989.55 of the marketing agreement, as amended, and Order No. 989, as amended (7 CFR Part 989), regulating the handling of raisins produced from grapes grown in California, the preliminary free tonnage percentage and reserve tonnage percentage applicable to standard natural Thompson Seedless raisins acquired by handlers during the 1969-70 crop year were each designated 50 percent (§ 989.227; 34 F.R. 16860). Such preliminary free tonnage percentage was recommended by the Raisin Administrative Committee, established pursuant to the amended marketing agreement and order, as tending to release 127,500 tons,

or about 95 percent, of the desirable free tonnage (§ 989.222; 34 F.R. 15340) of 134,000 tons for such raisins. This marketing agreement and order program is effective under the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601-674), hereinafter referred to as the "act".

The Committee is required by § 989.54 (b) to recommend, no later than February 15, a free tonnage percentage which will tend to release the full desirable free tonnage of 134,000 tons of standard natural Thompson Seedless raisins. The 1969-70 crop year production of standard raisins of such varietal type was estimated by the Committee to be approximately 230,400 tons, and the Committee, on that basis, recommended at its meeting on February 13, 1970, a final free tonnage percentage of 58 percent and a reserve tonnage percentage of 42 percent. The designation, pursuant to § 989.55, of 58 percent as the final free tonnage percentage would tend to release the full desirable free tonnage of 134,000 tons. As provided in § 989.54(b), the difference between the free tonnage percentage and 100 percent is the reserve percentage.

After consideration of the recommendation and supporting information submitted by the Committee, and other available information, it is hereby found that the designation of the final free tonnage percentage and the reserve tonnage percentage, as hereinafter set forth, would tend to effectuate the declared policy of the act.

Therefore, § 989.227 is revised to read as follows:

§ 989.227 Free and reserve percentages for the 1969-70 crop year.

The percentages of standard natural Thompson Seedless raisins acquired by handlers during the crop year beginning September 1, 1969, which shall be free tonnage and reserve tonnage, respectively, are designated as follows: Free tonnage percentage, 58 percent; and reserve tonnage percentage, 42 percent.

It is further found that it is impracticable, unnecessary, and contrary to the public interest to give preliminary notice and engaged in public rule-making procedure, and that good cause exists for not postponing the effective time until 30 days after publication in the *FEDERAL REGISTER* (5 U.S.C. 553) in that: (1) This action relieves restrictions as to the amount of standard raisins available immediately to handlers for use in free tonnage outlets; (2) under this part the respective free tonnage and reserve tonnage percentages, designated for a particular varietal type and crop year, apply to all standard raisins of such varietal type acquired by handlers from the beginning of the crop year; (3) the current crop year began September 1, 1969, and the percentages designated herein will automatically apply to such raisins acquired by handlers on or after that date; and (4) handlers are aware of this action as recommended by the Committee and require no additional time to comply therewith.

(Secs. 1-19, 48 Stat. 31, as amended; 7 U.S.C. 601-674)

Dated: February 18, 1970.

PAUL A. NICHOLSON,
Deputy Director, Fruit and Vegetable Division, Consumer and Marketing Service.

[F.R. Doc. 70-2269; Filed, Feb. 24, 1970; 8:47 a.m.]

Title 9—ANIMALS AND ANIMAL PRODUCTS

Chapter I—Agricultural Research Service, Department of Agriculture

SUBCHAPTER B—COOPERATIVE CONTROL AND ERADICATION OF ANIMAL DISEASES

PART 56—SWINE DESTROYED BECAUSE OF HOG CHOLERA

Payment of Indemnities

Pursuant to the provisions of the Act of May 29, 1884, as amended, the Act of February 2, 1903, as amended, the Act of March 3, 1905, as amended, the Act of September 6, 1961, and the Act of July 2, 1962 (21 U.S.C. 111-113, 114, 114a, 114g, 115, 117, 120, 121, 123-126, and 134a) § 56.7 of Part 56, Title 9, Code of Federal Regulations relating to the payment of indemnity for swine destroyed because of hog cholera, is hereby amended by adding a new paragraph (c) to read as follows:

§ 56.7 Payments to owners for swine destroyed.

(c) Notwithstanding the provisions of paragraphs (a) and (b) of this section, the Director of the Division may approve the payment of the full appraised value of swine so destroyed, not to exceed twice the amount of Federal indemnity set forth in paragraph (b) of this section, for swine moving or which have moved interstate and which are not eligible for indemnity from any State: *Provided*, That: (1) The Director of the Division determines that the swine so destroyed were exposed to hog cholera prior to or during the interstate movement; (2) the swine were quarantined and isolated from other swine in the State of destination for at least 30 days; (3) and a Department or State Veterinarian determines that the swine were infected with hog cholera during the quarantine period imposed by the State of destination: *And provided further*, That if the State quarantine exceeds 60 days, a Department or State veterinarian determines that the swine were infected with hog cholera during the first 60 days of the quarantine period.

Effective date. The foregoing amendment shall become effective upon publication in the FEDERAL REGISTER.

The foregoing amendment is necessary to insure continued progress of the Cooperative State-Federal Hog Cholera Eradication Program and to protect gains made toward the eradication of

hog cholera from the Nation's swine population.

In some States swine moving in interstate commerce are not eligible for State indemnities. Other States do not wish to spend funds for diseased swine which have been recently imported. Under these conditions, herd owners are reluctant to dispose of hog cholera infected herds. The continuing existence of such diseased herds constitutes a threat to the swine population of such State and other States. This amendment will make possible the payment of full indemnity for swine which have moved interstate and the elimination of diseased swine under conditions which have not heretofore been possible.

The amendment relieves certain restrictions presently imposed and must be made effective immediately to be of maximum benefit to persons subject to the restrictions which are relieved. Accordingly, under the administrative procedure provisions of 5 U.S.C. 553, it is found upon good cause that notice and other public procedure with respect to the amendment are impracticable and unnecessary, and good cause is found for making the amendment effective less than 30 days after publication in the FEDERAL REGISTER.

Done at Washington, D.C., this 19th day of February 1970.

R. J. ANDERSON,
Acting Administrator,
Agricultural Research Service.

[F.R. Doc. 70-2270; Filed, Feb. 24, 1970; 8:47 a.m.]

SUBCHAPTER C—INTERSTATE TRANSPORTATION OF ANIMALS AND POULTRY

PART 76—HOG CHOLERA AND OTHER COMMUNICABLE SWINE DISEASES

Areas Quarantined

Pursuant to provisions of the Act of May 29, 1884, as amended, the Act of February 2, 1903, as amended, the Act of March 3, 1905, as amended, the Act of September 6, 1961, and the Act of July 2, 1962 (21 U.S.C. 111-113, 114g, 115, 117, 120, 121, 123-126, 134b, 134f), Part 76, Title 9, Code of Federal Regulations, restricting the interstate movement of swine and certain products because of hog cholera and other communicable swine diseases, is hereby amended in the following respects:

In § 76.2, paragraphs (e) and (f) are amended and paragraph (g) is reissued to read as follows:

§ 76.2 Notices relating to existence of hog cholera; prohibition of movement of virulent virus; spread of disease through raw garbage; regulations; quarantines; eradication States; and free States.

(e) *Notice of quarantine.* Notice is hereby given that because of the existence of hog cholera in the States of Arizona, Arkansas, Georgia, Illinois, Maryland, Massachusetts, Minnesota, Missis-

issippi, Missouri, New Hampshire, New York, North Carolina, Oklahoma, Rhode Island, South Carolina, Texas, and Virginia, and The Commonwealth of Puerto Rico, and the nature and extent of outbreaks of this disease, the following areas are quarantined because of said disease:

(1) *Arizona.* (i) That portion of Maricopa County bounded by a line beginning at the junction of Yuma Road and Perryville Road; thence, following Perryville Road in a southerly direction to its junction with Baseline Road and the Gila and Salt River base line; thence, following the Gila and Salt River base line in an easterly direction to the southeastern corner of sec. 31, of T. 1 N., R. 1 W.; thence, following the eastern boundaries of secs. 31, 30, and 19, of T. 1 N., R. 1 W., in a northerly direction to Reams Road; thence, following Reams Road in a northerly direction to Yuma Road; thence, following Yuma Road in a westerly direction to its junction with Perryville Road.

(ii) That portion of Maricopa County bounded by a line beginning at the junction of Southern Avenue and 35th Avenue; thence, following 35th Avenue in a southerly direction to Estrella Drive; thence, following Estrella Drive in a westerly direction to 75th Avenue; thence, following 75th Avenue in a northerly direction to Southern Avenue; thence, following Southern Avenue in an easterly direction to its junction with 35th Avenue.

(2) *Arkansas.* That portion of Crawford County bounded by a line beginning at the junction of U.S. Highway 59 and the Crawford-Washington County line; thence, following the Crawford-Washington County line in an easterly direction to the Crawford-Madison County line; thence, following the Crawford-Madison County line in an easterly direction to the Crawford-Franklin County line; thence, following the Crawford-Franklin County line in a generally southwesterly direction to Interstate Highway 40; thence, following Interstate Highway 40 in a southwesterly direction to State Highway 59; thence, following State Highway 59 in a northwesterly direction to its junction with the Crawford-Washington County line.

(3) *Georgia.* Newton County.

(4) *Illinois.* (i) That portion of Christian County comprised of Greenwood, Johnson, King, and Ricks Townships.

(ii) That portion of Gallatin County comprised of North Fork and Omaha Townships.

(iii) That portion of Greene County comprised of Linder, Rabicon, and Wrights Townships.

(iv) That portion of Macoupin County comprised of Nilwood and South Otter Townships.

(v) That portion of Montgomery County comprised of Audobon, Bois Dare, Butler Grove, East Fork, Fillmore, Harvel, Hillsboro, Irving, Nokomis, Raymond, Rountree, and Witt Townships.

(vi) That portion of Saline County comprised of East Eldorado and Rector Townships.

(vii) That portion of Shelby County comprised of Big Springs, Flat Branch,

Oak Grove, Okaw, Ridge, and Rural Townships.

(5) *Maryland.* The adjacent portions of Wicomico and Worcester Counties bounded by a line beginning at the junction of U.S. Highway 50 and State Highway 12 (at the city of Salisbury); thence, following U.S. Highway 50 in an easterly direction to U.S. Highway 113; thence, following U.S. Highway 113 in a southwesterly direction to State Highway 12 (at the city of Snow Hill); thence, following State Highway 12 in a northwesterly direction to its junction with U.S. Highway 50.

(6) *Massachusetts.* Bristol, Middlesex, and Worcester Counties.

(7) *Minnesota.* The adjacent portions of Kandiyohi, Chippewa, and Renville Counties bounded by a line beginning at the junction of State Highway 40 and U.S. Highway 71; thence, following U.S. Highway 71 in a southerly direction to U.S. Highway 212; thence, following U.S. Highway 212 in a westerly direction to State Highway 23; thence, following State Highway 23 in a northerly direction to State Highway 277; thence, following State Highway 277 in a northerly direction to State Highway 40; thence, following State Highway 40 in an easterly direction to its junction with U.S. Highway 71.

(8) *Mississippi.* (i) That portion of Calhoun County bounded by a line beginning at the junction of the Calhoun-Yalobusha County line and State Highway 32; thence, following State Highway 32 in a generally southeasterly direction to State Highway 9; thence, following State Highway 9 in a southerly direction to the Skuna River; thence, following the northern bank of the Skuna River in a southwesterly direction to the Calhoun-Yalobusha County line; thence, following the Calhoun-Yalobusha County line in a northerly direction to its junction with State Highway 32.

(ii) The adjacent portions of Madison and Hinds Counties bounded by a line beginning at the junction of U.S. Highway 49 and State Road 22; thence, following State Road 22 in a generally easterly direction to State Road 463; thence, following State Road 463 in a southeasterly direction to U.S. Highway 51; thence, following U.S. Highway 51 in a southwesterly direction to the Hinds-Madison County Line Road; thence, following the Hinds-Madison County Line Road in a westerly direction to U.S. Highway 49; thence, following U.S. Highway 49 in a northerly direction to its junction with State Road 22.

(iii) That portion of Monroe County bounded by a line beginning at the junction of U.S. Highway 278 and the Monroe-Lamar County line (Mississippi-Alabama State line); thence, following the Monroe-Lamar County line in a southwesterly direction to the Monroe-Lowndes County line; thence, following the Monroe-Lowndes County line in a westerly direction to the Buttahatchie River; thence, following the north bank of the Buttahatchie River in a southwesterly direction to the Tombigbee River; thence, following the east bank of the Tombigbee River in a northerly di-

rection to State Highway 8; thence, following State Highway 8 in a generally northeasterly direction to U.S. Highway 278; thence, following U.S. Highway 278 in a southeasterly direction to its junction with the Monroe-Lamar County line (Mississippi-Alabama State line).

(iv) That portion of Rankin County beginning at the junction of the Pearl River and the Black Top County Road (south of the Ross Barnett Reservoir) known locally as Scenic Drive Road; thence, following Scenic Drive Road in a southeasterly direction to State Highway 471; thence, following State Highway 471 in a northerly direction to Pelohatchie Creek; thence, following the south bank of Pelohatchie Creek in a generally southeasterly direction to U.S. Highway 80; thence, following U.S. Highway 80 in a southwesterly direction to the Gulde-Shilo County Road; thence, following the Gulde-Shilo County Road in a southeasterly direction to Shilo; thence, following the Shilo-Micro Wave Station County Road in a southwesterly direction to Micro Wave Station; thence, following the Micro Wave Station-Johns County Road in a southeasterly direction to State Highway 18; thence, following State Highway 18 in a northwesterly direction to Tumbaloo Creek; thence, following the north bank of Tumbaloo Creek in a northwesterly direction to Richland Creek; thence, following the north bank of Richland Creek in a northwesterly direction to State Highway 468; thence, following State Highway 468 in a northerly direction to U.S. Highway 80; thence, following U.S. Highway 80 in a westerly direction to the Pearl River; thence, following the east bank of the Pearl River in a northeasterly direction to its junction with the Scenic Drive Road (south of Ross Barnett Reservoir).

(v) The adjacent portions of Tallahatchie and Grenada Counties bounded by a line beginning at the junction of U.S. Highway 51 and Federal Aid Secondary Highway at the Grenada-Yalobusha County line; thence, following Federal Aid Secondary Highway in a southwesterly direction to the town of Cascilla; thence, following Federal Aid Secondary Highway in a generally southerly direction to State Highway 8; thence, following State Highway 8 in a southeasterly direction to State Highway 35; thence, following State Highway 35 in a southeasterly direction across Cane Creek to the First Federal Aid Secondary Highway east of State Highway 35; thence, following the First Federal Aid Secondary Highway east of State Highway 35 in a continuous northeasterly direction to U.S. Interstate Highway 55; thence, following U.S. Interstate Highway 55 in a northerly direction to U.S. Highway 51; thence, following U.S. Highway 51 in a northerly direction to its junction with Federal Aid Secondary Highway at the Grenada-Yalobusha County line.

(9) *Missouri.* That portion of Scott County bounded by a line beginning at the junction of County Road JJ, County Road P and the Scott-Cape Girardeau

County line; thence, following County Road JJ in an easterly direction to the Missouri Pacific Railroad track; thence, following the Missouri Pacific Railroad track in a southeasterly direction to Ditch No. 19; thence, following Ditch No. 19 in an easterly direction to the Caney Creek; thence, following the west bank of Caney Creek in a southerly direction to the Benton-Oran Gravel Road; thence, following the Benton-Oran Gravel Road in a generally easterly direction to U.S. Highway 61; thence, following U.S. Highway 61 in a southwesterly direction to State Highway 91; thence, following State Highway 91 in a westerly direction to the Scott-Stoddard County line; thence, following the Scott-Stoddard County line in a generally northerly direction to the Scott-Cape Girardeau County line; thence, following the Scott-Cape Girardeau County line in a northerly direction to its junction with County Road JJ and County Road P.

(10) *New Hampshire.* That portion of Rockingham County comprised of Brentwood, Epping, and Exeter Townships.

(11) *New York.* That portion of Montgomery County lying south of the Mohawk River, east of County Roads 27 and 145, north of the New York State Thruway, and west of State Highway 30.

(12) *North Carolina.* (i) That portion of Duplin County bounded by a line beginning at the junction of State Road 1544 and the eastern boundary of Duplin County; thence, following the eastern boundary line in a southeasterly direction to State Road 1715; thence, following State Road 1715 in a westerly direction to State Highway 50; thence, following State Highway 50 in a northwesterly direction to the Northeast Cape Fear River; thence, following the Northeast Cape Fear River in a northerly direction to State Highway 11, thence following State Highway 11 in a southwesterly direction to State Road 1501; thence, following State Road 1501 in a northwesterly direction to State Road 1519; thence, following State Road 1519 in a northeasterly direction to State Road 1002; thence, following State Road 1002 in a northerly direction to State Road 1539; thence, following State Road 1539 in a northeasterly direction to State Road 1544; thence, following State Road 1544 in an easterly direction to its junction with the eastern boundary of Duplin County.

(ii) The adjacent portions of Greene and Lenoir Counties bounded by a line beginning at the junction of State Highway 123 with Secondary Road 1400; thence, following Secondary Road 1400 in a southeasterly direction to Secondary Road 1411; thence, following Secondary Road 1411 in a southeasterly direction to Secondary Road 1410; thence, following Secondary Road 1410 in a southwesterly direction to Secondary Road 1710; thence, following Secondary Road 1710 in a southwesterly direction to Secondary Road 1711; thence, following Secondary Road 1711 in a southwesterly direction to Secondary Road 1704; thence, following Secondary Road 1704 in a westerly direction to Secondary Road 1724; thence, following Secondary Road 1724 in a

southwesterly direction to Secondary Road 1727; thence, following Secondary Road 1727 in a southeasterly direction to Secondary Road 1732; thence, following Secondary Road 1732 in a southwesterly direction to Stonyton Creek; thence, following Stonyton Creek in a northwesterly direction to State Highway 91; thence, following State Highway 91 in a northwesterly direction to Rainbow Creek; thence, following Rainbow Creek in a northeasterly direction to Secondary Road 1438; thence, following Secondary Road 1438 in an easterly direction to State Highway 123; thence, following State Highway 123 in a northeasterly direction to its junction with Secondary Road 1400.

(iii) The adjacent portions of Jones, Lenoir, and Craven Counties bounded by a line beginning at the junction of U.S. Highway 70 with the Jones-Craven County line; thence, following U.S. Highway 70 in an easterly direction to Secondary Road 1262; thence, following Secondary Road 1262 in a northeasterly direction to Secondary Road 1275; thence, following Secondary Road 1275 in a northeasterly direction to State Highway 55; thence, following State Highway 55 in a northwesterly direction to Secondary Road 1803; thence, following Secondary Road 1803 in a northerly direction to the Craven-Lenoir County line; thence, following the Craven-Lenoir County line in a northeasterly direction to the Neuse River; thence, following the east bank of the Neuse River in a southwesterly direction to Secondary Road 1807; thence, following Secondary Road 1807 in a westerly direction to Secondary Road 1810; thence, following Secondary Road 1810 in a southwesterly direction to State Highway Bypass 11; thence, following State Highway Bypass 11 in a northerly direction to State Highway 11; thence, following State Highway 11 in a westerly direction to U.S. Highway Business 70, 258; thence, following U.S. Highway Business 70, 258 in a westerly direction to State Highway 58; thence, following State Highway 58 in a southeasterly direction to State Highway 11, 55; thence, following State Highway 11, 55 in a southwesterly direction to Secondary Road 1342; thence, following Secondary Road 1342 in an easterly direction to U.S. Highway 258; thence, following U.S. Highway 258 in a southwesterly direction to Secondary Road 1911; thence, following Secondary Road 1911 in a southeasterly direction to Secondary Road 1912; thence, following Secondary Road 1912 in a southwesterly direction to Secondary Road 1916; thence, following Secondary Road 1916 in an easterly direction to State Highway 58; thence, following State Highway 58 in a southeasterly direction to Secondary Road 1919; thence, following Secondary Road 1919 in a southeasterly direction to Secondary Road 1305; thence, following Secondary Road 1305 in an easterly direction to Secondary Road 1002; thence, following Secondary Road 1002 in a northerly direction to Secondary Road 1313; thence, following Secondary Road 1313 in a northeasterly direction to U.S. Highway 70; thence, following U.S. High-

way 70 in an easterly direction to its junction with the Jones-Craven County line.

(iv) That portion of Lenoir County bounded by a line beginning at the junction of the Atlantic and East Carolina Railroad and the Lenoir-Wayne County line; thence, following the Lenoir-Wayne County line in a northeasterly direction to the Lenoir-Greene County line; thence, following the Lenoir-Greene County line in a northeasterly direction to State Secondary Road 1536; thence, following State Secondary Road 1536 in a southeasterly direction to State Secondary Road 1544; thence, following State Secondary Road 1544 in a generally southerly direction to State Secondary Road 1545; thence, following State Secondary Road 1545 in a southwesterly direction to State Secondary Road 1546; thence, following State Secondary Road 1546 in a southwesterly direction to the Atlantic and East Carolina Railroad; thence, following the Atlantic and East Carolina Railroad in a northwesterly direction to its junction with the Lenoir-Wayne County line.

(v) That portion of Nash County bounded by a line beginning at the junction of State Highway 58 and Secondary Road 1302; thence, following Secondary Road 1302 in a southwesterly direction to Secondary Road 1301; thence, following Secondary Road 1301 in a northwesterly direction to Secondary Road 1300; thence, following Secondary Road 1300 in a southwesterly direction to Secondary Road 1303; thence, following Secondary Road 1303 in a southwesterly direction to U.S. Highway 64; thence, following U.S. Highway 64 in an easterly direction to Secondary Road 1913; thence, following Secondary Road 1913 in a southwesterly direction to Secondary Road 1306; thence, following Secondary Road 1306 in a southeasterly direction to Secondary Road 1145; thence, following Secondary Road 1145 in a southwesterly direction to Sapony Creek; thence, following the northern bank of the Sapony Creek in a generally north-easterly direction to State Highway 58; thence, following State Highway 58 in a northerly direction to Secondary Road 1145; thence, following Secondary Road 1145 in a northeasterly direction to Secondary Road 1700; thence, following Secondary Road 1700 in a northwesterly direction to Secondary Road 1003; thence, following Secondary Road 1003 in a northeasterly direction to U.S. Highway Bypass 64; thence, following U.S. Highway Bypass 64 in a northwesterly direction to Secondary Road 1435; thence, following Secondary Road 1435 in a northerly direction to Basket Creek; thence, following the south bank of Basket Creek in a northwesterly direction to Secondary Road 1004; thence, following Secondary Road 1004 in a southerly direction to State Highway 58; thence, following State Highway 58 in a northwesterly direction to its junction with Secondary Road 1302.

(vi) That portion of Pasquotank County bounded by a line beginning at the junction of the Pasquotank River and U.S. Highway 17; thence, following

U.S. Highway 17 in a generally south-easterly direction to State Road 1333; thence, following State Road 1333 in a generally southeasterly direction to State Road 1309; thence, following State Road 1309 in a southeasterly direction to the Norfolk Southern Railway; thence, following the Norfolk Southern Railway in an easterly direction to the Pasquotank River; thence, following the west bank of the Pasquotank River in a generally northwesterly direction to its junction with U.S. Highway 17.

(vii) That portion of Wilson County bounded by a line beginning at the junction of State Highway 58 and the Wilson-Nash County line; thence, following State Highway 58 in a southerly direction to State Road 1163; thence, following State Road 1163 in a southwesterly direction to its junction with State Road 1169; thence, following State Road 1169 in a southwesterly direction to State Road 1103; thence, following State Road 1103 in a southwesterly direction to State Road 1154; thence, following State Road 1154 in a northerly direction to State Highway 42; thence, following State Highway 42 in a southwesterly direction to State Road 1142; thence, following State Road 1142 in a northwesterly direction to State Road 1149; thence, following State Road 1149 in a northerly direction to its junction with State Road 1301; thence, following State Road 1301 in a northeasterly direction to the Wilson-Nash County line; thence, following the Wilson-Nash County line in a north-easterly direction to its junction with State Highway 58.

(13) *Oklahoma.* (i) *Comanche County.*

(ii) The adjacent portions of Mayes and Rogers Counties bounded by a line beginning at the junction of State Highway 28 and Rock Creek; then following the west bank of Rock Creek in a southeasterly direction to Markham Ferry Reservoir; thence, following the west bank of Markham Ferry Reservoir in a southerly direction to the Grand River; thence, following the west bank of the Grand River in a southwesterly direction to State Highway 33; thence, following State Highway 33 in a westerly direction to Interstate Highway 44; thence, following Interstate Highway 44 in a northeasterly direction to State Highway 28; thence, following State Highway 28 in an easterly direction to its junction with the west bank of Rock Creek.

(14) *Rhode Island.* The entire State.

(15) *South Carolina.* (i) That portion of Williamsburg County bounded by a line beginning at the junction of Secondary State Highway 160 and the Seaboard Coast Line Railroad; thence, following the Seaboard Coast Line Railroad in a southwesterly direction to Secondary State Highway 24; thence, following Secondary State Highway 24 in a north-easterly direction to Primary State Highway 261; thence, following Primary State Highway 261 in a southwesterly direction to the Seaboard Coast Line Railroad in the town of Kingstree; thence, following the Seaboard Coast

Line Railroad in a northeasterly direction to Primary State Highway 512; thence, following Primary State Highway 512 in a southeasterly direction to Secondary State Highway 118; thence, following Secondary State Highway 118 in a northeasterly direction to Secondary State Highway 85; thence, following Secondary State Highway 85 in a southeasterly direction to Secondary State Highway 194; thence, following Secondary State Highway 194 in an easterly direction to Secondary State Highway 160; thence, following Secondary State Highway 160 in a southeasterly direction to its junction with the Seaboard Coast Line Railroad.

(ii) That portion of Horry County bounded by a line beginning at the junction of Primary State Highway 9 and Primary State Highway 410; thence, following Primary State Highway 9 in a southeasterly direction to Secondary State Highway 31; thence, following Secondary State Highway 31 in a southerly direction to Secondary State Highway 66; thence, following Secondary State Highway 66 in a southwesterly direction to Secondary State Highway 545; thence, following Secondary State Highway 545 in a westerly direction to Secondary State Highway 139; thence, following Secondary State Highway 139 in a northwesterly direction to Secondary State Highway 97; thence, following Secondary State Highway 97 in a westerly direction to Secondary State Highway 323; thence, following Secondary State Highway 323 in a northwesterly direction to U.S. Highway 701; thence, following U.S. Highway 701 in a northeasterly direction to Primary State Highway 410; thence, following Primary State Highway 410 in a northeasterly direction to its junction with Primary State Highway 9.

(16) *Texas*. (i) Dallas, Falls, Fayette, Harris, Henderson, Houston, Lee, Nueces, Upshur, and Wilson Counties.

(ii) The adjacent portions of Bosque and McLennan Counties bounded by a line beginning at the junction of State Highway 6 and Farm to Market Road 219; thence, following Farm to Market Road 219 in a northeasterly direction to Farm to Market Road 708; thence, following Farm to Market Road 708 in a generally southeasterly direction to Farm to Market Road 56; thence, following Farm to Market Road 56 in a northeasterly direction to Farm to Market Road 2114; thence, following Farm to Market Road 2114 in a generally southeasterly direction to Brazos River; thence, following the west bank of the Brazos River in a generally southerly direction to the Bosque-McLennan County line; thence, following the Bosque-McLennan County line in a southwesterly direction to Farm to Market Road 2490; thence, following Farm to Market Road 2490 in a southeasterly direction to Farm to Market Road 1637; thence, following Farm to Market Road 1637 in a northwesterly direction to Farm to Market Road 185; thence, following Farm to Market Road 185 in a generally southwesterly direction to the McLennan-Coryell County line; thence, following the McLennan-Coryell County line in a northwesterly

direction to the Bosque-Coryell County line; thence, following the Bosque-Coryell County line in a northwesterly direction to Farm to Market Road 217; thence, following Farm to Market Road 217 in a northeasterly direction to Farm to Market Road 2602; thence, following Farm to Market Road 2602 in a generally northeasterly direction to State Highway 6; thence, following State Highway 6 in a northwesterly direction to its junction with Farm to Market Road 219.

(iii) That portion of Brown County bounded by a line beginning at the junction of Brown-Coleman County line and the Jim Ned Creek; thence, following the west bank of the Jim Ned Creek in a southeasterly direction to Farm to Market Road 585; thence, following Farm to Market Road 585 in a southeasterly direction to Farm to Market Road 2492; thence, following Farm to Market Road 2492 in a southeasterly direction to State Highway 279; thence, following State Highway 279 in a southeasterly direction to Farm to Market Road 2524; thence, following Farm to Market Road 2524 in a southeasterly direction to U.S. Highway 377; thence, following U.S. Highway 377 in a southwesterly direction to Farm to Market Road 1176; thence, following Farm to Market Road 1176 in a southwesterly direction to the Brown-Coleman County line; thence, following the Brown-Coleman County line in a northerly direction to its junction with the Jim Ned Creek.

(iv) The adjacent parts of Comanche, Erath, and Hamilton Counties bounded by a line beginning at the junction of Farm to Market Road 1702 and State Highway 6 in Erath County; thence, following State Highway 6 in a southeasterly direction to its junction with U.S. Highway 281; thence, following U.S. Highway 281 and State Highway 6 in a southeasterly direction to the town of Hico in Hamilton County; thence, following U.S. Highway 281 in a southwesterly direction to its junction with State Highway 36; thence, following State Highway 36 in a northwesterly direction to the Hamilton-Comanche County line; thence, following the Hamilton-Comanche County line in a southwesterly direction to the Comanche-Mills County line; thence, following the Comanche-Mills County line in a northwesterly direction to State Highway 16; thence, following State Highway 16 in a northwesterly direction to U.S. Highway 377; thence, following U.S. Highway 377 in a northeasterly direction to the Comanche-Erath County line; thence, following the Comanche-Erath County line in a southeasterly direction to Farm to Market Road 1702; thence, following Farm to Market Road 1702 in a northerly direction to its junction with State Highway 6.

(v) That portion of El Paso County bounded by a line beginning at the junction of U.S. Highway 54 with the New Mexico-Texas State line; thence, following U.S. Highway 54 in a southwesterly direction to the north bank of the Rio Grande River; thence, following the north bank of the Rio Grande River in

a generally northwesterly direction to the New Mexico-Texas State line; thence, following the New Mexico-Texas State line in a generally northerly direction to the northwest corner of El Paso County; thence, following the New Mexico-Texas State line in an easterly direction to its junction with U.S. Highway 54.

(vi) That portion of Jones County bounded by a line beginning at the junction of Farm to Market Roads 1636 and 1226; thence, following Farm to Market Road 1226 in a generally southerly direction to U.S. Highway 83; thence, following U.S. Highway 83 in a southeasterly direction to Farm to Market Road 605; thence, following Farm to Market Road 605 in a westerly direction to Farm to Market Road 707; thence, following Farm to Market Road 707 in a northwesterly direction to Farm to Market Road 1812; thence, following Farm to Market Road 1812 in a southwesterly direction to Farm to Market Road 126; thence, following Farm to Market Road 126 in a northwesterly direction to U.S. Highway 83; thence, following U.S. Highway 83 in a southeasterly direction to Farm to Market Road 1636; thence, following Farm to Market Road 1636 in a generally easterly direction to its junction with Farm to Market Road 1226.

(vii) That portion of Lavaca County bounded by a line beginning at the junction of Farm to Market Road 530 and the Lavaca-Jackson County line; thence, following the Lavaca-Jackson County line in a southwesterly direction to the Lavaca-Victoria County line; thence, following the Lavaca-Victoria County line in a northwesterly direction to the Lavaca-De Witt County line; thence, following the Lavaca-De Witt County line in a northwesterly direction to U.S. Highway 77A; thence, following U.S. Highway 77A in a northeasterly direction to U.S. Highway 90A; thence, following U.S. Highway 90A in a northeasterly direction to Farm to Market Road 530; thence, following Farm to Market Road 530 in a generally southeasterly direction to its junction with the Lavaca-Jackson County line.

(viii) The adjacent portions of Limestone, Navarro, and Freestone Counties bounded by a line beginning at the junction of the Limestone-Freestone County line and U.S. Highway 84; thence, following U.S. Highway 84 in a southwesterly direction to Farm to Market Road 2310; thence, following Farm to Market Road 2310 in a northwesterly direction to Federal Aid Secondary Road 73; thence, following Federal Aid Secondary Road 73 in a northeasterly direction to Federal Aid Secondary Road 171; thence, following Federal Aid Secondary Road 171 in a northwesterly direction to Pin Oak Creek; thence, following the south bank of Pin Oak Creek in a generally northwesterly direction to Richland Creek; thence, following the south bank of Richland Creek in a southeasterly direction to U.S. Highway 75; thence, following U.S. Highway 75 in a southeasterly direction to Farm to Market Road 80; thence, following Farm to Market Road

80 in a southerly direction to U.S. Highway 84; thence, following U.S. Highway 84 in a northwesterly direction to its junction with the Limestone-Freestone County line.

(ix) That portion of Lubbock County bounded by a line beginning at the junction of Farm to Market Road 400 and U.S. Highway 82; thence, following U.S. Highway 82 in a southwesterly direction to State Highway 289; thence, following State Highway 289 in a southwesterly direction to U.S. Highway 84; thence, following U.S. Highway 84 in a southeasterly direction to Farm to Market Road 400; thence, following Farm to Market Road 400 in a northerly direction to its junction with U.S. Highway 82.

(x) That portion of Tom Green County bounded by a line beginning at the junction of U.S. Highway 67 and the Tom Green-Runnels County line; thence, following U.S. Highway 67 in a southwesterly direction to State Highway 306; thence, following State Highway 306 in a southerly direction to U.S. Highway 87; thence, following U.S. Highway 87 in a generally easterly direction to Farm to Market Road 2334; thence, following Farm to Market Road 2334 in a northerly direction to Secondary Road 380; thence, following Secondary Road 380 in an easterly direction to Secondary Road 1692; thence, following Secondary Road 1692 in a northerly direction to the Tom Green-Runnels County line; thence, following the Tom Green-Runnels County line in a westerly direction to its junction with U.S. Highway 67.

(xi) That portion of Waller County bounded by a line beginning at the junction of State Highway 159 and U.S. Highway 290; thence, following U.S. Highway 290 in a southeasterly direction to the Waller-Harris County line; thence, following the Waller-Harris County line in a southeasterly direction to the Waller-Fort Bend County line; thence, following the Waller-Fort Bend County line in a southwesterly direction to the Brazos River; thence following the east bank of the Brazos River in a generally northerly direction to State Highway 159; thence, following State Highway 159 in a northeasterly direction to its junction with U.S. Highway 290.

(17) *Virginia.* (i) That portion of city of Virginia Beach County bounded by a line beginning at the junction of Atlantic Avenue and 21st Street; thence, following Atlantic Avenue in a southeasterly direction to General Booth Boulevard; thence, following General Booth Boulevard in a southwesterly direction to South Birdneck Road; thence, following South Birdneck Road in a northwesterly direction to Bells Road; thence, following Bells Road in a westerly direction to Oceana Boulevard; thence, following Oceana Boulevard in a northwesterly direction to Virginia Beach Boulevard; thence, following Virginia Beach Boulevard in an easterly direction to Birdneck Road; thence, following Birdneck Road in a northerly direction to 21st Street; thence, following 21st Street in a northeasterly direction to its junction with Atlantic Avenue.

(ii) That portion of Goochland County bounded by a line beginning at the junction of Interstate Highway 64 and the Goochland-Henrico County line; thence, following the Goochland-Henrico County line in a southerly direction to Primary Highway 6; thence, following Primary Highway 6 in a northwesterly direction to Secondary Highway 644; thence, following Secondary Highway 644 in a northerly direction to Secondary Highway 641; thence, following Secondary Highway 641 in a northwesterly direction to Secondary Highway 654; thence, following Secondary Highway 654 in a northeasterly direction to Interstate Highway 64; thence, following Interstate Highway 64 in a southeasterly direction to its junction with the Goochland-Henrico County line.

(iii) That portion of Isle of Wight County bounded by a line beginning at the junction of U.S. Highway 258 and Secondary Highway 704; thence, following Secondary Highway 704 in an easterly direction to Secondary Highway 669; thence, following Secondary Highway 669 in a southeasterly direction to Secondary Highway 665; thence, following Secondary Highway 665 in a southwesterly direction to U.S. Highway 258; thence, following U.S. Highway 258 in a northwesterly direction to Secondary Highway 644; thence, following Secondary Highway 644 in a southwesterly direction to Secondary Highway 654; thence, following Secondary Highway 654 in a northwesterly direction to Secondary Highway 692; thence, following Secondary Highway 692 in a southwesterly direction to Secondary Highway 652; thence, following Secondary Highway 652 in a northwesterly direction to U.S. Highway 258; thence, following U.S. Highway 258 in a northeasterly direction to its junction with Secondary Highway 704.

(iv) That portion of James City County bounded by a line beginning at the junction of Virginia Primary Highway 168-30 with the boundary line between New Kent and James City Counties; thence, following the northern boundary line of James City County in an easterly direction to its junction with the York River; thence, following the western bank of the York River in a southeasterly direction to its junction with Virginia Secondary Highway 607; thence, following Virginia Secondary Highway 607 in a southwesterly direction to its junction with U.S. Highway 60; thence, following U.S. Highway 60 in a westerly direction to its junction with Virginia Secondary Highway 610; thence, following Virginia Secondary Highway 610 in a southwesterly direction to its junction with Virginia Secondary Highway 603; thence, following Virginia Secondary Highway 603 in a northwesterly direction to its junction with Virginia Secondary Highway 601 in a northeasterly direction to its junction with Virginia Primary Highway 168-30; thence, following Virginia Primary Highway 168-30 to its junction with the boundary line

between New Kent and James City Counties.

(v) That portion of Nansemond County bounded by a line beginning at the junction of U.S. Highway 58 and Virginia Secondary Highway 647; thence, following Virginia Secondary Highway 647 in a southeasterly direction to Virginia Secondary Highway 643; thence, following Virginia Secondary Highway 643 in a southwesterly direction to Virginia Secondary Highway 616; thence, following Virginia Secondary Highway 616 in a westerly direction to Virginia Secondary Highway 612; thence, following Virginia Secondary Highway 612 in a northwesterly direction to Virginia Primary Highway 189; thence, following Virginia Primary Highway 189 in a northeasterly direction to U.S. Highway 58; thence, following U.S. Highway 58 in a northeasterly direction to its junction with Virginia Secondary Highway 647.

(vi) That portion of Southampton County bounded by a line beginning at the junction of State Primary Highway 35 and State Secondary Highway 658; thence, following State Secondary Highway 658 in a generally southwesterly direction to State Secondary Highway 673; thence, following State Secondary Highway 673 in a southeasterly direction to State Secondary Highway 671; thence, following State Secondary Highway 671 in a southwesterly direction to State Secondary Highway 665; thence, following State Secondary Highway 665 in a northwesterly direction to State Secondary Highway 668; thence, following State Secondary Highway 668 in a northwesterly direction to State Secondary Highway 669; thence, following State Secondary Highway 669 in a northeasterly direction to State Secondary Highway 658; thence, following State Secondary Highway 658 in a northeasterly direction to State Secondary Highway 696; thence, following State Secondary Highway 696 in a southeasterly direction to State Primary Highway 35; thence, following State Primary Highway 35 in a northeasterly direction to its junction with State Secondary Highway 658.

(vii) That portion of Surry County bounded by a line beginning at the junction of Secondary Highway 611 and Secondary Highway 612; thence, following Secondary Highway 611 in a southeasterly direction to Secondary Highway 616; thence, following Secondary Highway 616 in a southwesterly direction to Secondary Highway 615; thence, following Secondary Highway 615 in a southeasterly direction to Secondary Highway 614; thence, following Secondary Highway 614 in a generally northwesterly direction to Secondary Highway 615; thence, following Secondary Highway 615 in a northwesterly direction to Secondary Highway 612; thence, following Secondary Highway 612 in a northeasterly direction to its junction with Secondary Highway 611.

(18) *The Commonwealth of Puerto Rico.* The entire Commonwealth.

(f) Notice is hereby given that there is no clinical evidence that the virus of hog cholera exists in swine in the following States, that systematic procedures are in effect to detect and eradicate the disease should it appear within any of such States, and that such States are designated as hog cholera eradication States:

California.	Michigan.
Connecticut.	New Mexico.
Delaware.	Tennessee.
Florida.	

(g) Notice is hereby given that a period of more than 1 year has passed since there has been clinical evidence that the virus of hog cholera exists in the following States, that more than 1 year has passed since systematic procedures were placed in effect to exclude the virus of hog cholera and to detect and eradicate the disease should it appear within any of such States, and that the virus of hog cholera has been eradicated from such States and such States are designated as hog cholera free States:

Alaska.	Utah.
Idaho.	Vermont.
Montana.	Washington.
Nevada.	West Virginia.
North Dakota.	Wisconsin.
Oregon.	Wyoming.

(Secs. 4-7, 23 Stat. 32, as amended, secs. 1, 2, 32 Stat. 791-792, as amended, secs. 1-4, 33 Stat. 1264, 1265, as amended, sec. 1, 75 Stat. 481, secs. 3 and 11, 76 Stat. 130, 132; 21 U.S.C. 111, 112, 113, 114g, 115, 117, 120, 121, 123-126, 134b, 134f; 29 F.R. 16210, as amended)

Effective date. The foregoing amendments of § 76.2 shall become effective upon issuance.

The amendments quarantine a portion of city of Virginia Beach County in Virginia; portions of Chippewa, Kandiyohi, and Renville Counties in Minnesota; portions of Mayes and Rogers Counties in Oklahoma; and a portion of Brown County in Texas because of the existence of hog cholera. This action is deemed necessary to prevent further spread of the disease. The restrictions pertaining to the interstate movement of swine and swine products from or through quarantined areas as contained in 9 CFR Part 76, as amended, will apply to the areas quarantined.

The amendments also exclude a portion of Calhoun County in Mississippi, and portions of Wayne and Lenoir Counties in North Carolina from the areas heretofore quarantined because of hog cholera. Therefore, the restrictions pertaining to the interstate movement of swine and swine products from or through quarantined areas as contained in 9 CFR Part 76, as amended, will not apply to the excluded areas. However, the restrictions pertaining to the interstate movement from nonquarantined areas contained in said Part 76 will apply to the excluded areas.

The foregoing amendments also delete the State of Minnesota from the list of hog cholera eradication States as set forth in § 76.2(f). The provisions also include without substantive amendments the text of § 76.2(g) which continues in

effect. In this respect, the provisions do not change the rights or duties of any person.

Insofar as the amendments impose certain further restrictions necessary to prevent the interstate spread of hog cholera they must be made effective immediately to accomplish their purpose in the public interest. Insofar as they relieve restrictions, they should be made effective promptly in order to be of maximum benefit to affected persons.

Accordingly, under the administrative procedure provisions in 5 U.S.C. 553, it is found upon good cause that notice and other public procedure with respect to the amendments are impracticable, unnecessary, and contrary to the public interest, and good cause is found for making them effective less than 30 days after publication in the **FEDERAL REGISTER**.

Done at Washington, D.C., this 18th day of February 1970.

GEORGE W. IRVING, Jr.,
Administrator,
Agricultural Research Service.

[F.R. Doc. 70-2271; Filed, Feb. 24, 1970;
8:47 a.m.]

Title 14—AERONAUTICS AND SPACE

Chapter I—Federal Aviation Administration, Department of Transportation

[Airspace Docket No. 70-WA-7]

PART 71—DESIGNATION OF FEDERAL AIRWAYS, CONTROLLED AIRSPACE, AND REPORTING POINTS

PART 75—ESTABLISHMENT OF JET ROUTES

Alteration of Federal Airways, Jet Routes, and Jet Advisory Area

The purpose of these amendments to Parts 71 and 75 of the Federal Aviation Regulations is to amend several VOR Federal airways, jet routes and a jet advisory area.

Effective February 26, 1970, the name of the Lakehead, Ontario, Canada, VOR TAC will be changed to Thunder Bay. The descriptions of VOR Federal airway Nos. V-13, V-133, V-300, V-316, Jet Route Nos. J-500, J-513, J-533, J-590, and Jet Advisory Area No. 500 are based, in part, on the Lakehead VORTAC. Therefore, action is taken herein to amend the descriptions of the above Federal airways, jet routes and jet advisory area.

Since these amendments are editorial in nature and no substantive change in the regulations is effected, notice and public procedure thereon are unnecessary, and good cause exists for making these amendments effective on less than 30 days notice.

In consideration of the foregoing, Parts 71 and 75 of the Federal Aviation Regulations are amended, effective 0501 G.m.t., February 26, 1970, as hereinafter set forth.

1. Section 71.123 (35 F.R. 2009) is amended as follows: In V-13, V-133, V-300, and V-316 "Lakehead, Ontario, Canada" is deleted wherever it appears and "Thunder Bay, Ontario, Canada" is substituted therefor.

2. Section 75.100 (35 F.R. 2359) is amended as follows:

a. In Jet Route Nos. 500 and 533 "Lakehead, Ontario" is deleted wherever it appears and "Thunder Bay, Ontario, Canada" is substituted therefor.

b. In Jet Route Nos. 513 and 590 "Lakehead, Ontario, Canada" is deleted wherever it appears and "Thunder Bay, Ontario, Canada" is substituted therefor.

3. Section 75.200 (35 F.R. 2375) is amended as follows: In Jet Route No. 500 Jet Advisory Area "Lakehead, Ontario, Canada" is deleted wherever it appears and "Thunder Bay, Ontario, Canada" is substituted therefor.

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

Issued in Washington, D.C., on February 20, 1970.

T. McCORMACK,
Acting Chief, Airspace and
Air Traffic Rules Division.

[F.R. Doc. 70-2348; Filed, Feb. 24, 1970;
8:48 a.m.]

Title 17—COMMODITY AND SECURITIES EXCHANGES

Chapter II—Securities and Exchange Commission

[Rel. Nos. 33-5047, 34-8819, 35-16602, 39-270, IC-5978, IA-256]

PART 200—ORGANIZATION; CONDUCT AND ETHICS; AND INFORMATION AND REQUESTS

Public Records and Information

On June 30, 1967, in Release Nos. 33-4871 etc., the Securities and Exchange Commission published its rules governing availability of information and records under 5 U.S.C. 552, as amended by Public Law 90-23, which appeared in the **FEDERAL REGISTER** for July 6 and 11, 1967 at 32 F.R. 9828-34 and 10198-9, and also at 17 CFR 200.80 to 200.80e. Appendix E to such rules, 17 CFR 200.80e, sets forth a schedule of fees for searching, copying and other services performed in filling requests for access to records and requests for records-related services.

Some of the services described in Appendix E are performed for the Commission by an independent contractor. The contract pursuant to which such services are performed is periodically opened to competitive bids and the entry of a new contract may affect the fees charged for the services it covers. In such circumstances, while notice of the change may have been published in the **FEDERAL REGISTER**, there may often be a variance between the Commission's current schedule of fees and that which has been printed in the Code of Federal Regulations. In order to avoid the consequent

confusion, as well as the necessity for repeated amendments to Appendix E, the Commission has determined to delete the detailed enumeration of fees from the Code of Federal Regulations while continuing to make copies of its current schedule of fees available upon request at its headquarters, regional and branch offices. Other amendments to the rules state more precisely the nature of copying services available.

Commission action. Pursuant to authority contained in section 3 of the Administrative Procedure Act, as amended by 5 U.S.C. 552 as amended, and in section 19 of the Securities Act of 1933, section 23 of the Securities Exchange Act of 1934, section 20 of the Public Utility Holding Company Act of 1935, section 319 of the Trust Indenture Act of 1939, section 38 of the Investment Company Act of 1940 and section 211 of the Investment Advisers Act of 1940, the Commission hereby deletes § 200.80e, and amends subparagraph (4) of paragraph (g) of § 200.80 of Chapter II of Title 17 of the Code of Federal Regulations, to read as follows:

§ 200.80 Commission records and information.

(g) **Fees for records services; schedule of fees.** A current schedule of fees for records services, including locating and making records available, attestations, and copying as provided in this paragraph (g) is published by the Commission and may be obtained upon request made in person, by telephone or by mail from the public reference room or at any regional or branch office of the Commission.

(4) **Copying services.** Copies of public records filed with or retained by the Commission, or portions thereof, will be provided subject to fees established by agreements between the Commission and private contractors as set forth in the Commission's current schedule of fees.

(i) **Facsimile copies.** All requests for facsimile copies should be directed to the Public Reference Section, Securities and Exchange Commission, Washington, D.C. 20549. Copies when authorized will be sent directly to the purchaser by the contractor unless attestation is requested. A person who has been provided with facsimile copies of records upon request will be billed by the contractor for his copying services at rates shown in the Commission's current schedule of fees, plus postage, if any, and will be billed separately by the Commission for attestation and searching fees, if any. Special classes of copying service, including expedited delivery, to the extent available under the current contract, are described in the Commission's current schedule of fees. Cost estimates with respect to facsimile copying will be supplied upon request.

(ii) **Self-service copying facilities.** The contractor maintains coin-operated machines in the public reference rooms at the Commission's principal office in

Washington, D.C., and at its regional offices in New York City and Chicago. These machines, which are operated by customers on a do-it-yourself basis, can be used to make immediate copies up to 9 inches by 14 inches in size of materials that are available for inspection in those offices.

(iii) **Microform copies.** The contractor also makes available to the public microform copies of certain public documents on file with the Commission, at prices and on terms governed by its contract with the Commission. Microform services include subscription microfiche service on an annual basis. Requests concerning the types and cost of microform services, orders for copies or subscriptions, and payments, etc., should be addressed directly to the contractor, the name and address of which is set forth on the Commission's current schedule of fees.

§ 200.80e [Deleted]

The Commission finds that the foregoing action relates only to matters of agency procedure and practice and, therefore, notice and procedures specified in 5 U.S.C. 553 are unnecessary. Accordingly, the foregoing amendments shall be effective as of February 17, 1970.

(Sec. 3, 60 Stat. 238, as amended 80 Stat. 383, 81 Stat. 54, 5 U.S.C. 552; secs. 19, 23, 48 Stat. 85, 901, as amended, 15 U.S.C. 77s, 78w; sec. 20, 49 Stat. 833, 15 U.S.C. 79t; sec. 319, 53 Stat. 1173, 15 U.S.C. 77ss; secs. 38, 211, 54 Stat. 841, 855, 15 U.S.C. 80a-37, 80b-11)

By the Commission.

[SEAL] ORVAL L. DuBOIS,
Secretary.

FEBRUARY 17, 1970.

[F.R. Doc. 70-2251; Filed, Feb. 24, 1970;
8:45 a.m.]

PART 240—GENERAL RULES AND REGULATIONS, SECURITIES EXCHANGE ACT OF 1934

Proxy Rules; Correction

On February 2, 1968, in Releases Nos. 34-8206A, 35-15918A, IC-5200A, published at 33 F.R. 2993, the Commission announced a clarification to certain amendments to the Proxy Rules adopted effective as of February 15, 1968 by Releases Nos. 34-8206, 35-15918, IC-5200, published at 32 F.R. 20964. In preparing copies for the FEDERAL REGISTER, a line was omitted in new Instruction 2(c) to Item 7(f) of Schedule 14A (17 CFR 240.14A-101) as a result of a typographical error.

Paragraph (c) of Instruction 2 to Item 7(f) of § 240.14A-101 of Chapter II of Title 17 of the Code of Federal Regulations, as adopted by the Commission effective February 15, 1968, should read as follows:

§ 240.14A-101 Schedule 14A. Information required in proxy statement.¹

Item 7. Remuneration and other transactions with management and others.

(f) * * *
Instructions. * * *

(2) * * *

(c) The amount involved in the transaction or a series of similar transactions, including all periodic installments in the case of any lease or other arrangement providing for periodic payments or installments, does not exceed \$30,000; or

For the Commission, February 17, 1970.

[SEAL] ORVAL L. DuBOIS,
Secretary.

[F.R. Doc. 70-2250; Filed, Feb. 24, 1970;
8:45 a.m.]

Title 30—MINERAL RESOURCES

**Chapter I—Bureau of Mines,
Department of the Interior**

**PART 55—HEALTH AND SAFETY
STANDARDS—METAL AND NON-
METALLIC OPEN PIT MINES**

Miscellaneous Amendments

Notice of proposed rule making with respect to health and safety standards for metal and nonmetallic open pit mines was given in the FEDERAL REGISTER for January 16, 1969 (34 F.R. 656) and a correction notice published April 22, 1969 (34 F.R. 6737). Part 55—Health and Safety Standards—Metal and Nonmetallic Open Pit Mines was published in the FEDERAL REGISTER for July 31, 1969 (34 F.R. 12503). As issued, Part 55 did not include those health and safety standards with respect to which the notice of rule making had elicited comments. All of the comments on those proposed standards have now been considered carefully. For the purpose of clarification, revisions have been made in some of the standards which the advisory committee recommended be mandatory, but no substantive changes have been made except in Standard 55.6-1, which relates to explosives and which is discussed below. In a few instances in which the language of a proposed mandatory standard appeared to impose a requirement not within the intent of the standard, the standard has been rephrased. For example, proposed Standard 55.4-1 appeared literally to prohibit smoking wherever oil or grease is used; the revised standard relates the prohibition to the hazard involved. Similarly, proposed Standards 55.6-59 and 55.6-60, when read separately, appeared to require that all persons be removed from areas endangered by flyrock from blasting and that shelters be provided; Standard 55.6-160 hereby added to Part 55 combines the alternatives clearly contemplated by the two proposed standards. Changes, some substantive, also have been made in a number of the advisory standards.

In the notice of proposed rule making published on January 16, 1969, the term "explosive" as defined included blasting agents. In some of the proposed standards designed to cover blasting agents as well as other explosives, only the term

"explosive" as defined included blasting posed Standards 55.6-20, 55.6-21, 55.6-22; other such proposed standards referred both to explosives and blasting agents (for example, proposed Standards 55.6-45, 55.6-47). To avoid uncertainties which the use of differing terminology might cause, a uniform approach has been taken with respect to the standards which are hereby added to § 55.6 *Explosives*, and only the term "explosives" appears in standards which related to blasting agents as well as other explosives. The following introductory statement is added to that section:

The term "explosives" as used in this § 55.6 includes blasting agents. The standards in this section in which the term "explosives" appears are applicable to blasting agents (as well as to other explosives) unless blasting agents are expressly excluded.

As proposed, Standard 55.6-1 would have required that blasting agents as well as other explosives be stored in magazines. Both intensive research and experience have demonstrated that less stringent requirements are necessary to achieve safety with respect to storage of blasting agents than is the case with respect to other explosives. Accordingly, blasting agents are expressly excluded from Standard 55.6-1 as hereby added to Part 55. The Department will shortly issue a notice of proposed rule making proposing mandatory standards relating to the storage of blasting agents; this notice will also propose revisions and redesignations of a number of standards relating to matters other than explosives.

Pursuant to section 6 of the Federal Metal and Nonmetallic Mine Safety Act (30 U.S.C. 725) the following additions are made to 30 CFR Part 55 (34 F.R. 12503):

§ 55.2 [Amended]

1. The following definitions are added, in appropriate alphabetical order to § 55.2:

"American Table of Distances" means the current edition of "The American Table of Distances for Storage of Explosives" published by the Institute of Makers of Explosives.

"Authorized person" means a person approved or assigned by mine management to perform a specific type of duty or duties or to be at a specific location or locations in the mine.

"Berm" means a pile or mound of material capable of restraining a vehicle.

"Blasting agent" means any material consisting of a mixture of a fuel and oxidizer which—

- (a) Is used or intended for use in blasting;
- (b) Is not classed as an explosive by the Department of Transportation;
- (c) Contains no ingredient classed as an explosive by the Department of Transportation; and
- (d) Cannot be detonated by a No. 8 blasting cap when tested as recommended in Bureau of Mines Information Circular 8179.

"Capped primer" means a package or cartridge of explosives which is specifically designed to transmit detonation to

other explosives and which contains a detonator.

"Explosive" means any chemical compound, mixture, or device, the primary or common purpose of which is to function by explosion. Explosives include, but are not limited to black powder, dynamite, nitroglycerin, fulminate, ammonium nitrate when mixed with a hydrocarbon, and other blasting agents.

"Primer or Booster" means a package or cartridge of explosive which is designed specifically to transmit detonation to other explosives and which does not contain a detonator.

2. The health and safety standards set forth below are added in appropriate numerical order to the specified sections of Part 55:

§ 55.3 Ground control.

55.3-1 *Mandatory.* Standards for the safe control of pit walls, including the overall slope of the pit wall, shall be established and followed by the operator. Such standards shall be consistent with prudent engineering design, the nature of the ground and the kind of material and mineral mined, and the ensuring of safe working conditions according to the degree of slope. Mining methods shall be selected which will ensure wall and bank stability, including benching as necessary to obtain a safe overall slope.

55.3-2 *Mandatory.* Loose, unconsolidated material shall be stripped for a safe distance, but in no case less than 10 feet, from the top of pit or quarry walls, and the loose, unconsolidated material shall be sloped to the angle of repose.

55.3-4 Safe means for scaling pit-banks should be provided. Exposed banks should be scaled before any other work is performed in the exposed bank area.

55.3-5 *Mandatory.* Men shall not work near or under dangerous banks. Overhanging banks shall be taken down immediately and other unsafe ground conditions shall be corrected promptly, or the areas shall be barricaded and posted.

55.3-6 *Mandatory.* Men shall approach from above loose rock and areas to be scaled and shall scale from a safe location.

55.3-7 Baffleboards, screens, cribbing, or other suitable barriers should be provided where movement of material into cuts constitutes a safety hazard.

55.3-8 *Mandatory.* The supervisor, or a competent person designated by him, shall examine working areas and faces for unsafe conditions at least at the beginning of each shift and after blasting. Any unsafe condition found shall be corrected before any further work is performed at the immediate area or face at which the unsafe condition exists.

55.3-9 *Mandatory.* Men shall examine their working places before starting work and frequently thereafter, and any unsafe condition shall be corrected.

55.3-10 Banks, benches, and terrain sloping into the working areas should be examined after every rain, freeze, or thaw, before men work in such areas.

55.3-11 Before large boulders are drilled or broken, the boulder should be—

- (a) Moved to a safe location; or
- (b) Positioned securely, and prevented from rolling and moving; or
- (c) The men who do the drilling or breaking should be positioned so that movement of the boulder will not endanger the men.

55.3-13 Rock-bolt installations, where used, should be in accordance with recom-

mendations of the Bureau of Mines or other competent agency.

§ 55.4 Fire prevention and control.

55.4-1 *Mandatory.* No person shall smoke or use an open flame—

- (a) Where flammable solvents, liquids, fluids, or other flammable materials are stored, transported, handled, or used; or
- (b) Where oil or grease is stored, transported, handled, or used, if smoking or the use of an open flame may cause a fire; or
- (c) Within an unsafe distance of any area where smoking or the use of an open flame may cause a fire or an explosion.

55.4-18 *Mandatory.* Oxygen cylinders shall not be stored near oil or grease.

55.4-19 *Mandatory.* Gauges and regulators used with oxygen or acetylene cylinders shall be kept clean and free of oil and grease.

55.4-21 *Mandatory.* Internal combustion engines, except diesels, shall be shut off and stopped before being fueled.

55.4-22 *Mandatory.* Each mine shall have available or be provided with suitable firefighting equipment adequate for the size of the mine.

55.4-25 Fire hydrants should be of a standard type. Adapters should be provided if necessary to fit the hose equipment of local fire departments. Wrenches or keys to open the valves should be readily available.

55.4-26 Water pipes, valves, outlets, hydrants, and hoses designated for firefighting purposes should be inspected every 3 months and tested annually.

55.4-27 Suitable fire extinguishers should be provided on self-propelled mobile equipment with enclosed cabs.

55.4-28 Portable cutting and welding equipment should be equipped with suitable fire extinguishers.

55.4-30 Employees should be trained in the use of firefighting equipment.

55.4-31 A firefighting organization should be established, equipped, and trained in firefighting; drills should be held at least twice a year.

55.4-33 *Mandatory.* Valves on oxygen and acetylene tanks shall be kept closed when the contents are not being used.

55.4-40 Fire-alarm systems should be provided and maintained in operating condition to warn employees endangered by a fire.

55.4-41 Two exits should be provided where men work or congregate.

§ 55.5 Air quality.

55.5-3 *Mandatory.* Holes shall be collared and drilled wet, or other efficient dust control measures shall be used when drilling nonwater-soluble material. Efficient dust control measures shall be used when drilling water-soluble materials.

55.5-4 Muckpiles, haulage roads, rock transfer points, crushers, and other points where dust is produced in amounts sufficient to cause a health or safety hazard should be wetted down as often as necessary, unless dust is controlled adequately by other methods.

§ 55.6 Explosives.

The term "explosives" as used in this § 55.6 includes blasting agents. The standards in this section in which the term "explosives" appears are applicable to blasting agents (as well as to other explosives) unless blasting agents are expressly excluded.

STORAGE

55.6-1 *Mandatory.* Detonators and explosives other than blasting agents shall be stored in magazines.

55.6-2 *Mandatory.* Detonators shall not be stored in the same magazine with explosives.

55.6-3 Blasting agents may be stored with other explosives in the same magazine.

55.6-4 Safety fuse or detonating cord may be stored with explosives in the same magazine.

55.6-5 Areas surrounding magazines or facilities for the storage of blasting agents should be kept clear of all combustible materials for a distance not less than 25 feet in all directions.

55.6-6 *Mandatory.* Smoking and open flames shall not be permitted within 25 feet of a place where explosives or detonators are stored.

55.6-7 Explosives, detonators, and related materials such as safety fuse and detonating cord should be stored in a manner to assure use of oldest stocks first.

55.6-8 *Mandatory.* Ammonium nitrate fuel-oil mixtures shall be physically separated from dynamite stored in the same magazine and in such a manner that oil does not contaminate the dynamite.

55.6-9 Cases of explosives should not be stored on their ends or sides.

55.6-10 Cases of explosives should not be stacked more than 6 feet high.

55.6-20 *Mandatory.* Magazines shall be:
(a) Located in accordance with the current American Table of Distances for storage of explosives.

(b) Detached structures located away from powerlines, fuel storage areas, and other possible sources of fire.

(c) Constructed substantially of noncombustible material or covered with fire-resistant material.

(d) Reasonably bullet resistant.

(e) Electrically bonded and grounded if constructed of metal.

(f) Made of nonsparking materials on the inside, including floors.

(g) Provided with adequate and effectively screened ventilation openings near the floor and ceiling.

(h) Kept locked securely when unattended.

(i) Posted with suitable danger signs so located that a bullet passing through the face of a sign will not strike the magazine.

(j) Used exclusively for storage of explosives or detonators and kept free of all extraneous materials.

(k) Kept clean and dry in the interior, and in good repair.

(l) Unheated, unless heated in a manner that does not create a fire or explosion hazard. Electrical heating devices shall not be used inside a magazine.

TRANSPORTATION

55.6-40 *Mandatory.* Explosives and detonators shall be transported in separate vehicles unless separated by 4 inches of hardwood or the equivalent.

55.6-41 *Mandatory.* When explosives and detonators are hauled by trolley locomotive, covered, electrically-insulated cars shall be used.

55.6-42 *Mandatory.* Self-propelled vehicles used to transport explosives or detonators shall be equipped with suitable fire extinguishers.

55.6-43 *Mandatory.* Vehicles containing explosives or detonators shall be posted with proper warning signs.

55.6-44 *Mandatory.* When vehicles containing explosives or detonators are parked, the brakes shall be set, the motive power shut off, and the vehicle shall be blocked securely against rolling.

55.6-45 Vehicles containing explosives or detonators should not be taken to a repair garage or shop for any purpose.

55.6-46 *Mandatory.* Vehicles containing explosives or detonators shall be maintained in good condition and shall be operated at a safe speed and in accordance with all safe operating practices.

55.6-47 *Mandatory.* Vehicles used to transport explosives, other than blasting agents, shall have substantially constructed bodies, no sparking metal exposed in the cargo space, and shall be equipped with suitable sides and tail gates; explosives shall not be piled higher than the side or end enclosures.

55.6-48 Explosives or detonators should be transported at times and over routes that expose a minimum number of persons.

55.6-49 Explosives or detonators in open-body vehicles should be covered with fire-retardant and water-repellant materials.

55.6-50 *Mandatory.* Other materials or supplies shall not be placed on or in the cargo space of a conveyance containing explosives or detonators.

55.6-51 *Mandatory.* Explosives or detonators shall not be transported on locomotives.

55.6-52 *Mandatory.* No person shall smoke while transporting or handling explosives or detonators.

55.6-53 *Mandatory.* Only the necessary attendants shall ride on or in vehicles containing explosives or detonators.

55.6-54 *Mandatory.* Explosives or detonators shall not be transported on mantrips.

55.6-55 Explosives or detonators should be transported promptly without undue delays in transit.

USE

55.6-90 *Mandatory.* Persons who use explosives or detonators shall be experienced men who understand the hazards involved; trainees shall do such work only under the supervision of and in the immediate presence of experienced men.

55.6-91 Blasting operations should be under the direct control of authorized persons.

55.6-92 *Mandatory.* Damaged or deteriorated explosives or detonators shall be destroyed in a safe manner.

55.6-95 *Mandatory.* No person shall smoke within 25 feet of explosives or detonators.

55.6-96 *Mandatory.* Explosives shall be kept separated from detonators until charging is started.

55.6-97 *Mandatory.* Capped primers shall be made up at the time of charging and as close to the blasting site as conditions allow.

55.6-98 A capped primer should be prepared so that the detonator is contained securely and is completely embedded within the explosive cartridge.

55.6-99 *Mandatory.* Only wooden or other nonsparking implements shall be used to punch holes in an explosive cartridge.

55.6-101 No tamping should be done directly on a capped primer.

55.6-102 *Mandatory.* Unused explosives and detonators shall be moved to a safe location as soon as charging operations are completed.

55.6-103 *Mandatory.* Areas in which charged holes are awaiting firing shall be guarded, or barricaded and posted, or flagged against unauthorized entry.

55.6-104 *Mandatory.* When safety fuse has been used, men shall not return to misfired holes for at least 30 minutes.

55.6-105 *Mandatory.* When electric blasting caps have been used, men shall not return to misfired holes for at least 15 minutes.

55.6-106 Faces and muckpiles should be examined for undetonated explosives after each blast and undetonated explosives found should be disposed of safely.

55.6-107 *Mandatory.* Holes shall not be drilled where there is danger of intersecting a charged or misfired hole.

55.6-108 *Mandatory.* Fuse and igniters shall be stored in a cool, dry place away from oils or grease.

55.6-109 Fuse should not be used if it has been kinked, bent sharply, or handled roughly in such a manner that the train of deflagration may be interrupted.

55.6-112 *Mandatory.* The burning rate of the fuse shall be posted in the fuse-capping station in a conspicuous location such that the burning rate will be brought to the attention of all men concerned with blasting.

55.6-113 *Mandatory.* Fuse less than 48 inches long shall not be used.

55.6-114 *Mandatory.* At least two men shall be present when lighting fuses, and no man shall light more than 15 individual fuses. If more than 15 holes per man are to be fired, igniter cord and connectors or electric blasting shall be used.

55.6-116 *Mandatory.* Fuse shall be ignited with hot-wire lighters, lead spitters, igniter cord, or other such devices designed for this purpose.

55.6-117 *Mandatory.* Fuse shall not be ignited before the primer and the entire charge are securely in place.

55.6-119 Electric detonators of different brands should not be used in the same round.

55.6-120 *Mandatory.* Except when being tested with a blasting galvanometer:

(a) Electric detonators shall be kept shunted until they are being connected to the blasting line or wired into a blasting round.

(b) Wired rounds shall be kept shunted until they are being connected to the blasting line.

(c) Blasting lines shall be kept shunted until immediately before blasting.

55.6-123 *Mandatory.* When electric detonators are used, charging shall be stopped immediately when the presence of static electricity or stray currents is detected; the condition shall be remedied before charging is resumed.

55.6-124 *Mandatory.* When electric detonators are used, charging shall be suspended in surface mining, shaft sinking, and tunneling and men withdrawn to a safe location upon the approach of an electrical storm.

55.6-128 *Mandatory.* The key or other control to an electrical firing device shall be entrusted only to the person designated to fire the round or rounds.

55.6-132 Delay connectors for firing detonating cord should be treated and handled with the same safety precautions as blasting caps and electric detonators.

55.6-160 *Mandatory.* Ample warning shall be given before blasts are fired. All persons shall be cleared and removed from the blasting area unless suitable blasting shelters are provided to protect men endangered by concussion or flyrock from blasting.

55.6-161 If explosives are suspected of burning in a hole, all persons in the endangered area should move to a safe location and no one should return to the hole until the danger has passed, but in no case within 1 hour.

55.6-162 *Mandatory.* Lead wires and blasting lines shall not be strung across power conductors, pipelines, railroad tracks, or within 20 feet of bare powerlines. They shall be protected from sources of static or other electrical contact.

55.6-163 *Mandatory.* The double-trunk-line or loop system shall be used in detonating-cord blasting.

55.6-164 *Mandatory.* Trunklines, in multiple-row blasts, shall make one or more complete loops, with crossties between loops at intervals of not over 200 feet.

55.6-167 *Mandatory.* Detonating cord should not be used if it has been kinked, bent, or otherwise handled in such a manner that the train of detonation may be interrupted.

55.6-168 *Mandatory.* Misfires shall be reported to the proper supervisor and shall be disposed of safely before any other work is performed in that blasting area.

55.6-169 *Mandatory.* Blastholes in "hothole" areas and holes that have been sprung should not be charged before tests have been made to ensure that the heat has dissipated to a safe extent.

55.6-170 *Mandatory.* Where electric blasting is to be performed, electric circuits to equipment in the immediate area to be blasted shall be deenergized before explosives are brought into the area; the power shall not be turned on again until after the shots are fired.

SENSITIZED AMMONIUM NITRATE BLASTING AGENTS

All of the standards in this § 55.6 in which the term "explosives" appears are applicable to blasting agents (as well as to other explosives) unless blasting agents are expressly excluded.

55.6-190 *Mandatory.* Sensitized ammonium nitrate blasting agents, and the components thereof prior to mixing, should be mixed and stored in accordance with the recommendations in Bureau of Mines Information Circular 8179 "Safety Recommendations for Sensitized Ammonium Nitrate Blasting Agents," or subsequent revisions.

55.6-192 *Mandatory.* Adequate priming should be employed to guard against misfires, increased toxic fumes, and poor performance.

55.6-193 *Mandatory.* Where pneumatic loading is employed, before any type of blasting operation using blasting agents is put into effect, an evaluation of the potential hazard of static electricity shall be made. Adequate steps, including the grounding and bonding of the conductive parts of pneumatic loading equipment, shall be taken to eliminate the hazard of static electricity before blasting agent use is commenced.

55.6-195 *Mandatory.* Hoses used in connection with pneumatic loading machines shall be of the semiconductive type, having a total resistance low enough to permit the dissipation of static electricity and high enough to limit the flow of stray electric currents to a safe level. Wirecountered hose shall not be used because of the potential hazard from stray electric currents.

55.6-196 *Mandatory.* Reasonable precautions should be exercised to exclude water from blasting agents other than slurries.

§ 55.7 Drilling.

55.7-1 *Mandatory.* Equipment that is to be used during a shift should be inspected each shift by a competent person. Equipment defects affecting safety should be reported.

55.7-2 *Mandatory.* Equipment defects affecting safety shall be corrected before the equipment is used.

55.7-4 *Mandatory.* Men shall not be on a mast while the drill-bit is in operation.

55.7-5 *Mandatory.* Drill crews and others shall stay clear of augers or drill stems that are in motion. Persons shall not pass under or step over a moving stem or auger.

55.7-8 *Mandatory.* When a drill is being moved from one drilling area to another, drill steel, tools, and other equipment shall be secured and the mast placed in a safe position.

55.7-13 *Mandatory.* Drill holes large enough to constitute a hazard shall be covered or guarded.

55.7-16 *Mandatory.* Bit wrenches or bit knockers should be used to remove detachable bits from drill steel.

55.7-17 *Mandatory.* Starter steels should be used when collaring holes with handheld drills.

55.7-18 *Mandatory.* Men shall not hold the drill steel while collaring holes, or rest their hands on the chuck or centralizer while drilling.

55.7-19 *Mandatory.* Air should be turned off and bled from the hose before handheld drills are moved from one working area to another.

§ 55.9 Loading, hauling, dumping.

55.9-1 *Mandatory.* Equipment that is to be used during a shift should be inspected by a competent person each shift. Equipment defects affecting safety should be reported.

55.9-2 *Mandatory.* Equipment defects affecting safety shall be corrected before the equipment is used.

55.9-6 *Mandatory.* When the entire length of a conveyor is visible from the starting switch, the operator shall visually check to make certain that all persons are in the clear before starting the conveyor. When the entire length of the conveyor is not visible from the starting switch, a positive audible or visible warning system shall be installed and operated to warn persons that the conveyor will be started.

55.9-7 *Mandatory.* Unguarded conveyors with walkways shall be equipped with emergency stop devices or cords along their full length.

55.9-15 *Mandatory.* Slushers should be equipped with backlash guards, rollers, and drum covers, and anchored securely before slushing operations are started.

55.9-19 *Mandatory.* Track guardrails, lead rails, and frogs should be protected or blocked so as to prevent a person's foot from becoming wedged.

55.9-20 *Mandatory.* Positive-acting stop-blocks, derail devices, track skates, or other adequate means shall be installed wherever necessary to protect persons from runaway or moving railroad equipment.

55.9-22 *Mandatory.* Berms or guards should be provided on the outer bank of elevated roadways.

55.9-26 *Mandatory.* Only authorized persons shall be present in areas of loading or dumping operations.

55.9-34 *Mandatory.* Cars or trucks should be loaded in such manner as to minimize spillage while en route to a dumping site.

55.9-36 *Mandatory.* Electrically powered mobile equipment shall not be left unattended unless the master switch is in the off position, all operating controls are in the neutral position, and the brakes are set or other equivalent precautions are taken against rolling.

55.9-37 *Mandatory.* Mobile equipment shall not be left unattended unless the brakes are set. The wheels shall be turned into a bank or rib, or shall be blocked, when such equipment is parked on a grade.

55.9-48 *Mandatory.* Railroad cars with braking systems, when in use, shall be equipped with effective brake shoes.

55.9-52 *Mandatory.* Inability of a motorman to clearly recognize his brakeman's signals when the train is under the direction of the brakeman shall be construed by the motorman as a stop signal.

55.9-54 *Mandatory.* Berms, bumper blocks, safety hooks, or similar means shall be provided to prevent overtravel and overturning at dumping locations.

55.9-61 *Mandatory.* Stockpile and muckpile faces shall be trimmed to prevent hazards to personnel.

55.9-62 *Mandatory.* Rocks too large to be handled safely shall be broken before loading.

55.9-64 *Mandatory.* Chute-loading installations shall be designed so that the men pulling chutes are not required to be in a hazardous position while loading cars.

55.9-65 *Mandatory.* Cars should not be coupled or uncoupled manually from the inside of curves unless the railroad and cars are so designed to eliminate any hazard from coupling or uncoupling cars from inside of curves.

55.9-68 *Mandatory.* Lights, flares, or other warning devices shall be posted when parked equipment creates a hazard to vehicular traffic.

55.9-69 *Mandatory.* Tires shall be deflated before repairs on them are started and adequate means shall be provided to prevent wheel locking rims from creating a hazard during tire inflation.

55.9-70 *Mandatory.* A tow bar should be used to tow heavy equipment. A safety chain should be used in conjunction with the tow bar.

55.9-81 *Mandatory.* Trucks, shuttle cars, and front-end loaders shall be equipped with emergency brakes separate and independent of the regular braking system.

55.9-82 *Mandatory.* Haulage trucks with cabs should be equipped with heaters, air conditioners, or both, maintained in good condition, where needed because of extreme weather conditions.

55.9-84 *Mandatory.* Traffic rules, signals, and warning signs should be standardized at each mine, and posted.

55.9-85 *Mandatory.* Supplies, materials, and tools other than small handtools shall not be transported with men in mantrip vehicles unless such vehicles are specifically designed to make such transportation safe.

§ 55.10 Aerial tramways.

55.10-7 *Mandatory.* Guard nets or other suitable protection shall be provided where

tramways pass over roadways, walkways, or buildings.

§ 55.11 Travelways.

55.11-7 Wooden members of ladders should not be painted.

55.11-10 Vertical clearance above stair steps should be a minimum of 7 feet or adequate warning should be provided to indicate an impaired clearance.

§ 55.12 Electricity.

55.12-1 *Mandatory.* Circuits shall be protected against excessive overload by fuses or circuits breakers of the correct type and capacity.

55.12-2 *Mandatory.* Electric equipment and circuits shall be provided with switches or other controls. Such switches or controls shall be of approved design and construction and shall be properly installed.

55.12-3 *Mandatory.* Individual overload protection or short-circuit protection shall be provided for the trailing cables of mobile equipment.

55.12-9 Power wires and cables which present a fire hazard should be well-installed on acceptable insulators.

55.12-19 At least 3 feet of clearance should be provided around all parts of stationary electric equipment or switchgear where access or travel is necessary.

55.12-20 *Mandatory.* Dry wooden platforms, insulating mats, or other electrically-nonconductive material shall be kept in place at all switchboards and power-control switches where shock hazards exist. However, metal plates on which a person normally would stand and which are kept at the same potential as the grounded, metal, non-current-carrying parts of the power switches to be operated may be used.

55.12-22 Areas containing major electrical installations should be entered only by authorized persons.

55.12-31 Electric motors, switches, and controls exposed to damaging dust or water should be of dusttight or watertight construction.

55.12-36 *Mandatory.* Circuits shall be de-energized before fuses are removed or replaced.

55.12-42 Both rails should be bonded or welded at every joint and rails should be cross-bonded at least every 300 feet if the track serves as the return trolley circuit.

55.12-43 *Mandatory.* Equipment with booms or masts which are not properly protected shall not be operated where the booms or masts can come within 10 feet of an energized overhead powerline.

55.12-46 *Mandatory.* When equipment must be moved under energized powerlines and the clearance is less than 10 feet, the powerlines shall be deenergized or other precautions shall be taken.

55.12-47 *Mandatory.* Guy wires of poles supporting high-potential conductors shall be equipped with insulators installed near the pole end.

55.12-50 Trolley wires should be installed at least 7 feet above rails, where height permits, and aligned and supported to minimize sway and sag.

55.12-51 Trolley-wire hangers should be spaced so that the wire will not sag dangerously between hangers and so that the wire may be detached from any one hanger without creating a shock hazard.

55.12-52 Trolley wires and trolley-feeder wires should be provided with sectioning switches near the beginning of all branch lines and at mantrip stations unless suitably covered mantrip cars are used.

55.12-53 Ground wires for lighting circuits powered from trolley wires should be connected securely to the ground-return circuit.

55.12-68 *Mandatory.* Transformer enclosures shall be kept locked against unauthorized entry.

§ 55.13 Compressed air and boilers.

COMPRESSED AIR

55.13-13 Compressed-air receivers should be drained of moisture and oil at least once each day.

55.13-15 Compressed-air receivers and other pressure vessels should be inspected internally at least once a year by qualified inspectors; records of such inspection should be kept.

55.13-18 Safety devices on compressed-air systems should be checked daily.

55.13-21 *Mandatory.* Safety chains or suitable locking devices shall be used at connections to machines of high-pressure hose lines of 1-inch inside diameter or larger, and between high-pressure hose lines of 1-inch inside diameter or larger, where a connection failure would create a hazard.

BOILERS

55.13-31 Boilers should be equipped with automatic pressure-relief valves; valves should be opened manually at least once each week to determine that they will function properly.

§ 55.14 Use of equipment.

GUARDS

55.14-1 *Mandatory.* Gears; sprockets; chains; drive, head, tail, and take-up pulleys; flywheels; couplings; shafts; sawblades; fan inlets; and similar exposed moving machine parts which may be contacted by persons, and which may cause injury to persons shall be guarded.

55.14-2 *Mandatory.* Overhead belts shall be guarded if the whipping action from a broken belt would be hazardous to persons below.

55.14-3 Guards at conveyor-drive, -head, and -tail pulleys should extend a distance sufficient to prevent a person from reaching behind the guard and becoming caught between the belt and the pulley.

55.14-12 Industrial vehicles such as fork-lift trucks, front-end loaders, and bulldozers should be provided with roll protection when necessary to protect the operator.

55.14-13 *Mandatory.* Fork-lift trucks, front-end loaders, and bulldozers shall be provided with substantial canopies when necessary to protect the operator.

METHODS AND PROCEDURES

55.14-26 *Mandatory.* Unsafe equipment or machinery shall be removed from service immediately.

55.14-27 Machinery and equipment should be operated only by authorized competent persons.

55.14-33 *Mandatory.* Pulleys of conveyors shall not be cleaned manually while the conveyor is in motion.

55.14-45 *Mandatory.* Welding operations shall be shielded and well-ventilated.

§ 55.15 Personal protection.

55.15-2 *Mandatory.* All persons shall wear suitable hard hats when in or around a mine or plant where falling objects may create a hazard.

55.15-5 *Mandatory.* Safety belts and lines shall be worn when men work where there is danger of falling; a second person shall tend the lifeline when bins, tanks, or other dangerous areas are entered.

55.15-6 Protective clothing, rubber gloves, and goggles or face-shields should be worn by persons handling substances that are corrosive, toxic, or injurious to the skin.

55.15-7 *Mandatory.* Protective clothing or equipment and face-shields or goggles shall be worn when welding, cutting, or working with molten metal.

55.15-11 Finger rings should not be worn while working in or around a mine or plant.

55.15-12 Effective ear protection should be worn where noise levels may cause permanent ear damage or hearing loss, or noise should be reduced to safe levels.

55.15-13 Where there is a danger of a vehicle overturning and where roll protection is provided, seatbelts should be used.

55.15-20 *Mandatory.* Life jackets or belts shall be worn where there is danger from falling into water.

§ 55.16 Materials storage and handling.

55.16-4 *Mandatory.* Hazardous materials shall be stored in containers of a type approved for such use by recognized agencies; such containers shall be labeled appropriately.

55.16-8 Taglines should be attached to suspended materials that require steadying or guidance.

55.16-10 Materials should not be dropped from an elevation unless the drop area is guarded or sufficient warning is given.

55.16-15 *Mandatory.* No person shall work from or travel on the bridge of an overhead crane unless the bridge is provided with substantial footwalks with toeboards and railings the length of the bridge.

§ 55.18 Safety programs.

55.18-2 Regular safety inspections should be made by company officials or safety committees. Written reports should be made of the findings and actions recommended or taken; this information should be made available to the employees.

55.18-3 Serious accidents, whether resulting in injury or not, should be investigated to determine the cause and the means of preventing recurrence. Records of these investigations should be kept and the information should be made available to the employees.

55.18-5 All employees and officials should be familiar with company, State, and Federal health and safety regulations applicable to their jobs.

55.18-7 Inexperienced employees should be assigned to work with experienced men until such employees have acquired the necessary skills to perform their duties safely.

55.18-9 A competent person should be in charge at all times when men are working.

55.18-11 All supervisors and employees should be trained in accident prevention.

55.18-20 *Mandatory.* No employee shall be assigned, or allowed, or be required to perform work alone in any area where hazardous conditions exist that would endanger his safety unless he can communicate with others, can be heard, or can be seen.

§ 55.19 Man hoisting.

HOISTS

55.19-9 *Mandatory.* An accurate and reliable indicator of the position of the cage, skip, bucket, or cars in the shaft shall be provided.

55.19-11 Flanges on drums should extend radially a minimum of two rope diameters and not less than 4 inches beyond the last wrap.

WIRE ROPE

55.19-23 The end of the rope at the drum should make at least one full turn on the drum shaft, or a spoke of the drum in the case of a free drum, and should be fastened securely by means of rope clips or clamps. This standard does not apply to friction hoists.

55.19-24 *Mandatory.* The rope shall be attached to the load by the thimble-and-clip method, the socketing method, or other approved method. If the socketing method is employed, zinc or its equivalent shall be used. The use of Babbitt metal or lead for socketing wire ropes is prohibited. If the thimble-and-clip method is used, the following shall be observed:

(a) The rope shall be attached to the load by passing one end around an oval thimble that is attached to the load bending the end back so that it is parallel to the long or "live" end of the rope and fastening the two parts of the rope together with clips.

(b) The U-bolt of each clip shall encircle the short or "dead" end of the rope and the distance between clips shall not be less than the figures given in the accompanying table.

(c) As a minimum, the following number of clips or equivalent shall be used for various diameters of six-strand, 19-wire, plow-steel ropes:

(Follow manufacturer's recommendations for other kinds of wire rope and clips.)

Diameter of rope, inches	Number of clips	Center-to-center spacing of clips, inches
3/4	4	4 1/4
7/8	4	5 1/4
1	4	6
1 1/8	5	6 3/4
1 1/4	5	7 1/4
1 3/8	6	8 1/4
1 1/2	6	9
1 5/8	6	9 3/4
1 3/4	7	10 1/4
1 7/8	8	11 1/4
2	8	12
2 1/8	8	13
2 1/4	8	14

(d) For all ropes less than three-quarter inch in diameter at least four clips or equivalent shall be used.

(e) When special conditions require the attachment of a sling to the hoisting cable to handle equipment in the shaft, the sling shall be attached by clips or equivalent in accordance with the table in paragraph (c) of this standard.

HEADFRAMES AND SHEAVES

55.19-36 Headframes should be high enough to provide at least 15 feet of clearance between the bottom of the sheave or drum and the uppermost part of the highest rope connection of the conveyance when the conveyance is at its uppermost manlandings.

HOISTING PROCEDURES

55.19-56 When automatic hoisting is used, a qualified hoistman should be in attendance on the premises while any person is underground.

55.19-61 The safe speed for hoisting men should be determined for each shaft, and this speed should not be exceeded. Men should not be hoisted at a speed faster than 2,500 feet per minute, except in an emergency.

55.19-62 Maximum acceleration and deceleration should not exceed 6 feet per second per second.

55.19-63 Only authorized persons should be in hoist rooms.

55.19-64 Balancing of cages should not be done while persons are on cages.

SIGNALING

55.19-92 A method should be provided to signal hoist operators from conveyances at any point in the shaft.

55.19-93 A standard code of hoisting signals should be adopted and used at each mine.

SHAFTS

55.19-108 When men are working in a shaft, "Men Working in Shaft" signs should be posted at all hoist-signaling and other devices controlling hoisting operations that may endanger such men.

INSPECTION AND MAINTENANCE

55.19-120 *Mandatory.* A systematic procedure of inspection, testing, and maintenance of shafts and hoisting equipment shall be developed and followed. If it is found or suspected that any part is not functioning properly, the hoist shall not be used until the

malfunction has been located and repaired or adjustments have been made.

55.19-124 On other than friction hoists, ropes should be cut off and reconnected to the conveyance as often as necessary to assure adequate inspection of rope condition and to distribute wear of the rope. At least 6 feet should be cut from the rope above the highest connection; this portion should be examined carefully for corrosion, damage, wear, and fatigue by the rope manufacturer or a competent agency.

55.19-125 Hoisting ropes wound in multiple layers should be cut off and repositioned on the drum at regular intervals as necessary to distribute wear of the rope. The length of the cutoff at the drum end should not be an even multiple of the circumference of the drum.

55.19-133 Shafts should be inspected at least weekly.

§ 55.20 Miscellaneous.

55.20-1 *Mandatory.* Intoxicating beverages and narcotics shall not be permitted or used in or around mines. Persons under the influence of alcohol or narcotics shall not be permitted on the job.

55.20-8 Toilet facilities should be provided at convenient locations and should be kept clean and sanitary.

WALTER J. HICKEL,
Secretary of the Interior.

FEBRUARY 18, 1970.

[F.R. Doc. 70-2244; Filed, Feb. 24, 1970; 8:45 a.m.]

PART 56—HEALTH AND SAFETY STANDARDS—SAND, GRAVEL, AND CRUSHED STONE OPERATIONS

Miscellaneous Amendments

Notice of proposed rule making with respect to health and safety standards for sand, gravel, and crushed stone operations was given in the FEDERAL REGISTER for January 16, 1969 (34 F.R. 666), and a correction notice published April 22, 1969 (34 F.R. 6737). Part 56—Health and Safety Standards—Sand, Gravel, and Crushed Stone Operations was published in the FEDERAL REGISTER for July 31, 1969 (34 F.R. 12510), and a correction notice published August 9, 1969 (34 F.R. 12947). As issued, Part 56 did not include those health and safety standards with respect to which the notice of rule making had elicited comment. All of the comments on those proposed standards have now been considered carefully. For the purpose of clarification, revisions have been made in some of the standards which the advisory committee recommended be mandatory, but no substantive changes have been made except in Standard 56.6-1, which relates to explosives and which is discussed below. In a few instances in which the language of a proposed mandatory standard appeared to impose a requirement not within the intent of the standard, the standard has been rephrased. For example, proposed Standard 56.4-1 appeared literally

to prohibit smoking wherever oil or grease is used; the revised standard relates the prohibition to the hazard involved. Similarly, proposed standards 56.6-59 and 56.6-60, when read separately, appeared to require that all persons be removed from areas endangered by flyrock from blasting and that shelters be provided; Standard 56.6-160 hereby added to Part 56 combines the alternatives clearly contemplated by the two proposed standards. Changes, some substantive, also have been made in a number of the advisory standards.

In the notice of proposed rule making published on January 16, 1969, the term "explosive" as defined included blasting agents. In some of the proposed standards designed to cover blasting agents as well as other explosives, only the term "explosives" was used (for example, proposed Standards 56.6-20, 56.6-21, 56.6-22); other such proposed standards referred both to explosives and blasting agents (for example, proposed Standards 56.6-45, 56.6-47). To avoid uncertainties which the use of differing terminology might cause, a uniform approach has been taken with respect to the standards which are hereby added to § 56.6 *Explosives*, and only the term "explosives" appears in standards which relate to blasting agents as well as other explosives. The following introductory statement is added to that section:

The term "explosives" as used in this § 56.6 includes blasting agents. The standards in this section in which the term "explosives" appears are applicable to blasting agents (as well as to other explosives) unless blasting agents are expressly excluded.

As proposed, Standard 56.6-1 would have required that blasting agents as well as other explosives be stored in magazines. Both intensive research and experience have demonstrated that less stringent requirements are necessary to achieve safety with respect to the storage of blasting agents than is the case with respect to other explosives. Accordingly, blasting agents are expressly excluded from standard 56.6-1 as hereby added to Part 56. The Department will shortly issue a notice of proposed rule making proposing mandatory standards relating to the storage of blasting agents; this notice will also propose revisions and redesignations of a number of standards relating to matters other than explosives.

Pursuant to section 6 of the Federal Metal and Nonmetallic Mine Safety Act (30 U.S.C. 725) the following additions are made to 30 CFR Part 56 (34 F.R. 12510):

§ 56.2 [Amended]

1. The following definitions are added, in appropriate alphabetical order to § 56.2:

"American Table of Distances" means the current edition of "The American Table of Distances for Storage of Explosives" published by the Institute of Makers of Explosives.

"Authorized person" means a person approved or assigned by mine management to perform a specific type of duty

or duties or to be at a specific location or locations in the mine.

"Berm" means a pile or mound of material capable of restraining a vehicle.

"Blasting agent" means any material consisting of a mixture of a fuel and oxidizer which

(a) Is used or intended for use in blasting,

(b) Is not classed as an explosive by the Department of Transportation,

(c) Contains no ingredient classed as an explosive by the Department of Transportation, and

(d) Cannot be detonated by a No. 8 blasing cap when tested as recommended in Bureau of Mines Information Circular 8179.

"Capped primer" means a package or cartridge of explosives which is specifically designed to transmit detonation to other explosives and which contains a detonator.

"Explosive" means any chemical compound, mixture, or device, the primary or common purpose of which is to function by explosion. Explosives include, but are not limited to black powder, dynamite, nitroglycerin, fulminate, ammonium nitrate when mixed with a hydrocarbon, and other blasting agents.

"Primer or Booster" means a package or cartridge of explosive which is designed specifically to transmit detonation to other explosives and which does not contain a detonator.

2. The health and safety standards set forth below are added in appropriate numerical order to the specified sections of Part 56:

§ 56.3 Ground control.

56.3-1 *Mandatory.* Standards for the safe control of pit walls, including the overall slope of the pit wall, shall be established and followed by the operator. Such standards shall be consistent with prudent engineering design, the nature of the ground and the kind of material and mineral mined, and the ensuring of safe working conditions according to the degree of slope. Mining methods shall be selected which will ensure wall and bank stability, including benching as necessary to obtain a safe overall slope.

56.3-2 *Mandatory.* Loose, unconsolidated material shall be stripped for a safe distance, but in no case less than 10 feet, from the top of pit or quarry walls, and the loose, unconsolidated material shall be sloped to the angle of repose.

56.3-4 *Safe means for scaling pit-banks* should be provided. Exposed banks should be scaled before any other work is performed in the exposed bank area.

56.3-5 *Mandatory.* Men shall not work near or under dangerous banks. Overhanging banks shall be taken down immediately and other unsafe ground conditions shall be corrected promptly, or the areas shall be barricaded and posted.

56.3-6 *Mandatory.* Men shall approach from above loose rock and areas to be scaled and shall scale from a safe location.

56.3-7 *Baffleboards, screens, cribbing, or other suitable barriers* should be provided where movement of material into cuts constitutes a safety hazard.

56.3-8 *Mandatory.* The supervisor, or a competent person designated by him, shall examine working areas and faces for unsafe conditions at least at the beginning of each shift and after blasting. Any unsafe condi-

tion found shall be corrected before any further work is performed at the immediate area or face at which the unsafe condition exists.

56.3-9 *Mandatory.* Men shall examine their working places before starting work and frequently thereafter, and any unsafe condition shall be corrected.

56.3-10 *Banks, benches, and terrain sloping into the working areas* should be examined after every rain, freeze, or thaw, before men work in such areas.

56.3-11 *Before large boulders are drilled or broken, the boulder should be—*

(a) Moved to a safe location; or

(b) Positioned securely, and prevented from rolling and moving; or

(c) The men who do the drilling or breaking should be positioned so that movement of the boulder will not endanger the men.

56.3-13 *Rock-bolt installations, where used, should be in accordance with recommendations of the Bureau of Mines or other competent agency.*

§ 56.4 Fire prevention and control.

56.4-1 *Mandatory.* No person shall smoke or use an open flame—

(a) Where flammable solvents, liquids, fluids, or other flammable materials are stored, transported, handled, or used; or

(b) Where oil or grease is stored, transported, handled, or used, if smoking or the use of an open flame may cause a fire; or

(c) Within an unsafe distance of any area where smoking or the use of an open flame may cause a fire or an explosion.

56.4-18 *Mandatory.* Oxygen cylinders shall not be stored near oil or grease.

56.4-19 *Mandatory.* Gauges and regulators used with oxygen or acetylene cylinders shall be kept clean and free of oil and grease.

56.4-21 *Mandatory.* Internal combustion engines, except diesels, shall be shut off and stopped before being fueled.

56.4-22 *Mandatory.* Each mine shall have available or be provided with suitable firefighting equipment adequate for the size of the mine.

56.4-25 *Fire hydrants* should be of a standard type. Adapters should be provided if necessary to fit the hose equipment of local fire departments. Wrenches or keys to open the valves should be readily available.

56.4-26 *Water pipes, valves, outlets, hydrants, and hoses* designated for firefighting purposes should be inspected every 3 months and tested annually.

56.4-27 *Suitable fire extinguishers* should be provided on self-propelled mobile equipment with enclosed cabs.

56.4-28 *Portable cutting and welding equipment* should be equipped with suitable fire extinguishers.

56.4-30 *Employees* should be trained in the use of firefighting equipment.

56.4-31 *A firefighting organization* should be established, equipped, and trained in firefighting; drills should be held at least twice a year.

56.4-33 *Mandatory.* Valves on oxygen and acetylene tanks shall be kept closed when the contents are not being used.

56.4-40 *Fire-alarm systems* should be provided and maintained in operating condition to warn employees endangered by a fire.

56.4-41 Two exits should be provided where men work or congregate.

§ 56.5 Air quality.

56.5-3 *Mandatory.* Holes shall be collared and drilled wet, or other efficient dust control measures shall be used when drilling nonwater-soluble material. Efficient dust control measures shall be used when drilling water-soluble materials.

56.5-4 Muckpiles, haulage roads, rock transfer points, crushers, and other points where dust is produced in amounts sufficient to cause a health or safety hazard should be wetted down as often as necessary, unless dust is controlled adequately by other methods.

§ 56.6 Explosives.

The term "explosives" as used in this § 56.6 includes blasting agents. The standards in this section in which the term "explosives" appears are applicable to blasting agents (as well as to other explosives) unless blasting agents are expressly excluded.

STORAGE

56.6-1 *Mandatory.* Detonators and explosives other than blasting agents shall be stored in magazines.

56.6-2 *Mandatory.* Detonators shall not be stored in the same magazine with explosives.

56.6-3 Blasting agents may be stored with other explosives in the same magazine.

56.6-4 Safety fuse or detonating cord may be stored with explosives in the same magazine.

56.6-5 Areas surrounding magazines or facilities for the storage of blasting agents should be kept clear of all combustible material for a distance not less than 25 feet in all directions.

56.6-6 *Mandatory.* Smoking and open flames shall not be permitted within 25 feet of a place where explosives or detonators are stored.

56.6-7 Explosives, detonators, and related materials such as safety fuse and detonating cord should be stored in a manner to assure use of oldest stocks first.

56.6-8 *Mandatory.* Ammonium nitrate fuel-oil mixtures shall be physically separated from dynamite stored in the same magazine and in such a manner that oil does not contaminate the dynamite.

56.6-9 Cases of explosives should not be stored on their ends or sides.

56.6-10 Cases of explosives should not be stacked more than 6 feet high.

56.6-20 *Mandatory.* Magazines shall be:
(a) Located in accordance with the current American Table of Distances for storage of explosives.

(b) Detached structures located away from powerlines, fuel storage areas, and other possible sources of fire.

(c) Constructed substantially of noncombustible material or covered with fire-resistant material.

(d) Reasonably bullet resistant.

(e) Electrically bonded and grounded if constructed of metal.

(f) Made of nonsparking materials on the inside, including floors.

(g) Provided with adequate and effectively screened ventilation openings near the floor and ceiling.

(h) Kept locked securely when unattended.

(i) Posted with suitable danger signs so located that a bullet passing through the face of a sign will not strike the magazine.

(j) Used exclusively for storage of explosives or detonators and kept free of all extraneous materials.

(k) Kept clean and dry in the interior, and in good repair.

(l) Unheated, unless heated in a manner that does not create a fire or explosion

hazard. Electrical heating devices shall not be used inside a magazine.

TRANSPORTATION

56.6-40 *Mandatory.* Explosives and detonators shall be transported in separate vehicles unless separated by 4 inches of hard wood or the equivalent.

56.6-41 *Mandatory.* When explosives and detonators are hauled by trolley locomotive, covered electrically insulated cars shall be used.

56.6-42 *Mandatory.* Self-propelled vehicles used to transport explosives or detonators shall be equipped with suitable fire extinguishers.

56.6-43 *Mandatory.* Vehicles containing explosives or detonators shall be posted with proper warning signs.

56.6-44 *Mandatory.* When vehicles containing explosives or detonators are parked, the brakes shall be set, the motive power shut off, and the vehicle shall be blocked securely against rolling.

56.6-45 Vehicles containing explosives or detonators should not be taken to a repair garage or shop for any purpose.

56.6-46 *Mandatory.* Vehicles containing explosives or detonators shall be maintained in good condition and shall be operated at a safe speed and in accordance with all safe operating practices.

56.6-47 *Mandatory.* Vehicles used to transport explosives, other than blasting agents, shall have substantially constructed bodies, no sparking metal exposed in the cargo space, and shall be equipped with suitable sides and tail gates; explosives shall not be piled higher than the side or end enclosures.

56.6-48 Explosives or detonators should be transported at times and over routes that expose a minimum number of persons.

56.6-49 Explosives or detonators in open-body vehicles should be covered with fire retardant and water-repellent materials.

56.6-50 *Mandatory.* Other materials or supplies shall not be placed on or in the cargo space of a conveyance containing explosives or detonators.

56.6-51 *Mandatory.* Explosives or detonators shall not be transported on locomotives.

56.6-52 *Mandatory.* No person shall smoke while transporting or handling explosives or detonators.

56.6-53 *Mandatory.* Only the necessary attendants shall ride on or in vehicles containing explosives or detonators.

56.6-54 *Mandatory.* Explosives or detonators shall not be transported on man-trips.

56.6-55 Explosives or detonators should be transported promptly without undue delays in transit.

USE

56.6-90 *Mandatory.* Persons who use explosives or detonators shall be experienced men who understand the hazards involved; trainees shall do such work only under the supervision of and in the immediate presence of experienced men.

56.6-91 Blasting operations should be under the direct control of authorized persons.

56.6-92 *Mandatory.* Damaged or deteriorated explosives or detonators shall be destroyed in a safe manner.

56.6-94 *Mandatory.* Holes to be blasted shall be charged as near to blasting time as practical and such holes shall be blasted as soon as possible after charging has been completed. In no case shall the time elapsing between the completion or charging to the time of blasting exceed 72 hours unless prior approval has been obtained from the Bureau of Mines.

56.6-95 *Mandatory.* No person shall smoke within 25 feet of explosives or detonators.

56.6-96 *Mandatory.* Explosives shall be kept separated from detonators until charging is started.

56.6-97 *Mandatory.* Capped primers shall be made up at the time of charging and as close to the blasting site as conditions allow.

56.6-98 A capped primer should be prepared so that the detonator is contained securely and is completely embedded within the explosive cartridge.

56.6-99 *Mandatory.* Only wooden or other nonsparking implements shall be used to punch holes in an explosive cartridge.

56.6-101 No tamping should be done directly on a capped primer.

56.6-102 *Mandatory.* Unused explosives and detonators shall be moved to a safe location as soon as charging operations are completed.

56.6-103 *Mandatory.* Areas in which charged holes are awaiting firing shall be guarded, or barricaded and posted, or flagged against unauthorized entry.

56.6-104 *Mandatory.* When safety fuse has been used, men shall not return to misfired holes for at least 30 minutes.

56.6-106 Faces and muckpiles should be examined for undetonated explosives after each blast and undetonated explosives found should be disposed of safely.

56.6-107 *Mandatory.* Holes shall not be drilled where there is danger of intersecting a charged or misfired hole.

56.6-108 *Mandatory.* Fuse and igniters shall be stored in a cool, dry place away from oils or grease.

56.6-109 Fuse should not be used if it has been kinked, bent sharply, or handled roughly in such a manner that the train of deflagration may be interrupted.

56.6-112 *Mandatory.* The burning rate of the fuse shall be posted in the fuse-capping station in a conspicuous location such that the burning rate will be brought to the attention of all men concerned with blasting.

56.6-113 *Mandatory.* Fuse less than 48 inches long shall not be used.

56.6-114 *Mandatory.* At least two men shall be present when lighting fuses, and no man shall light more than 15 individual fuses. If more than 15 holes per man are to be fired, igniter cord and connectors or electric blasting shall be used.

56.6-116 *Mandatory.* Fuse shall be ignited with hot-wire lighters, lead spitters, igniter cord, or other such devices designed for this purpose.

56.6-117 *Mandatory.* Fuse shall not be ignited before the primer and the entire charge are securely in place.

56.6-119 Electric detonators of different brands should not be used in the same round.

56.6-120 *Mandatory.* Except when being tested with a blasting galvanometer:

(a) Electric detonators shall be kept shunted until they are being connected to the blasting line or wired into a blasting round.

(b) Wired rounds shall be kept shunted until they are being connected to the blasting line.

(c) Blasting lines shall be kept shunted until immediately before blasting.

56.6-123 *Mandatory.* When electric detonators are used, charging shall be stopped

RULES AND REGULATIONS

immediately when the presence of static electricity or stray currents is detected; the condition shall be remedied before charging is resumed.

56.6-124 *Mandatory*. When electric detonators are used, charging shall be suspended in surface mining, shaft sinking, and tunneling and men withdrawn to a safe location upon the approach of an electrical storm.

56.6-128 *Mandatory*. The key or other control to an electrical firing device shall be entrusted only to the person designated to fire the round or rounds.

56.6-132 Delay connectors for firing detonating cord should be treated and handled with the same safety precautions as blasting caps and electric detonators.

56.6-160 *Mandatory*. Ample warning shall be given before blasts are fired. All persons shall be cleared and removed from the blasting area unless suitable blasting shelters are provided to protect men endangered by concussion or flyrock from blasting.

56.6-161 If explosives are suspected of burning in a hole, all persons in the endangered area should move to a safe location and no one should return to the hole until the danger has passed, but in no case within 1 hour.

56.6-162 *Mandatory*. Lead wires and blasting lines shall not be strung across power conductors, pipelines, railroad tracks, or within 20 feet of bare powerlines. They shall be protected from sources of static or other electrical contact.

56.6-163 *Mandatory*. The double-trunkline or loop system shall be used in detonating-cord blasting.

56.6-164 *Mandatory*. Trunklines, in multiple-row blasts, shall make one or more complete loops, with crossties between loops at intervals of not over 200 feet.

56.6-167 Detonating cord should not be used if it has been kinked, bent, or otherwise handled in such a manner that the train of detonation may be interrupted.

56.6-168 *Mandatory*. Misfires shall be reported to the proper supervisor and shall be disposed of safely before any other work is performed in that blasting area.

56.6-169 Blastholes in "hothole" areas and holes that have been sprung should not be charged before tests have been made to ensure that the heat has dissipated to a safe extent.

56.6-170 *Mandatory*. Where electric blasting is to be performed, electric circuits to equipment in the immediate area to be blasted shall be deenergized before explosives are brought into the area; the power shall not be turned on again until after the shots are fired.

SENSITIZED AMMONIUM NITRATE BLASTING AGENTS

All of the standards in this § 56.6 in which the term "explosives" appears are applicable to blasting agents (as well as to other explosives) unless blasting agents are expressly excluded.

56.6-190 Sensitized ammonium nitrate blasting agents, and the components thereof prior to mixing, should be mixed and stored in accordance with the recommendations in Bureau of Mines Information Circular 8179 "Safety Recommendations for Sensitized Ammonium Nitrate Blasting Agents," or subsequent revisions.

56.6-192 Adequate priming should be employed to guard against misfires, increased toxic fumes, and poor performance.

56.6-193 *Mandatory*. Where pneumatic loading is employed, before any type of blasting operation using blasting agents is put into effect, an evaluation of the potential hazard of static electricity shall be made. Adequate steps, including the grounding and bonding of the conductive parts of pneumatic loading equipment, shall be taken to eliminate the hazard of static electricity before blasting agent use is commenced.

56.6-195 *Mandatory*. Hoses used in connection with pneumatic loading machines shall be of the semiconductive type, having a total resistance low enough to permit the dissipation of static electricity and high enough to limit the flow of stray electric currents to a safe level. Wire-countered hose shall not be used because of the potential hazard from stray electric currents.

56.6-196 Reasonable precautions should be exercised to exclude water from blasting agents other than slurries.

§ 56.7 Drilling.

56.7-1 Equipment that is to be used during a shift should be inspected each shift by a competent person. Equipment defects affecting safety should be reported.

56.7-2 *Mandatory*. Equipment defects affecting safety shall be corrected before the equipment is used.

56.7-4 *Mandatory*. Men shall not be on a mast while the drill-bit is in operation.

56.7-5 *Mandatory*. Drill crews and others shall stay clear of augers or drill stems that are in motion. Persons shall not pass under or step over a moving stem or auger.

56.7-8 *Mandatory*. When a drill is being moved from one drilling area to another, drill steel, tools, and other equipment shall be secured and the mast placed in a safe position.

56.7-13 *Mandatory*. Drill holes large enough to constitute a hazard shall be covered or guarded.

56.7-16 Bit wrenches or bit knockers should be used to remove detachable bits from drill steel.

56.7-17 Starter steels should be used when collaring holes with handheld drills.

56.7-18 *Mandatory*. Men shall not hold the drill steel while collaring holes, or rest their hands on the chuck or centralizer while drilling.

56.7-19 Air should be turned off and bled from the hose before handheld drills are moved from one working area to another.

§ 56.9 Loading, hauling, dumping.

56.9-1 Equipment that is to be used during a shift should be inspected by a competent person each shift. Equipment defects affecting safety should be reported.

56.9-2 *Mandatory*. Equipment defects affecting safety shall be corrected before the equipment is used.

56.9-15 Slushers should be equipped with backlash guards, rollers, and drum covers, and anchored securely before slushing operations are started.

56.9-19 Track guardrails, lead rails, and frogs should be protected or blocked so as to prevent a person's foot from becoming wedged.

56.9-20 *Mandatory*. Positive-acting stop-blocks, derailed devices, track skates, or other adequate means shall be installed wherever

necessary to protect persons from runaway or moving railroad equipment.

56.9-22 *Mandatory*. Berms or guards should be provided on the outer bank of elevated roadways.

56.9-26 *Mandatory*. Only authorized persons shall be present in areas of loading or dumping operations.

56.9-33 *Mandatory*. Men shall not ride in dippers, shovel buckets, forks, clamshells, or in the beds of dump trucks for the purpose of transportation.

56.9-34 Cars or trucks should be loaded in such manner as to minimize spillage while en route to a dumping site.

56.9-36 *Mandatory*. Electrically powered mobile equipment shall not be left unattended unless the master switch is in the off position, all operating controls are in the neutral position, and the brakes are set or other equivalent precautions are taken against rolling.

56.9-37 *Mandatory*. Mobile equipment shall not be left unattended unless the brakes are set. The wheels shall be turned into a bank or rib, or shall be blocked, when such equipment is parked on a grade.

56.9-48 *Mandatory*. Railroad cars with braking systems, when in use, shall be equipped with effective brake shoes.

56.9-52 *Mandatory*. Inability of a motorman to clearly recognize his brakeman's signals when the train is under the direction of the brakeman shall be construed by the motorman as a stop signal.

56.9-54 *Mandatory*. Berms, bumper blocks, safety hooks, or similar means shall be provided to prevent overtravel and overturning at dumping locations.

56.9-61 *Mandatory*. Stockpile and muckpile faces shall be trimmed to prevent hazards to personnel.

56.9-62 *Mandatory*. Rocks too large to be handled safely shall be broken before loading.

56.9-64 *Mandatory*. Chute-loading installations shall be designed so that the men pulling chutes are not required to be in a hazardous position while loading cars.

56.9-65 Cars should not be coupled or uncoupled manually from the inside of curves unless the railroad and cars are so designed to eliminate any hazard from coupling or uncoupling cars from inside of curves.

56.9-68 *Mandatory*. Lights, flares, or other warning devices shall be posted when parked equipment creates a hazard to vehicular traffic.

56.9-69 *Mandatory*. Tires shall be deflated before repairs on them are started and adequate means shall be provided to prevent wheel locking rims from creating a hazard during tire inflation.

56.9-70 A tow bar should be used to tow heavy equipment. A safety chain should be used in conjunction with the tow bar.

56.9-81 *Mandatory*. Trucks, shuttle cars, and front-end loaders shall be equipped with emergency brakes separate and independent of the regular braking system.

56.9-82 Haulage trucks with cabs should be equipped with heaters, air conditioners, or both, maintained in good condition, where

needed because of extreme weather conditions.

56.9-84 Traffic rules, signals, and warning signs should be standardized at each mine, and posted.

56.9-85 *Mandatory*. Supplies, materials, and tools other than small handtools shall not be transported with men in mantrip vehicles unless such vehicles are specifically designed to make such transportation safe.

§ 56.10 Aerial tramways.

56.10-7 *Mandatory*. Guard nets or other suitable protection shall be provided where tramways pass over roadways, walkways, or buildings.

§ 56.11 Travelways.

56.11-7 Wooden members of ladders should not be painted.

56.11-10 Vertical clearance above stair steps should be a minimum of 7 feet or adequate warning should be provided to indicate an impaired clearance.

§ 56.12 Electricity.

56.12-1 *Mandatory*. Circuits shall be protected against excessive overload by fuses or circuit breakers of the correct type and capacity.

56.12-2 *Mandatory*. Electric equipment and circuits shall be provided with switches or other controls. Such switches or controls shall be of approved design and construction and shall be properly installed.

56.12-3 *Mandatory*. Individual overload protection or short circuit protection shall be provided for the trailing cables of mobile equipment.

56.12-9 Power wires and cables which present a fire hazard should be well-installed on acceptable insulators.

56.12-19 At least 3 feet of clearance should be provided around all parts of stationary electric equipment or switchgear where access or travel is necessary.

56.12-20 *Mandatory*. Dry wooden platforms, insulating mats, or other electrically nonconductive material shall be kept in place at all switchboards and power-control switches where shock hazards exist. However, metal plates on which a person normally would stand and which are kept at the same potential as the grounded, metal, non-current-carrying parts of the power switches to be operated may be used.

56.12-22 Areas containing major electrical installations should be entered only by authorized persons.

56.12-31 Electric motors, switches, and controls exposed to damaging dust or water should be of dusttight or watertight construction.

56.12-36 *Mandatory*. Circuits shall be de-energized before fuses are removed or replaced.

56.12-42 Both rails should be bonded or welded at every joint and rails should be crossbonded at least every 200 feet if the track serves as the return trolley circuit.

56.12-43 *Mandatory*. Equipment with booms or masts which are not properly pro-

tected shall not be operated where the booms or masts can come within 10 feet of an energized overhead powerline.

56.12-46 *Mandatory*. When equipment must be moved under energized powerlines and the clearance is less than 10 feet, the powerlines shall be deenergized or other precautions shall be taken.

56.12-47 *Mandatory*. Guy wires of poles supporting high-potential conductors shall be equipped with insulators installed near the pole end.

56.12-50 Trolley wires should be installed at least 7 feet above rails, where height permits, and aligned and supported to minimize sway and sag.

56.12-51 Trolley-wire hangers should be spaced so that the wire will not sag dangerously between hangers and so that the wire may be detached from any one hanger without creating a shock hazard.

56.12-52 Trolley wires and trolley-feeder wires should be provided with sectioning switches near the beginning of all branch lines and at mantrip stations unless suitably covered mantrip cars are used.

56.12-53 Ground wires for lighting circuits powered from trolley wires should be connected securely to the ground-return circuit.

56.12-68 *Mandatory*. Transformer enclosures shall be kept locked against unauthorized entry.

§ 56.13 Compressed air and boilers.

COMPRESSED AIR

56.13-13 Compressed-air receivers should be drained of moisture and oil at least once each day.

56.13-15 Compressed-air receivers and other pressure vessels should be inspected internally at least once a year by qualified inspectors; records of such inspection should be kept.

56.13-18 Safety devices on compressed-air systems should be checked daily.

56.13-21 *Mandatory*. Safety chains or suitable locking devices shall be used at connections to machines of high-pressure hose lines of 1-inch inside diameter or larger, and between high-pressure hose lines of 1-inch inside diameter or larger, where a connection failure would create a hazard.

BOILERS

56.13-31 Boilers should be equipped with automatic pressure-relief valves; valves should be opened manually at least once each week to determine that they will function properly.

§ 56.14 Use of equipment.

GUARDS

56.14-1 *Mandatory*. Gears; sprockets; chains; drive, head, tail, and takeup pulleys; flywheels; couplings; shafts; sawblades; fan inlets; and similar exposed moving machine parts which may be contacted by persons, and which may cause injury to persons, shall be guarded.

56.14-2 *Mandatory*. Overhead belts shall be guarded if the whipping action from a

broken belt would be hazardous to persons below.

56.14-3 Guards at conveyor-drive, conveyor-head, and conveyor-tail pulleys should extend a distance sufficient to prevent a person from reaching behind the guard and becoming caught between the belt and the pulley.

56.14-12 Industrial vehicles such as fork-lift trucks, front-end loaders, and bulldozers should be provided with roll protection when necessary to protect the operator.

56.14-13 *Mandatory*. Fork-lift trucks, front-end loaders, and bulldozers shall be provided with substantial canopies when necessary to protect the operator.

METHODS AND PROCEDURES

56.14-26 *Mandatory*. Unsafe equipment or machinery shall be removed from service immediately.

56.14-27 Machinery and equipment should be operated only by authorized competent persons.

56.14-45 *Mandatory*. Welding operations shall be shielded and well-ventilated.

§ 56.15 Personal protection.

56.15-2 *Mandatory*. All persons shall wear suitable hard hats when in or around a mine or plant where falling objects may create a hazard.

56.15-5 *Mandatory*. Safety belts and lines shall be worn when men work where there is danger of falling; a second person shall tend the lifeline when bins, tanks, or other dangerous areas are entered.

56.15-6 Protective clothing, rubber gloves, and goggles or face-shields should be worn by persons handling substances that are corrosive, toxic, or injurious to the skin.

56.15-7 *Mandatory*. Protective clothing or equipment and face-shields or goggles shall be worn when welding, cutting, or working with molten metal.

56.15-11 Finger rings should not be worn while working in or around a mine or plant.

56.15-12 Effective ear protection should be worn where noise levels may cause permanent ear damage or hearing loss, or noise should be reduced to safe levels.

56.15-13 Where there is a danger of a vehicle overturning and where roll protection is provided, seatbelts should be used.

56.15-20 *Mandatory*. Life jackets or belts shall be worn where there is danger from falling into water.

§ 56.16 Materials storage and handling.

56.16-4 *Mandatory*. Hazardous materials shall be stored in containers of a type approved for such use by recognized agencies; such containers shall be labeled appropriately.

56.16-8 Taglines should be attached to suspended materials that require steadying or guidance.

56.16-10 Materials should not be dropped from an elevation unless the drop area is guarded or sufficient warning is given.

56.16-15 *Mandatory*. No person shall work from or travel on the bridge of an overhead crane unless the bridge is provided

with substantial footwalks with toeboards and railings the length of the bridge.

§ 56.18 Safety programs.

56.18-2 Regular safety inspections should be made by company officials or safety committees. Written reports should be made of the findings and actions recommended or taken; this information should be made available to the employees.

56.18-3 Serious accidents, whether resulting in injury or not, should be investigated to determine the cause and the means of preventing recurrence. Records of these investigations should be kept and the information should be made available to the employees.

56.18-5 All employees and officials should be familiar with company, State, and Federal health and safety regulations applicable to their jobs.

56.18-7 Inexperienced employees should be assigned to work with experienced men until such employees have acquired the necessary skills to perform their duties safely.

56.18-9 A competent person should be in charge at all times when men are working.

56.18-11 All supervisors and employees should be trained in accident prevention.

56.18-20 *Mandatory.* No employee shall be assigned, or allowed, or be required to perform work alone in any area where hazardous conditions exist that would endanger his safety unless he can communicate with others, can be heard, or can be seen.

§ 56.19 Man hoisting.

HOISTS

56.19-9 *Mandatory.* An accurate and reliable indicator of the position of the cage, skip, bucket, or cars in the shaft shall be provided.

56.19-11 Flanges on drums should extend radially a minimum of two rope diameters and not less than 4 inches beyond the last wrap.

WIRE ROPE

56.19-23 The end of the rope at the drum should make at least one full turn on the drum shaft, or a spoke of the drum in the case of a free drum, and should be fastened securely by means of rope clips or clamps. This standard does not apply to friction hoists.

56.19-24 *Mandatory.* The rope shall be attached to the load by the thimble-and-clip method, the socketing method, or other approved method. If the socketing method is employed, zinc or its equivalent shall be used. The use of Babbitt metal or lead for socketing wire ropes is prohibited. If the thimble-and-clip method is used, the following shall be observed:

(a) The rope shall be attached to the load by passing one end around an oval thimble that is attached to the load bending the end back so that it is parallel to the long or "live" end of the rope and fastening the two parts of the rope together with clips.

(b) The U-bolt of each clip shall encircle the short or "dead" end of the rope and the distance between clips shall not be less

than the figures given in the accompanying table.

(c) As a minimum, the following number of clips or equivalent shall be used for various diameters of six-strand, 19-wire, plow-steel ropes:

(Follow manufacturer's recommendations for other kinds of wire rope and clips.)

Diameter of rope, inches	Number of clips	Center-to-center spacing of clips, inches
3/4	4	4 1/2
7/8	4	5 1/4
1	4	6
1 1/8	5	6 3/4
1 1/4	5	7 1/8
1 3/8	6	8 1/4
1 1/2	6	9
1 5/8	6	9 3/4
1 3/4	7	10 1/4
1 7/8	8	11 1/4
2	8	12
2 1/8	8	13
2 1/4	8	14

(d) For all ropes less than three-quarter inch in diameter at least four clips or equivalent shall be used.

(e) When special conditions require the attachment of a sling to the hoisting cable to handle equipment in the shaft, the sling shall be attached by clips or equivalent in accordance with the table in paragraph (c) of this standard.

HEADFRAMES AND SHEAVES

56.19-36 Headframes should be high enough to provide at least 15 feet of clearance between the bottom of the sheave or drum and the uppermost part of the highest rope connection of the conveyance when the conveyance is at its uppermost manlanding.

HOISTING PROCEDURES

56.19-56 When automatic hoisting is used, a qualified hoistman should be in attendance on the premises while any person is underground.

56.19-61 The safe speed for hoisting men should be determined for each shaft, and this speed should not be exceeded. Men should not be hoisted at a speed faster than 2,500 feet per minute, except in an emergency.

56.19-62 Maximum acceleration and deceleration should not exceed 6 feet per second per second.

56.19-63 Only authorized persons should be in hoist rooms.

56.19-64 Balancing of cages should not be done while persons are on cages.

SIGNALING

56.19-92 A method should be provided to signal hoist operators from conveyances at any point in the shaft.

56.19-93 A standard code of hoisting signals should be adopted and used at each mine.

SHAFTS

56.19-108 When men are working in a shaft, "Men Working in Shaft" signs should be posted at all hoist-signaling and other devices controlling hoisting operations that may endanger such men.

INSPECTION AND MAINTENANCE

56.19-120 *Mandatory.* A systematic procedure of inspection, testing, and maintenance of shaft and hoisting equipment shall be developed and followed. If it is found or suspected that any part is not functioning properly, the hoist shall not be used until the malfunction has been located and repaired or adjustments have been made.

56.19-124 On other than friction hoists, ropes should be cut off and reconnected to the conveyance as often as necessary to assure adequate inspection of rope condition and to distribute wear of the rope. At least 6 feet should be cut from the rope above the highest connection; this portion should be examined carefully for corrosion, damage, wear, and fatigue by the rope manufacturer or a competent agency.

56.19-125 Hoisting ropes wound in multiple layers should be cut off and repositioned on the drum at regular intervals as necessary to distribute wear of the rope. The length of the cutoff at the drum end should not be an even multiple of the circumference of the drum.

56.19-133 Shafts should be inspected at least weekly.

§ 56.20 Miscellaneous.

56.20-1 *Mandatory.* Intoxicating beverages and narcotics shall not be permitted or used in or around mines. Persons under the influence of alcohol or narcotics shall not be permitted on the job.

56.20-8 Toilet facilities should be provided at convenient locations and should be kept clean and sanitary.

WALTER J. HICKEL,
Secretary of the Interior.

FEBRUARY 18, 1970.

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PART 57—HEALTH AND SAFETY STANDARDS—METAL AND NON-METALLIC UNDERGROUND MINES

Miscellaneous Amendments

Notice of proposed rule making with respect to health and safety standards for metal and nonmetallic underground mines was given in the FEDERAL REGISTER for January 16, 1969 (34 F.R. 677) and a correction notice published April 22, 1969 (34 F.R. 6737). Part 57—Health and Safety Standards—Metal and Nonmetallic Underground Mines was published in the FEDERAL REGISTER for July 31, 1969 (34 F.R. 12517). As issued, Part 57 did not include those health and safety standards with respect to which the notice of rule making had elicited comments. All of the comments on those proposed standards have now been considered carefully. For the purpose of clarification, revisions have been made in some of the standards which the advisory committee recommended be mandatory, but, no substantive changes have been made except in proposed Standard 57.7-1, which related to explosives and

which is discussed below. In a few instances in which the language of a proposed mandatory standard appeared to impose a requirement not within the intent of the standard, the standard has been rephrased. For example, proposed Standard 57.4-1 appeared literally to prohibit smoking wherever oil or grease is used; the revised standard relates the prohibition to the hazard involved. Similarly, proposed Standards 57.7-160 and 57.7-161, when read separately, appeared to require that all persons be removed from areas endangered by flyrock from blasting and that shelters be provided; Standard 57.6-160 hereby added to Part 57 combines the alternatives clearly contemplated by the two proposed standards. Changes, some substantive, also have been made in a number of the advisory standards.

In the notice of proposed rule making published on January 16, 1969, the term "explosive" as defined included blasting agents. In some of the proposed standards designed to cover blasting agents as well as other explosives, only the term "explosives" was used (for example, proposed Standards 57.7-40, 57.7-41, 57.7-42); other such proposed standards referred both to explosives and blasting agents (for example, proposed Standards 57.7-90, 57.7-92). To avoid uncertainties which the use of differing terminology might cause, a uniform approach has been taken with respect to the standards which are hereby added to § 57.6 *Explosives*, and only the term "explosives" appears in standards which relate to blasting agents as well as to other explosives. The following introductory statement is added to that section:

The term "explosives" as used in this § 57.6 includes blasting agents. The standards in this section in which the term "explosives" appears are applicable to blasting agents (as well as to other explosives) unless blasting agents are expressly excluded.

As proposed, Standard 57.7-1 would have required that blasting agents as well as other explosives be stored in magazines. Both intensive research and experience have demonstrated that less stringent requirements are necessary to achieve safety with respect to the storage of blasting agents than is the case with respect to other explosives. Accordingly, blasting agents are expressly excluded from Standard 57.6-1 as hereby added to Part 57. The Department will shortly issue a notice of proposed rule making proposing mandatory standards relating to the storage of blasting agents; this notice will also propose revisions and redesignations of a number of standards relating to matters other than explosives.

Pursuant to section 6 of the Federal Metal and Nonmetallic Mine Safety Act (30 U.S.C. 725) the following amendments and additions are made to 30 CFR Part 57 (34 F.R. 12517):

§ 57.2 [Amended]

1. The definition of the term "Escapeway" in § 57.2 (34 F.R. 12518) is amended to read as follows:
"Escapeway" means a passageway by which persons may leave a mine.

2. The following definitions are added, in appropriate alphabetical order to § 57.2:

"American Table of Distances" means the current edition of "The American Table of Distances for Storage of Explosives" published by the Institute of Makers of Explosives.

"Authorized person" means a person approved or assigned by mine management to perform a specific type of duty or duties or to be at a specific location or locations in the mine.

"Berm" means a pile or mound of material capable of restraining a vehicle.

"Blasting agent" means any material consisting of a mixture of a fuel and oxidizer which

(a) Is used or intended for use in blasting,

(b) Is not classed as an explosive by the Department of Transportation,

(c) Contains no ingredient classed as an explosive by the Department of Transportation, and

(d) Cannot be detonated by a No. 8 blasting cap when tested as recommended in Bureau of Mines Information Circular 8179.

"Capped primer" means a package or cartridge of explosives which is specifically designed to transmit detonation to other explosives and which contains a detonator.

"Explosive" means any chemical compound, mixture, or device, the primary or common purpose of which is to function by explosion. Explosives include, but are not limited to black powder, dynamite, nitroglycerin, fulminate, ammonium nitrate when mixed with a hydrocarbon, and other blasting agents.

"Primer or Booster" means a package or cartridge of explosive which is designed specifically to transmit detonation to other explosives and which does not contain a detonator.

3. The health and safety standards set forth below are added in appropriate numerical order to the specified sections of Part 57:

§ 57.3 Ground control.

SURFACE ONLY

57.3-1 *Mandatory.* Standards for the safe control of pit walls, including the overall slope of the pit wall, shall be established and followed by the operator. Such standards shall be consistent with prudent engineering design, the nature of the ground and the kind of material and mineral mined, and the ensuring of safe working conditions according to the degree of slope. Mining methods shall be selected which will ensure wall and bank stability, including benching as necessary to obtain a safe overall slope.

57.3-2 *Mandatory.* Loose, unconsolidated material shall be stripped for a safe distance, but in no case less than 10 feet, from the top of pit or quarry walls, and the loose, unconsolidated material shall be sloped to the angle of repose.

57.3-4 Safe means for scaling pit-banks should be provided. Exposed banks should be scaled before any other work is performed in the exposed bank area.

57.3-5 *Mandatory.* Men shall not work near or under dangerous banks. Overhanging banks shall be taken down immediately and other unsafe ground conditions shall be cor-

rected promptly, or the areas shall be barricaded and posted.

57.3-6 *Mandatory.* Men shall approach from above loose rock and areas to be scaled and shall scale from a safe location.

57.3-7 Baffleboards, screens, cribbing, or other suitable barriers should be provided where movement of material into cuts constitutes a safety hazard.

57.3-8 *Mandatory.* The supervisor, or a competent person designated by him, shall examine working areas and faces for unsafe conditions at least at the beginning of each shift and after blasting. Any unsafe condition found shall be corrected before any further work is performed at the immediate area or face at which the unsafe condition exists.

57.3-9 *Mandatory.* Men shall examine their working places before starting work and frequently thereafter, and any unsafe condition shall be corrected.

57.3-10 Banks, benches, and terrain sloping into the working areas should be examined after every rain, freeze, or thaw, before men work in such areas.

57.3-11 Before large boulders are drilled or broken, the boulder should be—

(a) Moved to a safe location; or
(b) Positioned securely, and prevented from rolling and moving; or

(c) The men who do the drilling or breaking should be positioned so that movement of the boulder will not endanger the men.

57.3-13 Rock-bolt installations, where used, should be in accordance with recommendations of the Bureau of Mines or other competent agency.

UNDERGROUND ONLY

57.3-22 *Mandatory.* Miners shall examine and test the back, face, and ribs of their working places at the beginning of each shift and frequently thereafter. Supervisors shall examine the ground conditions during daily visits to insure that proper testing and ground control practices are being followed. Loose ground shall be taken down or adequately supported before any other work is done. Ground conditions along haulageways and travelways shall be examined periodically and scaled or supported as necessary.

57.3-23 A scaling bar of proper length and blunt on one end should be provided at each working face.

57.3-33 Torque meters or torque wrenches should be available at mines where rock bolts are used for ground support. Periodic tests should be made to determine if bolts meet recommended torque.

§ 57.4 Fire prevention and control.

GENERAL—SURFACE AND UNDERGROUND

57.4-1 *Mandatory.* No person shall smoke or use an open flame:

(a) Where flammable solvents, liquids, fluids, or other flammable materials are stored, transported, handled, or used; or

(b) Where oil or grease is stored, transported, handled, or used, if smoking or the use of an open flame may cause a fire; or

(c) Within an unsafe distance of any area where smoking or the use of an open flame may cause a fire or an explosion.

57.4-18 *Mandatory.* Oxygen cylinders shall not be stored near oil or grease.

57.4-19 *Mandatory.* Gauges and regulators used with oxygen or acetylene cylinders shall be kept clean and free of oil and grease.

57.4-21 *Mandatory.* Internal combustion engines, except diesels, shall be shut off and stopped before being fueled.

57.4-22 **Mandatory.** Each mine shall have available or be provided with suitable firefighting equipment adequate for the size of the mine.

57.4-25 Fire hydrants should be of a standard type. Adapters should be provided if necessary to fit the hose equipment of local fire departments. Wrenches or keys to open the valves should be readily available.

57.4-26 Water pipes, valves, outlets, hydrants, and hoses designated for firefighting purposes should be inspected every 3 months and tested annually.

57.4-27 Suitable fire extinguishers should be provided on self-propelled mobile equipment with enclosed cabs.

57.4-28 Portable cutting and welding equipment should be equipped with suitable fire extinguishers.

57.4-30 Employees should be trained in the use of firefighting equipment.

57.4-31 A firefighting organization should be established, equipped, and trained in firefighting; drills should be held at least twice a year.

57.4-33 **Mandatory.** Valves on oxygen and acetylene tanks shall be kept closed when the contents are not being used.

SURFACE ONLY

57.4-40 Fire-alarm systems should be provided and maintained in operating condition to warn employees endangered by a fire.

57.4-41 Two exits should be provided where men work or congregate.

57.4-42 Timber or other combustible materials in excess of 1 day's supply should not be stored within 100 feet of mine-ventilation fans or mine openings.

57.4-43 Buildings and other structures within 100 feet of mine openings should be fire-resistant.

UNDERGROUND ONLY

57.4-51 **Mandatory.** Fire-alarm systems adequate to warn all employees shall be provided and maintained in operating condition.

57.4-52 **Mandatory.** Gasoline shall not be taken, stored, or used underground except in permissible flame safety lamps.

57.4-53 **Mandatory.** The use of liquefied petroleum gases shall be limited to maintenance work.

57.4-59 Welding or cutting should be done in fire-resistant locations whenever possible. When welding or cutting is done near combustible materials, the surrounding areas should be wetted down thoroughly before and after the work is done, and a fire patrol of the area should be maintained afterward for so long as necessary to assure that no danger of fire exists as determined by a responsible supervisor.

57.4-60 Power circuits should be deenergized in all areas on idle shifts or idle days, except where power is required. Circuits which remain energized should be protected by fuses or circuit breakers of the correct type and capacity consistent with the power load on such idle shifts or idle days.

57.4-61 Fire doors should be provided at shaft stations or other appropriate locations where necessary to prevent the spread of smoke or gas; the doors should be equipped with latches operable from both sides.

57.4-62 Timbered mine entrances should be fire resistant for at least 200 feet inside the mine portal or collar or provided with

fire protection adequate to control a fire for at least 200 feet inside the mine portal or collar.

57.4-65 **Mandatory.** Noncombustible barriers shall be installed below welding or burning operations in or over a shaft, raise, or winze.

57.4-67 A mine rescue station equipped with at least 10 sets of approved and properly maintained 2-hour self-contained breathing apparatus, adequate supplies, and spare parts should be maintained at mines employing 75 or more men underground or, in lieu thereof, the mine should be affiliated with a central mine rescue station.

57.4-69 **Mandatory.** Approved mine rescue apparatus shall be properly maintained for immediate use. The equipment shall be tested at least once a month and records kept of the tests.

57.4-70 At mines employing 75 or more men underground, at least two rescue crews (10 men) should be trained at least annually in the use, care, and limitations of self-contained breathing and firefighting apparatus and in mine rescue procedures. Smaller mines should have at least one man so trained for each 10 men employed underground.

57.4-71 Rescue crews should include supervisory and key personnel familiar with all mine installations that could prove vital to firefighting and rescue operations.

§ 57.5 Air quality, ventilation, and radiation.

GENERAL—SURFACE AND UNDERGROUND

57.5-3 **Mandatory.** Holes shall be collared and drilled wet, or other efficient dust-control measures shall be used when drilling non-water-soluble material. Efficient dust-control measures shall be used when drilling water-soluble materials.

57.5-4 Muckpiles, haulage roads, rock transfer points, crushers, and other points where dust is produced in amounts sufficient to cause a health or safety hazard should be wetted down as often as necessary, unless the dust is controlled adequately by other methods.

VENTILATION

57.5-21 Main fans should be installed on the surface; if it is necessary to locate them underground, they should be in fire-resistant areas and should be provided with remote controls.

57.5-23 Separate mine openings should be provided for main intake- and return-air currents except during early stages of development. A multiple compartment shaft is a single opening for the purpose of this standard.

57.5-29 When used, ventilation tubing should be installed so that the air current sweeps the face areas effectively. Maximum distance of the end of the tubing from the face generally should be 30 feet for blowing and 6 feet for exhausting.

57.5-30 Ventilation doors not operated mechanically should be designed and installed so that they are self-closing and will remain closed regardless of the direction of the air movement.

RADIATION

In those standards in § 57.5 which relate to radiation, a "working level" (WL) means any combination of the short-lived radon daughters in one liter of air that will result in the ultimate emission of 1.3×10^6 MeV (million electron volts) of potential alpha energy, and exposure to these radon daughters over a period of time is expressed in terms of "working level months" (WLM). Inhalation of air containing a radon daughter concentration of 1 WL for 170 hours results in an exposure of 1 WLM.

UNDERGROUND ONLY

57.5-37 **Mandatory.** Mine atmospheres shall be sampled to determine if hazardous concentrations of radon daughters are present. Where potentially hazardous concentrations are found, or known sources of radon exist, each active work area shall be sampled as often as necessary by a qualified person.

57.5-38 **Mandatory.** No employee shall be permitted to receive an exposure of more than 6 WLM (working level months) in any consecutive 3-month period and no more than 12 WLM in any consecutive 12-month period.

57.5-39 **Mandatory.** If samples show an atmospheric concentration of radon daughters of more than 1 working level, but less than 2 working levels, immediate corrective action shall be taken or the men shall be withdrawn. When concentrations higher than 2 working levels are found, the men shall be withdrawn from the area until corrective action is taken and the radon-daughter atmospheric concentrations are reduced to 1 working level or less.

57.5-40 **Mandatory.** (a) Where uranium is mined, if measurements in areas indicate exposure to concentrations of radon daughters in excess of 0.3 working level, complete individual exposure records shall be kept for all employees entering these areas.

(b) * * *

57.5-41 **Mandatory.** Smoking shall be prohibited where uranium is mined.

§ 57.6 Explosives.

The term "explosives" as used in this § 57.6 includes blasting agents. The standards in this section in which the term "explosives" appears are applicable to blasting agents (as well as to other explosives) unless blasting agents are expressly excluded.

STORAGE

GENERAL—SURFACE AND UNDERGROUND

57.6-1 **Mandatory.** Detonators and explosives other than blasting agents shall be stored in magazines.

57.6-2 **Mandatory.** Detonators shall not be stored in the same magazine with explosives.

57.6-3 Blasting agents may be stored with other explosives in the same magazine.

57.6-4 Safety fuse or detonating cord may be stored with explosives in the same magazine.

57.6-5 Areas surrounding magazines or facilities for the storage of blasting agents should be kept clear of all combustible materials for a distance not less than 25 feet in all directions.

57.6-6 **Mandatory.** Smoking and open flames shall not be permitted within 25 feet of a place where explosives or detonators are stored.

57.6-7 Explosives, detonators, and related materials such as safety fuse and detonating cord should be stored in a manner to assure use of oldest stocks first.

57.6-8 *Mandatory*. Ammonium nitrate fuel-oil mixtures shall be physically separated from dynamite stored in the same magazine and in such a manner that oil does not contaminate the dynamite.

57.6-9 Cases of explosives should not be stored on their ends or sides.

57.6-10 Cases of explosives should not be stacked more than 6 feet high.

SURFACE ONLY

57.6-20 *Mandatory*. Magazines shall be:
(a) Located in accordance with the current American Table of Distances for storage of explosives.

(b) Detached structures located away from powerlines, fuel storage areas, and other possible sources of fire.

(c) Constructed substantially of non-combustible material or covered with fire-resistant material.

(d) Reasonably bullet resistant.

(e) Electrically bonded and grounded if constructed of metal.

(f) Made on nonsparking materials on the inside, including floors.

(g) Provided with adequate and effectively screened ventilation openings near the floor and ceiling.

(h) Kept locked securely when unattended.

(i) Posted with suitable danger signs so located that a bullet passing through the face of a sign will not strike the magazine.

(j) Used exclusively for storage of explosives or detonators and kept free of all extraneous materials.

(k) Kept clean and dry in the interior, and in good repair.

(l) Unheated, unless heated in a manner that does not create a fire or explosion hazard. Electrical heating devices shall not be used inside a magazine.

UNDERGROUND ONLY

57.6-27 *Mandatory*. Box-type underground-distribution storage magazines used to store explosives or detonators near working faces shall be constructed with only nonsparking material inside and equipped with covers or doors and shall be located out of the line of blasts.

57.6-28 Box-type underground-distribution storage magazines should be used to store detonators or explosives other than blasting agents near working faces and should be located not less than 50 feet from the face.

57.6-29 *Mandatory*. Secondary underground and box-type underground magazines shall be labeled suitably.

57.6-30 *Mandatory*. Detonator-storage magazines shall be of the same construction as explosives-storage magazines and shall be separated by at least 25 feet from explosive-storage magazines.

TRANSPORTATION

GENERAL—SURFACE AND UNDERGROUND

57.6-40 *Mandatory*. Explosives and detonators shall be transported in separate vehicles unless separated by 4 inches of hardwood or the equivalent.

57.6-41 *Mandatory*. When explosives and detonators are hauled by trolley locomotives, covered, electrically insulated cars shall be used.

57.6-42 *Mandatory*. Self-propelled vehicles used to transport explosives or detonators shall be equipped with suitable fire extinguishers.

57.6-43 *Mandatory*. Vehicles containing explosives or detonators shall be posted with proper warning signs.

57.6-44 *Mandatory*. When vehicles containing explosives or detonators are parked, the brakes shall be set, the motive power

shut off, and the vehicles shall be blocked securely against rolling.

57.6-45 Vehicles containing explosives or detonators should not be taken to a repair garage or shop for any purpose.

57.6-46 *Mandatory*. Vehicles containing explosives or detonators shall be maintained in good condition and shall be operated at a safe speed and in accordance with all safe operating practices.

57.6-47 *Mandatory*. Vehicles used to transport explosives, other than blasting agents, shall have substantially constructed bodies, no sparking metal exposed in the cargo space, and shall be equipped with suitable sides and tail gates; explosives shall not be piled higher than the side or end enclosures.

57.6-48 Explosives or detonators should be transported at times and over routes that expose a minimum number of persons.

57.6-49 Explosives or detonators in open-body vehicles should be covered with fire-retardant and water-repellent materials.

57.6-50 *Mandatory*. Other materials or supplies shall not be placed on or in the cargo space of a conveyance containing explosives or detonators.

57.6-51 *Mandatory*. Explosives or detonators shall not be transported on locomotives.

57.6-52 *Mandatory*. No person shall smoke while transporting or handling explosives or detonators.

57.6-53 *Mandatory*. Only the necessary attendants shall ride on or in vehicles containing explosives or detonators.

57.6-54 *Mandatory*. Explosives or detonators shall not be transported on mantrips.

57.6-55 Explosives or detonators should be transported promptly without undue delays in transit.

UNDERGROUND ONLY

57.6-75 Men assigned to and responsible for hoisting should be notified whenever explosives or detonators are being transported in a shaft conveyance.

57.6-76 *Mandatory*. Hoisting of ore, muck, or other materials in adjacent shaft compartments shall be stopped while explosives are being handled.

57.6-77 *Mandatory*. Vehicles shall be attended, whenever practical and possible, while loaded with explosives or detonators.

57.6-78 Cars containing explosives or detonators should be pulled, except when hand-trammed.

USE

GENERAL—SURFACE AND UNDERGROUND

57.6-90 *Mandatory*. Persons who use explosives or detonators shall be experienced men who understand the hazards involved; trainees shall do such work only under the supervision of and in the immediate presence of experienced men.

57.6-91 *Mandatory*. Blasting operations should be under the direct control of authorized persons.

57.6-92 *Mandatory*. Damaged or deteriorated explosives or detonators shall be destroyed in a safe manner.

57.6-94 *Mandatory*. Holes to be blasted shall be charged as near to blasting time as practical and such holes shall be blasted as soon as possible after charging has been completed. In no case shall the time elapsing between the completion of charging to the time of blasting exceed 72 hours unless prior approval has been obtained from the Bureau of Mines.

57.6-95 *Mandatory*. No person shall smoke within 25 feet of explosives or detonators.

57.6-96 *Mandatory*. Explosives shall be kept separated from detonators until charging is started.

57.6-97 *Mandatory*. Capped primers shall be made up at the time of charging and as close to the blasting site as conditions allow.

57.6-98 A capped primer should be prepared so that the detonator is contained securely and is completely embedded within the explosive cartridge.

57.6-99 *Mandatory*. Only wooden or other nonsparking implements shall be used to punch holes in an explosive cartridge.

57.6-101 No tamping should be done directly on a capped primer.

57.6-102 *Mandatory*. Unused explosives and detonators shall be moved to a safe location as soon as charging operations are completed.

57.6-103 *Mandatory*. Areas in which charged holes are awaiting firing shall be guarded, or barricaded and posted, or flagged against unauthorized entry.

57.6-104 *Mandatory*. When safety fuse has been used, men shall not return to misfired holes for at least 30 minutes.

57.6-105 *Mandatory*. When electric blasting caps have been used, men shall not return to misfired holes for at least 15 minutes.

57.6-106 Faces and muckpiles should be examined for undetonated explosives after each blast and undetonated explosives found should be disposed of safely.

57.6-107 *Mandatory*. Holes shall not be drilled where there is danger of intersecting a charged or misfired hole.

57.6-108 *Mandatory*. Fuse and igniters shall be stored in a cool, dry place away from oils or grease.

57.6-109 Fuse should not be used if it has been kinked, bent sharply, or handled roughly in such a manner that the train of deflagration may be interrupted.

57.6-112 *Mandatory*. The burning rate of the fuse shall be posted in the fuse-capping station in a conspicuous location such that the burning rate will be brought to the attention of all men concerned with blasting.

57.6-113 *Mandatory*. Fuse less than 48 inches long shall not be used.

57.6-114 *Mandatory*. At least two men shall be present when lighting fuses, and no man shall light more than 15 individual fuses. If more than 15 holes per man are to be fired, igniter cord and connectors or electric blasting shall be used.

57.6-116 *Mandatory*. Fuse shall be ignited with hot-wire lighters, lead spitters, igniter cord, or other such devices designed for this purpose.

57.6-117 *Mandatory*. Fuse shall not be ignited before the primer and the entire charge are securely in place.

57.6-119 Electric detonators of different brands should not be used in the same round.

57.6-120 *Mandatory*. Except when being tested with a blasting galvanometer:

(a) Electric detonators shall be kept shunted until they are being connected to the blasting line or wired into a blasting round.

(b) Wired rounds shall be kept shunted until they are being connected to the blasting line.

(c) Blasting lines shall be kept shunted until immediately before blasting.

57.6 *Mandatory*. When electric detonators are used, charging shall be stopped immediately when the presence of static electricity or stray currents is detected; the condition shall be remedied before charging is resumed.

57.6-124 *Mandatory*. When electric detonators are used, charging shall be suspended

RULES AND REGULATIONS

in surface mining, shaft sinking, and tunneling and men withdrawn to a safe location upon the approach of an electrical storm.

57.6-128 *Mandatory*. The key or other control to an electrical firing device shall be entrusted only to the person designated to fire the round or rounds.

57.6-132 Delay connectors for firing detonating cord should be treated and handled with the same safety precautions as blasting caps and electric detonators.

SURFACE ONLY

57.6-160 *Mandatory*. Ample warning shall be given before blasts are fired. All persons shall be cleared and removed from the blasting area unless suitable blasting shelters are provided to protect men endangered by concussion or flyrock from blasting.

57.6-161 If explosives are suspected of burning in a hole, all persons in the endangered area should move to a safe location and no one should return to the hole until the danger has passed, but in no case within 1 hour.

57.6-162 *Mandatory*. Lead wires and blasting lines shall not be strung across power conductors, pipelines, railroad tracks, or within 20 feet of bare powerlines. They shall be protected from sources of static or other electrical contact.

57.6-163 *Mandatory*. The double-trunkline or loop system shall be used in detonating-cord blasting.

57.6-164 *Mandatory*. Trunklines, in multiple-row blasts, shall make one or more complete loops, with crossties between loops at intervals of not over 200 feet.

57.6-167 Detonating cord should not be used if it has been kinked, bent, or otherwise handled in such a manner that the train of detonation may be interrupted.

57.6-168 *Mandatory*. Misfires shall be reported to the proper supervisor and shall be disposed of safely before any other work is performed in that blasting area.

57.6-169 Blastholes in "hothole" areas and holes that have been sprung should not be charged before tests have been made to ensure that the heat has dissipated to a safe extent.

57.6-170 *Mandatory*. Where electric blasting is to be performed, electric circuits to equipment in the immediate area to be blasted shall be deenergized before explosives are brought into the area; the power shall not be turned on again until after the shots are fired.

UNDERGROUND ONLY

57.6-177 *Mandatory*. Misfires shall be disposed of by the following methods:

(a) Reattempting to fire the holes if leg wires are exposed.

(b) Washing the stemming and the charge from the borehole with water.

(c) Inserting new primers after the stemming has been washed out.

57.6-178 In secondary blasting, if more than one shot is to be fired at one time, blasting should be done electrically or with detonating cord.

57.6-180 Explosives, detonators, and blasting lines should be isolated from sources of static electricity and stray currents and from extraneous electric contact.

57.6-181 Where electric blasting is to be performed, electric circuits to equipment in the immediate area to be blasted should be deenergized before explosives or detonators are brought into the area; the power should not be turned on again until after the shots are fired.

SENSITIZED AMMONIUM NITRATE BLASTING AGENTS

All of the standards in this § 57.6 in which the term "explosives" appears are applicable to blasting agents (as well as to other explosives) unless blasting agents are expressly excluded.

GENERAL—SURFACE AND UNDERGROUND

57.6-190 Sensitized ammonium nitrate blasting agents, and the components thereof prior to mixing, should be mixed and stored in accordance with the recommendations in Bureau of Mines Information Circular 8179, "Safety Recommendations for Sensitized Ammonium Nitrate Blasting Agents," or subsequent revisions.

57.6-192 Adequate priming should be employed to guard against misfires, increased toxic fumes, and poor performance.

57.6-193 *Mandatory*. Where pneumatic loading is employed, before any type of blasting operation using blasting agents is put into effect, an evaluation of the potential hazard of static electricity shall be made. Adequate steps, including the grounding and bonding of the conductive parts of pneumatic loading equipment, shall be taken to eliminate the hazard of static electricity before blasting agent use is commenced.

57.6-195 *Mandatory*. Hoses used in connection with pneumatic loading machines shall be of the semiconductive type, having a total resistance low enough to permit the dissipation of static electricity and high enough to limit the flow of stray electric currents to a safe level. Wire-countered hose shall not be used because of the potential hazard from stray electric currents.

57.6-196 Reasonable precautions should be exercised to exclude water from blasting agents other than slurries.

57.6-197 In small-diameter holes, blasting agents should be loaded so as to provide a continuous column that completely fills the cross section of the borehole.

§ 57.7 Drilling.

SURFACE ONLY

57.7-1 Equipment that is to be used during a shift should be inspected each shift by a competent person. Equipment defects affecting safety should be reported.

57.7-2 *Mandatory*. Equipment defects affecting safety shall be corrected before the equipment is used.

57.7-4 *Mandatory*. Men shall not be on a mast while the drill-bit is in operation.

57.7-5 *Mandatory*. Drill crews and others shall stay clear of augers or drill stems that are in motion. Persons shall not pass under or step over a moving stem or auger.

57.7-8 *Mandatory*. When a drill is being moved from one drilling area to another, drill steel, tools, and other equipment shall be secured and the mast placed in a safe position.

57.7-13 *Mandatory*. Drill holes large enough to constitute a hazard shall be covered or guarded.

57.7-16 Bit wrenches or bit knockers should be used to remove detachable bits from drill steel.

57.7-17 Starter steels should be used when collaring holes with handheld drills.

57.7-18 *Mandatory*. Men shall not hold the drill steel while collaring holes, or rest

their hands on the chuck or centralizer while drilling.

57.7-19 Air should be turned off and bled from the hose before handheld drills are moved from one working area to another.

UNDERGROUND ONLY

57.7-28 Men should not hold the drill steel while collaring holes, or rest their hands on the chuck or centralizer while drilling.

§ 57.9 Loading, hauling, dumping.

GENERAL—SURFACE AND UNDERGROUND

57.9-1 Equipment that is to be used during a shift should be inspected by a competent person each shift. Equipment defects affecting safety should be reported.

57.9-2 *Mandatory*. Equipment defects affecting safety shall be corrected before the equipment is used.

57.9-6 *Mandatory*. When the entire length of a conveyor is visible from the starting switch, the operator shall visually check to make certain that all persons are in the clear before starting the conveyor. When the entire length of the conveyor is not visible from the starting switch, a positive audible or visible warning system shall be installed and operated to warn persons that the conveyor will be started.

57.9-7 *Mandatory*. Unguarded conveyors with walkways shall be equipped with emergency stop devices or cords along their full length.

57.9-15 Slushers should be equipped with backlash guards, rollers, and drum covers, and anchored securely before slushing operations are started.

57.9-19 Track guardrails, lead rails, and frogs should be protected or blocked so as to prevent a person's foot from becoming wedged.

57.9-20 *Mandatory*. Positive-acting stop-blocks, derail devices, track skates, or other adequate means shall be installed wherever necessary to protect persons from runaway or moving railroad equipment.

57.9-22 *Mandatory*. Berms or guards should be provided on the outer bank of elevated roadways.

57.9-33 *Mandatory*. Men shall not ride in dippers, shovel buckets, forks, clamshells, or in the beds of dump trucks for the purpose of transportation.

57.9-34 Cars or trucks should be loaded in such manner as to minimize spillage while en route to a dumping site.

57.9-36 *Mandatory*. Electrically powered mobile equipment shall not be left unattended unless the master switch is in the off position, all operating controls are in the neutral position, and the brakes are set or other equivalent precautions are taken against rolling.

57.9-37 *Mandatory*. Mobile equipment shall not be left unattended unless the brakes are set. The wheels shall be turned into a bank or rib, or shall be blocked, when such equipment is parked on a grade.

57.9-48 *Mandatory*. Railroad cars with braking systems, when in use, shall be equipped with effective brake shoes.

57.9-52 *Mandatory*. Inability of a motor-man to clearly recognize his brakeman's

signals, when the train is under the direction of the brakeman, shall be construed by the motorman as a stop signal.

57.9-54 *Mandatory.* Berms, bumper blocks, safety hooks, or similar means shall be provided to prevent overtravel and overturning at dumping locations.

57.9-61 *Mandatory.* Stockpile and muckpile faces shall be trimmed to prevent hazards to personnel.

57.9-62 *Mandatory.* Rocks too large to be handled safely shall be broken before loading.

57.9-64 *Mandatory.* Chute-loading installations shall be designed so that the men pulling chutes are not required to be in a hazardous position while loading cars.

57.9-65 Cars should not be coupled or uncoupled manually from the inside of curves unless the railroad and cars are so designed to eliminate any hazard from coupling or uncoupling cars from inside of curves.

57.9-68 *Mandatory.* Lights, flares, or other warning devices shall be posted when parked equipment creates a hazard to vehicular traffic.

57.9-69 *Mandatory.* Tires shall be deflated before repairs on them are started and adequate means shall be provided to prevent wheel locking rims from creating a hazard during tire inflation.

57.9-70 A tow bar should be used to tow heavy equipment. A safety chain should be used in conjunction with the tow bar.

SURFACE ONLY

57.9-81 *Mandatory.* Trucks, shuttle cars, and front-end loaders shall be equipped with emergency brakes separate and independent of the regular braking system.

57.9-82 Haulage trucks with cabs should be equipped with heaters, air conditioners, or both, maintained in good condition, where needed because of extreme weather conditions.

57.9-85 *Mandatory.* Supplies, materials, and tools other than small handtools shall not be transported with men in mantrip vehicles unless such vehicles are specifically designed to make such transportation safe.

UNDERGROUND ONLY

57.9-99 *Mandatory.* Supplies, materials, and tools other than small handtools shall not be transported with men in mantrip cars. Mantrips shall be operated independently of ore and supply trips.

57.9-110 *Mandatory.* Shelter holes shall be provided to ensure the safety of men along haulageways where continuous clearance of at least 30 inches from the farthest projection of moving equipment on at least one side of the haulageway cannot be maintained.

57.9-111 Shelter holes should be at least 4 feet wide, marked conspicuously, and should provide a minimum of 40 inches clearance from the farthest projection of moving equipment.

57.9-115 Mantrip passengers should ride on the side of the car opposite the trolley wire when the trolley wire is not centrally located unless covered man cars are provided.

§ 57.10 Aerial tramways.

SURFACE ONLY

57.10-7 *Mandatory.* Guard nets or other suitable protection shall be provided where tramways pass over roadways, walkways, or buildings.

§ 57.11 Travelways and escapeways.

TRAVELWAYS

GENERAL—SURFACE AND UNDERGROUND

57.11-7 Wooden members of ladders should not be painted.

57.11-10 Vertical clearance above stair steps should be a minimum of 7 feet or adequate warning should be provided to indicate an impaired clearance.

UNDERGROUND ONLY

57.11-39 Working floors in square-set stopes should be lagged closely and securely, and open sets should be equipped with guardrails.

57.11-40 Travelways steeper than 30° from the horizontal should be provided with ladders or stairways.

ESCAPEWAYS

UNDERGROUND ONLY

57.11-50 *Mandatory.* Every mine shall have two separate properly maintained escapeways to the surface which are so positioned that damage to one shall not lessen the effectiveness of the other, or a method of refuge shall be provided when only one opening to the surface is possible.

57.11-53 *Mandatory.* Mine maps shall be posted and available showing escape routes, directions of principal airflow, locations of telephones, fire doors, ventilation doors, and brought up to date as necessary.

§ 57.12 Electricity.

GENERAL—SURFACE AND UNDERGROUND

57.12-1 *Mandatory.* Circuits shall be protected against excessive overloads by fuses or circuit breakers of the correct type and capacity.

57.12-2 *Mandatory.* Electric equipment and circuits shall be provided with switches or other controls. Such switches or controls shall be of approved design and construction and shall be properly installed.

57.12-3 *Mandatory.* Individual overload protection or short-circuit protection shall be provided for the trailing cables of mobile equipment.

57.12-9 Power wires and cables which present a fire hazard should be well-installed on acceptable insulators.

57.12-19 At least 3 feet of clearance should be provided around all parts of stationary electric equipment or switchgear where access or travel is necessary.

57.12-20 *Mandatory.* Dry wooden platforms, insulating mats, or other electrically nonconductive material shall be kept in place at all switchboards and power-control switches where shock hazards exist. However, metal plates on which a person normally would stand and which are kept at the same potential as the grounded, metal,

non-current-carrying parts of the power switches to be operated may be used.

57.12-22 Areas containing major electrical installations should be entered only by authorized persons.

57.12-31 Electric motors, switches, and controls exposed to damaging dust or water should be of dusttight or watertight construction.

57.12-36 *Mandatory.* Circuits shall be deenergized before fuses are removed or replaced.

57.12-42 Both rails should be bonded or welded at every joint and rails should be crossbonded at least every 200 feet if the track serves as the return trolley circuit.

57.12-43 *Mandatory.* Equipment with booms or masts which are not properly protected shall not be operated where the booms or masts can come within 10 feet of an energized overhead powerline.

57.12-46. *Mandatory.* When equipment must be moved under energized powerlines and the clearance is less than 10 feet, the powerlines shall be deenergized or other precautions shall be taken.

57.12-47 *Mandatory.* Guy wires of poles supporting high-potential conductors shall be equipped with insulators installed near the pole end.

57.12-50 Trolley wires should be installed at least 7 feet above rails, where height permits, and aligned and supported to minimize sway and sag.

57.12-51 Trolley-wire hangers should be spaced so that the wire will not sag dangerously between hangers and so that the wire may be detached from any one hanger without creating a shock hazard.

57.12-52 Trolley wires and trolley-feeder wires should be provided with sectioning switches near the beginning of all branch lines and at mantrip stations unless suitably covered mantrip cars are used.

57.12-53 Ground wires for lighting circuits powered from trolley wires should be connected securely to the ground-return circuit.

SURFACE ONLY

57.12-68 *Mandatory.* Transformer enclosures shall be kept locked against unauthorized entry.

UNDERGROUND ONLY

57.12-85 *Mandatory.* Transformer stations shall be enclosed to prevent persons from unintentionally or inadvertently contacting energized parts.

§ 57.13 Compressed air and boilers.

COMPRESSED AIR

57.13-13 Compressed-air receivers should be drained of moisture and oil at least once each day.

57.13-15 Compressed-air receivers and other pressure vessels should be inspected internally at least once a year by qualified inspectors; records of such inspection should be kept.

RULES AND REGULATIONS

57.13-18 Safety devices on compressed-air systems should be checked daily.

57.13-21 **Mandatory.** Safety chains or suitable locking devices shall be used at connections to machines of high-pressure hose lines of 1-inch inside diameter or larger, and between high-pressure hose lines of 1-inch inside diameter or larger, where a connection failure would create a hazard.

BOILERS

57.13-31 Boilers should be equipped with automatic pressure-relief valves; valves should be opened manually at least once a week to determine that they will function properly.

§ 57.14 Use of equipment.

GUARDS

GENERAL—SURFACE AND UNDERGROUND

57.14-1 **Mandatory.** Gears; sprockets; chains; drive, head, tail, and takeup pulleys; flywheels; couplings; shafts; sawblades; fan inlets; and similar exposed moving machine parts which may be contacted by persons, and which may cause injury to persons shall be guarded.

57.14-2 **Mandatory.** Overhead belts shall be guarded if the whipping action from a broken line would be hazardous to persons below.

57.14-3 Guards at conveyor-drive, conveyor-head, and conveyor-tail pulleys should extend a distance sufficient to prevent a person from reaching behind the guard and becoming caught between the belt and the pulley.

57.14-12 Industrial vehicles such as fork-lift trucks, front-end loaders, and bulldozers should be provided with roll protection when necessary to protect the operator.

57.14-13 **Mandatory.** Fork-lift trucks, front-end loaders, and bulldozers shall be provided with substantial canopies when necessary to protect the operator.

METHODS AND PROCEDURES

GENERAL—SURFACE AND UNDERGROUND

57.14-26 **Mandatory.** Unsafe equipment or machinery shall be removed from service immediately.

57.14-27 Machinery and equipment should be operated only by authorized competent persons.

57.14-33 **Mandatory.** Pulleys of conveyors shall not be cleaned manually while the conveyor is in motion.

SURFACE ONLY

57.14-45 **Mandatory.** Welding operations shall be shielded and well-ventilated.

§ 57.15 Personal protection.

GENERAL—SURFACE AND UNDERGROUND

57.15-2 **Mandatory.** All persons shall wear suitable hard hats when in or around a mine or plant where falling objects may create a hazard.

57.15-5 **Mandatory.** Safety belts and lines shall be worn when men work where there is danger of falling; a second person shall tend the lifeline when bins, tanks, or other dangerous areas are entered.

57.15-6 Protective clothing, rubber gloves, and goggles or face-shields should be worn

by persons handling substances that are corrosive, toxic, or injurious to the skin.

57.15-7 **Mandatory.** Protective clothing or equipment and face-shields or goggles shall be worn when welding, cutting, or working with molten metal.

57.15-11 Finger rings should not be worn while working in or around a mine or plant.

57.15-12 Effective ear protection should be worn where noise levels may cause permanent ear damage or hearing loss, or noise should be reduced to safe levels.

57.15-13 Where there is a danger of a vehicle overturning and where roll protection is provided, seatbelts should be used.

SURFACE ONLY

57.15-20 **Mandatory.** Life jackets or belts shall be worn where there is danger from falling into water.

§ 57.16 Materials storage and handling.

GENERAL—SURFACE AND UNDERGROUND

57.16-4 **Mandatory.** Hazardous materials shall be stored in containers of a type approved for such use by recognized agencies; such containers shall be labeled appropriately.

57.16-8 Taglines should be attached to suspended materials that require steadying or guidance.

57.16-10 Materials should not be dropped from an elevation unless the drop area is guarded or sufficient warning is given.

57.16-15 **Mandatory.** No person shall work from or travel on the bridge of an overhead crane unless the bridge is provided with substantial footwalks with toeboards and railings the length of the bridge.

§ 57.18 Safety programs.

GENERAL—SURFACE AND UNDERGROUND

57.18-2 Regular safety inspection should be made by company officials or safety committees. Written reports should be made of the findings and actions recommended or taken; this information should be made available to the employees.

57.18-3 Serious accidents, whether resulting in injury or not, should be investigated to determine the cause and the means of preventing recurrences. Records of these investigations should be kept and the information should be made available to the employees.

57.18-5 All employees and officials should be familiar with company, State, and Federal health and safety regulations applicable to their jobs.

57.18-7 Inexperienced employees should be assigned to work with experienced men until such employees have acquired the necessary skills to perform their duties safely.

57.18-9 A competent person should be in charge at all times when men are working.

57.18-11 All supervisors and employees should be trained in accident prevention.

SURFACE ONLY

57.18-20 **Mandatory.** No employee shall be assigned, or allowed, or be required to perform work alone in any area where hazardous conditions exist that would endanger

his safety unless he can communicate with others, can be heard, or can be seen.

UNDERGROUND ONLY

57.18-25 **Mandatory.** No employee shall be assigned, or allowed, or be required to perform work alone in any area where hazardous conditions exist that would endanger his safety unless his cries for help can be heard or he can be seen.

57.18-26 Operations should not be resumed in a mine following an event which has caused or can cause widespread unsafe conditions until such mine has been inspected by a Federal mine inspector and the mine is found to be in a safe condition to resume operations.

§ 57.19 Man hoisting.

HOISTS

57.19-9 **Mandatory.** An accurate and reliable indicator of the position of the cage, skip, bucket, or cars in the shaft shall be provided.

57.19-11 Flanges on drums should extend radially a minimum of two rope diameters and not less than 4 inches beyond the last wrap.

WIRE ROPE

57.19-23 The end of the rope at the drum should make at least one full turn on the drum shaft, or a spoke of the drum in the case of a free drum, and should be fastened securely by means of rope clips or clamps. This standard does not apply to friction hoists.

57.19-24 **Mandatory.** The rope shall be attached to the load by the thimble-and-clip method, the socketing method, or other approved method. If the socketing method is employed, zinc or its equivalent shall be used. The use of Babbitt metal or lead for socketing wire ropes is prohibited. If the thimble-and-clip method is used, the following shall be observed:

(a) The rope shall be attached to the load by passing one end around an oval thimble that is attached to the load bending the end back so that it is parallel to the long or "live" end of the rope and fastening the two parts of the rope together with clips.

(b) The U-bolt of each clip shall encircle the short or "dead" end of the rope and the distance between clips shall not be less than the figures given in the accompanying table.

(c) As a minimum the following number of clips or equivalent shall be used for various diameters of six-stand 19-wire plow steel ropes:

(Follow manufacturer's recommendations for other kinds of wire rope and clips.)

Diameter of rope, inches	Number of clips	Center-to-center spacing, of clips, inches
3/4	4	4 1/4
7/8	4	5 1/4
1	4	6
1 1/8	5	6 3/4
1 1/4	5	7 1/4
1 1/2	6	8 1/4
1 3/4	6	9
1 7/8	6	9 3/4
2	7	10 1/2
2 1/8	8	11 1/4
2 1/4	8	12
2 3/8	8	13
2 1/2	8	14

(d) For all ropes less than three-quarter inch in diameter, at least four clips or equivalent shall be used.

(e) When special conditions require the attachment of a sling to the hoisting cable to handle equipment in the shaft, the sling shall be attached by clips or equivalent in accordance with the table in paragraph (c) of this standard.

HEADFRAMES AND SHEAVES

57.19-36 Headframes should be high enough to provide at least 15 feet of clearance between the bottom of the sheave or drum and the uppermost part of the highest rope connection of the conveyance when the conveyance is at its uppermost man-landing.

HOISTING PROCEDURES

57.19-56 When automatic hoisting is used, a qualified hoistman should be in attendance on the premises while any person is underground.

57.19-61 The safe speed for hoisting men should be determined for each shaft, and this speed should not be exceeded. Men should not be hoisted at a speed faster than 2,500 feet per minute, except in an emergency.

57.19-62 Maximum acceleration and deceleration should not exceed 6 feet per second.

57.19-63 Only authorized persons should be in hoist rooms.

57.19-64 Balancing of cages should not be done while persons are on cages.

SIGNALING

57.19-92 A method should be provided to signal hoist operators from conveyances at any point in the shaft.

57.19-93 A standard code of hoisting signals should be adopted and used at each mine.

SHAFTS

57.19-108 When men are working in a shaft "Men Working in Shaft" signs should be posted at all hoist-signaling or other devices controlling hoisting operations that may endanger such men.

INSPECTION AND MAINTENANCE

57.19-120 *Mandatory.* A systematic procedure of inspection, testing, and maintenance of shaft and hoisting equipment shall be developed and followed. If it is found or suspected that any part is not functioning properly, the hoist shall not be used until the malfunction has been located and repaired or adjustments have been made.

57.19-124 On other than friction hoists, ropes should be cut off and reconnected to the conveyance as often as necessary to assure adequate inspection of rope condition and to distribute wear of the rope. At least 6 feet should be cut from the rope above the highest connection; this portion should be examined carefully for corrosion, damage, wear, and fatigue by the rope manufacturer or a competent agency.

57.19-125 Hoisting ropes wound in multiple layers should be cut off and repositioned on the drum at regular intervals as necessary to distribute wear of the rope. The length of cutoff at the drum end should not be an even multiple of the circumference of the drum.

57.19-133 Shafts should be inspected at least weekly.

§ 57.20 Miscellaneous.

GENERAL—SURFACE AND UNDERGROUND

57.20-1 *Mandatory.* Intoxicating beverages and narcotics shall not be permitted or used in or around mines. Persons under the influence of alcohol or narcotics shall not be permitted on the job.

57.20-8 Toilet facilities should be provided at convenient locations and should be kept clean and sanitary.

SURFACE ONLY

57.20-21 *Mandatory.* Upon abandonment of a mine, the owner or operator shall effectively close or fence off all surface openings down which persons could fall or through which persons could enter. Upon or near all such safeguards, trespass warnings and appropriate danger notices shall be posted.

§ 57.21 Gassy mines.

VENTILATION

57.21-20 *Mandatory.* Main fans shall be:

- (a) Installed on the surface.
- (b) Powered electrically from a circuit independent of the mine power circuit. Internal combustion engines shall be used only for standby power, or where electrical power is not available.
- (c) Installed in fireproof housing provided with fireproof air ducts.
- (d) Offset not less than 15 feet from the nearest side of the mine opening and equipped with ample means of pressure relief unless:

- (1) The opening is not in direct line with forces which would come out of the mine should an explosion occur; and
- (2) Another opening not less than 15 feet nor more than 100 feet from the fan opening is equipped with a weak-wall stopping or explosion doors in direct line with the forces which would come out of the mine should an explosion occur.

- (e) Installed to permit prompt reversal of airflow.
- (f) Attended constantly, or provided with automatic devices to give alarm when the fans slow down to stop. Such devices shall be placed so they will be seen or heard by responsible persons.

57.21-21 Main fans should be:

- (a) Operated continuously except when the mine is shut down for an extended period.
- (b) Provided with pressure-recording gages.
- (c) Inspected daily and records kept of such inspections and of fan maintenance.

57.21-24 *Mandatory.* When a main fan fails or stops and ventilation is not restored in a reasonable time, action shall be taken to cut off the power to the areas affected and to withdraw all men from such areas.

57.21-26 *Mandatory.* When ventilation is not restored in a reasonable time, all men shall be removed from the areas affected, and after ventilation has been restored, the areas affected shall be examined by qualified persons for gas and other hazards and made safe before power is restored and before men, other than the examiners and other authorized persons, return to the areas affected.

57.21-28 *Mandatory.* Booster fans shall be:

- (a) Operated by permissible drive units maintained in permissible condition.

(b) Operated only in air containing not more than 1 percent flammable gas.

57.21-29 Booster fans should be:

- (a) Inspected by a qualified person at least once each shift or provided with automatic devices to give alarm when the fans slow down or stop.
- (b) Equipped with devices that automatically cut off the power in areas affected if the fans slow down or stop when the fans are not provided with automatic alarm devices.
- (c) Provided with air locks, the doors of which open automatically if the fan stops operating.

57.21-30 *Mandatory.* Auxiliary fans shall be:

- (a) Operated by permissible drive units maintained in permissible condition.
- (b) Operated only in air containing not more than 1 percent flammable gas.

57.21-31 Auxiliary fans should be inspected by competent persons at least twice each shift.

57.21-32 *Mandatory.* Men shall be withdrawn from areas affected by auxiliary or booster fans when such fans slow down or stop.

57.21-34 *Mandatory.* The quantity of air coursed through the last open crosscut in pairs or sets of entries or through other ventilation openings nearest the face, shall be at least 6,000 cubic feet a minute.

57.21-35 *Mandatory.* At least once each week, a qualified person shall measure the volume of air entering the main intakes and leaving the main returns, the volume of the intake and return of each split, and the volume through the last open crosscuts or other ventilation openings nearest the active faces. Records of such measurements shall be kept in a book on the surface.

57.21-36 Permanently installed battery-charging and transformer stations should be ventilated by separate splits of air conducted directly to return-air courses.

57.21-38 *Mandatory.* Changes in ventilation that materially affect the main air current or any split thereof and may affect the safety of persons in the mine shall be made only when the mine is idle. Only those persons engaged in making such changes shall be permitted in the mine during the change. Power shall be removed from the areas affected by the change before work starts and not restored until the effect of the change has been ascertained and the affected areas determined to be safe by a qualified person.

57.21-41 *Mandatory.* Air that has passed by an opening of any unsealed abandoned area and contains 0.25 percent or more of flammable gas shall not be used to ventilate working areas. Examinations of such air shall be conducted during the preshift examinations required by 57.21-59.

57.21-42 *Mandatory.* Air that has passed through an abandoned panel or area which is inaccessible for inspection shall not be used to ventilate any active face workings in such mine. No air which has been used to ventilate an area from which the pillars have been removed shall be used to ventilate any active face workings in such mine, except that such air may be used to ventilate enough advancing working places or rooms immediately adjacent to the line of retreat to maintain an orderly sequence of pillar recovery on a set of entries.

57.21-59 *Mandatory.* Preshift examinations shall be made of all working areas by qualified persons within 3 hours before any

workmen, other than the examiners, enter the mine.

57.21-65 Examinations for dangerous conditions, including tests for flammable gas with a device approved by the Secretary should be made at least once each week, and at intervals of not more than 7 days, by the mine foreman or other designated mine official, except during weeks in which the mine is idle for the entire week. The foreman or other designated mine official should:

- (a) Examine and make tests:
 - (1) In the return of each split where it enters the main return,
 - (2) On accessible pillar falls,
 - (3) At seals,
 - (4) In the main return,
 - (5) In at least one entry of each intake and return airway in its entirety,
 - (6) In idle workings,
 - (7) In abandoned workings, insofar as conditions permit.
- (b) Mark his initials and the date at the places examined;
- (c) Report dangerous conditions promptly to the mine operator or other designated person;
- (d) Record the results of his examination with ink or indelible pencil in a book kept for that purpose at a designated place on the surface of the mine.

57.21-66 The mine foreman or other designated mine official should read and countersign promptly the reports of daily and weekly examinations by qualified persons and should take prompt action to have dangerous conditions corrected.

ILLUMINATION

57.21-90 *Mandatory.* Only permissible electric lamps shall be used for portable illumination underground.

EXPLOSIVES

57.21-95 *Mandatory.* Explosives not designated as permissible by the Bureau of Mines shall not be used in any underground gassy mine until the Bureau of Mines and State Inspector of Mines have given written approval for each such specific explosive to be used.

57.21-96 *Mandatory.* The Bureau of Mines and the State Inspector of Mines, in granting approval referred to in standard 57.21-95, shall provide the operator with a written list of conditions for using the specific explosives covered by the approval and adapted to the mining operation.

57.21-97 *Mandatory.* Blasts in gassy mines shall be initiated electrically, and multiple-shot blasts shall be initiated only with millisecond-delay detonators. Permissible blasting units of capacity suitable for the number of holes in a round to be blasted shall be used unless the round is fired from the surface when all men are out of the mine.

57.21-98 *Mandatory.* Boreholes shall be stemmed as prescribed for the explosives used.

WALTER J. HICKEL,
Secretary of the Interior.

FEBRUARY 18, 1970.

[F.R. Doc. 70-2246; Filed, Feb. 24, 1970; 8:45 a.m.]

Title 33—NAVIGATION AND NAVIGABLE WATERS

Chapter I—Coast Guard, Department of Transportation

SUBCHAPTER J—BRIDGES

[CGFR 69-105]

PART 117—DRAWBRIDGE OPERATION REGULATIONS

Tacoma Harbor, Tacoma, Wash.

1. The Washington State Highway Commission by letter dated July 20, 1967, requested the Seattle District, Corps of Engineers to revise the operation regulations for its bridges across City, Port Industrial, and Hylebos Waterways, Tacoma Harbor so that fewer openings of these drawbridges will be required during peak vehicular traffic hours. After the transfer of this function to the Coast Guard, Public Notice No. 68-7 dated May 31, 1968, setting forth the proposed revision of the regulations governing these drawbridges and other drawbridges in Tacoma Harbor was issued by the Commander, 13th Coast Guard District and was made available to all persons known to have an interest in the subject.

2. After consideration of all the comments submitted in response to Public Notice No. 68-7, it is concluded that the revision proposed therein should be adopted. It is hereby determined that Public Notice 68-7 provided effective notice to all known interested parties. Accordingly, compliance with the requirement of the Administrative Procedure Act relating to publication of the notice of proposed rule making in the FEDERAL REGISTER pursuant to 5 U.S.C. 553 is unnecessary.

3. The regulations governing the operation of the State of Washington highway bridge at East 11th Street and the Chicago, Milwaukee, St. Paul, and Pacific Railroad bridge near East 11th Street, presently set forth in § 117.810(f)(1), are hereby incorporated in § 117.785, these bridges also being located within Tacoma Harbor.

4. Section 117.785 is revised to read as follows:

§ 117.785 Tacoma Harbor, Tacoma, Washington; bridges.

(a) *Drawtenders and operating machinery.* The owners of or agencies controlling these drawbridges shall provide the necessary drawtenders and the proper machinery for the safe, prompt opening of the draws for the passage of vessels. The draws shall be opened and closed at intervals frequent enough to make certain that the machinery is in proper order for satisfactory operation, unless specifically excluded from this provision elsewhere in this section.

(b) *Operation of the draw.* Upon receiving the opening signal from a vessel, the draw span shall be cleared of trains, vehicles, pedestrians or other material,

as soon as possible, and opened with the least possible delay, unless

(1) A train is approaching so closely that it cannot be safely stopped before reaching the draw, or

(2) The draw machinery is inoperable, or

(3) Special operation regulations are in effect for that bridge which authorize the draw to remain closed at that time.

(c) *Unnecessary delay prohibited.* Trains, vehicles, or pedestrians shall not stop or be stopped on a drawbridge so as to delay its opening, nor shall vessels be navigated so as to hinder or delay the closure of the draw. All passages across or through a drawbridge shall be prompt to prevent delay to either land or water traffic. Passage through a draw shall be made at no greater speed than that required to maintain reasonable control of a vessel so as to minimize damage to the bridge, fenders, and/or vessel in case of collision.

(d) *Posted regulations.* The owner of or agency controlling each bridge shall keep conspicuously posted on both the upstream and downstream sides of the drawbridge, in such a manner that it can be easily read at any time from an approaching vessel, a brief statement of the regulations in this section pertaining to the bridge, together with information as to whom notice should be given when it is desired that the bridge be opened and directions for communicating with such person by telephone or otherwise.

(e) *Operation signals.* (1) Sound signals may be made by a whistle, horn, or other similar devices, and shall be sounded within reasonable hearing distance of the bridge, repeated if necessary, in time to permit appropriate response by the drawtender. Visual signals are to be used in conjunction with sound signals if weather conditions are such that sound signals may not be heard or if the prescribed audible signals cannot be sounded.

(i) Sound signals for opening of the draw:

(a) City Waterway; State of Washington highway bridge at South 11th Street: One long and one short blast.

(b) City Waterway; Northern Pacific railroad bridge at South 14th Street: Two long blasts.

(c) City Waterway; Union Pacific railroad bridge near South 15th Street: One long, one short, and one long blast.

(d) Port Industrial Waterway; State of Washington highway bridge at East 11th Street: One long and one short blast.

(e) Hylebos Waterway; State of Washington highway bridge at East 11th Street: One long and one short blast.

(ii) Visual signals for opening of the draw, applicable to all bridges listed in subdivision (i) of this subparagraph: A white flag by day or a white light by night, raised and lowered repeatedly in full sight of the draw.

(iii) Acknowledging signals, applicable to all bridges listed in subdivision (i) of this subparagraph:

(a) Draw will be opened without delay or will be opened after the end of a delay: The sound signal shall be the same as for the opening of the draw or two distinct strokes of a bell. The visual signal shall be the same as for the opening of the draw, shown in full sight of the vessel.

(b) Draw cannot be opened promptly or, if open, must be closed immediately: The sound signal shall be four or more short blasts or four or more distinct strokes of a bell sounded in rapid succession. The visual signal shall be a red flag by day or a red light by night, raised and lowered repeatedly in full sight of the vessel. These signals may be used by a vessel to countermand a signal for opening of the draw.

(iv) Fog signals. When fog prevails by day or night, the drawtender, after giving the opening signal, shall toll a bell continuously during the approach and passage of a vessel.

(f) Special operation regulations—

(1) City Waterway—(1) State of Washington highway bridge at South 11th Street. (a) A drawtender need not be kept in constant attendance at this bridge. At least 2 hours advance notice of the time the opening is desired must be given to the city of Tacoma, Department of Public Works, which shall arrange for the prompt opening of the draw on proper signal at approximately the time requested. However, the draw need not be opened from 6:30 a.m. to 8:30 a.m., and 3:30 p.m. to 5:30 p.m. Monday through Friday, except national holidays, for vessels of less than 1,000 gross tons, unless such vessel has in tow a vessel of 1,000 gross tons or over, or opening of the draw is required for the pickup for towing of a vessel of 1,000 gross tons or over. Under emergency conditions, openings will be made as soon as possible by the city of Tacoma, Department of Public Works, upon application by responsible representatives of affected navigation interests.

(ii) Union Pacific Railroad bridge near South 15th Street. (a) The draw of this bridge need not be opened from 7:15 a.m. to 8 a.m., and 4:15 p.m. to 5 p.m. except when necessary to prevent disaster to shipping.

(2) Puyallup Waterway, State of Washington highway bridge at East 11th Street and Chicago, Milwaukee, St. Paul and Pacific Railroad bridge near East 11th Street. The draw need not be opened for the passage of vessels, and paragraphs (a) through (e) of this section shall not apply to these bridges. These bridges shall be returned to an operable condition within 6 months after notification by the Commandant to take such action.

(3) Port Industrial Waterway, State of Washington highway bridge at East 11th Street. The draw need not be opened from 6:30 a.m. to 8:30 a.m., and 3:30 p.m. to 5:30 p.m. Monday through Friday, except national holidays, for vessels of less than 1,000 gross tons, unless such vessel has in tow a vessel of 1,000 gross tons or over, or opening of the draw is required for the pickup for towing of

vessel of 1,000 gross tons or over. Under emergency conditions, openings will be made as soon as possible by the city of Tacoma, Department of Public Works, upon application by responsible representatives of affected navigation interests.

(4) Hylebos Waterway, State of Washington highway bridge at East 11th Street. The draw need not be opened from 6:30 a.m. to 8:30 a.m., and 3:30 p.m. to 5:30 p.m. Monday through Friday, except national holidays, for vessels of less than 1,000 gross tons, unless such vessel has in tow a vessel of 1,000 gross tons or over, or opening of the draw is required for the pickup for towing of vessel of 1,000 gross tons or over. Under emergency conditions, openings will be made as soon as possible by the city of Tacoma, Department of Public Works, upon application by responsible representatives of affected navigation interests.

§ 117.810 [Amended]

5. Section § 117.810(f) (1) is deleted. (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 1.4(a) (3) (v))

Effective date. This revision shall become effective 30 days following the date of publication in the FEDERAL REGISTER.

Dated: February 18, 1970.

W. J. SMITH,
Admiral, U.S. Coast Guard
Commandant.

[F.R. Doc. 70-2274; Filed, Feb. 24, 1970;
8:48 a.m.]

Title 41—PUBLIC CONTRACTS AND PROPERTY MANAGEMENT

Chapter 4—Department of Agriculture PROCUREMENT

Miscellaneous Amendments

The following miscellaneous amendments are made in the Agriculture Procurement Regulations:

PART 4-1—GENERAL

1. The table of contents for Part 4-1 is amended as follows:

- a. The following entries are deleted:
- | | |
|---------|---|
| Sec. | |
| 4-1.402 | Responsibilities of contracting officers. |
| 4-1.602 | Establishment and maintenance of a list of firms or individuals debarred, suspended, or ineligible. |
| 4-1.807 | Report on preference procurement in labor surplus areas. |

b. The following new entries are added:

- | | |
|---------|---|
| Sec. | |
| 4-1.402 | Authority of contracting officers. |
| 4-1.602 | Establishment and maintenance of a list of concerns or individuals debarred, suspended, or declared ineligible. |
| 4-1.807 | Records and reports. |

2. Section 4-1.302-3 is amended as follows: Paragraph (a) is changed to read:

§ 4-1.302-3 Contracts between the Government and Government employees or business concerns substantially owned or controlled by Government employees.

(a) Policy. Contracts between the Government and its employees are not prohibited generally by statute, but only where an employee acts as an agent both for the Government and the contractor in the transaction of business (see 18 U.S.C. 208) or where the services to be rendered under a contract with an employee is such as could have been required of him in his official capacity (see 5 U.S.C. 5535, 5536; formerly 5 U.S.C. 69, 70). However, aside from any statutory prohibition, contracts between the Government and its employees are open to criticism for possible favoritism and preferential treatment and should not, therefore, be made except for the most cogent reasons and under no circumstances where the needs of the Government reasonably can be otherwise supplied. The hire or rental of equipment from employees is generally prohibited. See § 4-4.5408 of this chapter for leases with Government employees and § 4-52.166 of this chapter for acts of employees affecting a personal financial interest.

3. Section 4-1.307-2 is amended as follows: Paragraph (a) is changed to read:

§ 4-1.307-2 General requirements.

(a) Basic requirements. Bid specifications must be so drawn as to set forth the actual minimum needs of the Government clearly, fairly, and accurately, and in such terms as will (1) permit full and free competition by all qualified bidders, (2) restrict the use of appropriations to the acquisition of actual minimum needs, (3) secure such needs at the lowest cost, and (4) guard against injustice, favoritism, collusion, graft, etc., in transacting the public business. The following principles of specification writing should be observed in order to assure that these basic requirements of a specification are met.

4. Section 4-1.400 is amended to read as follows:

§ 4-1.400 Scope of subpart.

This subpart states the responsibilities and authorities governing the procurement of equipment, materials, supplies, construction, services, and space for use or consumption by the Department in carrying on its programs.

5. Section 4-1.401 is amended to read as follows:

§ 4-1.401 Responsibility of the head of the procuring activity.

Under the provisions of 1 AR 252, the Director of Plant and Operations is responsible for the general management and coordination of procurement activities of the several agencies of the Department. This broad grant of responsibility

shall be construed to include the authority (a) to establish such procurement systems and policies, and (b) to delegate such contracting authorities as in the opinion of the Director of Plant and Operations will facilitate the orderly and economical procurement of equipment, materials, supplies, construction, services, and the leasing of space for use or consumption by the Department in carrying on its programs.

6. Section 4-1.402 is amended as follows: The heading is corrected to read:

§ 4-1.402 Authority of contracting officers.

§ 4-1.451 [Amended]

7. Section 4-1.451 is amended as follows: So much as reads "§ 4-5.5073" is corrected to read "§ 4-5.5703."

8. Section 4-1.600 is amended to read:

§ 4-1.600 Scope of subpart.

This subpart supplements and implements § 1-1.600 of this title. It prescribes policies and procedures relating to debarment, ineligibility, or suspension of bidders for any cause. It is applicable to all procurement and sales contracting by the Department except contracting by the Commodity Credit Corporation. Regulations applicable to that Corporation are stated at 7 CFR Part 1407. However, any notice of debarment or suspension action and any subsequent consideration thereof by the Commodity Credit Corporation under 7 CFR Part 1407 shall apply to all transactions by the Department unless an exception is made by the Department Debarment Officer. (See § 4-1.602-1(d).)

9. Section 4-1.601-1 is amended as follows: Paragraph (a) is changed to read:

§ 4-1.601-1 Definitions.

(a) The "Debarment Officer" is the agency or department official authorized to invoke debarment or suspension measures as authorized by this subpart. The Director of Plant and Operations and the Deputy Director, Office of Plant and Operations, are the Debarment Officers for the Department (Department Debarment Officers) in connection with all procurement and sales transactions except that Debarment Officers shall be appointed by the appropriate agency head for the following activities:

(1) Timber sales pursuant to 16 U.S.C. 476;

(2) School Lunch and Surplus Removal pursuant to 42 U.S.C. 1755 and 7 U.S.C. 612c.

10. Section 4-1.602 is amended to read as follows:

§ 4-1.602 Establishment and maintenance of a list of concerns or individuals debarred, suspended, or declared ineligible.

The Office of Plant and Operations maintains a consolidated list of firms and individuals debarred or suspended on the bases stated in § 1-1.602-1 of this title to whom contracts will not be awarded and from whom bids will not be solicited.

The list and all correspondence relating thereto are files the disclosure of which would constitute a clearly unwarranted invasion of personal privacy. (See § 1-1.602(c) of this title.) The list is made available to all contracting officers through the issuance of Plant and Operations Memorandum No. 24, and supplements thereto. The list shows the authority for and terms of the debarment or suspension.

11. Section 4-1.602-1 is amended as follows:

Paragraph (d) is changed to read:

§ 4-1.602-1 Bases for entry on the debarred, suspended, and ineligible list.

(d) Those notified of debarment or suspension by the Commodity Credit Corporation under the regulation stated at 7 CFR Part 1407.

12. Section 4-1.604-1 is amended as follows: Paragraph (b) is amended and paragraph (c) is deleted in its entirety.

§ 4-604-1 Procedural requirements relating to the imposition of debarment.

(b) *Appeals.* Appeals may be taken from decision of Debarment Officers within 30 days after receipt by the firm or individual of a decision to debar. The manner of filing appeals and the procedure on appeal shall be governed by the rules of procedure of the Department of Agriculture Board of Contract Appeals. See 7 CFR Part 2400, which contains the authorization by the Secretary to such Board to handle disbarment proceedings.

(c) [Deleted]

13. Section 4-1.706-1 is amended as follows: Paragraph (a) (2) is changed to read:

§ 4-1.706-1 General.

(a) * * *

(2) It is obvious that the effect of the reservation of any procurement for competition exclusively for small business firms, pursuant to the Small Business Act, potentially rules out lower bids of large business firms. Therefore, it is impossible to tell whether, or the extent to which, there might have been lower bids from large firms if we had not made small business set-asides. Should the price, in some individual cases, be higher than that which might otherwise have been possible through completely unrestricted competition, this possibility was recognized and accepted. Presumably, the possibility of a slightly higher price of some procurements was believed to be overwhelmingly offset by the assurance of small business competition in future procurement. With such continuing competition, of course, the Government will be assured of lower prices in the long run.

§ 4-1.807 [Deleted]

14. Section 4-1.807 is deleted in its entirety.

15. New § 4-1.807 is added as follows:

§ 4-1.807 Records and reports.

Agencies shall maintain such records of procurement contracts to be performed in labor surplus areas as are necessary to complete Part II of Standard Form 37. See §§ 1-1.807 and 1-16.804-4 of this title.

PART 4-2—PROCUREMENT BY FORMAL ADVERTISING

1. The table of contents for Part 4-2 is amended as follows:

a. The following entries are deleted:

Sec.
4-2.205-5 Release of bidder's mailing list.
4-2.405A Informalities of substance.

b. The following entries are added:

Sec.
4-2.203 Methods of soliciting bids.
4-2.205 Bidder's mailing lists.
4-2.205-5 Release of bidder's mailing lists.
4-2.404 Rejection of bids.
4-2.450 Informalities of substance.

2. Section 4-2.202-3 is amended as follows: Paragraph (e) is changed to read:

§ 4-2.202-3 Place and method of delivery of supplies.

(e) *Bid invitation provisions.* Definitions and provisions applicable to various shipping terms that may be used in invitations for bids are stated in Subpart 1-19.3 of this title. Since most bids are invited "F.o.b. Destination" by this Department, these definitions and provisions are not repeated here but should be used wherever there may be any question as to the intent of shipping terms used in a bid invitation.

3. A heading for § 4-2.203 is added as follows:

§ 4-2.203 Methods of soliciting bids.

4. A heading for § 4-2.205 is added as follows:

§ 4-2.205 Bidder's mailing lists.

5. The heading for § 4-2.205-5 is changed to read:

§ 4-2.205-5 Release of bidder's mailing lists.

6. A heading for § 4-2.404 is added as follows:

§ 4-2.404 Rejection of bids.

7. Section 4-2.404-2 is amended as follows: Paragraph (a) is changed to read:

§ 4-2.404-2 Rejection of individual bids.

(a) *More than one bid by same bidder.* If more than one bid is offered by any one party, by or in the name of his clerk, partner, or other agent or representative or by two or more affiliated companies, all such bids may be rejected. However, when multiple bidding is prejudicial either to the United States or to other bidders, rejection is required. (See 39 Comp. Gen. 892.) This will not prevent a bidder from submitting modified or alternative bids quoting different prices on different qualities of material or different conditions of delivery.

8. Section 4-2.405 is amended as follows: Paragraph (a) is changed to read:

§ 4-2.405 Minor informalities or irregularities in bids.

(a) *General.* Informalities in bids are deviations from the advertised specifications which may or may not affect consideration for award, depending upon the nature of the deviations involved. The primary question for determination is whether the deviation from the requirements goes to the substance of the bid so as to affect price, quantity, or quality of the articles offered or is otherwise prejudicial to the rights of other bidders, or is merely a matter of form or other immaterial or inconsequential variation. (See 41 Comp. Gen. 106.) In such circumstances, the general rule for consideration in the awarding of bids is found in the syllabus to 17 Comp. Gen. 554, which is as follows:

To permit acceptance of bids not complying in substance with advertised specifications would be farcical and destructive of open-competitive bidding in awarding of contracts, strict maintenance of the rule being infinitely more in public interest than obtaining apparently pecuniary advantage in a particular case by its violation. 17 Comp. Gen. 409, amplified, and 15 Comp. Gen. 107 distinguished.

Also, in 16 Comp. Gen. 392, it is stated:

In the awarding of Government contracts, there is a well-established principle that the contract offered the successful bidder must be the exact contract which was submitted to competition.

§ 4-2.405A [Deleted]

9. Section 4-2.405A is deleted in its entirety.

10. Section 4-2.407-1 is amended as follows:

§ 4-2.407-1 General.

(a) *Submission of questions directly to Comptroller General by contracting officers.* In order to minimize delay in making awards of Government contracts, contracting officers may submit questions, other than those arising from mistakes in bids, involving the awarding of a contract directly to the Comptroller General for advance decisions. (See 1 GAO section 11.)

(b) *Marking of bids.* Under no circumstances will any individual make any marks or notation on the bid or its accompanying documents. If, through error or for some other reason, marks are made on a bid or its accompanying documents, the markings should not be erased or eradicated; instead, the individual so marking the bid shall file a signed explanation with the bid file for future reference, showing when, how, and why the notation or markings were made. If the marked bid is accepted, explanation with regard thereto should be made on the statement of award.

(c) *Numbering of contracts.* See 7 AR 100b.

(d) *Access by the public to contract records.* The availability of copies of contract documents to the public is governed by the regulations contained in 7 CFR, Part 1, and the implementing

regulations of the concerned Departmental agency.

11. Section 4-2.407-50 is amended as follows: Paragraph (d) is changed to read:

§ 4-2.407-50 Effect of acceptance period.

(d) *Awards where the acceptance period of the low bidder has expired.* Ordinarily, where a low bidder's acceptance period expires before acceptance and contract award, and regardless of the reason therefor, any award shall be to the next low bidder whose acceptance period is effective at the time. Such award is preferable, from the standpoint of preserving the integrity of the competitive bid system, to allowing the low bidder to renew his acceptance period after it has expired. (See 42 Comp. Gen. 604.) It will be necessary to explain in the file in such instances the circumstances surrounding the failure to secure award prior to the expiration date, with a showing that award to the next low bidder was in the best interest of the Government, and that no appreciable saving could have been obtained by re-advertising. Nonetheless, award may be made to the low bidder who renews his acceptance period after it has expired in cases where all bids have been improperly rejected, or where purchases can be made against the account of a defaulting contractor from the second low bidder on the original contract.

12. Section 4-2.407-52 is amended to read:

§ 4-2.407-52 Award of small value items.

In view of the administrative cost involved in entering into separate small contracts, the policies stated herein shall be observed in making awards under invitations which provide for the acceptance of individual items or groups of items. When numerous small contracts would result from awards to each low bidder on an invitation, and it is clear that (a) any of the prospective bidders would be in a position to furnish all of the items, and (b) the Government has the right under the invitation to award items in the aggregate, and (c) the items are of such a character that suppliers would normally be interested in receiving award on only a substantial part of those quoted on, the following procedure shall be observed:

(1) Review proposed awards to low bidders, to identify those awards which are of small dollar value in relation to the total number of items bid on by the low bidder and those awards the low bidder would probably prefer not to receive.

(2) Ascertain the additional cost of the items which would be involved by awarding the small portion to another bidder already in line to receive an award on substantial quantities of other items and who also submitted an otherwise acceptable bid on the same small portion. If the additional cost involved is less than \$25, then the award should

be made to the bidder already in line to receive a substantial award, providing that it is determined that the low bidder's interest in the award is negligible, considering the level of trade of such bidder. However, in any case where the low bidder desires the award, it shall be given him if eligible.

(3) Whenever award is made to other than the lowest acceptable bidder in accordance with this section, the contract file shall reflect, for each item so awarded, the amount of the additional cost.

13. New § 4-2.450 is added as follows:

§ 4-2.450 Informalities of substance.

Informalities of substance are material deviations from requirements affecting price, quantity, or quality, or the rights of other bidders, or conditions imposed by a bidder to limit his liability to the Government for delays, failure to perform, etc. Rejection of bids containing such informalities is mandatory. This precludes the deletion after opening of bids of objectionable conditions imposed by the bidder, even though such deletion would result in a responsive bid.

PART 4-3—PROCUREMENT BY NEGOTIATION

1. The table of contents for Part 4-3 is amended as follows:

a. The following entries are deleted:

Sec.	
4-3.350	Administrative authorities.
4-3.350-1	Statutory.
4-3.350-2	Administrative.
4-3.605	Order-Invoice-Voucher.
4-3.605-1	Standard Form 44.

b. The following new entries are added:

Sec.	
4-3.605	Purchase order forms.
4-3.605-1	Standard Form 44, Purchase Order-Invoice-Voucher.

§§ 4-3.350, 4-3.350-1, 4-3.350-2 [Deleted]

2. Sections 4-3.350, 4-3.350-1, and 4-3.350-2 are deleted in their entirety.

3. Section 4-3.605 is amended as follows:

a. The heading is corrected to read:

§ 4-3.605 Purchase order forms.

b. The heading of 4-3.605-1 is corrected to read:

§ 4-3.605-1 Standard Form 44, Purchase Order-Invoice-Voucher.

§ 4-3.650-3 [Amended]

4. Section 4-3.650-3 is amended as follows: The citation "(31 U.S.C. 553)" is corrected to read "(31 U.S.C. 533)."

5. Section 4-3.650-4 is amended to read:

§ 4-3.650-4 Travel expense funds.

Under the authority of 5 U.S.C. 5705, funds may be advanced in accordance with 7 AR 598 and 599. Such funds may be used for cash purchases of only those

requirements related to travel in accordance with the Standardized Government Travel Regulations.

6. Section 4-3.655 is amended as follows: Paragraph (a) is changed to read:

§ 4-3.655 Continuing requirements under \$2,500 annually.

(a) *General.* Contracts need not be executed when there is a continuing need for supplies or services and it is contemplated that the amount involved in any one case will not exceed \$2,500 within the fiscal year, regardless of the number of payments involved. This would apply to certain specific services or supplies of this nature, such as ice, laundry or towel service, rental of equipment, automobile storage, etc. This procedure is authorized by Title 7, section 22.5, GAO Manual. It does not waive statutory advertising requirements.

7. Section 4-3.5003 is amended as follows: Paragraph (b) is changed to read:

§ 4-3.5003 Authorities.

(b) *Agency authorities.* Specific agency contracting authorities concerning research and service work and functions relating thereto stated in Chapter 2 of Title I of the Administrative Regulations are to be exercised in conformance with these Procurement Regulations where applicable. All agencies are authorized to use these contract negotiation procedures for accomplishing research and marketing work when the agency has appropriations for such work; the head of the agency or his designee has determined that the work to be performed will be carried out more effectively, more rapidly, or at less cost than if performed by the Department; and contracting authority for this specific type of contracting has been delegated pursuant to Subpart 4-1.4 of this chapter.

8. Section 4-3.5005 is amended to read:

§ 4-3.5005 Contract forms.

The following forms shall be used in connection with the contract types indicated:

(a) *Firm fixed-price:*

Form AD-263 Research and Services Contract.
Form AD-264 General Provisions.

(b) *Cost-reimbursement:*

Form AD-263 Research and Services Contract.
Form AD-264 General Provisions.
Form AD-265 Cost-Reimbursement Provisions.
Form AD-267 Claim for Payment.

In addition, Form AD-268, Schedule of Salaries and/or Wages Paid, may be used by contractors in conjunction with Form AD-267 as evidence of payments made. No contract general provisions or cost-reimbursement provisions shall be used which conflict with those provided in Forms AD-264 and AD-265, respectively. The contract (Form AD-263) should clearly identify those documents applica-

ble and attached thereto, i.e., Forms AD-264, AD-265, etc. Any other attachments used, such as plan of work, special provisions, etc., should also be clearly identified in the contract. (See § 4-16.950 of this chapter.)

PART 4-4—SPECIAL TYPES AND METHODS OF PROCUREMENT

Subpart 4-4.50—General

§ 4-4.5002 [Amended]

1. Section 4-4.5002 is amended as follows: So much of § 4-4.5002 as reads "1 AR 120r." is corrected to read "1 AR 120v."

2. Section 4-4.5003 is amended as follows:

§ 4-4.5003 Air operations service.

(b) *Authority.* Agreement between Department officials and officials of the Transportation Division, General Accounting Office, March 17, 1959. Also an opinion from the Comptroller General dated August 20, 1968 (B-135644) in regard to Forest Service specialized transportation service requirements.

(c) *Contracts for service.* Agency contracts for air operations service, whether by formal advertising or by negotiation shall specify the procuring document to be used, i.e., Transportation Request, Government Bill of Lading, or Purchase Order. Generally, the procuring document applicable to the service involved, that is, freight or passenger, should be used. The Forest Service is authorized to contract with vendors who do not file tariff rates for the rental of aircraft for reconnaissance flights, transportation of personnel and materials and performance of special services such as spreading fire retardant chemicals, etc. The Forest Service may contract for such services with vendors who do file tariff rates when an emergency condition arises and it is not feasible to use either a Transportation Request or Government Bill of Lading.

(e) *Emergency service.* Transportation services required in emergency situations, including the use of small aircraft operators not under contract arrangements shall be procured as follows: At the time such services are requested, an inquiry should be made as to whether the carrier or individual files tariffs with either a Federal or State regulatory body covering rates and charges. In the event such tariffs are filed, Transportation Requests, or Government Bills of Lading, as appropriate, should be used to procure the services required. If it is not feasible to use either a Transportation Request or Government Bill of Lading, or if the carrier or individual is not required to file a tariff or schedule of rates with a regulatory body, purchase orders may be used to procure the services required.

Subpart 4-4.54—Leasing of Real Property

3. Section 4-4.5401 is amended to read as follows:

§ 4-4.5401 Limitations.

Leases may be effected only in compliance with the space utilization and other requirements of § 101-18.107 and Subpart 104-18.1 of this title. See 1 AR 674 for required approvals for establishment, consolidation, change in location or abolition of offices. See § 104-18.150 of this title for required approvals for long-term leases under 7 U.S.C. 2250a. Leases shall be made only by persons to whom, or incumbents of positions to which, space acquisition and assignment authority has been delegated pursuant to § 104-18.104 of this title. When formal advertising is used or the annual rental exceeds \$2,500, leases shall be made only by persons who have been delegated procurement contracting authority. (See § 4-1.404 of this chapter.)

PART 4-12—LABOR

1. The table of contents for Part 4-12—Labor is amended as follows:

a. The following new entries are added:

Subpart 4-12.9—Service Contract Act of 1965

Sec.
4-12.904 Contract clauses.
4-12.904-3 Linen supply services.

2. Section 4-12.404-2 is revised to read as follows:

§ 4-12.404-2 Wage determinations.

(a) *Requests.* Requests for wage determinations shall be submitted by agencies directly to the office specified in § 1-12.404-2(a) of this title. Form DB-11 is obtained from the Central Supply Section. In completing Form DB-11, the description of work should clearly identify the exact nature of the project to be constructed. For example, when proposing to build a house or housing project, "residential building construction" rates should be requested rather than just "building construction" rates, as the rates for residential construction are sometimes different than those for commercial building construction. Also, where there is reason to believe that a specific wage determination for a single project might result in rates more consistent with the actual prevailing rates, "area" or "blanket" determinations should not be used for that project but a specific determination should be requested.

(b) *Compiling and submitting wage payment information.* When planning a specific construction project, consideration should be given to collecting and submitting wage payment information with the request for a wage determination. Such information will help the Department of Labor in making an accurate determination of the rates prevailing in an area. Follow these guidelines when submitting wage payment information:

(1) Wage payment information for rural counties where the work force or the contractors are not heavily organized will be of most help to the Department of Labor. Where workers or contractors are heavily organized, their unions or

associations generally submit sufficient information.

(2) **Compiling wage information:** Send contractors, associations of contractors, and labor unions in the county where the work will be performed a letter requesting their cooperation. State that you are compiling the information to assist the Department of Labor in determining prevailing rates in the area. Ask them to provide you with the following information: Description and location of the project they are reporting, whether the project has been completed or is in progress, work classifications used on the project, number of employees in each classification, basic hourly rates paid each classification, fringe benefits paid each classification, name and address of the contractor and any remarks they wish to make. Wage information should be collected only on projects currently in progress or those that have been completed within the past year.

(3) **Submitting wage information:** Staple the wage payment information to your Request for Determination (DB-11) and submit directly to the office specified in § 1-12.404-2(a) of this title. Questions concerning the compilation and submission of wage payment information should be directed to the Contract and Procurement Management Division, Office of Plant and Operations.

(c) **Forecasts.** To the extent practicable, at the beginning of each fiscal year, each agency using wage determinations shall furnish a general outline of its proposed construction program for the year. The outline should show the estimated number, type and locations of projects for which wage determinations will be required. It should be sent to the office specified in § 1-12.404-2(a) of this title. The Solicitor should be notified if any significant changes occur in the proposed construction program during the year.

(d) **Modifications.** The Secretary of Labor may modify a wage decision to correct clerical errors at any time. Such modifications will be incorporated in the contract by supplemental agreement if received too late to be included in the advertised specifications.

(e) **Geographic coverage.** Under the Davis-Bacon Act, wage determinations apply only to work performed directly upon the site of the work.

3. Section 4-12.404-6 is revised to read as follows:

§ 4-12.404-6 Payrolls and statements.

(a) **Weekly submission of copies of payrolls.** Contractors are required, by the labor standards provisions of the contract, to submit weekly to the contracting agency copies of all payrolls together with a statement that the payrolls are correct and complete, that the wage rates contained therein are not less than those determined by the Secretary of Labor, and that the classifications set forth for each laborer or mechanic conform with the work he performed. The payrolls and statements should be examined to assure compliance with the labor standards provisions of the contract. The Secretary of Labor has developed payroll form

WH-347 for voluntary use of contractors and subcontractors on construction contracts subject to the Davis-Bacon and related Acts. This payroll form, when properly filled out, meets all of the requirements of the Department of Labor regulations (29 CFR Parts 3 and 5), as to payrolls submitted in connection with contracts subject to the Davis-Bacon and related Acts. Also, no other certification or statement other than that appearing on the payroll form WH-347 is necessary as a prerequisite to partial or progress payments or payment in full to the contractor. See § 4-52.502 of this chapter for regulations of the Secretary of Labor setting forth the requirements for examinations, investigations, and reports that may be required.

(b) **Statement of Compliance.** No payment, advance, grant, loan, or guarantee of funds shall be approved unless there is on file with the agency a statement by the contractor that the labor standard provisions of the contract have been complied with, or that there is a substantial dispute with respect thereto. (See § 5.6 of regulations of the Secretary of Labor (29 CFR Part 5), and § 4-52.502 of this chapter.) Payroll form WH-347, properly completed, meets all requirements of this section. When a contractor elects to use his own payroll form, that form must contain or be accompanied by a statement of compliance with the Copeland Regulations. The Secretary of Labor has developed form WH-348, Statement of Compliance, to meet this need. When a contractor uses any payroll form other than WH-347, the compliance statement must be on the payroll form or attached to it.

(c) **Obtaining forms.** Forms WH-347 (Payroll) and WH-348 (Statement of Compliance) are available from the Central Supply Section.

4. The following new Subpart 4-12.9 is added as follows:

Subpart 4-12.9—Service Contract Act of 1965

§ 4-12.904 Contract clauses.

§ 4-12.904-3 Linen supply services.

The following clause will be incorporated as a special provision in any contract for services of this type.

The minimum wage provisions of the Service Contract Act of 1965 are hereby modified to the extent that every employer in an establishment providing linen supply services to the United States under a contract with the United States or any subcontract thereunder shall pay to each of his employees in such establishment, wages at rates not less than those prescribed in subsection 6(b) of the Fair Labor Standards Act of 1938 as amended (\$1.30 per hour as of February 1, 1969; \$1.45 per hour as of February 1, 1970; and \$1.60 per hour as of February 1, 1971) except that if more than 50 percent of the gross annual dollar volume of sales made or business done by such establishment is derived from providing such linen supply services under any such contracts, or subcontracts, such employer shall pay to each of his employees in such establishment wages at rates not less than those prescribed in subsection 6(a) (1) of the Fair Labor Standards Act of 1938 as amended (\$1.60 per hour as of February 1, 1968).

Done at Washington, D.C., this 18th day of February 1970.

ELMER MOSTOW,
Director of Plant and Operations.
[F.R. Doc. 70-2248; Filed, Feb. 24, 1970;
8:45 a.m.]

PROCUREMENT

Miscellaneous Amendments

The following miscellaneous amendments are made in the Agriculture Procurement Regulations:

PART 4-12—LABOR

1. The table of contents for Part 4-12 is amended by deleting the following entry:

Sec.
4-12.404-3 Additional classifications.

§ 4-12.404-3 [Deleted]

2. Section 4-12.404-3 is deleted in its entirety.

PART 4-16—PROCUREMENT FORMS

1. The table of contents for Part 4-16 is amended as follows:

Subpart 4-16.8—Miscellaneous Forms

a. The following entry is revised to read:

Sec.
4-16.804 Report on procurement.

b. The following new entries are added:

Sec.
4-16.804-3 Standard Form 37, Report on Procurement by Civilian Executive Agencies.

4-16.804-4 Contracts placed in labor surplus areas.

4-16.804-5 Reports by contractors under Small Business Subcontracting Program.

c. The following entry is deleted:

Sec.
4-16.853 Instructions and format for preparation of report on preference procurement in labor surplus areas.

Subpart 4-16.9—Illustrations of Forms

d. The following new entries are added:

Sec.
4-16.950-384 Form AD-384: Instructions to Contractors.

4-16.950-425 Form AD-425: Contractor's Affirmative Action Plan for Equal Employment Opportunity Under Executive Order 11246 and Executive Order 11375.

2. Section 4-16.804 is revised to read as follows:

§ 4-16.804 Report on procurement.

§ 4-16.804-3 Standard Form 37, Report on Procurement by Civilian Executive Agencies.

(a) **Form prescribed.** Standard Form 37, Report on Procurement by Civilian Executive Agencies, may be ordered from

Federal Supply Stores Stock or requisitioned from the Central Supply Section, Service Operations Division, Office of Plant and Operations. Agencies may submit mechanized printout reports containing the same information and in the same format as called for on Standard Form 37 when they determine it to be advantageous.

(b) [Reserved]

(c) *Prime procurement to be reported.* Report all procurements made under authority of the Federal Property and Administrative Services Act of 1949, as amended, except those classes specifically exempted under § 1-16.804-3(b) of this title.

(1) With concurrence of the Office of Plant and Operations, statistical sampling methods applied on an agencywide basis may be used to develop the dollar amounts reported for small purchases.

(2) Line 3 is to include the dollar amount of all reportable small business set-aside contracts awarded under "Small Business Restricted Advertising" procedures defined in § 1-1.701-9 of this title.

(3) Construction to be reported on line 15 (and line 9, if applicable) is to be construction as defined in § 1-18.101-1 of this title.

(d) *Selected types of procurement data to be reported.* Purchases under \$2,500 shall be excluded from amounts reported in Part II except for construction contracts, where purchases under \$2,000 shall be excluded.

(e) [Reserved]

(f) *Frequency and due date for submission of Standard Form 37.* Reports shall be prepared by each agency and submitted in duplicate to the Contract and Procurement Management Division, Office of Plant and Operations, by January 31 for the 6-month period July 1 through December 31, and by July 31 for the 12-month period July 1 through June 30 of each fiscal year.

§ 4-16.804-4 Contracts placed in labor surplus area.

Plant and Operations Memorandum Number 23, Areas of Unemployment, ex-

tracts the pertinent information from the Department of Labor publication "Area Trends in Employment and Unemployment." Either of these publications may be used as the required source document for information pertaining to identification of labor surplus areas and section of concentrated unemployment and underemployment.

§ 4-16.804-5 Reports by contractors under Small Business Subcontracting Program.

Reports on Optional Form 61 shall not be required under prime contracts for standard commercial items nor under contracts or subcontracts with small business concerns or educational or non-profit institutions.

§ 4-16.852 [Amended]

3. Section 4-16.852 is revised to change the citation appearing therein from AGPR 4-1.350-4 to AGPR 4-1.404.

§ 4-16.853 [Deleted]

4. Section 4-16.853 is deleted in its entirety.

5. A new § 4-16.950-384 is added as follows:

§ 4-16.950-384 Form AD-384: Instructions to Contractors.

NOTE: Form filed as part of the original document.

6. A new § 4-16.950-425 is added as follows:

§ 4-16.950-425 Form AD-425: Contractor's Affirmative Action Plan for Equal Employment Opportunity Under Executive Order 11246 and Executive Order 11375.

NOTE: Form filed as part of the original document.

Done at Washington, D.C., this 18th day of February 1969.

ELMER MOSTOW,
Director of Plant and Operations.

[F.R. Doc. 70-2247; Filed, Feb. 24, 1970; 8:45 a.m.]

Title 50—WILDLIFE AND FISHERIES

Chapter I—Bureau of Sport Fisheries and Wildlife, Fish and Wildlife Service, Department of the Interior

PART 33—SPORT FISHING

Arrowwood National Wildlife Refuge, N. Dak.

The following special regulation is issued and is effective on date of publication in the FEDERAL REGISTER.

§ 33.5 Special regulations: sport fishing; for individual wildlife refuge areas.

NORTH DAKOTA

ARROWWOOD NATIONAL WILDLIFE REFUGE

Sport fishing on the Arrowwood National Wildlife Refuge, N. Dak., is permitted only on the areas designated by signs as open to fishing. These open areas comprising 1,550 acres are delineated on maps available at the refuge headquarters and from the office of the Regional Director, Bureau of Sport Fisheries and Wildlife, 1006 West Lake Street, Minneapolis, Minn. 55408. Sport Fishing shall be in accordance with all applicable State regulations subject to the following special conditions:

(1) The open season for sport fishing on the refuge shall extend from May 2, 1970, to September 15, 1970, daylight hours only.

(2) The use of boats, with motors is prohibited.

The provisions of these special regulations supplement the regulations which govern fishing on wildlife refuge areas generally which are set forth in Title 50, Part 33, and are effective through September 15, 1970.

ARNOLD D. KRUSE,
Refuge Manager, Arrowwood
National Wildlife Refuge, Ed-
munds, N. Dak.

FEBRUARY 16, 1970.

[F.R. Doc. 70-2253; Filed, Feb. 24, 1970; 8:45 a.m.]

Notices

DEPARTMENT OF THE TREASURY

Fiscal Service

[Dept. Circ. 570, 1969 Rev., Supp. No. 16]

FARMERS HOME MUTUAL INSURANCE COMPANY

Surety Company Acceptable on Federal Bonds

A Certificate of Authority as an acceptable surety on Federal bonds has been issued by the Secretary of the Treasury to the following company under sections 6 to 13 of Title 6 of the United States Code. An underwriting limitation of \$579,000 has been established for the company.

Name of company, location of principal executive office, and state in which incorporated:

Farmers Home Mutual Insurance Company
Minneapolis, Minnesota
Minnesota

Certificates of Authority expire on June 30 each year, unless sooner revoked, and new Certificates are issued on July 1 so long as the companies remain qualified (31 CFR Part 223). A list of qualified companies is published annually as of July 1 in Department Circular 570, with details as to underwriting limitations, areas in which licensed to transact fidelity and surety business and other information. Copies of the Circular, when issued, may be obtained from the Treasury Department, Bureau of Accounts, Audit Staff, Washington, D.C. 20226.

Dated: February 18, 1970.

[SEAL] JOHN K. CARLOCK,
Fiscal Assistant Secretary.

[F.R. Doc. 70-2249; Filed, Feb. 24, 1970;
8:45 a.m.]

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[Docket No. B-480]

FRANKIE CECIL JORDAN

Notice of Loan Application

FEBRUARY 18, 1970.

Frankie Cecil Jordan, Winter Harbor, Maine 04693, has applied for a loan from the Fisheries Loan Fund to aid in financing the purchase of a new 37-foot length overall fiberglass vessel to engage in the fishery for lobsters.

Notice is hereby given pursuant to the provisions of Public Law 89-85 and Fisheries Loan Fund Procedures (50 CFR Part 250, as revised) that the above entitled application is being considered by the Bureau of Commercial Fisheries, Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240. Any person desiring to submit evidence that the contemplated operation of such vessel will cause economic hardship or injury to efficient vessel operators already operating in that fishery must submit

such evidence in writing to the Director, Bureau of Commercial Fisheries, within 30 days from the date of publication of this notice. If such evidence is received it will be evaluated along with such other evidence as may be available before making a determination that the contemplated operations of the vessel will or will not cause such economic hardship or injury.

C. E. PETERSON,
Chief,
Division of Financial Assistance.

[F.R. Doc. 70-2252; Filed, Feb. 24, 1970;
8:45 a.m.]

DEPARTMENT OF COMMERCE

Business and Defense Services Administration

VETERANS' ADMINISTRATION HOSPITAL, SAN FRANCISCO, CALIF., ET AL.

Notice of Applications for Duty-free Entry of Scientific Articles

Correction

In F.R. Doc. 70-1789 appearing at page 2928 in the issue for Thursday, February 12, 1970, in column 2, page 2929, the first reference to "Docket No. 70-00388-00-61800" should read "Docket No. 70-00387-00-61800".

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Office of the Secretary

FOOD AND DRUG ADMINISTRATION

Statement of Organization, Functions, and Delegations of Authority

This amendment to the Statement of Organization, Functions, and Delegations of Authority of the Department of Health, Education, and Welfare, reflects the implementation of the Reorganization Order signed by the Secretary on January 5, 1970 (35 F.R. 606-7) effective February 1, 1970, with respect to the organization of the Food and Drug Administration as an operating agency of the Department. There is hereby established a new Part 10 of the Department's Statement for the Food and Drug Administration as set forth below. Those provisions in Part 3 (Consumer Protection and Environmental Health Service) of the Department's Statement of Organization, Functions, and Delegations of Authority which are inconsistent with the provisions of the new Part 10 are superseded herewith.

SEC. 10-A *Mission*. The mission of the Food and Drug Administration (FDA) is to protect the public health of the Nation as it may be impaired by foods, drugs, cosmetics, therapeutic devices, hazardous household substances, poisons,

pesticides, food additives, flammable fabrics and various other types of consumer products. FDA's regulatory functions are geared to insure that: Foods are safe, pure, and wholesome; drugs are safe and effective; cosmetics are harmless; therapeutic devices are safe and effective; all of the above are honestly and informatively labeled and packaged; dangerous household products carry adequate warnings for safe use and are properly labeled; counterfeiting of drugs is stopped; and that hazards incident to the use of various types of consumer products are reduced.

SEC. 10-B *Organization*. The Food and Drug Administration is administered by a Commissioner under the direction of the Assistant Secretary for Health and Scientific Affairs. The Food and Drug Administration consists of the following major components with the functions as indicated:

(a) *Immediate office of the Commissioner*. The Commissioner and the Deputy Commissioner are responsible for the efficient and effective implementation of FDA's mission.

(b) *Office of the Associate Commissioner for Compliance*. Functions as principal advisor to the Commissioner on regulations and compliance-oriented matters which impact on policy and direction and long-range program goals. Evaluates and coordinates FDA's overall compliance effort to assure optimum use of FDA resources (combined with other Federal, State, and local resources), a balance between voluntary and regulatory compliance, and FDA responsiveness to consumer needs. Stimulates an awareness within the Agency of the need for prompt and positive action to secure compliance by the regulated industries. Directs and coordinates the regulation-making activities of the Food and Drug Administration and the preparation of FEDERAL REGISTER material.

Operates FDA emergency preparedness and civil defense program.

Coordinates relationships with other nations, foreign firms, and international groups concerning compliance matters.

(c) *Office of the Associate Commissioner for Science*. Functions as principal advisor to the Commissioner on scientific matters which impact on FDA policy and direction and long-range program goals.

Provides leadership on scientific matters and stimulates scientific and technological achievement in FDA.

Serves as chairman of an internal science advisory council composed of scientists representing the bureaus which advise on scientific policy and in the coordination of the scientific activities of FDA.

Provides program and professional leadership concerning the development, application, and evaluation of research, training, and fellowship grant activities.

Coordinates scientific relationships with international groups and other nations; coordinates the preparation of international travel plans and prepares

the annual international travel plan for the Commissioner's approval.

Provides for the continuing appraisal of FDA scientific research programs including research performed by contract.

Responsible for committee management within FDA.

Directs the FDA safety program.

(d) *Office of the Hearing Examiner.* Responsible for scheduling and conducting prehearing conferences and administrative hearings of an adjudicative and rule-making nature, pursuant to the Federal Food, Drug and Cosmetic Act, as amended, as well as other related laws and the Administrative Procedure Act (5 U.S.C. 551 et seq.).

Evaluates the evidence of record after hearings and prepares all necessary reports, tentative findings of fact, conclusions of law, and tentative orders used by the Commissioner in making a final agency decision.

(e) *Office of Legislative Services.* Advises the Commissioner concerning legislative needs and in the analysis of pending Congressional legislation which may affect FDA.

Prepares and clears FDA position papers and Departmental reports on proposed legislation for approval of the Commissioner.

Coordinates and assists in the development and preparation of FDA legislative proposals for the Commissioner's review.

Assists in the preparation of testimony for presentation to congressional committees; monitors hearings and congressional activities affecting FDA; and distributes legislative materials.

Directs or coordinates the preparation of data requested by congressional investigative committees; provides technical and other assistance to members of Congress, congressional committees, and their staffs.

Provides a central FDA control for correspondence referred by the White House and the Department; controls and processes congressional, international, State, and local correspondence.

(f) *Office of the Assistant Commissioner for Administration.* Serves as principal advisor to the Commissioner on all phases of management inherent in the operations of FDA.

Responsible for the effective utilization of all management resources and the implementation of operating programs by coordinating the funding, manpower, facilities, and equipment needs of the Agency.

Provides leadership and direction to administrative management including budget, finance, personnel, organization, management information, methods, procurement and property, records and similar supporting activities.

Assures that conduct of these efforts effectively supports program operations.

(f-1) *Division of Financial Management.* Plans, directs, and coordinates a comprehensive financial management program for the FDA encompassing the areas of budget analysis, formulation and execution, fiscal accounting, voucher audit and financial reporting. Provides staff assistance in justifying budgets through executive and congressional echelons. After appropriation, develops an orderly expenditure plan.

Develops apportionment plans and issues allotments for expenditures.

Makes periodic reports regarding the status of FDA's financial management.

Develops financial inputs for the Agency's 5-year program and financial plans.

(f-2) *Division of General Services.* Provides leadership and guidance to headquarters staff officers, headquarters operating activities, and District Offices for all general services programs, including: Procurement, contracts, administrative aspects of grants and fellowships, personal property management and accountability, real property management, space management and utilization, construction and engineering services, communications, physical security, printing and reproduction, and mails and files.

Responsible for maintaining effective liaison with the Government Printing Office, and for the centralized clearance and coordination of all printing and publication services.

Coordinates the development of agencywide policies and procedures for such services and plans; executes, evaluates and adjusts efforts in these activities.

(f-3) *Division of Management Systems.* Provides assistance in organization and operations analysis; planning and evaluation; effective and economical use of resources; and analysis, design, and maintenance of operating systems and procedures.

Conducts organization studies and provides advisory services on organizational matters.

Conducts management surveys and analytical studies of FDA administrative and program operations.

Develops and implements management information systems and operates an executive reporting system for top management.

Develops systems for automatic data processing and other forms of data automation.

Develops and conducts management programs in directives management, reports and forms management, records, and correspondence management, and other management areas as assigned.

(f-4) *Division of Personnel Management.* Plans, develops, and carries out a comprehensive personnel management program for FDA including recruitment, placement, classification, pay administration, employee relations, employee services, and employee-management relations.

Through this program, assists top management as well as operating units to expeditiously and effectively achieve its program objectives while insuring the application of the Federal Merit System.

(g) *Office of the Assistant Commissioner for Planning and Evaluation.* Advises and assists the Commissioner and other key officials concerning FDA long-range program planning, development and evaluation.

Develops program and planning strategy.

Develops the 5-Year Plan as a part of the FDA Planning-Programming Budgeting System.

Develops the Operational Plan that specifies agency 2-year operational objectives to support long range plans.

Conducts operations research and special studies as a basis for forecasting trends, needs, and major problems requiring solution.

Evaluates overall FDA program accomplishments against objectives and priorities.

Evaluates impact of FDA programs on consumer protection.

(h) *Office of the Assistant Commissioner for Field Coordination.* Advises and assists the Commissioner and key FDA officials regarding the development and execution of policies and operational guidelines which form the framework for management of FDA regional and district activities.

Advises and assists the Commissioner in developing, issuing, approving or clearing proposals and instructions affecting the FDA regional and district activities.

Gives direction and counsel to regional and district office management; assesses and initiates action to improve the management posture of FDA regional and district activities.

Provides a central point within FDA to which Headquarters offices can turn for coordinated field support services.

Evaluates the performance and capabilities of the FDA regional and district staff and participates in the formulation of career development plans.

Provides for coordination among district, Headquarters and regional offices.

Recommends and coordinates joint program planning activities between FDA and State and local agencies; provides staff assistance required in the development of joint FDA-State programs.

(i) *Office of the Assistant Commissioner for Program Coordination.* Advises and assists the Commissioner concerning the early identification and assessment of potential and emerging major problems; directs or coordinates the necessary actions concerning potential problems and recommends preventive or remedial measures; follows through on implementation of recommended policies, programs, and practices designed to assure remedial actions as necessary.

Reviews and coordinates the review by other FDA officials of major issues and studies impacting upon the policies and direction, organization and functions of FDA.

Develops policy and procedures necessary to maintain the integrity of trade secrets and other privileged information submitted by industry to FDA; formulates agencywide security policy and investigates and recommends action concerning security problems.

Provides central computer operations and programming services; provides technical guidance regarding new ADP techniques and hardware; and develops systems policy for internal Agency guidance.

Provides advice and coordination as may be required to assure the development and effective operation of an integrated science information system for FDA.

(j) *Office of the Assistant Commissioner for Education and Information.* Advises and assists the Commissioner

concerning public information and education.

Plans, coordinates, and participates in a comprehensive public information program that will create a positive atmosphere for FDA regulatory programs and will be conducive to the FDA personnel recruitment effort; acts as a focal point for dissemination of news concerning FDA activities.

Plans and conducts consumer education programs.

Develops and coordinates a program of liaison with the medical profession designed to further understanding and support for FDA activities.

Conducts or arranges for training and educational programs involving Federal, State, and local personnel in subjects related to FDA program activities.

Provides editorial, design, graphic arts services.

Answers public inquiries and corresponds with the public on topics of consumer interest.

(k) *Bureau of Foods, Pesticides and Product Safety.* Conducts research and develops standards and policy on the composition, quality, nutrition, and safety of foods, food additives, colors, cosmetics, pesticides, and other potentially harmful products.

Conducts research designed to improve the detection, prevention and control of contamination that may be responsible for illness or injury conveyed by foods or as a result of the use of harmful products.

Plans, coordinates and evaluates FDA's surveillance and compliance programs relating to foods, pesticides and product safety.

Reviews industry petitions and recommends the promulgation of regulations for food standards and to permit the safe use of color additives, food additives, and pesticides.

Provides scientific and technical support in areas of food chemistry, toxicology, nutrition, microbiology and sanitation control.

Provides scientific and technical support in the areas of pesticides and product safety.

Performs analyses of regulatory samples as may be necessary to support FDA's compliance programs relating to foods, pesticides and product safety.

(k-1) *Office of Foods and Nutritional Sciences.* Develops scientific standards and conducts research relating to the composition, quality, nutrition, and safety of foods.

Reviews industry petitions and recommends the promulgation of regulations for food standards and to permit the safe use of color and food additives.

Performs analyses of regulatory samples as may be necessary to support FDA's compliance programs.

(i) *Division of Food Chemistry and Technology.* Originates, plans, and conducts research to elucidate the nature and properties of significant substances in foods and related commodities, develops analytical methodology as new hazards to man are uncovered. Devises new methods for analysis of foods and

related commodities; investigates the mechanism of the underlying chemical reactions. Originates and conducts a planned program, including appropriate laboratory investigations, for developing standards of identity, quality, and fill of container for food products; develops and processes proposals for regulations establishing such standards. Evaluates food additive petitions regarding their chemical identity and purity, stability, intended effect data, and methodology.

(ii) *Division of Nutrition.* Originates, plans, and conducts research to elucidate nature and properties of nutritionally significant substances in foods and related commodities and factors affecting the action of these substances; to determine the effects of these substances on reproduction, growth, and development in biological and microbiological systems; and to study the metabolic fate of these substances and their interaction with other food components such as food additives.

Devises new methods for the analysis of nutritionally significant substances in foods (including special dietary foods), investigates the mechanisms of the underlying biochemical reactions as potential approaches to the development of suitable analytical methods.

Evaluates labeling of special dietary foods.

Examines surveillance and compliance samples of foods for nutritional factors.

(iii) *Division of Microbiology.* Originates, plans and conducts research to determine the nature, extent, and significance of microbial and other microscopic contaminants occurring in foods; studies causes and develops methods for the detection and prevention of food poisoning.

Devises microanalytical and biological methods for the analysis of foods and cosmetics.

Develops procedures for protecting foods, including milk and other dairy products, against contamination; evaluates and improves concepts and methods used in food protection.

Conducts research into the technology and engineering aspects of food processing procedures designed to eliminate contamination that may be responsible for food-borne illness.

Conducts reviews, for standardization and certification, of State and local milk and food laboratories and officials.

Operates the National Center for Microbiological Analysis.

(iv) *Division of Toxicology.* Originates, plans and conducts research with regard to the toxic effects of substances occurring in foods, cosmetics, colorants, and related commodities through direct addition or inadvertent adulteration.

Establishes for toxic substances the quantitative aspects of the dose response relationship in a variety of animal species for various toxicological manifestations with particular relevance to applicability to man.

Investigates and develops new, standardized, or improved bases for establishing and evaluating toxicological injury to animals from chemicals permitted in

foods, cosmetics or from metabolites of these chemicals.

Conducts toxicological studies on various classes of food additives, colorants and cosmetics to provide data for evaluation of new proposals and petitions for their industrial use as well as for the review of current tolerances, modified tolerances, and applications.

(v) *Division of Pathology.* Investigates the nature and significance of the gross microscopic changes which occur in animal tissues and organs as the result of short-term and long-term exposure to pesticides and other economic poisons, to food additives, and to toxic contaminants of either chemical or microbiological origin.

Reviews and evaluates pathological data submitted in support of petitions for pesticides, food additives, and color additive regulations.

Provides pathological support to other elements of the Bureau of Foods, Pesticides and Product Safety as necessary for the complete evaluation of toxicological experiments, including the performance of autopsies on experimental animals, and the preparation and examination of histological material.

Maintains a complete registry of pathological information and material to serve as a repository of information concerning the pathological effects of toxic stress on animals.

Develops new methods of anatomical and histochemical examination of organs and tissues from animals subjected to treatment with pesticides, food additives, natural toxins, and other environmental contaminants.

(vi) *Division of Colors and Cosmetics.* Originates, plans and conducts research to elucidate chemical composition of cosmetic materials. Devises new methods diluents, and related commodities, and to identify compounds formed by reactions between colors and food, drug, and cosmetic materials. Devises new methods for analysis of cosmetics, colors, diluents, and related commodities, and investigates the mechanism of the underlying chemical reactions.

Administers the color additive listing and the color certification program.

Examines samples of cosmetics involved in consumer complaints.

(k-2) *Office of Pesticides and Product Safety.* Develops and conducts programs to reduce injuries, morbidity and mortality from accidental hazards through the use of consumer products. Conducts epidemiological studies of pesticides and their effects on man.

Develops scientific standards and conducts research relating to the composition, quality and safety of pesticides.

Reviews and evaluates industry pesticide petitions and registration applications and recommends regulations and labeling designed to reduce any potential health hazard.

Provides advice and guidance concerning the hazards of household products and the development of precautionary labeling.

(i) *Division of Pesticide Chemistry and Toxicology.* Originates, plans, and

conducts research on pharmacologically and toxicologically active substances occurring in man and his environment, arising out of the use of pesticides. Performs research on a number of different animal species, including primates, to assess hazards to man from exposure to pesticides.

Investigates the mechanism of the underlying chemical, biochemical, and toxicological reactions which may directly or indirectly lead to disease in man.

Studies the metabolic fate, the physiological, and pathological response from pesticides and related chemicals in various substrates.

Devises and develops new chemical and biological methods for studying the biological effects of pesticides and related chemicals. Devises new and improved methods for identification of and analyses for pesticides and their residues.

Evaluates petitions for the use of pesticides to assure adequacy of chemical data to support proposed tolerances and to determine if any hazards to man may result from their use.

Coordinates with the Division of Pesticide Community Studies in investigating the factors which contribute to storage of pesticide residues in the general population.

Provides guidance, assistance, and training for other Federal, State, local, and international agencies on toxicology, pharmacology, and chemistry of pesticides, related chemicals, and their residues. Provides laboratory support and other assistance to FDA units as required.

(ii) *Division of Pesticide Community Studies.* Plans, institutes, and directs a national epidemiological investigation program for the assessment of acute and chronic human health hazards arising from the manufacture and use of pesticides.

Investigates potentially harmful exposure of man to pesticides. Defines the health hazards involved in the use of or incidental exposure to pesticides and recommends appropriate safeguards when necessary.

Provides epidemiological assistance, consultation, and technical training in the prevention, diagnosis, and treatment of pesticides poisoning in humans, with emphasis on collaboration with State and local health departments and other interested groups, to aid them in developing additional competence in this field.

Conducts a nationwide monitoring program to determine levels of pesticides stored in the human population.

Cooperates with the Division of Pesticide Chemistry and Toxicology, in the development of chemical and toxicological studies in support of human exposure investigations.

Prepares and distributes pesticide research and monitoring information.

(iii) *Division of Poison Control.* Provides a network of poison control centers with toxicity and treatment information on household products, medicines, and other toxic substances that may accidentally be ingested.

Collects and issues clinical and statistical data on accidental ingestion of

hazardous substances and deaths resulting therefrom.

Supports research on poisoning treatment problems through contracts and grants.

Stimulates education and training in methods and techniques of managing the total problem of accidental poisoning.

Studies poisoning trends and stimulates the development of improved poison prevention and treatment methods.

Investigates poisonings having major public health implications and initiates preventive measures.

(iv) *Division of Hazardous Substances.* Collects and evaluates human and animal injury and toxicological data on household products. Conducts research on potentially hazardous products and on extent, causes and effects of poisoning and methods of prevention and treatment.

Provides medical guidance in developing warning and first aid statements for hazardous chemicals.

Develops proper precautionary labeling of potentially hazardous substances and recommends banning of substances found too hazardous to market under any labeling.

(v) *Division of Product Safety Studies.* Develops and conducts programs designed to reduce the injury hazards of consumer products, equipment, and appliances.

Conducts surveillance studies to determine the extent, nature and effect of injuries due to consumer products.

Studies and investigates deaths, injuries, and economic losses resulting from the accidental burning of products, fabrics, and related materials.

Develops criteria for standards and codes for products designed to reduce their injury producing characteristics.

Supports research through contracts and grants designed to uncover the reasons for product injuries and the product modifications considered necessary to reduce their injury producing characteristics.

Plans, conducts and participates in projects and demonstrations for the purpose of developing and encouraging the application of new methods, techniques, and equipment for the prevention and control of injuries due to the use of consumer products.

(vi) *Division of Product Research.* Conducts research on design, environmental and behavioral hazards associated with the use of consumer products.

Tests consumer products for thermal, electrical, and mechanical hazards associated with their use.

Establishes safety standards for consumer products used in the home environment.

(k-3) *Office of Compliance (FPPS).* Advises the Bureau Director and other FDA officials on the law, regulations, legal administrative problems, regulatory problems, and administrative policies concerning FDA's regulatory responsibilities relating to foods, colors and cosmetics, pesticides and product safety.

Develops compliance and surveillance programs covering regulated industries

in the food, pesticide and product safety areas.

Fosters development of good manufacturing practices and improved food sanitation.

Develops or coordinates the development of regulations, model codes, and other standards covering industry practices and for the control of health hazards associated with food, including shellfish and milk and with interstate travel.

Develops and carries out programs designed to encourage compliance by industry on a voluntary basis.

Provides technical assistance to public and public service institutions and agencies for the control of hazards to health associated with interstate shipment of food, including shellfish and milk and with interstate travel.

Provides support and guidance upon request to the district offices in the handling of legal actions and provides headquarters case development, coordination, and contested case assistance.

Develops and coordinates studies to measure degree of compliance by regulated industries with statutes and regulations enforced by FDA.

Operates a petition control system for all pesticide and food additive petitions submitted to FDA for review and evaluation.

(i) *Division of Case Guidance (FPPS).* Provides support and guidance upon request to the district offices in the handling of legal actions concerning foods, pesticides and harmful products.

Provides headquarters case development, coordination, and contested case assistance.

Develops and maintains legal guidelines.

Reviews and approves actions in cases of national scope requiring headquarters coordination.

Issues advisory opinions resulting from specific requests from industry, trade associations, Government agencies, and Congress.

Manages and coordinates headquarters activities associated with recalls and seizures; provides advice and assistance to recall staff; correlates recall actions with other regulatory activities.

Reviews applications for permits and reports of examinations conducted by foreign countries in connection with the Import Milk Act; recommends action on the permit applications.

(ii) *Division of Regulations and Petitions Control.* Interprets new legislation, drafts regulations for implementation and develops guidelines setting forth administrative-legal procedures for applying the new or changed authority.

Develops and maintains a codified system for compiling and issuing regulatory policy and procedures on foods, pesticide and product safety matters for the guidance of FDA Headquarters and field personnel.

Develops or coordinates the development of regulations, good manufacturing practices, and other standards covering desirable industry practices.

Initiates and recommends changes in legislation and prepares Bureau position on proposed legislation referred from the Department through the Office of Legislative Services.

Operates a petition control system for all pesticide and food additive petitions submitted to FDA for review and evaluation.

Prepares briefing memorandum and regulations to be submitted via supervisory channels for approval of the Associate Commissioner for Compliance and the Commissioner on all petitions deemed acceptable for publication in the FEDERAL REGISTER.

(iii) *Division of Industry Services (FPPS)*. Promotes a better understanding in the food, pesticide and product safety area of the requirements and objectives of the laws and regulations enforced by the FDA among regulated industry and encourages compliance on a voluntary basis.

Assists in the implementation of industry self-inspection and quality assurance programs.

Plans and conducts national seminars, symposia and conferences on specific industry compliance problems.

Assists FDA field offices, upon request, in planning and conducting industry workshops and seminars on Good Manufacturing Practices (GMP) and other types of problem-oriented workshops and conferences.

Develops and maintains effective channels of communication with industry trade associations, and initiates and co-sponsors with trade associations, professional and academic groups, national seminars on specific compliance problems.

(iv) *Division of Compliance Programs (FPPS)*. Develops and issues surveillance and compliance programs relating to the food industry and other industries which may be associated with cosmetics, pesticides, hazardous substances and product safety; coordinates the establishment of priorities for compliance activities involved in such programs.

Serves as the focal point of information concerning the compliance status of specific food industries and facilities, and provides information on the latest technological developments in these industries.

Identifies needs for new and revised standards to be met by industry and to support ongoing and contemplated compliance programs.

Identifies needs and is responsible for the development of new and revised programs, including special programs directed toward unique and isolated problem areas.

Identifies and recommends research needed to develop better monitoring and compliance methods and techniques. Develops programs to support FDA research activities.

Plans and develops an appraisal system for each program; assists in the development of reporting systems designed to furnish information on compliance programs. Evaluates program effectiveness.

(v) *Division of Sanitation Control*. Provides advice and assistance to State and local agencies and concerned industries in regard to milk sanitation, food service sanitation, shellfish sanitation and interstate travel sanitation.

Administers the cooperative interstate milk shippers program designed to maintain a high quality of milk shipped in interstate commerce.

Administers the national shellfish sanitation program for the maintenance and improvement of the sanitary quality of commercial shellfish.

Administers the interstate travel sanitation program designed to protect the health of travelers and of crews on commercial transportation conveyances.

Encourages the adoption of adequate sanitation standards by States and municipalities and provides technical assistance to State and local agencies and to industries on sanitation problems and new developments which have public health significance.

Participates with industry health organizations and others in the development of sanitary standards for the design and construction of dairy and food equipment.

(1) *Bureau of Drugs*. Develops standards and medical policy and conducts research with respect to the efficacy, reliability and safety of drugs and devices for man.

Reviews and evaluates new drug applications and claims for investigational drugs.

Conducts a program of clinical studies related to the safety and efficacy of drugs and devices.

Operates an adverse drug reaction reporting system.

Plans, coordinates, and evaluates FDA's surveillance and compliance programs relating to drugs and devices.

Provides scientific and technical support in the areas of drug biology and drug chemistry.

Develops or coordinates the development of regulations, model codes and other standards covering drug industry practices; fosters development of good manufacturing practices.

Coordinates, directs, and reviews FDA's antibiotic and insulin certification program.

(1-1) *Office of New Drugs*. Evaluates, for safety and efficacy, new drug applications (NDA), submitted by manufacturers for permission to market new drugs.

Evaluates adequacy of directions for use and warnings against misuses appearing in proposed labeling.

Evaluates manufacturing and laboratory methods, facilities and controls exercised in factories producing new drugs.

Reviews notices of claimed investigational exemption for new drug (IND) and recommends action to restrict or stop further testing.

Conducts reviews of clinical investigators and scientific investigations in the investigational new drug and the new drug application areas and coordinates appropriate followup with the Office of Compliance.

(i) *Division of Anti-Infective Drugs*. Evaluates, for safety and efficacy, new drug applications (NDA), submitted by manufacturers for permission to market new drugs.

Evaluates adequacy of directions for use and warnings against misuses appearing in proposed labeling.

Evaluates manufacturing and laboratory methods, facilities and controls exercised in factories producing new drugs.

Reviews notices of claimed investigational exemption for new drug (IND) and recommends action to restrict or stop further testing.

(ii) *Division of Cardiopulmonary and Renal Drugs*. Performs the functions as described above, with regard to drugs classified as cardiopulmonary renal drugs.

(iii) *Division of Dental and Surgical Adjuncts*. Performs the functions as described above, with regard to drugs classified as dental and surgical adjuncts.

(iv) *Division of Metabolism and Endocrine Drugs*. Performs the functions as described above, with regard to drugs classified as metabolism and endocrine drugs.

(v) *Division of Neuropharmacological Drugs*. Performs the functions as described above, with regard to drugs classified as neuropharmacological drugs.

(vi) *Division of Oncology and Radiopharmaceuticals*. Performs the functions as described above with regard to drugs that will be classified oncology and radiopharmaceutical drugs.

(vii) *Division of Scientific Investigations*. Conducts special, field, and record reviews of clinical investigators and investigations in the NDA and IND areas.

Contacts clinical and academic sources to encourage standards for the conduct of clinical investigations.

(1-2) *Office of Marketed Drugs*. Evaluates the safety and efficacy data and proposed labeling in supplements to new drug applications.

Conducts continuing surveillance and medical evaluation of the labeling, clinical experience and reports submitted by an applicant under the records and reports requirements, of all drugs and devices for which a new drug approval is in effect.

Reviews inspection and other findings designed to reveal whether new drugs are being marketed in accord with commitment contained in new drug applications.

Makes recommendations concerning withdrawal of approval of the NDA.

Takes final action concerning antibiotic and insulin samples submitted for certification and on requests for exemptions from antibiotic certification.

Reviews new and marketed therapeutic and clinical devices for safety, reliability and effectiveness and recommends action to correct significant hazards or potential danger from inadequate directions for use and inadequate warning and cautionary information.

Obtains and evaluates reports of adverse drug reactions.

(1) *Division of Certification Services*. Takes action concerning antibiotic and

insulin samples submitted for certification.

Reviews and takes action on requests for exemption from antibiotic certification.

Recommends and reviews the preparation of regulations concerning the antibiotic and insulin certification program.

(ii) *Division of Clinical and Medical Devices.* Reviews new and marketed therapeutic devices and clinical devices intended for use in hospitals, clinics, and physicians' offices to determine those that should (1) be exempt from any controls, (2) be subject to manufacturing standards and (3) be reviewed to determine safety and efficacy prior to marketing.

Designs, directs, and monitors investigations and physical testing of marketed therapeutic and clinical devices; develops standards for the manufacture of clinical and therapeutic devices to insure safety, reliability, and effectiveness.

Recommends field investigations of marketed devices and, where required, assists the field in making these investigations.

Collects and evaluates data on significant hazards to the public health caused by the use of clinical and therapeutic devices and proposes necessary laws and regulations to protect the public.

(iii) *Division of Drug Experience.* Collects and evaluates reports of adverse drug experiences.

Coordinates and monitors the review of professional performance of research contracts providing adverse drug experience data.

Develops, tests, and coordinates operational systems for the processing of adverse reaction information.

Disseminates a semimonthly Alert Report to achieve a valid and meaningful "Early Warning System."

Monitors FDA participation in World Health Organization's program to implement an international drug monitoring system.

(iv) *Division of Cardiopulmonary-Renal Drug Surveillance.* Performs the following functions with regard to drugs classified as cardiopulmonary-renal drugs:

Evaluates the safety and efficacy data and proposed labeling in supplements to new drug applications.

Makes recommendations concerning withdrawal of approval of the NDA.

Conducts continuing surveillance and medical evaluation of the labeling, clinical experience and reports submitted by an applicant under the records and reports requirements of all drugs for which a new drug approval is in effect.

(v) *Division of Metabolic Endocrine Drug Surveillance.* Performs functions as described above, with regard to drugs classified as metabolic, endocrine and anti-infective drugs.

(vi) *Division of Neuropharmacological Drug Surveillance.* Performs functions as described above, with regard to drugs classified as neuropharmacological drugs.

(vii) *Division of Surgical-Dental Drug Surveillance.* Performs functions as described above, with regard to drugs classi-

fied as surgical adjuncts, dental, oncology, and radiopharmacological drugs.

(1-3) *Office of Compliance (Drugs).* Advises the Bureau Director and other FDA officials on the law, regulations, legal-administrative problems, regulatory problems, and administrative policies concerning FDA's regulatory responsibilities relating to drugs and devices.

Directs, designs and monitors studies to develop facts necessary for determination of medical policy and to support regulatory action on violative drugs and devices.

Develops compliance and surveillance programs covering regulated industries in drugs and related areas.

Develops or coordinates the development of regulations and other standards covering drug and device industry practices and fosters development of good manufacturing practices.

Develops and carries out programs designed to encourage compliance by industry on a voluntary basis.

Provides support and guidance upon request to the district offices in the handling of legal actions and provides headquarters case development, coordination, and contested case assistance.

Develops and coordinates studies to measure degree of compliance by regulated industries with statutes and regulations enforced by FDA.

Monitors and evaluates professional journal advertising, and promotional and related labeling to determine veracity of claims.

(1) *Division of Case Guidance (Drugs).* Provides support and guidance, upon request, to the District Offices in the handling of legal actions relating to general drugs, prescription drug advertising, new drug and investigational new drugs, devices, antibiotics, and insulin.

Provides headquarters case development, coordination and contested case assistance.

Develops and maintains legal guidelines.

Reviews and approves legal actions in cases of national scope requiring headquarters coordination.

Performs necessary liaison with the Division of Certification Services and the District Offices in connection with regulatory activities relating to antibiotics and insulin.

Manages and coordinates headquarters activities associated with recalls and seizures; provides advice and assistance to recall staff; correlates recall actions with other regulatory activities.

Issues advisory opinions resulting from specific requests from industry, trade association, Government agencies, and Congress.

(ii) *Division of Compliance Programs (Drugs).* Develops and issues surveillance and compliance programs covering the drug industry; coordinates the establishment of priorities for compliance activities involved in such programs.

Serves as the focal point of information concerning the compliance status of specific drug industries and facilities, and provides information on the latest technological developments in these industries.

Identifies needs for new and revised standards to be met by industry and to support ongoing and contemplated compliance programs.

Identifies needs and is responsible for the development of new and revised programs, including special programs directed toward unique and isolated problem areas.

Identifies and recommends research needed to develop better monitoring and compliance methods and techniques. Develops programs to support FDA research activities.

Plans and develops an appraisal system for each program; assists in the development of reporting systems designed to furnish information on compliance programs; evaluates program effectiveness.

(iii) *Division of Drug Advertising.* Monitors and provides medical evaluations of prescription drug advertisements and promotional and related labeling.

Formulates expert medical opinion which is used as a basis for regulatory actions to deal with false or misleading promotions or those otherwise inconsistent with the provisions of the laws and regulations enforced by FDA.

(iv) *Division of Industry Services (Drugs).* Promotes a better understanding in the drug and device area of the requirements and objectives of the laws and regulations enforced by FDA among regulated industry and encourages compliance on a voluntary basis.

Plans and conducts national seminars, symposia and conferences on specific industry compliance problems.

Assists FDA field offices, upon request, in planning and conducting industry workshops and seminars on Good Manufacturing Practices (GMP) and other types of problem-oriented workshops and conferences.

Develops and maintains effective channels of communications with industry trade associations, and initiates and co-sponsors with trade associations, professional and academic groups, national seminars on specific compliance problems.

Works with the Office of New Drugs to provide guidelines to the drug industry for improvement in the quality of IND and NDA submissions.

(v) *Division of Medical Review.* Provides expert guidance and opinion on medical issues involved in proposed legal actions on drugs (other than medical advertising cases).

Procures expert medical witnesses and provides medical support in administrative hearings and court cases, including preparing and answering interrogatories and depositions, and sitting with Government attorneys in court cases to advise on direct and cross-examination of medical and scientific witnesses.

Directs, designs, and monitors clinical studies required to support FDA legal actions.

Provides the Post Office Department with technical reviews, opinions, testimony and medical guidance necessary for preparing and presenting medical fraud cases.

Provides medical and scientific guidance, background, and opinion for policy, legislation, regulations, press releases, films, exhibits, speeches, publications, compliance seminars and conferences, and responses to industry and consumer inquiries.

(vi) *Division of Policy and Regulations.* Interprets new legislation, drafts regulations for implementation and develops guidelines setting forth administrative-legal procedures for applying the new or changed authority.

Develops and maintains a codified system for compiling and issuing regulatory policy and procedures for the guidance of FDA Headquarters and field personnel and proposes remedial changes in policy and regulations.

Develops or coordinates the development of regulations, model codes, and other standards and guides covering industry practices.

Prepares new or revised material for the Bureau of Drugs Manual of Policies and Procedures.

Initiates and recommends changes in legislation and prepares Bureau position on proposed legislation referred from the Department through the Office of Legislative Services.

(1-4) *Office of Pharmaceutical Sciences.* Provides scientific support for FDA's drug compliance programs.

Develops scientific standards and conducts research relating to the composition, quality and safety of drugs; operates the FDA system for continuous appraisal and improvement of current and proposed drug standards and specifications.

Devises new chemical, physical and biological methods for the analysis of drugs in pharmaceutical preparations and in tissues and body fluids; investigates the mechanisms of the underlying chemical reactions; and explores the utilization of novel instruments and equipment.

Designs and participates in collaborative studies to establish the reliability of new methods and validating important discoveries relating to drug examinations.

Operates the National Center for Drug Analysis.

Operates the National Center for Antibiotics and Insulin Analysis.

Cooperates with the Committee of Revision of the United States Pharmacopoeia (USP) and National Formulary (NF) to compose and assemble monographs for inclusion in official drug compendia.

(i) *Division of Drug Biology.* Originates, plans and conducts research to investigate the nature and properties of pharmacologically significant substances in drugs and investigates their effects in biological and microbiological systems.

Devises and develops new methods for studying the biological activity of drugs.

Conducts research to determine the nature, extent and significance of microbial and other microscopic contaminants in drugs.

Devises microanalytical and biological methods for the analysis of drugs.

Conceives, plans and executes a research program to investigate the utility of diverse animal systems and biochemical reactions for the examination of drug products.

Devises new and improved methods for the determination of minute concentrations of drugs in such biological materials as blood, urine, feces, muscle tissue, kidney, liver, eggs, and milk. Performs bioassays to determine the potency of drugs such as digitals, chorionic gonadotropins, estrogenic hormones and thyroid.

Cooperates with the Division of Drug Chemistry to correlate bioanalytical findings with the results obtained by the use of newly devised physicochemical methods of analysis for drugs.

Advise District laboratory chemists on the application of biochemical analytical methods to the assay of such drugs as heparin and hyaluronidase.

Develops new methods of anatomical and histochemical examination of organs and tissues from animals subjected to treatment with drugs.

(ii) *Division of Drug Chemistry.* Conceives, plans and executes a research program to detect, isolate and disclose the chemical nature of potent and toxic substances occurring in drug products.

Operates the FDA system for the continuous appraisal and improvement of current and proposed drug standards and specifications. Makes final decisions on the validity of all NDA analytical procedures referred to this Division or a field laboratory.

Devises original physicochemical methods to measure the quantities of potent and toxic substances in drug products, including those subject to drug abuse control.

Investigates the principles underlying the chemical reactions employed in the analysis of drugs.

Proposes and establishes specifications for the standardization of drugs and analytical reference substances, and cooperates with the United States Pharmacopoeia and the National Formulary in composing appropriate official monographs which incorporate these specifications. Establishes and maintains authoritative manuals and directories for drug analysis.

Participates, in cooperation with the National Center for Drug Analysis, in collaborative studies to test the validity of analytical methods proposed for adoption by the USP, NF and Association of Official Analytical Chemists (AOAC), or in new drug applications.

Provides expert advice on the chemistry of drugs and physicochemical identification of drugs to the District laboratories, and the Bureau of Narcotics and Dangerous Drugs, Department of Justice.

Conceives, plans and executes a research program to investigate the utility of new, complex electronic, optical and radiometric instruments for the analysis of drugs.

(iii) *National Center for Antibiotics and Insulin Analysis.* Tests large numbers of antibiotic and insulin samples obtained through the certification program, or collected for examination by the FDA District laboratories in planned surveillance programs or submitted by other agencies such as Department of Defense, Veterans Administration, and other agencies of the Public Health Service. Devises new methods for the rapid and accurate analysis of large numbers of drugs containing antibiotics and insulin, employing combinations of complex instruments in physical, chemical, biological, and microbiological methods.

Devises new methods for the examination of individual drugs containing antibiotics and insulin which present analytical problems in accepted procedures, and subjects these new methods to collaborative study.

Devises new and rapid methods applicable to the analysis of single dosage entities, and to the analysis of antibiotic residues in tissues, body fluids, and edible substances.

In cooperation with other components of the Office of Pharmaceutical Sciences, participates in collaborative studies to test the validity of analytical methods proposed for adoption by the USP, NF, and Association of Official Analytical Chemists, or in new drug applications. Cooperates with the World Health Organization, USP, and NF in testing and establishing reference standard drug substances for use in the analysis of antibiotics and insulin.

Maintains a library of authenticated antibiotic and insulin reference drug substances for distribution to FDA District laboratories and other authorized Government agencies, as well as to industry participants in the antibiotic certification service.

Provides expert advice to other units in FDA on the analysis of samples containing antibiotics and insulin, and interprets the results of its findings.

(iv) *National Center for Drug Analysis.* Tests large numbers of drug samples obtained in planned surveillance programs or submitted for examination by the FDA District laboratories or by other agencies such as Department of Justice, Veterans Administration, and other agencies of the Public Health Service.

Devises new methods for the rapid and accurate analysis of large numbers of drugs, employing combinations of complex instruments in automated systems of original design.

Devises new methods for the examination of individual drugs which present analytical problems in accepted procedures, and subjects these new methods to collaborative study.

Devises new rapid methods applicable to minute quantities of drugs for the analysis of single dosage entities.

In cooperation with other parts of the Office of Pharmaceutical Sciences, participates in collaborative studies to test

the validity of analytical methods proposed for adoption by the USP, NF, and AOAC, or in NDA's.

Cooperates with the USP and NF in testing reference standard drug substances for compliance with specifications.

Maintains a library of authenticated reference drug substances for distribution to FDA District laboratories and other authorized Government agencies.

Performs check analyses upon request to confirm results obtained by other FDA laboratories in drug analysis, and operates a program to monitor the reliability of analytical results obtained in FDA laboratories.

(m) *Bureau of Veterinary Medicine.* Develops and recommends the veterinary medical policy of the Food and Drug Administration with respect to the safety and efficacy of veterinary preparations and devices.

Evaluates proposed use of veterinary preparations for animal safety and efficacy.

Coordinates the veterinary medical aspects of the FDA inspection and investigational programs and provides veterinary medical opinion in drug hearings and court cases.

Plans, directs, and evaluates FDA's surveillance and compliance programs relating to veterinary drugs and other veterinary medical matters.

(m-1) *Division of Veterinary Research.* Conducts studies to evaluate the validity of data supporting the safety and efficacy of veterinary drugs intended for the prevention of treatment of animal diseases.

Conducts acute and chronic toxicity studies in large domestic animals following reports of contaminated animal feeds, such as heavy metals, weed seeds, pesticides, etc.

Studies the therapeutic properties of specific products and substances and the experimental reproduction of various disease conditions.

Cooperates with other parts of FDA in the development of actual evidence based on animal experimentation to support legal action under the Federal Food, Drug, and Cosmetic Act.

Directs research to develop methods for studying the effects of therapeutic agents and various disease conditions.

Conducts experiments to develop information regarding food additive problems arising from the use of drugs in veterinary medicine. Maintains colonies of laboratory animals for experimental tests and studies.

(m-2) *Division of Veterinary New Drugs.* Evaluates for animal safety and efficacy proposed new veterinary preparations.

Reviews the use of such preparations in veterinary medical practice to determine the effect on animals. (If the preparation is administered to food producing animals, the use of the product is considered as it relates to safety in humans.)

Evaluates proposed labels to assure that they clearly indicate the use and limitations of the product.

Evaluates manufacturing facilities and procedures as described in the applica-

tion to assure that such controls are adequate.

Recommends action to be taken on proposed new veterinary preparations submitted for FDA review.

Determines data required to establish safety and efficacy and provides such information to investigators and manufacturers.

Initiates research projects to gain further information on new drugs.

(m-3) *Division of Veterinary Medical Review.* Maintains surveillance of veterinary preparations and devices to assure safety and efficacy.

Evaluates drug experience reports, establishment inspection information, advertising, and other clinical or research data bearing on marketed veterinary preparations.

Evaluates and recommends action on medicated feed applications for those preparations that have been approved for marketing.

Recommends or supports regulatory and research activity.

Prepares veterinary medical reports for the Post Office Department in support of Postal Laws and Regulations.

(n) *Office of the Regional Food and Drug Director.* As the representative of the Commissioner of Food and Drugs in the Region, the Regional Food and Drug Director directs and coordinates the programs of the Food and Drug Administration carried out through the DHEW Regional Office and the FDA District Offices in the Region. Encourages improved state and local food and drug consumer protection programs and state and local participation in FDA cooperative efforts.

Coordinates the provision of FDA assistance to states and localities in the event of a national disaster or other emergency requiring FDA assistance.

Provides a focal point of information for the DHEW Regional Office concerning FDA programs.

Coordinates FDA district programs with related operations of the DHEW Regional Office.

Serves as primary advisor and informant to the DHEW Regional Director on all matters pertaining to activities of FDA in the Region.

Carries out programs as assigned in milk and food sanitation, shellfish sanitation, interstate travel sanitation, and product safety.

(o) *District Offices.* Obtains compliance with laws and regulations enforced by FDA through the conduct of appropriate educational or enforcement activities.

Initiates and conducts educational and voluntary compliance programs.

Conducts investigations and inspections and analyzes samples of food, drugs, and other commodities.

Conducts administrative hearings on alleged violations.

Initiates appropriate enforcement action and recommends legal action to FDA headquarters, to the Office of General Counsel, DHEW, or to the concerned U.S. attorney (where direct reference seizures are authorized) and assists in carrying out approved action.

Provides analytical and inspectional support in programs for which FDA has responsibility.

SEC. 10-C Order of Succession. During the absence or disability of the Commissioner or in the event of a vacancy in that office, the first official listed below who is available shall act as Commissioner:

- (1) (a) Deputy Commissioner.
- (b) Associate Commissioner for Compliance.
- (c) Associate Commissioner for Science.
- (d) Assistant Commissioner for Program Coordination.
- (e) Assistant Commissioner for Administration.
- (f) Assistant Commissioner for Field Coordination.
- (g) Assistant Commissioner for Planning and Evaluation.
- (h) Assistant Commissioner for Education and Information.

(2) For a planned period of absence, the Commissioner may specify a different order of succession.

SEC. 10-D Delegations of Authority. The Commissioner shall continue to exercise all of the authorities given to him under the Redelegation by the Assistant Secretary for Health and Scientific Affairs of December 19, 1969 (35 F.R. 606-7) and the Secretary's Reorganization Order of January 5, 1970 (35 F.R. 606). Pending further actions by the Commissioner, all delegations or redelegations to any officers or employees of the Administration which were in effect immediately prior to the effective date of this amendment shall continue in effect in them or their successors.

Effective date. This amendment is effective February 1, 1970.

ROBERT H. FINCH,
Secretary.

FEBRUARY 19, 1970.

EXHIBIT X10-1

FOOD AND DRUG ADMINISTRATION DISTRICT OFFICES

District Office	Address	Zip code
California:		
Los Angeles.....	1521 West Pico	90015
San Francisco.....	Boulevard, Room 518, Federal Office Bldg., 50 Fulton St.	94102
Colorado: Denver.....	Room 513, New Customhouse Bldg., 721 19th St.	80202
Georgia: Atlanta.....	60 Eighth St., NE.	30309
Illinois: Chicago.....	Room 222, Post Office Bldg., 433 West Van Buren St.	60607
Louisiana: New Orleans ..	Room 222, U.S. Customhouse Bldg., 423 Canal St.	70130
Maryland: Baltimore.....	900 Madison Ave.	21201
Massachusetts: Boston.....	585 Commercial St.	02109
Michigan: Detroit.....	1550 East Jefferson Ave.	48207
Minnesota: Minneapolis.....	240 Hennepin Ave.	55401
Missouri: Kansas City.....	1009 Cherry St.	64106
New York:		
Brooklyn.....	Room 700, Federal Office Bldg., 850 Third Ave.	11232
Buffalo.....	599 Delaware Ave.	14202
Ohio: Cincinnati.....	1141 Central Parkway.	45202
Pennsylvania: Philadelphia.....	Room 1204, U.S. Customhouse Bldg., Second and Chestnut Sts.	19106
Texas: Dallas.....	3032 Bryan St.	75204
Washington: Seattle.....	Room 501, Federal Office Bldg., 909 First Ave.	98104

[F.R. Doc. 70-2277; Filed, Feb. 24, 1970; 8:48 a.m.]

ATOMIC ENERGY COMMISSION

[Docket No. 50-322]

LONG ISLAND LIGHTING CO.

Notice of Hearing on Application for Provisional Construction Permit

In the matter of Long Island Lighting Company, Shoreham Nuclear Power Station, Unit 1.

Pursuant to the Atomic Energy Act of 1954, as amended (the Act) and the regulations in Title 10, Code of Federal Regulations, Part 50, "Licensing of Production and Utilization Facilities," and Part 2, rules of practice, notice is hereby given that a hearing will be held at 10 a.m. local time, on March 31, 1970, in the Joseph A. Edgar School auditorium, Route 25A, Rocky Point, Long Island, N.Y., to consider the application filed under section 104b of the Act by Long Island Lighting Co. (the applicant), for a provisional construction permit for a boiling water nuclear reactor designed to operate initially at 2,436 megawatts (thermal) located on the applicant's site on the north shore of Long Island in the town of Brookhaven in Suffolk County, N.Y.

The hearing will be conducted by the Atomic Safety and Licensing Board designated by the Atomic Energy Commission, consisting of Dr. A. Dixon Callahan, Oak Ridge, Tenn.; Dr. Hugh C. Paxton, Los Alamos, N. Mex.; and Jack M. Campbell, Esq., Chairman, Santa Fe, N. Mex. Dr. John C. Geyer, Baltimore, Md., has been designated as a technically qualified alternate, and James P. Gleason, Esq., Washington, D.C., has been designated as an alternate qualified in the conduct of administrative proceedings.

A prehearing conference will be held by the Board in the Joseph A. Edgar School auditorium, Route 25A, Rocky Point, Long Island, N.Y., March 13, 1970, at 10 a.m. local time, to consider the matters provided for consideration by § 2.752 of 10 CFR Part 2 and Section II of Appendix A to 10 CFR Part 2.

The Director of Regulation proposes to make affirmative findings on Items Nos. 1-3 and a negative finding on Item 4 specified below as the basis for the issuance of a provisional construction permit to the applicant.

1. Whether in accordance with the provisions of 10 CFR 50.35(a);

(a) The applicant has described the proposed design of the facility including, but not limited to, the principal architectural and engineering criteria for the design, and has identified the major features or components incorporated therein for the protection of the health and safety of the public;

(b) Such further technical or design information as may be required to complete the safety analysis and which can reasonably be left for later consideration, will be supplied in the final safety analysis report;

(c) Safety features or components, if any, which require research and development have been described by the appli-

cant and the applicant has identified, and there will be conducted, a research and development program reasonably designed to resolve any safety questions associated with such features or components; and

(d) On the basis of the foregoing, there is reasonable assurance that (i) such safety questions will be satisfactorily resolved at or before the latest dates stated in the application for completion of construction or the proposed facility, and (ii) taking into consideration the site criteria contained in 10 CFR Part 100, the proposed facility can be constructed and operated at the proposed location without undue risk to the health and safety of the public;

2. Whether the applicant is technically qualified to design and construct the proposed facility;

3. Whether the applicant is financially qualified to design and construct the proposed facility; and

4. Whether the issuance of a permit for the construction of the facility will be inimical to the common defense and security or to the health and safety of the public.

In the event that this proceeding is not a contested proceeding, as defined by § 2.4 of the Commission's rules of practice, 10 CFR Part 2, the Board will, without conducting a de novo evaluation of the application, consider the issues of whether the application and the record of the proceeding contain sufficient information, and the review by the Commission's regulatory staff has been adequate, to support the findings proposed to be made and the provisional construction permit proposed to be issued by the Director of Regulation.

In the event that this proceeding becomes a contested proceeding, the Board will consider and initially decide, as the issues in this proceeding, Items Nos. 1 through 4 above as the basis for determining whether a provisional construction permit should be issued to the applicant.

As they become available, the application, the proposed provisional construction permit, the applicant's summary of the application, the report of the Commission's Advisory Committee on Reactor Safeguards (ACRS) and the Safety Evaluation by the Commission's regulatory staff will be placed in the Commission's Public Document Room, 1717 H Street NW., Washington, D.C., where they will be available for inspection by members of the public. Copies of this notice of hearing, the proposed provisional construction permit, the ACRS report, the applicant's summary of the application and the regulatory staff's Safety Evaluation will also be available at the Joseph A. Edgar School, Route 25A, Rocky Point, Long Island, N.Y., for inspection by members of the public each weekday between the hours of 8:30 a.m. to 4:30 p.m. Copies of the proposed provisional construction permit, the ACRS report and the regulatory staff's Safety Evaluation may be obtained by request to the Director of the Division of Reactor Licensing, U.S.

Atomic Energy Commission, Washington, D.C. 20545.

Any person who wishes to make an oral or written statement in this proceeding setting forth his position on the issues specified, but who does not wish to file a petition for leave to intervene, may request permission to make a limited appearance pursuant to the provisions of § 2.715 of the Commission's rules of practice. Limited appearances will be permitted at the time of the hearing in the discretion of the Board, within such limits and on such conditions as may be fixed by the Board. Persons desiring to make a limited appearance are requested to inform the Secretary, U.S. Atomic Energy Commission, Washington, D.C. 20545, by March 10, 1970.

Any person whose interest may be affected by the proceeding who does not wish to make a limited appearance and who wishes to participate as a party in the proceeding must file a petition for leave to intervene.

Petitions for leave to intervene, pursuant to the provisions of § 2.714 of the Commission's rules of practice, must be received in the Office of the Secretary, U.S. Atomic Energy Commission, Washington, D.C. 20545, Attention: Chief, Public Proceedings Branch, or the Commission's Public Document Room, 1717 H Street NW., Washington, D.C., not later than March 10, 1970, or in the event of a postponement of the prehearing conference, at such time as the Board may specify. The petition shall set forth the interest of the petitioner in the proceeding, how that interest may be affected by Commission action, and the contentions of the petitioner in reasonably specific detail. A petition which sets forth contentions relating only to matters outside the Commission's jurisdiction will be denied. A petition for leave to intervene which is not timely filed will be denied unless the petitioner shows good cause for failure to file it on time.

A person permitted to intervene becomes a party to the proceeding, and has all the rights of the applicant and the regulatory staff to participate fully in the conduct of the hearing. For example, he may examine and cross-examine witnesses. A person permitted to make a limited appearance does not become a party, but may state his position and raise questions which he would like to have answered to the extent that the questions are within the scope of the hearing as specified in the issues set out above. A member of the public does not have the right to participate unless he has been granted the right to intervene as a party or the right of limited appearance.

An answer to this notice, pursuant to the provisions of § 2.705 of the Commission's rules of practice, must be filed by the applicant on or before March 10, 1970.

Papers required to be filed in this proceeding may be filed by mail or telegram addressed to the Secretary, U.S. Atomic Energy Commission, Washington, D.C. 20545, Attention: Chief, Public Proceedings Branch, or may be filed by

delivery to the Commission's Public Document Room, 1717 H Street NW., Washington, D.C.

Pending further order of the Board, parties are required to file, pursuant to the provisions of § 2.708 of the Commission's rules of practice, an original and 20 conformed copies of each such paper with the Commission.

With respect to this proceeding, the Commission has delegated to the Atomic Safety and Licensing Appeal Board the authority and the review function which would otherwise be exercised and performed by the Commission. The Commission has established the Appeal Board pursuant to § 2.785, 10 CFR Part 2, and has made the delegation pursuant to paragraph (a)(1) of this section. The Appeal Board is composed of the Chairman and Vice-Chairman of the Atomic Safety and Licensing Board Panel and a third member who is technically qualified and designated by the Commission. The Commission has designated Dr. Lawrence Quarles, Dean of the School of Engineering and Applied Science, The University of Virginia, as this third member.

Dated at Germantown, Md., this 19th day of February 1970.

UNITED STATES ATOMIC
ENERGY COMMISSION,
W. B. McCool,
Secretary.

[F.R. Doc. 70-2306; Filed, Feb. 24, 1970;
8:48 a.m.]

CIVIL AERONAUTICS BOARD

[Docket No. 21808]

CENTURY AIR FREIGHT, INC., ET AL.

Notice of Proposed Approval

Joint application of Century Air Freight, Inc., Howard Cohen, and James Ciriame, under sections 408 and 409 of the Federal Aviation Act of 1958, as amended, Docket 21808.

Notice is hereby given, pursuant to the statutory requirements of section 408(b) of the Federal Aviation Act of 1958, as amended, that the undersigned intends to issue the order set forth below under delegated authority. Interested persons are hereby afforded a period of 15 days from the date of service within which to file comments or request a hearing with respect to the action proposed in the order.

Dated at Washington, D.C., February 18, 1970.

[SEAL] A. M. ANDREWS,
Director,
Bureau of Operating Rights.
ORDER

Issued under delegated authority.

Application of Century Air Freight, Inc., Howard Cohen, and James Ciriame under sections 408 and 409 of the Federal Aviation Act of 1958, as amended.

By joint application filed January 15, 1970, Howard Cohen, Century Air Freight, Inc. (Century), an applicant for domestic

and international air freight forwarder authority, Arted Carriers, Inc. (Arted), James Ciriame, Great Eastern Transport Systems, Inc. (Great Eastern), Air Freight Haulage, Inc. (Haulage), and Jay Truck Rentals, Inc. (Truck Rentals), request approval pursuant to sections 408 and 409 of the Federal Aviation Act of 1958, as amended (the Act), of certain control and interlocking relationships involving the above named corporate applicants.

Arted, is engaged in the pickup and delivery of ladies garments in the metropolitan

area of New York City. Great Eastern holds Interstate Commerce Commission authority in the commercial zone of New York for American Trailer Transport, Inc., of Staten Island, N.Y., and has been in such business since its incorporation in New York in 1968. Haulage, incorporated in New York in 1963, engages in pickup and delivery operations, of which air freight comprises about 85 percent.

The control and interlocking relationships are the following:

Century			Arted		Great Eastern		Haulage	
Offices	Interest		Office	Interest	Offices	Interest	Offices	Interest
Individual:								
Cohen.....	President/Director.	50%	President/Director.	50%				
Ciriame.....	Vice president/Director.	50%			President/Director	100%	Vice president/Director.	50%

¹ Mr. Ciriame is also President and Director, and the sole owner of Jay Truck Rentals, Inc., a New Jersey corporation engaged in the renting of trucks to others. It accordingly is not deemed to be a common carrier or a person engaged in a phase of aeronautics, therefore is not within the scope of section 408 of the Act.

No comments relative to the application have been received.

Notice of intent to dispose of the application without a hearing has been published in the FEDERAL REGISTER and a copy of such notice has been furnished by the Board to the Attorney General not later than 1 day following such publication, both in accordance with section 408(b) of the Act.

Upon consideration of the application, it is concluded that Century is an air carrier and that Arted, Great Eastern, and Haulage are common carriers within the meaning of section 408 of the Act, and the common control, as illustrated above, of the four named companies, by Messrs. Cohen and Ciriame, respectively, is subject to that section of the Act. However, it is further concluded that such control relationships do not affect the control of an air carrier directly engaged in the operation of aircraft in air transportation, do not result in creating a monopoly and do not tend to restrain competition. Furthermore, no person disclosing a substantial interest in the proceeding is currently requesting a hearing, and it is concluded that the public interest does not require a hearing. The control relationships are similar to others which have been approved by the Board and do not essentially present any new substantive issues.² It therefore appears that approval of the control relationships would be consistent with the public interest.

We also find that interlocking relationships within the scope of section 409(c) of the Act will result from the holdings by the individual applicants of the positions described above. However, we have concluded that such relationships come within the scope of the exemption from section 409 of the Act afforded by § 287.2 of the Board's economic regulations. Thus, to the extent that the application requests approval of such relationships, it will be dismissed.

Pursuant to authority duly delegated by the Board in the Board's regulations, 14 CFR 385.13, it is found that the foregoing control relationships should be approved under section 408(b) of the Act, without hearing, and that the above described interlocking relationships should be dismissed.

Accordingly, it is ordered, That:

1. The common control by Howard Cohen of Century Air Freight, Inc., and Arted Carriers, Inc., and by James Ciriame of Century

² Mark IV Air Freight, Inc., et al., Order E-22451, July 19, 1965.

Air Freight, Inc., Great Eastern Transport Systems, Inc., and Air Freight Haulage, Inc., be and it hereby is approved; and

2. To the extent that approval of interlocking relationships as described herein is sought under section 409 of the Act, the application be and it hereby is dismissed.

Persons entitled to petition the Board for review of this order pursuant to the Board's regulations, 14 CFR 385.50, may file such petitions within 5 days after the date of service of this order.

This order shall be effective and become the action of the Civil Aeronautics Board upon expiration of the above period unless within such period a petition for review is filed, or the Board gives notice that it will review this order on its own motion.

[SEAL]

HARRY J. ZINK,
Secretary.

[F.R. Doc. 70-2263; Filed, Feb. 24, 1970;
8:46 a.m.]

FEDERAL COMMUNICATIONS COMMISSION

[Dockets Nos. 18691, 18692; FCC 70R-51]

ALABAMA MICROWAVE, INC., AND NEWHOUSE ALABAMA MICROWAVE, INC.

Memorandum Opinion and Order Enlarging Issues

In regard applications of Alabama Microwave, Inc. for construction permits in the domestic public point-to-point microwave radio service for the establishment of three new stations at or near Gadsden, Anniston, and Guntersville, Ala., and the modification of one existing station KRR71, at Huntsville, Ala., Docket No. 18691, File Nos. 1481 through 1484-C1-P-70; Newhouse Alabama Microwave, Inc. for construction permits in the domestic public point-to-point microwave radio service for the establishment of the three new stations at or near Birmingham, Pell City, and Anniston, Ala., Docket No. 18692, File Nos. 147 through 149-C1-P-70.

1. This proceeding involves the mutually exclusive applications of Alabama Microwave, Inc. (Alabama), and Newhouse Alabama Microwave, Inc. (Newhouse), each of which proposes to provide video relay service to UHF television broadcast station WHMA-TV, Anniston, Ala. By order, released October 27, 1969 (34 F.R. 17674), the Commission, by its Common Carrier Bureau under delegated authority, designated the applications for hearing on a comparative issue.¹ Presently before the Review Board is a motion to enlarge issues, filed November 17, 1969, by Alabama² seeking addition of the following issues:

To determine the extent to which Newhouse Alabama Microwave, Inc., and its principals are directly and indirectly affiliated with other media of mass communications in the Birmingham and Anniston, Ala., areas.

To determine in light of the evidence adduced pursuant to the preceding issue, whether a grant of the Newhouse Alabama Microwave, Inc., applications would create, or intensify, a concentration of control of the media of mass communications in the Birmingham or Anniston areas which would be inconsistent with the public interest.

To determine, if the preceding issue is resolved in favor of Newhouse Alabama Microwave, Inc., whether in light of the media interests of the S. I. Newhouse family in the Birmingham and Anniston areas, a preference should be awarded to Alabama Microwave, Inc., which has no present media interests in those areas.

Alabama also requests the Board to condition any possible grant of the Newhouse application upon the outcome of a pending antitrust suit involving Newhouse interests, filed in the U.S. District Court for the Southern District of New York on August 8, 1969 (The Denver Post, Inc. v. Samuel I. Newhouse, et al. (Case No. 69 Civil 3509)).

2. In support of its motion, Alabama submits that the S. I. Newhouse family, owners of Newhouse, directly or indirectly owns or has substantial interests in a significant portion of the mass communications media in the Birmingham and Anniston markets. This media concentration forms the basis for Alabama's motion. Alabama notes first that Newhouse is a wholly owned subsidiary of

Newhouse Broadcasting Corp. (Newhouse Broadcasting), which in turn is the licensee of the following broadcast stations, among others: (1) Television broadcast station WAPI-TV, Channel 13, one of two VHF television stations in Birmingham; (2) standard broadcast station WAPI, a full-time AM station in Birmingham; and (3) Station WAPI-FM, one of the city's five FM stations. Alabama states that the city of Anniston lies entirely within Station WAPI-TV's Grade B contour and it is from WAPI-TV's studios that Newhouse proposes to relay the available network signals to Station WHMA-TV. Alabama further alleges that through another wholly owned subsidiary, NewChannels Corp., Newhouse Broadcasting owns the only CATV system in Anniston and is the licensee of Community Antenna Relay Stations (CARS) facilities which, movant alleges, Newhouse may use to relay programs originated by the CATV system. The Newhouse interests also control, according to the movement, one of the two daily newspapers in Birmingham (the Birmingham News), which paper serves as printing, circulation and advertising agent for the other Birmingham daily newspaper (the Post Herald). In addition, Alabama states that the Newhouse family owns four other daily newspapers in two Alabama cities, Huntsville and Mobile. Finally, it is alleged that several nationally known magazines circulated in Alabama, such as Vogue, Mademoiselle, House & Garden, and Glamour, are all controlled by the Newhouse interests. Alabama argues that Newhouse's concentration of control amounts to "perhaps the greatest concentration of power over the dissemination of news, ideas and advertising ever placed in the hands of one group in a relatively small geographic area." Therefore, movant concludes that appropriate issues are warranted before the additional facilities sought in this proceeding (i.e., common carrier microwave relay stations) can be authorized, citing General Electric Cablevision Corp., 10 FCC 2d 198, 11 RR 2d 310 (1967). Alabama also requests the Board to authorize the Examiner to award a comparative preference to Alabama on the grounds that a grant to it, rather than to Newhouse, would better promote diversification of media ownership.

3. In opposition, Newhouse concedes that its media interests in the Birmingham area are as alleged in Alabama's motion, but disputes their relevancy in this common carrier proceeding. It is asserted that Alabama's argument is "forced and meritless," since no basis for connecting ownership of common carrier facilities with control of the mass media is suggested. According to Newhouse, General Electric Cablevision Corp., supra, is distinguishable on the ground that that case involved the trying of issues relating to carrier applications proposing to serve commonly owned CATV systems in the television market into which distant signals were to be imported. In Newhouse's opinion, the Commission ordered a hearing in Gen-

eral Electric to determine whether "the common ownership of the CATV system and the microwave carrier created a concentration of control of the mass media inimical to the public interest." Newhouse contends that no comparable facts are present in this case. Thus, Newhouse maintains that in this proceeding only common carrier facilities to serve a UHF television station are involved; that no common ownership exists between Newhouse and the licensee of the UHF station; and that no question of CATV, commonly owned or otherwise, is at issue. Newhouse also asserts that its proposed carrier operation could be viewed as "competitive" with its CATV system at Anniston and even with WAPI-TV. Additionally, Newhouse relies upon the Initial Decision in General Electric Cablevision Corp., FCC 68D-32, released April 17, 1968, 12 RR 2d 1171, wherein the Examiner resolved the concentration of control issue in favor of the microwave applicant, holding that common carriers simply provide transmittal services for information and that their identity is unrelated to the content of the transmission. 12 RR 2d at 1193-4.³ Newhouse concludes that since common carriers, unlike broadcasters, are nothing more than "conduits of intelligence," exercising no control over the content of the intelligence, it would be inappropriate to specify a concentration of control issue in this proceeding. Newhouse also opposes consideration of its holdings under the comparative issue, arguing that once concentration issues, if added, were resolved in its favor, these questions would be irrelevant to media ownership and would provide no basis for a preference. Finally, Newhouse indicates that it does not object to the imposition of a condition regarding the antitrust suit, as requested by the movant.

4. The Common Carrier Bureau, in opposing Alabama's motion, concedes the nature and extent of the Newhouse family holdings as stated in the motion, but is of the view that a common carrier, such as Newhouse, "offering nothing more than a transportation service for intelligence," would not normally be in a position to influence the intelligence being disseminated. Specifically, it is alleged that Alabama has failed to show that Newhouse, by servicing an unaffiliated television station, could adversely affect the public interest. The Bureau also points out that title II of the Communications Act of 1934, as amended, applicable because the proposed facilities are interstate in nature, makes clear that carriers must provide service to any person, without discrimination, upon reasonable request pursuant to published charges and regulations uniformly applicable to all customers. The Bureau concludes that it is opposed to the interjection of issues in

³ Exceptions to the Initial Decision in the General Electric proceeding are presently pending before the Review Board. Action on the Initial Decision is being held in abeyance pursuant to the Commission Order (FCC 68-1176, released Dec. 13, 1968) in Docket 18397.

¹ The issue reads:

To determine on a comparative basis whether, and to what extent, the proposal of Alabama or Newhouse would better serve the public interest, convenience and necessity, considering factors including, but not limited to the following:

(a) Conservation of radio spectrum;
(b) Quality and reliability of proposed service;
(c) Costs of construction and operation;
(d) Charges, regulations, and conditions of service.

² Also before the Board are the following related pleadings: (a) opposition, filed Dec. 2, 1969, by Newhouse; (b) opposition, filed Dec. 2, 1969, by the Common Carrier Bureau; and (c) reply, filed Dec. 12, 1969, by Alabama.

common carrier proceedings which are irrelevant to the provision of common carrier service.

5. In reply, Alabama notes that neither Newhouse nor the Bureau disputes the facts alleged in the motion concerning the Newhouse media interests. Alabama dismisses the arguments of irrelevancy to this proceeding as clearly contrary to the Commission's memorandum opinion and order in the General Electric case, *supra*. While acknowledging that the Hearing Examiner in General Electric resolved the concentration of control issues in favor of the microwave applicant, Alabama points out that the Initial Decision has not yet been reviewed by either the Review Board or the Commission⁴ and contends that the Commission would not agree with such a disposition in any event since it is equally aware of the nature of common carrier operations and it did require a hearing. Movant also disputes Newhouse's interpretation of the General Electric case, stating that the Commission placed no particular emphasis on the control over CATV systems by Newhouse as opposed to its other media control in the Syracuse market, but rather was concerned with concentration "on an overall basis." Alabama further argues that even if the Commission relied upon the presence of CATV systems in General Electric, relevant facts in the instant proceeding still bring it within that holding. Thus, the Newhouse interests in General Electric controlled CATV systems to be served by the microwave facilities being applied for. In this case, movant contends, the Newhouse family: (1) Controls the Anniston CATV system; (2) has applied for an additional CATV franchise in Birmingham; and (3) has applied for microwave facilities to deliver television signals to several CATV systems in the area, among them their own system at Anniston. Finally, Alabama argues, grant of the Newhouse applications would prejudice the chances of other carriers to obtain common carrier authorizations in this area because of the Commission's policy against wasteful duplication of common carrier facilities (citing General Telephone Company of the Northwest, Inc., 17 FCC 2d 654, 16 RR 2d 159 (1969)) and thus could result in an undesirable broadening of Newhouse's dominance in the area.

6. Alabama's motion will be granted. In our view the Commission's memorandum opinion and order in the General Electric case, *supra*, is opposite here. In General Electric, the Commission added concentration of control issues against a microwave applicant on the basis of facts very similar to those presented in Alabama's instant motion. In fact, the Newhouse family's communications interests were also involved in General Electric. The fact that there were commonly-owned CATV interests in General Electric (a factor concededly absent in this case) does not, as Newhouse urges, render that case of no precedential value in this proceeding. Newhouse's contentions notwithstanding, the Commission,

in General Electric, concluded that substantial public interest questions were raised by the media concentration of the Newhouse family in the Syracuse, N.Y., area, and that those questions had to be resolved prior to authorization of the microwave facilities sought in that proceeding. The Commission stated:

According to [the petitioner's] undisputed allegations, Eastern Microwave [the microwave applicant], several of the CATV systems to be served and other media of mass communications in the Syracuse area (i.e., television and radio stations; the only daily morning and evening newspapers) are under common control of the S. I. Newhouse family * * *. In the circumstances, we are persuaded that an evidentiary hearing is essential to enable us to determine whether authorization of the microwave facilities is consistent with the public interest. 10 FCC 2d at 200, 11 RR 2d at 313.

In Central New York Cable TV, Inc., 11 FCC 2d 150, 11 RR 2d 1065 (1967), the Commission clearly indicated that its disposition in General Electric was based solely on the microwave application and not on the commonly-owned CATV system. Thus, the Commission stated that, "The issues added to the Syracuse proceeding * * * involve only [the] applications for microwave facilities since they concern the Commission's licensing function. An issue was not added with respect to [the] proposed CATV systems since [the petitioner] did not claim or demonstrate that the concentration facts alleged by it are pertinent to a determination of the effect of distant signal importation upon local television service." 11 FCC 2d at 151-152, 15 RR 2d at 1068. The fact that the Hearing Examiner in the General Electric proceeding resolved the concentration of control issues in favor of the microwave applicant does not dispose of Alabama's motion. First, the Commission was persuaded by an enlargement petition to add appropriate issues so that a hearing could be held to determine whether authorization of the microwave facilities was warranted. Moreover, the favorable resolution of issues after a full evidentiary hearing does not necessarily mean that the specification of these issues in the first instance was unwarranted. Finally, the Examiner's resolution of the issues is not final and has no weight as precedent. See WFPG, Inc., 33 FCC 673, 677, 24 RR 419, 425 (1962).

7. The Board does not believe that Newhouse's and the Bureau's characterization of common carriers as "mere conduits" of information with no control over content disposes of the relevance of concentration of control considerations in a common carrier proceeding. While the Commission's diversification policy rests in part upon the theory that the widest possible dissemination of information from diverse and antagonistic viewpoints is desirable,⁵ and the nature of a common carrier facility would not obviate such policy, that policy also rests upon economic theories relating to the harm inherent in a situation in which

the absence of diverse ownership lessens competition. Report and Order, In the Matter of Amendment of §§ 73.35, 73.240 and 73.636 of the rules, 29 FR 7535, 2 RR 2d 1588 (1964). In other words, the "undue concentration of economic power" in a given geographic area is presumed to be "contrary to the public interest." Report and Order, *supra*. The relevance of competition in common carrier regulation has been established elsewhere than in the General Electric case, *supra*. For example, in Carter Mountain Transmission Corp.,⁶ the Commission denied the application of a common carrier for permission to construct a microwave radio communications system to transmit television signals to several CATV systems. The Commission predicated its denial on the impact of the proposed grant upon an existing television station. On appeal to the U.S. Court of Appeals, the common carrier applicant argued, among other things, that the Commission's denial of its application was based on an erroneous application of principles of radio broadcast law to a case of common carrier licensing. The court of appeals rejected this argument in the following language:

* * * the Federal Communications Commission is charged with the duty of regulating not only common carriers by radio but broadcasters of television programs. It cannot let its decisions in the radio carrier field interfere with its responsibilities in the television broadcasting field. In both fields, it must 'make available, so far as possible, to all the people of the United States,' adequate and efficient service * * *. A common carrier by radio cannot construct a new facility or extend its existing facilities sua sponte; it must first obtain a certificate or license from the Commission, authorizing it to establish such facilities, and before awarding the authority the Commission must be convinced that the proposal is 'reasonably required in the interest of public convenience and necessity.' * * * The interest of the listening and viewing public in better and more effective service is paramount * * *. And in the common carrier field, as well as in the broadcasting field, 'competition is a relevant factor in weighing the public interest.' [Citations omitted.] 116 U.S. App. D.C. at 96, 321 F.2d at 362, 25 RR at 2057-8.

See also final report and order, Applications of Telephone Companies For Section 214 Certificates For Channel Facilities Furnished to Affiliated Community Antenna Television Systems, Docket No. 18509, FCC 70-115, released February 4, 1970, _____ FCC 2d _____; Microwave Communications, Inc., 18 FCC 2d 953, 16 RR 2d 1037, reconsideration denied, FCC 70-87, released January 26, 1970; In the Matter of Allocation of Frequencies Above 890 Mc., 27 FCC 359, 412, 18 RR 1767, 1788 (1959). Thus, the underlying premise of the opposition pleadings (i.e., that it is erroneous to apply principles of radio broadcast law to common carrier proceedings) has been held by the Courts to be inconsistent with the Commission's comprehensive regulatory

⁴ 32 FCC 459, 22 RR 193, reconsideration denied 32 FCC 1181, 22 RR 194h (1962), affirmed 116 U.S. App. D.C. 321 F.2d 359, 25 RR 2055, cert. denied 375 U.S. 951 (1963).

⁵ Associated Press v. U.S., 326 U.S. 1, 20 (1945).

⁶ See note 3, *supra*.

power over interstate communications. See General Telephone Co. of California v. FCC, _____ U.S. App. D.C. _____, 413 F.2d 390, 16 RR 2d 2001, cert. denied 396 U.S. 888 (1969); Carter Mountain Transmission Corp. v. FCC, supra. Cf. U.S. v. Southwestern Cable Co., 392 U.S. 157, 13 RR 2d 2045 (1968). Furthermore, it is well established that common carrier microwave facilities, such as those proposed in this proceeding, which are designed to carry television signals, are "an extension of, and incidental to, the broadcasting of television signals, and, therefore, * * * incidental to radio communications * * *." Pacific Tel. & Tel. Co., FCC 64-1180, 4 RR 2d 145. This being the case, consideration of Newhouse's other media interests in the Birmingham and Anniston areas is relevant to its application for microwave facilities. In this regard, we note that the debtor-creditor relationship resulting from the WHMA-TV-Newhouse association, raises a further question warranting exploration at the hearing. As noted in paragraph 2, supra, Anniston lies within Station WAPI-TV's Grade B contour and it is from WAPI's studios that the available network signals will be relayed to WHMA-TV. Furthermore, the Newhouse interests control the only CATV system in Anniston. Thus, the Newhouse television station in Birmingham and its commonly owned CATV system in Anniston would compete for audience with the independently owned UHF station in Anniston, to which the Newhouse microwave facility proposes to provide network signals. The Commission has long been concerned with situations having the potential to impair arm-length competition for audience and revenues. See Shenandoah Life Insurance Co., 19 RR 1 (1959). The potential for such impairment here underscores the need for an appropriate inquiry in this proceeding. Therefore, in view of all of the foregoing circumstances, appropriate concentration of control issues will be added. If the evidence adduced does not warrant disqualification of Newhouse, it may be considered under the designated comparative issue. See note 1, supra. Finally, on the basis of Alabama's unopposed allegations, we will condition any grant to take into account the pending antitrust suit against the Newhouse interests. See National Broadcasting Company, Inc., FCC 70R-6, 18 RR 2d 74.

8. Accordingly, it is ordered, That the motion to enlarge issues, filed November 17, 1969; by Alabama Microwave, Inc., is granted to the extent herein indicated; and is denied in all other respects; and the issues in this proceeding are enlarged to include the following:

To determine the extent to which the principals of Newhouse Alabama Microwave, Inc., control or are affiliated with other media of mass communications in the Birmingham and Anniston, Ala., areas.

To determine in light of the evidence adduced pursuant to the preceding issue whether a grant of the Newhouse Alabama Microwave, Inc., applications would create a concentration of control

of the media of mass communications in the Birmingham or Anniston areas which would be inconsistent with the public interest.

9. It is further ordered, That the burdens of proceeding and proof under the issues added herein shall be upon Newhouse Alabama Microwave, Inc.; and

10. It is further ordered, That in the event of a grant of the applications of Newhouse Alabama Microwave, Inc., such grant shall be subject to the condition it is without prejudice to whatever action, if any, the Commission may deem appropriate as a result of the pending action in The Denver Post, Inc. v. Samuel I. Newhouse et al., Case No. 69 Civil 3509, filed August 8, 1969, in the U.S. Court for the Southern District of New York.

Adopted: February 16, 1970.

Released: February 17, 1970.

FEDERAL COMMUNICATIONS
COMMISSION,

[SEAL] BEN F. WAPLE,
Secretary.

[F.R. Doc. 70-2262; Filed, Feb. 24, 1970;
8:46 a.m.]

CIVIL SERVICE COMMISSION

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Notice of Revocation of Authority To Make Noncareer Executive Assign- ment

Under authority of § 9.20 of Civil Service Rule IX (5 CFR 9.20), the Civil Service Commission revokes the authority of the Department of Housing and Urban Development to fill by noncareer executive assignment in the excepted service the position of General Counsel, Federal Housing Administration.

UNITED STATES CIVIL SERV-
ICE COMMISSION,

[SEAL] JAMES C. SPRY,
Executive Assistant to
the Commissioners.

[F.R. Doc. 70-2273; Filed, Feb. 24, 1970;
8:47 a.m.]

OFFICE OF ECONOMIC OPPORTUNITY

Notice of Revocation of Authority To Make Noncareer Executive Assign- ment

Under authority of § 9.20 of Civil Service Rule IX (5 CFR 9.20), the Civil Service Commission revokes the authority of the Office of Economic Opportunity to fill by noncareer executive assignment in the excepted service the position of Special Assistant to the Director.

UNITED STATES CIVIL SERV-
ICE COMMISSION,

[SEAL] JAMES C. SPRY,
Executive Assistant to
the Commissioners.

[F.R. Doc. 70-2272; Filed, Feb. 24, 1970;
8:47 a.m.]

FEDERAL POWER COMMISSION

[Project No. 2430]

LAKE SUPERIOR DISTRICT POWER CO.

Notice of Application for Approval of Exhibit R (Recreational Use Plan) for Constructed Project

FEBRUARY 13, 1970.

Public notice is hereby given that application for approval of Exhibit R has been filed under the regulations under the Federal Power Act (16 U.S.C. 791a-825r) by Lake Superior District Power Co. (correspondence to: K. S. Austin, President, Lake Superior District Power Co., 101 West Second Street, Ashland, Wis. 54806) as part of the license for the constructed Ladysmith Project No. 2430, located on the Flambeau River in the city of Ladysmith in Rusk County, Wis.

According to the Exhibit R, the licensee owns no lands in fee within the project boundary except around the dam, powerhouse, office and substation, and these lands offer little potential for recreational development by the licensee. However, the city of Ladysmith owns, maintains, and operates a municipal park on lands within the project boundary which are subject to project flowage. Facilities at the park include fireplaces, picnic tables and benches, two boat ramps, two docks, a swimming area, two tennis courts, 10 trailer sites, children's playground, bathhouse, sanitation facilities, and parking area. Licensee states it will provide for future recreation needs within the limit of economic feasibility and will consult and cooperate with city and State officials in this regard.

Any person desiring to be heard or to make any protest with reference to said application should on or before April 7, 1970, file with the Federal Power 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. The application is on file with the Commission and available for public inspection.

GORDON M. GRANT,
Secretary.

[F.R. Doc. 70-2255; Filed, Feb. 24, 1970;
8:46 a.m.]

[Docket No. CP70-30]

SOUTHERN NATURAL GAS CO.

Notice of Petition To Amend

FEBRUARY 13, 1970.

Take notice that on February 6, 1970, Southern Natural Gas Co. (applicant), Post Office Box 2563, Birmingham, Ala.,

35202, filed in Docket No. CP70-30 a petition to amend the order of the Commission issued on December 5, 1969, to authorize the abandonment by sale of facilities which were used in the transportation and sale of natural gas in interstate commerce for resale, all as more fully set forth in the petition to amend which is on file with the Commission and open to public inspection.

By the aforementioned order, applicant had the permission and approval of the Commission to abandon all but 1,000 feet of its 12.57-mile 6 $\frac{1}{2}$ -inch O.D. McIntyre lateral line. Applicant states that the 1,000 foot segment was not to be abandoned because Atlanta Gas Light Co. (Atlanta Gas), to whom the McIntyre line is to be sold, had informed applicant that it wished applicant's new measuring station to be located approximately 1,000 feet from the point where the McIntyre lateral connects with the Macon-Milledgeville line. Applicant further states that it has been informed by Atlanta Gas that it wishes the measuring station to be located at the point of interconnection; therefore, applicant wishes to abandon the remaining 1,000 feet by sale to Atlanta Gas.

Any person desiring to be heard or to make any protest with reference to said application should on or before March 9, 1970, file with the Federal Power Commission, Washington, D.C. 20426, a petition to intervene or a protest in accordance with the requirements of the Commission's rules of practice and procedure (18 CFR 1.8 or 1.10) and the regulations under the Natural Gas Act (18 CFR 157.10). 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. Any person wishing to become a party 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.

GORDON M. GRANT,
Secretary.

[F.R. Doc. 70-2256; Filed, Feb. 24, 1970;
8:46 a.m.]

[Docket No. RP66-25]

TENNESSEE VALLEY MUNICIPAL GAS ASSOCIATION ET AL.

Order on Application for Rehearing of Order

FEBRUARY 13, 1970.

On February 10, 1970, the Tennessee Valley Municipal Gas Association filed a limited application for rehearing of our order issued February 6, 1970, in which we vacated previous orders dismissing the Association's complaint and terminating the rate investigation because the record had become stale. The February 6, 1970 order remanded the proceedings for further hearing and provided for a prehearing conference for the purpose of defining the issues, stipulating the facts and setting dates for the filing of evidence to update the record. Among other

things the Association queries as to what issues are to be defined at the prehearing conference.

In the first place since the orders of October 17, 1969, and December 8, 1969, have now been vacated, the February 6, 1970, order providing for further proceedings is interlocutory and not final. Within the meaning of section 19 of the Natural Gas Act the Association is not aggrieved. Therefore an application for rehearing does not lie and should be dismissed.

We do, however, consider the Association's application for rehearing as a request for clarification of our order of February 6, 1970. We note that in our previous order we referred to certain issues, including the cost of money, as rendering the record stale. However, on reopening we do not mean to limit the updating process to these issues. We do not find it desirable to define the issues to be considered in the reopened proceeding and have convened a prehearing conference for the purpose of determining the scope of the further proceedings. It will be the responsibility of the parties to update the record under the direction of the Presiding Examiner in whatever respects are necessary in view of the time that has elapsed since the closing of the record.

The Commission orders:

(A) The Association's filing of February 10, 1970, as an application for rehearing is dismissed.

(B) Our order of February 6, 1970, providing for a prehearing conference and further hearing is supplemented by the present order.

By the Commission.

[SEAL] GORDON M. GRANT,
Secretary.

[F.R. Doc. 70-2260; Filed, Feb. 24, 1970;
8:46 a.m.]

[Docket No. CP70-194]

WILLBROS TERMINAL CO., INC.

Order Authorizing Request for Temporary Authorization

FEBRUARY 13, 1970.

On February 9, 10, and 11, 1970, Willbros Terminal Co., Inc. (Applicant), a wholly owned subsidiary of Williams Brothers Co., Tulsa, Okla., filed telegrams, which we are construing as an application pursuant to section 3 of the Natural Gas Act, requiring Commission authorization for the importation of liquefied natural gas (LNG) produced at the LNG facility of Gaz du Metropolitan, Montreal, Canada, and the transportation by motor carrier and the sale for resale to Boston Gas Company of Boston, Mass., of said LNG. On February 11, 1970, the Commission received telegrams requesting temporary authorization by the applicant and Boston Gas, in order to assure continuity of service to Boston Gas' firm gas customers.

Applicant specifically seeks authorization to import up to 3 million gallons of LNG in approximately 15 to 20 cryogenic trailers on an overland route from

Montreal, Canada, to the LNG facility of Boston Gas Co. in Boston, Mass., by April 1, 1970. Applicant states that it will lease the trucks, all of which meet the Department of Transportation safety requirements for cryogenic trailers. The LNG will be purchased from Gaz du Metropolitan, a subsidiary of the Northern and Central Gas Company of Toronto, Canada, for approximately \$1.20 to \$1.25 per Mcf and delivered to Boston Gas for a price of approximately \$2.20 per Mcf.

Boston Gas Co., the proposed recipient of the LNG, states that the LNG is needed immediately in order to assure continuity of supply to Boston Gas' firm gas customers. Presently, Boston Gas anticipates that it will be 70,000 to 90,000 Mcf short of meeting its customer requirements in the event of a zero-degree day. Replenishment of its LNG storage facility will enable Boston Gas to avoid at least some curtailment of service that might otherwise result. Furthermore, Boston Gas has informed the Commission it will not resell any or all of the subject LNG to any other distributor without advising the Commission of such action.

Based upon the statements of fact contained in the above-mentioned telegrams and upon consideration of the nature of the operations proposed, the Commission will not raise any question as to the application of the Natural Gas Act to the proposed transportation and sale of LNG.

The Commission finds: Based upon the allegations of applicant and Boston Gas and to prevent any avoidable curtailment of service to customers in Boston Gas this winter heating season and in view of the time period that would necessarily elapse in completing the proceeding, the Commission believes it is in the public interest to grant the request for temporary authorization of the above-described importation of LNG.

The Commission orders:

(A) The application of Willbros Terminal Co., Inc., for temporary authorization to import LNG is hereby granted.

(B) The grant of the instant temporary authorization is without prejudice to such final determination of the application in the proceeding in Willbros Terminal Co., Inc., Docket No. CP70-194, as the record may require.

(C) The temporary authorization issued herein and the rights granted hereunder are conditioned upon Willbros Terminal Co.'s compliance with all applicable Commission regulations under the Natural Gas Act and particularly Part 153.

(D) The authorization granted by paragraph (A) above is conditioned as follows: (i) Applicant shall secure all necessary Federal, State and local authorization for the transaction described above, as well as all Canadian authorizations as may be required, and (ii) 30 days after the completion of the above-described transportation and sale, Willbros will submit a written report to the Commission stating the actual volumes delivered both in barrels and Mcf equivalent under standard conditions (60°

F., 14.73 p.s.i. at 1,000 B.t.u. per cubic foot) and the price Mcf thereof.

(E) In the event that applicant should abandon or permanently cease for any reason whatsoever all or any part of the instant operations described herein, applicant shall notify the Commission immediately of said fact and the reasons therefor.

(F) Applicant shall not, during the term of the authorization granted by this order, materially change or alter its operations described herein without first obtaining the permission and approval of the Commission.

By the Commission.¹

[SEAL] GORDON M. GRANT,
Secretary.

[F.R. Doc. 70-2261; Filed, Feb. 24, 1970;
8:46 a.m.]

INTERSTATE COMMERCE COMMISSION

FOURTH SECTION APPLICATION FOR RELIEF

FEBRUARY 19, 1970.

Protests to the granting of an application must be prepared in accordance with Rule 1100.40 of the general rules of practice (49 CFR 1100.40) and filed within 15 days from the date of publication of this notice in the FEDERAL REGISTER.

LONG-AND-SHORT HAUL

FSA No. 41900—*Newsprint paper from Saint John, New Brunswick, Canada.* Filed by Traffic Executive Association—Eastern Railroads, agent (E.R. No. 2970), for interested rail carriers. Rates on newsprint paper, in carloads, as described in the application, from Saint John, New Brunswick, Canada, to Philadelphia, Pa.

Grounds for relief—Revision of minimum weights.

By the Commission.

[SEAL] H. NEIL GARSON,
Secretary.

[F.R. Doc. 70-2265; Filed, Feb. 24, 1970;
8:47 a.m.]

[Notice 30]

MOTOR CARRIER TEMPORARY AUTHORITY APPLICATIONS

FEBRUARY 19, 1970.

The following are notices of filing of applications for temporary authority under section 210a(a) of the Interstate Commerce Act provided for under the new rules of Ex Parte No. MC-67 (49 CFR Part 1131), published in the FEDERAL REGISTER, issue of April 27, 1965, effective July 1, 1965. These rules provide that protests to the granting of an application must be filed with the field official

named in the FEDERAL REGISTER publication, within 15 calendar days after the date of notice of the filing of the application is published in the FEDERAL REGISTER. One copy of such protests must be served on the applicant, or its authorized representative, if any, and the protests must certify that such service has been made. The protests must be specific as to the service which such protestant can and will offer, and must consist of a signed original and six copies.

A copy of the application is on file, and can be examined at the Office of the Secretary, Interstate Commerce Commerce Commission, Washington, D.C., and also in field office to which protests are to be transmitted.

MOTOR CARRIERS OF PROPERTY

No. MC 71642 (Sub-No. 9 TA), filed February 16, 1970. Applicant: N. S. DESHONG, 3201 Mill Creek Road, Wilmington, Del. 19808. Applicant's representative: Samuel W. Earnshaw, 833 Washington Building, Washington, D.C. 20005. Authority sought to operate as a contract carrier, by motor vehicle, over irregular routes, transporting: *Chemically hardened fiber*, from the plantsite of NVF Co., Yorklyn, Del., to Nichols, S.C., for account of NVF Co., for 180 days. Supporting shipper: NVF Co., Wilmington, Del. 19899, Douglas Harding, Traffic Manager. Send protests to: Paul J. Lowry, District Supervisor, Interstate Commerce Commission, Bureau of Operations, 206 Old Post Office Building, 129 East Main Street, Salisbury, Md. 21801.

No. MC 107882 (Sub-No. 15 TA), filed February 16, 1970. Applicant: ARMORED MOTOR SERVICE CORPORATION, 160 Ewingville Road, Trenton, N.J. 08638. Authority sought to operate as a contract carrier, by motor vehicle, over irregular routes, transporting: *Money orders, travelers' cheques, and financial paper*, from Rochester, N.Y., to Trenton, N.J.; Atlanta, Ga.; Denver, Colo., and New York, N.Y.; and from Chicago, Ill. to Trenton, N.J., and Denver, Colo., for 180 days. Supporting shipper: American Express Co. 132 West 31st Street, New York, N.Y. 10001. Send protests to: Raymond T. Jones, District Supervisor, Interstate Commerce Commission, Bureau of Operations, 410 Post Office Building, Trenton, N.J. 08608.

No. MC 116063 (Sub-No. 117 TA), filed February 16, 1970. Applicant: WESTERN-COMMERCIAL TRANSPORT, INC., 2400 Cold Springs Road, Post Office Box 270, Fort Worth, Tex. 76101. Applicant's representative: W. H. Cole (same address as above). Authority sought to operate as a common carrier, by motor vehicle, over irregular routes, transporting: *Coconut oil*, in bulk, in tank vehicles, from Opelousas, La., to Winston-Salem, N.C., for 180 days. Supporting shipper: Cotton Products Co., Inc., Post Office Box 591, Opelousas, La. 70507. Send protests to: Billy R. Reid, District Supervisor, Interstate Commerce Commission, Bureau of Operations, Room 9A27, Federal Office Building, 819 Taylor Street, Fort Worth, Tex. 76102.

No. MC 116077 (Sub-No. 288 TA), filed February 16, 1970. Applicant: ROBERTSON TANK LINES, INC., 5700 Polk Avenue, Post Office Box 1505, Houston, Tex. 77001. Applicant's representative: J. C. Browder (same address as above). Authority sought to operate as a common carrier, by motor vehicle, over irregular routes, transporting: *White portland cement*, in bulk, from Houston, Tex., to Bowie, Miss., for 180 days. NOTE: Applicant does not intend to tack with existing authority. Supporting shipper: Ideal Cement Co., Division of Ideal Basic Industries, Inc. (Mr. A. S. Bonney, Traffic Manager), 821 17th Street, Denver, Colo. 80202. Send protests to: District Supervisor John C. Redus, Bureau of Operations, Interstate Commerce Commission, Post Office Box 61212, Houston, Tex. 77061.

No. MC 116702 (Sub-No. 35 TA), filed February 16, 1970. Applicant: THADDEUS A. GORSKI, doing business as GORSKI BULK TRANSPORT, 1570 Kildare Road, Windsor, Ontario, Canada. Applicant's representative: Clyde E. Herring, 815 17th Street NW, Washington, D.C. 20006. Authority sought to operate as a contract carrier, by motor vehicle, over irregular routes, transporting: *Ammonium sulfite*, in bulk in tank vehicles, from La Moynie, Ala., to port of entry at or near Detroit, Mich., on the international boundary line between the United States and Canada, for 150 days. Supporting shipper: Allied Chemical Corp., 40 Rector Street, New York, N.Y. 10008. Send protests to: District Supervisor Gerald J. Davis, Interstate Commerce Commission, Bureau of Operations, 1110 Broderick Tower, 10 Witherell, Detroit, Mich. 48226.

No. MC 124333 (Sub-No. 12 TA), filed February 16, 1970. Applicant: BAKER PETROLEUM TRANSPORTATION CO., INC., Pyles Lane, New Castle, Del. 19720. Applicant's representative: Samuel W. Earnshaw, 833 Washington Building, Washington, D.C. 20005. Authority sought to operate as a contract carrier, by motor vehicle, over irregular routes, transporting: *Fuel oil*, in bulk, in tank vehicles, for account of Paragon Oil Co. Division, Texaco, Inc., from Claymont, Del., to Bridgeton and Millville, N.J., for 180 days. Supporting shipper: Paragon Oil Co. Division of Texaco, Inc., 12 South 12th Street, Philadelphia, Pa. 19107, Paul C. Huelsenbeck, Assistant Area Manager Operations. Send protests to: Paul J. Lowry, District Supervisor Interstate Commerce Commission, Bureau of Operations, 206 Old Post Office Building, 129 East Main Street, Salisbury, Md. 21801.

No. MC 124688 (Sub-No. 4 TA) (Correction), filed December 29, 1969, published in the FEDERAL REGISTER issue of January 23, 1970, and republished in part, as corrected, this issue. Applicant: INDEPENDENT DELIVERY, INC., 1000 South Weller Street, Seattle, Wash. 98104. Applicant's representative: Joseph O. Earp, 411 Lyon Building, Seattle, Wash. 98104. NOTE: The purpose of this partial republication is to show "Marion" County, Oreg., in lieu of "Mason" County. The rest of the application remains as previously published.

¹ Commissioner Bagge concurs in the result.

No. MC 127526 (Sub-No. 1 TA), filed February 16, 1970. Applicant: CECIL N. BUCHOLZ, 201 Second Avenue SW., Watertown, S. Dak. 57201. Applicant's representative: D. K. Loucks, 17 Second Avenue SW., Watertown, S. Dak. 57201. Authority sought to operate as a *contract carrier*, by motor vehicle, over irregular routes, transporting: *Malt beverages, advertising matter and supplies*, from Milwaukee, Wis., and Omaha, Nebr., to Watertown, S. Dak.; and *empty containers*, from Watertown, S. Dak., to Milwaukee, Wis., and Omaha, Nebr., for 180 days. Supporting shippers: Kahnke's Watertown Beverage Co., Rural Route 2, Watertown, S. Dak. 57201; and Brewster Distributing Co., 174½ North Maple Street, Watertown, S. Dak. 57201. Send protests to: J. L. Hammond, District Supervisor, Interstate Commerce Commission, Bureau of Operations, Room 369, Federal Building, Pierre, S. Dak. 57501.

No. MC 134305 TA (Correction), filed February 2, 1970, published in the FEDERAL REGISTER issue Notice No. (21) and republished as corrected, this issue. Applicant: HARRY E. MAMM, doing business as HAMM TRUCKING, Rural Route No. 1, Erie, Ill. 61250. Applicant's representative: Albert A. Andrin, 39 South La Salle Street, Chicago, Ill. 60603. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Dry milk solids, including casein, sodium caseinate, coprecipitate and whey*; (1) from Erie, Ill., to Detroit, Mich.; Bowling Green, Rittman, and Wapakoneta, Ohio; Indianapolis, Ind.; Carthage, Kansas City, and Trenton, Mo.; Green Bay and Hager City, Wis.; Minneapolis and Rogers, Minn.; Cedar Rapids and Davenport, Iowa; (2) from Trenton, Mo., to Erie, Ill., for 180 days. NOTE: The purpose of this republication is to include the territorial description, which was inadvertently omitted in previous publication. Supporting shipper: The Erie Casein Co., Erie, Pa. Send protests to: Andrew J. Montgomery, District Supervisor, Interstate Commerce Commission, Bureau of Operations, 1086 U.S. Courthouse and Federal Office Building, 219 South Dearborn Street, Chicago, Ill. 60604.

No. MC 134334 (Sub-No. 1 TA), filed February 16, 1970. Applicant: DEAN H. PETERSEN & SON, INC., 367 Garden Street, Bennet, Nebr. 68317. Applicant's representative: Fred Coffman, Post Office Box 806, Lincoln, Nebr. 68501. Authority sought to operate as a *contract carrier*, by motor vehicle, over irregular routes, transporting: *Dairy product ingredients* used in manufacture of confections, from Sabetha, Kans., to Lincoln, Nebr., for the account of Russell Stover Candies, Inc., for 180 days. Supporting shipper: Russell Stover Candies, Inc., 1221 Baltimore Avenue, Kansas City, Mo. 64105. Send protests to: District Supervisor Johnston, Bureau of Operations, Interstate Commerce Commission, 315 Post Office Building, Lincoln, Nebr. 68508.

No. MC 134340 TA, filed February 16, 1970. Applicant: ROBERT H. PARSONS, doing business as ROBERT PAR-

SONS TRUCKING, 1500 Adams Avenue, Oshkosh, Wis. 54901. Applicant's representative: William C. Dineen, 412 Empire Building, 710 North Plankinton Avenue, Milwaukee, Wis. 43203. Authority sought to operate as a *contract carrier*, by motor vehicle, over irregular routes, transporting: *Corrugated boxes, built-up assembled box parts, corrugated logs or rolls, pallets, and rolls of pulpboard*, from the plantsite and warehouse facilities of Georgia-Pacific Corp. at Oshkosh, Wis., to points in Illinois, Iowa, Michigan, and Minnesota, for 180 days. Supporting shipper: Georgia-Pacific Corp., Post Office Box 199, Oshkosh, Wis. 54902 (Jack B. Mitchell). Send protests to: District Supervisor Lyle D. Helfer, Interstate Commerce Commission, Bureau of Operations, 135 West Wells Street, Room 807, Milwaukee, Wis. 53203.

No. MC 134342 TA, filed February 16, 1970. Applicant: JAMES PLOG, 301 East Main Street, Milledgeville, Ill. 61051. Applicant's representative: Melvin N. Routman, 306-308 Reisch Building, Springfield, Ill. 62701. Authority sought to operate as a *contract carrier*, by motor vehicle, over irregular routes, transporting: *Dry animal, livestock and poultry feeds, feed supplements and feed ingredients*, from Rock Falls, Ill., to points in Cedar, Clinton, Dubuque, Jackson, Jones, Muscatine, and Scott Counties, Iowa, for the account of W. R. Grace & Co., for 180 days. Supporting shipper: W. R. Grace & Co., Memphis, Tenn. Send protests to: Andrew J. Montgomery, District Supervisor, Interstate Commerce Commission, Bureau of Operations, 1086 U.S. Courthouse and Federal Office Building, 219 South Dearborn Street, Chicago, Ill. 60604.

By the Commission.

[SEAL]

H. NEIL GARSON,
Secretary.

[FR. Doc. 70-2266; Filed, Feb. 24, 1970;
8:47 a.m.]

[Notice 496]

MOTOR CARRIER TRANSFER PROCEEDINGS

FEBRUARY 19, 1970.

Synopses of orders entered pursuant to section 212(b) of the Interstate Commerce Act, and rules and regulations prescribed thereunder (49 CFR Part 1132), appear below:

As provided in the Commission's special rules of practice any interested person may file a petition seeking reconsideration of the following numbered proceedings within 20 days from the date of publication of this notice. Pursuant to section 17(8) of the Interstate Commerce Act, the filing of such a petition will postpone the effective date of the order in that proceeding pending its disposition. The matters relied upon by petitioners must be specified in their petitions with particularity.

No. MC-FC-71756. By order of February 13, 1970, the Motor Carrier Board approved the transfer to Martin E. Davis,

Donald R. Gardner and Billy W. Gist, a partnership, doing business as Martin E. Davis, and Donald R. Gardner, and Billy W. Gist, St. Louis, Mo., of the operating rights in certificate No. MC-2442 issued June 10, 1949, to Hugo Redhage and Erna Redhage, a partnership, doing business as Redhage Truck Line, Oermann, Mo., authorizing the transportation of general commodities, except those of unusual value, and except dangerous explosives, household goods, commodities in bulk, commodities requiring special equipment, and those injurious or contaminating to other lading, over a regular route, between Richwoods, Mo., and National Stock Yards, Ill., serving all intermediate points and certain off-route points. Thad F. Niemira, 4619 Hampton Avenue, St. Louis, Mo. 63109, attorney for applicants.

No. MC-FC-71877. By order of February 11, 1970, the Motor Carrier Board approved the transfer to Humansville Truck Line, Inc., Humansville, Mo., of certificate No. MC-52642 and certificates of registrations Nos. MC-52642 (Sub-No. 2) and MC-52642 (Sub-No. 3) issued to C. M. McNeely and Pearl McNeely, doing business as Humansville Truck Line, Humansville, Mo., covering the transportation of: General commodities between specified points in Missouri. Herman W. Huber, 101 East High Street, Jefferson City, Mo. 65101, attorney for applicants.

No. MC-FC-71893. By order of February 16, 1970, the Motor Carrier Board approved the transfer to Gerald R. Fischer and LeRoy A. Fischer, a partnership, doing business as Fischer Brothers, Box 736, Hartington, Nebr. 68739, of certificate No. MC-92018, issued February 11, 1957, to Coleridge Elevator Co., Inc., Coleridge, Nebr. 68727, authorizing the transportation of:

Agricultural implements and parts, grain, feed, hardware, and building materials, from Sioux City, Iowa, to Coleridge, Nebr., serving the intermediate and off-route points within 75 miles of Coleridge, Nebr., for delivery only; from Sioux City over U.S. Highway 20 to junction Nebraska Highway 15, thence over Nebraska Highway 15 to Coleridge, and return over the same route with no transportation for compensation except as otherwise authorized.

Emigrant movables, between Coleridge, Nebr., and points within 15 miles thereof, on the one hand, and, on the other, points in that part of Iowa on and north of U.S. Highway 6, and points in that part of South Dakota on and south of U.S. Highway 14 and east of the Missouri River.

Grain, Hay, and Livestock, between Coleridge, Nebr., and points within 15 miles thereof, on the one hand, and, on the other points in that part of Iowa on and north of U.S. Highway 30 and on and west of U.S. Highway 71, and points in that part of South Dakota on and south of U.S. Highway 14 and east of the Missouri River.

No. MC-FC-71902. By order of February 16, 1970, the Motor Carrier Board

approved the transfer to Groups Unlimited, Inc., New York, N.Y., of the license in No. MC-12426 issued December 8, 1959, to Scenic Pleasure Tours, Inc., New York, N.Y., authorizing the holder to engage as a broker at New York, N.Y., Atlantic City, N.J., Philadelphia, Pa., and Baltimore, Md., in the arrangement of transportation for passengers and their baggage, in round-trip all-expense tours, by motor vehicle or by a combination of motor vehicle and other means of transportation, beginning and ending at New York, N.Y., and extending between points in the United States, except Alaska and Hawaii. Sidney J. Leshin, 501 Madison Avenue, New York, N.Y. 10022, attorney for applicants.

No. MC-FC-71908. By order of February 13, 1970, the Motor Carrier Board approved the transfer to Wayne E. Schroeder, 513 Ann Street, Manning, Iowa 51455, of the operating rights in certificate No. MC-6864 issued April 26, 1949, to Chris Schmidt, 423 10th Street,

Manning, Iowa 51455, authorizing the transportation of livestock and agricultural commodities, between Manning, Iowa, and Omaha, Nebr., serving intermediate and off-route points within 15 miles of Manning, Iowa; and mill feeds, building materials, farm machinery and parts, and farm hardware, from Omaha, Nebr., to Manning, Iowa, serving intermediate and off-route points within 15 miles of Manning, Iowa.

[SEAL]

H. NEIL GARSON,
Secretary.[F.R. Doc. 70-2264; Filed, Feb. 24, 1970;
8:47 a.m.]

[Ex Parte No. 252 (Sub. No. 1)]

**INCENTIVE PER DIEM CHARGES,
1968**

FEBRUARY 20, 1970.

The order of December 12, 1969, served December 22, 1969, intended that persons, including respondents, who desired to

participate actively in the proceeding would notify the Secretary on or before January 23, 1970, to have their names placed on the service list to receive copies of pleadings filed with the Commission.

It has come to the attention of the Commission that a number of respondent carriers did not notify the Secretary that they desired to have their names placed on the service list as active participants for the receipt of verified statements and pleadings. To avoid a multiplicity of calls requesting to be placed on the service list, all respondent carriers are hereby notified again that if they desire to have their names placed on the service list, they should notify the Office of the Secretary in writing on or before March 2, 1970. Thereafter, a supplemental service list will be issued.

[SEAL]

H. NEIL GARSON,
Secretary.[F.R. Doc. 70-2333; Filed, Feb. 24, 1970;
8:48 a.m.]**CUMULATIVE LIST OF PARTS AFFECTED—FEBRUARY**

The following numerical guide is a list of parts of each title of the Code of Federal Regulations affected by documents published to date during February.

1 CFR	Page	5 CFR	Page	7 CFR—Continued	Page
Appendix A	3552	213	2383,	PROPOSED RULES—Continued	
		2643, 2644, 2765, 2859, 3153, 3279		915	3173
3 CFR		305	3065, 3217	1001	2527
PROCLAMATIONS:		752	3217	1002	2527
1677 (see PLO 4762)	2402	754	3217	1003	2527
2929 (see Proc. 3964)	3645	771	3217	1004	2527
3140 (see Proc. 3964)	3645			1005	2527
3822 (modified by Proc. 3964)	3645	7 CFR		1006	2527, 2878
3958	2571	5	3158	1007	2527
3959	2641	52	3651	1011	2527
3960	2815	301	2577, 2859	1012	2527, 2878
3961	3019	318	2503	1013	2527, 2878
3962	3061	319	2503, 3021	1015	2527
3963	3063	354	2859	1016	2527
3964	3645	401	3279	1030	2527
3965	3649	413	3107	1032	2527
EXECUTIVE ORDERS:		601	2817, 3217	1033	2527
11211 (amended by EO 11506)	2501	722	2721	1034	2527, 2729
11248 (amended by EO 11510)	3105	724	2504-2506	1035	2527
11282 (superseded by EO 11507)	2576	729	2860	1036	2527
11288 (superseded by EO 11507)	2576	811	2383	1040	2527
11353 (revoked by EO 11509)	2857	857	2507	1041	2527, 2730
11368 (see EO 11506)	2501	907	2578, 2860, 3158, 3218	1043	2527
11418 (revoked by EO 11509)	2857	908	2861, 3159	1044	2527
11506	2501	910	2383,	1046	2527
11507	2573	913	2721, 2765, 3021, 3065, 3280, 3652	1049	2527
11508	2855	947	2722, 3021, 3653	1050	2527
11509	2857	966	2766	1060	2527
11510	3105	980	3159	1061	2527
PRESIDENTIAL DOCUMENTS OTHER THAN PROCLAMATIONS AND EXECUTIVE ORDERS:		989	3022, 3160	1062	2527
Regulation of February 11, 1970	2951	989	3653	1063	2527
		1421	2766, 3107	1064	2527
		PROPOSED RULES:		1065	2527
		52	2668, 2787	1068	2527
		724	2526, 3293	1069	2527
		729	2994	1070	2527
		907	2526	1071	2527
		911	3173	1073	2527
				1075	2527

7 CFR—Continued

Page

PROPOSED RULES—Continued

1076	2572
1078	2527
1079	2527
1090	2527
1094	2527
1096	2527
1097	2527
1098	2527, 2669, 3174
1099	2527, 3174
1101	2527
1102	2527
1103	2572
1104	2527
1106	2527
1108	2527
1120	2527
1121	2527, 3293
1124	2527
1125	2527
1126	2527, 3293
1127	2527
1128	2572
1129	2527
1130	2527
1131	2527, 3174
1132	2527
1133	2527
1134	2527
1136	2527
1137	2527
1138	2527

8 CFR

211	3065
212	3065
214	3066

PROPOSED RULES:

103	3172
223a	3172
238	3120, 3233
299	3172

9 CFR

56	3654
74	3022, 3023
76	2507,
	2508, 2644, 2722, 2767, 2817, 2861,
	2953, 3066, 3218, 3654
161	3023

PROPOSED RULES:

2	2729
318	2527

10 CFR

3	2862
14	2723

12 CFR

204	2768
207	3280
217	2768, 2953
220	3280
226	2865
265	2383
329	2768
510	2509
526	2723, 3219
542	2509
543	2509
545	2511, 3024
555	3024, 3107
556	2514
562	2514

12 CFR—Continued

Page

563	3027, 3107
567	2515
569	3027
571	2515
582	2515
591	2725
610	3153

13 CFR

121	2385
PROPOSED RULES:	
107	3032
113	2596, 3041
121	2597

14 CFR

13	2578
21	2818, 3154
37	3154
39	2517,
	2726, 2868, 3108, 3153, 3220, 3281,
	3282
47	2578
61	2818
71	2517,
	2580-2583, 2645, 2646, 2726, 2769,
	2819, 2869, 2953, 3029, 3109, 3110,
	3155, 3156, 3220, 3221, 3282, 3659
73	2769
75	2583, 2584, 2726, 2819, 3659
91	2578, 2818
95	3221
97	2390, 2647, 2954, 3223, 3283
121	2818, 3154
127	3154
135	3154
145	3154
241	2819

PROPOSED RULES:

21	2412
23	3175
25	2412, 3175
27	3175
29	3175
39	2594, 2996
71	2595,
	2670, 2791-2793, 2889, 2890, 2996,
	2997, 3119, 3175, 3176, 3235-3237
73	2595, 3297
75	2596
171	2528
207	2730
211	3300
299	3032
302	3300
399	3300

16 CFR

13	2385-2387,
	2517-2522, 2769-2773, 3156, 3157
15	2655, 2656, 3067
500	3110
501	3110

PROPOSED RULES:

89	3077
118	2673
250	2998

17 CFR

200	3659
240	3660
PROPOSED RULES:	
230	2672

18 CFR

Page

PROPOSED RULES:

2	3240
101	2413
141	2832, 3074
157	3076
201	2413
250	2730

19 CFR

8	3232
10	2822

PROPOSED RULES:

9	2410
---	------

20 CFR**PROPOSED RULES:**

405	2593
-----	------

21 CFR

1	2869
3	2656, 2657, 2774, 3029
5	2584
120	2585, 2727, 3161
121	2727, 2822, 2823, 3161, 3162
135e	3162
135g	3162
146b	2657
147	2657, 2870, 2993
148m	3279
164	2658
191	2659

PROPOSED RULES:

3	2411
120	3233, 3234
130	3073
138	2995
141b	2670
146	3073
146b	2670
191	3119
320	2874

22 CFR

123	3029
125	3029
207	3232

23 CFR**PROPOSED RULES:**

255	3176
-----	------

24 CFR

200	2823
Ch. VI	2827
1914	3292
1915	3292

26 CFR

1	2774
13	3030, 3067

29 CFR

8	2387
201	2556
202	2557
203	2561
205	2563
402	2990
403	2990
404	2990
405	2990
406	2990
408	2990

29 CFR—Continued

	Page
409	2990
541	2389, 3220
690	3068
727	2774
1500	2822
1601	3163

PROPOSED RULES:

462	2994
-----	------

30 CFR

55	3660
56	3665
57	3670

31 CFR

316	2827
-----	------

32 CFR

54	3164
65	2870
101	2990
102	2871
115	2775
210	3068
536	2659
564	3111
1715	2873

33 CFR

117	3678
205	3069
207	2660, 2727

PROPOSED RULES:

117	3234
-----	------

35 CFR

253	3232
-----	------

36 CFR

221	3283
261	3165

PROPOSED RULES:

7	2787
---	------

37 CFR

1	2828
3	2828

38 CFR

2	3166
3	2827
17	2389, 3166

39 CFR**PROPOSED RULES:**

261	2410
262	2410

41 CFR

1-1	3070, 3283, 3284
1-12	3113
3-1	2992
4-1	3679
4-2	3680
4-3	3681
4-4	3682
4-12	3682, 3683
4-16	3683
5A-2	2399
5A-72	2400
5A-73	2400
5B-3	2585
9-5	2586
14-1	2523
60-2	2586
101-11	3219
101-30	3071

42 CFR

73	2400
----	------

PROPOSED RULES:

71	3119
73	2411
81	2411

43 CFR

1810	3072
1820	3072
1860	3072
2010	3072
2020	3072
2030	3072
2120	3072
2200	3072
2210	3072
2220	3072
2230	3072
2240	3072
2250	3072
2310	3072
2320	3072
2330	3072
4110	2591

PUBLIC LAND ORDERS:

4755 (corrected)	2828
4762	2402
4763	2776

PROPOSED RULES:

23	2994
1840	3173

45 CFR

233	3072
249	3072
1009	3284
1061	2402
1067	3284, 3288

PROPOSED RULES:

85	2791
----	------

46 CFR

2	3706
24	3707
30	3707
31	3709
32	3709
35	3709
38	3709
39	3709
40	3710
70	3710
90	3710
98	3711
110	3712
146	3712
151	3714
175	3713
502	2523
504	3114

47 CFR

2	3169
15	2405, 2660
63	2776
64	2776
73	2590, 2828
81	3169
83	3170
87	2829, 3170
97	3117

PROPOSED RULES:

25	2671
73	2831, 2998, 3120, 3179
74	2672

49 CFR

7	3289
71	2667
371	2409
393	3167
1023	2524
1033	2868
1043	2829
1048	2727, 2992, 3290
1084	2829

PROPOSED RULES:

172	3298
173	3298
174	3298
177	3298
179	2794
192	3237
236	2412
371	3177, 3297
393	3177
Ch. X	2890
1048	2995

50 CFR

28	3170
32	2592
33	2592, 2992, 3171, 3291, 3292, 3684
279	2407

PROPOSED RULES:

280	2526
-----	------

FEDERAL REGISTER

VOLUME 35 • NUMBER 38

Wednesday, February 25, 1970 • Washington, D.C.

PART II

DEPARTMENT OF TRANSPORTATION

Coast Guard

•

Certain Bulk
Dangerous Cargoes
on Unmanned Tank Barges



Title 46—SHIPPING

Chapter I—Coast Guard, Department of Transportation

[CGFR 70-10]

CERTAIN BULK DANGEROUS CARGOES ON UNMANNED TANK BARGES

A notice of proposed rule making was published in the FEDERAL REGISTER of February 7, 1969 (34 F.R. 1831) and in the Merchant Marine Council Public Hearing Agenda dated March 24, 1969 (CG-249). The proposed amendments were identified as Items PH 1-69 to PH 9-69, inclusive. Item PH 10-69 was published in the FEDERAL REGISTER of February 15, 1969 (34 F.R. 2254). The Merchant Marine Council held a public hearing on March 24, 1969 in Washington, D.C. on these ten items in accordance with the terms of the notices. Interested persons were given the opportunity to submit written comments and to make oral comments regarding all the proposed amendments at the public hearing. At the conclusion of the public hearing the Council at an executive session held on March 24 and 25, 1969 duly considered all the proposed amendments and the comments submitted.

This is the third of a series of documents which concerns the amendments considered by the Merchant Marine Council at the public hearing held on March 24, 1969. The first document concerned the proposals designated as Items PH 5-69, PH 9a-69, and that part of Item 4a-69 which involved amendments to Title 33, Code of Federal Regulations. This document was published in the FEDERAL REGISTER of October 29, 1969 (34 F.R. 17478). The second document concerned the proposals designated as Items PH 2-69, PH 3-69, PH 4b and 4c-69, PH 6a and 6b-69, PH 8-69, PH 9b-69, PH 10-69 and that part of PH 4a-69 which involved amendments to Title 46, Code of Federal Regulations. This document was also published in the FEDERAL REGISTER of October 29, 1969 (34 F.R. 17479). This third document concerns the proposals designated as Item PH 1-69. This third document creates a new Subchapter O to Title 46, Code of Federal Regulations which regulates certain bulk dangerous cargoes when carried on unmanned tank barges. In addition, this document makes changes to Subchapters A, C, D, H, I, J, N, and T necessitated by the establishment of Subchapter O. The only remaining item, of the Public Hearing Agenda dated March 24, 1969 is Item PH 7-69 which will appear in a subsequent document.

The regulations promulgated by this document in Part 151, Subchapter O constitutes the first phase of a program to develop regulations for water transportation of all bulk dangerous cargoes

having hazards other than, or in addition to, the conventional flammability and combustibility of petroleum products. The scope of complete program includes all physical forms of such cargoes (solid, liquid, liquefied gas) transported in ships, barges, and portable tanks. However, the present Part 151 is limited to liquids and liquefied gases carried in unmanned barges and include only cargo carrying requirements. Certification as tank barges or cargo barges will continue to be in accordance with the procedures of Subchapter D or Suchapter I. As an interim measure pending development of additional parts to Subchapter O, Part 151 provides that manned barges carrying cargoes regulated by this subchapter will be considered by the Coast Guard on an individual basis and may be required to meet the cargo containment and handling requirements specified for unmanned barges. The additional parts to Subchapter O to complete the program are still being developed by the joint industry and Coast Guard Task Group under the Chemical Transportation Advisory Panel to the Merchant Marine Council of the Coast Guard. These additional regulations will be considered at public hearings in the future.

As a result of its study of the regulations proposed in Item PH 1-69 and the many comments received from the public with respect thereto, the Merchant Marine Council has recommended to the Commandant, U.S. Coast Guard a number of changes in the regulations as originally proposed. The significant changes recommended by the Council are as follows:

1. The proposed method of dealing with cargo compatibility has been changed to make it less restrictive by placing responsibility for cargo compatibility on the shipper and/or owner of the barge. This change avoids the necessity of including lengthy endorsements on the Certificate of Inspection. This change has been effected by altering the cargo separation column and the footnotes in Table 151.05, by deleting §§ 151.05-1(f), 151.13-5(a)(2), by changing §§ 151.13-5(b), 151.13-10(a), and by adding a new § 151.45-4(d)(11).

2. The hull type requirement was reduced from Type II to Type III for acetonitrile, *n*-butyl acrylate, isobutyl acrylate, ethyl acrylate, ethylenediamine, methyl acrylate and methyl methacrylate. This reduction is reflected by changes for these products in Table 151.05.

3. Table 151.01-10(d) was changed to emphasize that all products regulated by Subchapter D (Tank Vessels) are flammable or combustible as defined in Subchapter D.

4. The following products were added to Table 151.01-10(d)—Cargoes to be regulated by Subchapter D: Asphalt blending stocks (roofers flux, straight run residue), cumene, distillates

(straight run, flashed feed stocks), dodecanol, gas oil (cracked), gasolines (straight run, polymer), gasoline blending stocks (alkylates reformates), heptanol, hexanol, ethoxylated dodecanol, ethoxylated pentadecanol, ethoxylated tridecanol, ethoxylated tetradecanol, linear alcohol (12-15 carbon), nonanol, octanol, oils (clarified, road, transformer), pentadecanol, tetradecanol, undecanol, 1-pentene, 1-heptene, 1-octene, 1-decene, 1-undecene, 1-tridecene, 1-tetradecene, and 1-hexene.

5. The word "minimum" was inserted in the first sentence of § 151.01-1(a) to make it clear that Part 151 sets forth only the minimum requirements for unmanned tank barges.

6. In § 151.15-3, a new paragraph (c) has been added and the former paragraph (c) has been made (d). The new paragraph permits cargoes with a specific gravity greater than that for which the scantlings of the tank were designed to be carried provided the maximum cargo weight (tons) in a specific tank does not exceed the maximum cargo weight (tons) endorsed on the Certificate of Inspection, and provided the scantlings are sufficient to prevent rupture under the full head of the higher density cargo.

7. In § 151.50-22, a new paragraph (b) has been added, and the former paragraph (b) has been redesignated as (c). The new paragraph (b) permits the use of compressed air to discharge hydrochloric acid from gravity type cargo tanks if the tanks are of cylindrical shape with dished heads and the air pressure does not exceed the design pressure or 10 pounds per square inch gage.

8. In § 151.50-34(a) the listing of prohibited materials for the construction of equipment coming into contact with vinyl chloride has been changed by adding magnesium, mercury, and silver, and by deleting zinc and lead.

Accordingly, after due consideration of all the relevant matter including the comments of the interested persons and the recommendations of the Merchant Marine Council, the Commandant, U.S. Coast Guard has approved the regulations and the amendments to existing regulations set forth below.

SUBCHAPTER A—PROCEDURES APPLICABLE TO THE PUBLIC

PART 2—VESSEL INSPECTIONS

Subpart 2.01—Inspecting and Certifying of Vessels

§ 2.01-7 [Amended]

1. In § 2.01-7, Table 2.01-7(a) is amended by adding an eighth column, by adding two footnotes at the end of the table (footnotes 10 and 11), and by revising the entries in the fifth column for "non-self-propelled" vessels to read as follows:

TABLE 30.01-5(d)

TABLE 30.01-5(d)

TABLE 24.05-1(a)

100

TABLE 30.25-1—Continued

Dextrose solution.
 Diacetone alcohol.
 Dicyclopentadiene.
 Diethylbenzene.
 Diethylene glycol.
 Diethylene glycol monoethyl ether.
 Diethylene glycol monomethyl ether.
 Diisobutyl carbinol.
 Diisobutylene.
 Dioctyl phthalate.
 Dipropylene glycol.
 Distillates:
 Straight run.
 Flashed feed stocks.
 Dodecanol.
 Dodecene.
 1-Dodecene.
 Ethane.
 Ethoxylated dodecanol.
 Ethoxylated pentadecanol.
 Ethoxylated tetradecanol.
 Ethoxylated tridecanol.
 Ethoxy triglycol.
 Ethyl acetate.
 Ethyl alcohol.
 Ethyl benzene.
 Ethyl butanol.
 2-Ethyl hexanol.
 Ethyl hexyl tallate.
 Ethylene.
 Ethylene glycol.
 Ethylene glycol monobutyl ether.
 Ethylene glycol monoethyl ether.
 Ethylene glycol monoethyl ether acetate.
 Ethylene glycol monomethyl ether.
 Gas oil:
 Cracked.
 Gasoline blending stocks:
 Alkylates.
 Reformates.
 Gasolines:
 Automotive (containing not over 4.23 grams lead per gallon).
 Aviation (containing not over 4.86 grams lead per gallon).
 Casinghead (natural).
 Polymer.
 Straight run.
 Glycerine.
 Heptane.
 Heptanol.
 Hexane.
 Hexanol.
 1-Hexene.
 Hexylene glycol.
 Isobutyl acetate.
 Isobutyl alcohol.
 Isodecyl alcohol.
 Isodecylaldehyde.
 Isohexane.
 Isooctyl alcohol.
 Isooctylaldehyde.
 Isopentane.
 Isopropyl acetate.
 Isopropyl alcohol.
 Jet fuels:
 JP-1 (kerosene).
 JP-3.
 JP-4.
 JP-5 (kerosene, heavy).
 Kerosene.
 Latex, liquid synthetic.
 Linear alcohols (12-15 carbon).
 Methane.
 Methyl alcohol.
 Methyl amyl acetate.
 Methyl amyl alcohol.
 Methyl ethyl ketone.
 Methyl isobutyl ketone.
 Methyl isobutyl carbinol.
 Mineral spirits.
 Molasses, all.
 Naphtha:
 Coal tar.
 Solvent.
 Stoddard solvent.
 VM&P (75 percent naphtha).
 Naphthalene, molten.
 Nonanol.

TABLE 30.25-1—Continued

Nonene.
 1-Nonene.
 Nonyl phenol.
 Octanol.
 1-Octene.
 Oils:
 Clarified.
 Coal tar.
 Crude oil.
 Diesel oil.
 Fuel oil:
 No. 1 (kerosene).
 No. 1-D.
 No. 2.
 No. 2-D.
 No. 4.
 No. 5.
 No. 6.
 Road.
 Transformer.
 Edible oils, including:
 Castor.
 Cotton seed.
 Fish.
 Olive.
 Peanut.
 Soya bean.
 Vegetable.
 Miscellaneous oils, including:
 Absorption.
 Coal tar.
 Lubricating.
 Mineral seal.
 Mineral.
 Motor.
 Neatsfoot.
 Penetrating.
 Range.
 Resin.
 Rosin.
 Sperm.
 Spindle.
 Spray.
 Tall.
 Tanner's.
 Turbine.
 Pentadecanol.
 n-Pentane.
 1-Pentene.
 Petrolatum.
 Petroleum naphtha.
 Polybutene.
 Polypropylene glycol methyl ether.
 Propylene.
 Propylene butylene polymer.
 Propylene tetramer.
 Propane.
 Propionaldehyde.
 n-Propyl acetate.
 n-Propyl alcohol.
 Propylene glycol.
 Sorbitol.
 Tallow.
 Tetra decanol.
 1-Tetradecene.
 Tetrahydronaphthalene.
 Toluene.
 Tridecanol.
 1-Tridecene.
 Triethyl benzene.
 Triethylene glycol.
 Turpentine.
 Undecanol.
 1-Undecene.
 Valeraldehyde.
 Vinyl toluene.
 Waxes:
 Carnauba.
 Paraffin.
 m-Xylene.
 o-Xylene.
 p-Xylene.

§ 30.25-5 Commodities regulated by Subchapter O of this chapter.

The commodities listed in Table 30.25-5 shall be regulated by the provisions of Subchapter O of this chapter.

TABLE 30.25-5

Commodities regulated by Subchapter O of this chapter.

Acetaldehyde.
 Acetic acid.
 Acetic anhydride.
 Acetone cyanohydrin.
 Acetonitrile.
 Acrylonitrile.
 Adiponitrile.
 Allyl alcohol.
 Allyl chloride.
 Aminoethylethanolamine.
 Ammonia, anhydrous.
 Ammonium hydroxide (not to exceed 28 percent NH_3).
 Aniline.
 Benzene.
 Butadiene, inhibited.
 Butyl acrylate (n-).
 Butyl acrylate (iso).
 Butyraldehyde (n-).
 Butyraldehyde (iso).
 Camphor oil.
 Carbolic oil.
 Carbon bisulfide.
 Carbon tetrachloride.
 Caustic potash solution.
 Caustic soda solution.
 Chlorine.
 Chlorobenzene.
 Chloroform.
 Chlorohydrins, crude.
 Chlorosulfonic acid.
 Cresols.
 Crotonaldehyde.
 Dichlorodifluoromethane.
 Dichloropropane.
 Dichloropropene.
 Diethanolamine.
 Diethylenetriamine.
 Diisopropanolamine.
 Dimethylamine.
 Epichlorohydrin.
 Ethyl acrylate.
 Ethyl chloride.
 Ethylene cyanohydrin.
 Ethylenediamine.
 Ethylene dichloride.
 Ethyleneimine.
 Ethylene oxide.
 Ethyl ether.
 2-Ethyl-3-Propylacrolein.
 Formaldehyde solution.
 Formic acid.
 Furfural.
 Hydrochloric acid.
 Hydrofluoric acid.
 Hydrogen chloride.
 Hydrogen fluoride.
 Isoprene.
 Methyl acrylate.
 Methyl bromide.
 Methyl chloride.
 Methyl methacrylate.
 Monochlorodifluoromethane.
 Monoethanolamine.
 Monoisopropanolamine.
 Morpholine.
 Motor fuel antiknock compounds containing tetraethyl lead or tetramethyl lead.
 Oleum.
 Phenol.
 Phosphoric acid.
 Phosphorus.
 Propionic acid.
 Propylene oxide.
 Styrene.
 Sulfur (liquid).
 Sulfuric acid.
 Sulfuric acid, spent.
 Triethanolamine.
 Triethylenetetramine.
 Vinyl acetate.
 Vinyl chloride.
 Vinylidene chloride, inhibited.

(R.S. 4405, as amended, 4462, as amended, sec. 6(b) (1), 30 Stat. 937; 46 U.S.C. 375, 416, 49 U.S.C. 1655(b) (1); 49 CFR 1.4(a) (2))

PART 31—INSPECTION AND CERTIFICATION

Subpart 31.01—General

6. Section 31.01-1 is amended by revising paragraphs (a) and (c) to read as follows:

§ 31.01-1 Inspections required—TB/ALL.

(a) Every tank vessel subject to the regulations in this subchapter shall be inspected biennially, or annually, or oftener, if necessary, by the Coast Guard to see that the hull, boilers, machinery, equipment, apparatus for storage, and appliances of the vessel comply with the marine inspection laws, and the regulations in this subchapter, and, when applicable, subchapters E, F, J, O, and Q of this chapter.

(c) For inspection and tests of tanks containing certain dangerous cargoes in bulk, see Part 98 and Subchapter O of this chapter.

Subpart 31.05—Certificates of Inspection

7. Section 31.05-1(a) is revised as follows:

§ 31.05-1 Issuance of certificate of inspection—TB/ALL.

(a) When a tank vessel is found to comply with law and the regulations in this subchapter, and applicable provisions of Subchapters E, F, J, O, and Q of this chapter, a certificate of inspection shall be issued to it, or to its owners, by the Officer in Charge, Marine Inspection.

Subpart 31.15—Manning of Tank Vessels

8. Section 31.15-5 is revised to read as follows:

§ 31.15-5 Tank barges—B/ALL.

(a) Tank barges subject to the provisions of this subchapter need not be manned unless in the judgment of the Officer in Charge, Marine Inspection, such manning is necessary for the protection of life and property and for the safe operation of the vessel. However, towing vessels, while towing barges which are not required to be manned, shall carry in the regular complement of the towing vessel and shall have on board at all times while towing, at least one licensed officer or certificated tankerman.

(b) Where the bulk liquid cargo to be transported is covered by the requirements of § 35.01-55 of this subchapter, the person in charge of the towing vessel or barge shall be provided with, and have on board, the information card required by § 35.01-55(c) of this subchapter.

(R.S. 4405, as amended, 4462, as amended, sec. 6(b)(1), 80 Stat. 937; 46 U.S.C. 375, 416, 49 U.S.C. 1655(b)(1); 49 CFR 1.4(a)(2))

PART 32—SPECIAL EQUIPMENT, MACHINERY, AND HULL REQUIREMENTS

Subpart 32.55—Ventilation and Venting

9. Section 32.55-25(a) (1) is revised to read as follows:

§ 32.55-25 Venting of cargo tanks of tank barges constructed on or after July 1, 1951—B/ALL.

(a) *Venting required.* (1) On all tank barges, subject to the provisions of this subchapter the construction or conversion of which is started on or after July 1, 1951, each cargo tank shall be equipped with a vent. The diameter of a vent shall be not less than 2½ inches.

Subpart 32.60—Hull Requirements for Tank Vessels Constructed on or After July 1, 1951

10. Section 32.60-35 is revised to read as follows:

§ 32.60-35 Tank vessels carrying Grade A liquid cargo—TB/ALL.

(a) Grade A liquids having a Reid vapor pressure in excess of 25 pounds per square inch shall be transported in cargo tanks which are independent of the hull.

(b) Barges carrying Grade A liquids having a Reid vapor pressure in excess of 25 pounds per square inch shall be of a Type III barge hull as defined in § 32.63-5(b)(3).

Subpart 32.63—Hull and Cargo Tank Requirements for Tank Barges Constructed or Converted on or After July 1, 1964, and Carrying Certain Dangerous Bulk Cargoes

11. Section 32.63-1 is revised to read as follows:

§ 32.63-1 Application—B/ALL.

(a) The requirements of this subpart shall apply to all tank barges, the construction or conversion of which is started on or after July 1, 1964, and carrying those cargoes listed in Table 30.25-1 which are defined as:

(1) Flammable liquids having a Reid vapor pressure in excess of 25 pounds per square inch, absolute, in independent tanks (Part 32).

(2) Liquefied flammable gases (Part 38 of this subchapter).

(R.S. 4405, as amended, 4462, as amended, sec. 6(b)(1), 80 Stat. 937; 46 U.S.C. 375, 416, 49 U.S.C. 1655(b)(1); 49 CFR 1.4(a)(2))

PART 35—OPERATIONS

Subpart 35.01—Special Operating Requirements

12. Section 35.01-45(a) is revised to read as follows:

§ 35.01-45 Open hopper type barges—B/ALL.

(a) With the exception of those open hopper type barges constructed or modified in conformance with the require-

ments of Subpart 32.63 of this subchapter, the special operating conditions in this section apply to all other open hopper type barges carrying those cargoes listed in Table 30.25-1, of this chapter, which are defined as:

(1) Flammable liquids having a Reid vapor pressure in excess of 25 pounds per square inch, absolute, in independent tanks (Part 32 of this subchapter).

(2) Liquefied flammable gases (Part 38 of this subchapter).

13. Section 35.01-50(a) is revised to read as follows:

§ 35.01-50 Special operating requirements for tank barges carrying certain dangerous bulk cargoes—B/ALL.

(a) The requirements of this section shall apply to all tank barges carrying those cargoes listed on Table 30.25-1, of this chapter, which are defined as:

(1) Flammable liquids having a Reid vapor pressure in excess of 25 pounds per square inch, absolute, in independent tanks (Part 32 of this subchapter).

(2) Liquefied flammable gases (Part 38 of this subchapter).

§ 35.01-55 [Revoked]

14. Subpart 35.01 is amended by revoking § 35.01-55.

(R.S. 4405, as amended, 4462, as amended, sec. 6(b)(1), 80 Stat. 937; 46 U.S.C. 375, 416, 49 U.S.C. 1655(b)(1); 49 CFR 1.4(a)(2))

PART 38—LIQUEFIED FLAMMABLE GASES

Subpart 38.05—Design and Installation

15. Section 38.05-1(f) is revised to read as follows:

§ 38.05-1 Design and construction of vessels—general—TB/ALL.

(f) Barges utilized for the carriage of liquefied gases shall be of Type II barge hull as defined in § 32.63-5(b)(2) of this subchapter. The Commandant may, based on the properties of the liquefied gas to be carried, require a Type I barge hull, as defined in § 32.63-5(b)(1) of this subchapter, to ensure the hull is consistent with the degree and nature of the hazard of the liquefied gas to be carried.

(R.S. 4405, as amended, 4462, as amended, sec. 6(b)(1), 80 Stat. 937; 46 U.S.C. 375, 416, 49 U.S.C. 1655(b)(1); 49 CFR 1.4(a)(2))

PART 39—FLAMMABLE OR COMBUSTIBLE LIQUIDS HAVING LETHAL CHARACTERISTICS

Subpart 39.01—General

16. Section 39.01-1(a) is revised to read as follows:

§ 39.01-1 Scope of regulations—TB/ALL.

(a) The regulations in this part contain requirements for the transportation

of flammable or combustible liquids having lethal characteristics and defined as Class "B" or "C" poisons in §§ 146.25-10 and 146.25-15 of this chapter. The regulations covering the transportation in portable tanks of flammable or combustible liquids having lethal characteristics and defined as Class "B" or "C" poisons are contained in Part 146 of this chapter. The regulations covering the transportation in unmanned tank barges of the liquids listed in Table 30.25-5, of this subchapter, are contained in Subchapter O of this chapter.

Subpart 39.20—Venting and Ventilation

17. Section 39.20-1 is amended by revising the heading and adding paragraph (d) to read as follows:

§ 39.20-1 Venting—TB/ALL.

(d) Manned barges shall meet the requirements of this section.

§ 39.20-2 [Revoked]

18. Subpart 39.20 is amended by revoking § 39.20-2.

(R.S. 4405, as amended, 4462, as amended, sec. 6(b) (1), 80 Stat. 937; 46 U.S.C. 375, 416, 49 U.S.C. 1655(b) (1); 49 CFR 1.4(a) (2))

PART 40—SPECIAL CONSTRUCTION, ARRANGEMENT, AND OTHER PROVISIONS FOR CARRYING CERTAIN FLAMMABLE OR COMBUSTIBLE DANGEROUS CARGOES IN BULK

Subpart 40.01—Application

19. Section 40.01-1 is revised to read as follows:

§ 40.01-1 General—T/ALL.

The provisions of this part shall apply to all tank vessels and manned barges which carry in bulk any of the dangerous cargoes specifically noted in this part. The provisions of Subchapter O of this chapter shall apply to any unmanned tank barge which carries in bulk any of the cargoes listed in Table 30.25-5 of this subchapter.

Subpart 40.05—Ethylene Oxide

20. Section 40.05-20(a) is revised to read as follows:

§ 40.05-20 Installation of cargo tanks—TB/ALL.

(a) Cargo tanks shall be located below deck in holds or enclosed spaces with the domes or trunks extended above the weather deck and terminating in the open. Provisions shall be made to main-

tain the watertightness of the deck by means of watertight seals around such domes or trunks. The holds or enclosed spaces, in which the ethylene oxide tanks are located, shall not be used for any other purpose. The weathertightness of the weatherdeck may not be required to be fully maintained on tankships operating on sufficiently protected waters.

Subpart 40.10—Propylene Oxide

21. Section 40.10-1 is amended by revising the heading and paragraph (b) to read as follows:

§ 40.10-1 General—T/ALL.

(b) Propylene oxide may be carried in tankships in accordance with the provisions of this subpart.

22. Section 40.10-20 is amended by revising the heading and paragraph (a) to read as follows:

§ 40.10-20 Installation of cargo tanks—T/ALL.

(a) Cargo tanks shall be located below deck in holds or enclosed spaces with the domes or trunks extended above the

weather deck and terminating in the open. Provisions shall be made to maintain the watertightness of the deck by means of watertight seals around such domes or trunks. The holds or enclosed spaces, in which the propylene oxide tanks are located, shall not be used for any other purpose. The weathertightness of the weather deck may not be required to be fully maintained on tankships operating on sufficiently protected waters.

(R.S. 4405, as amended, 4462, as amended, 80 Stat. 937; 46 U.S.C. 375, 416, 49 U.S.C. 1655(b) (1); 49 CFR 1.4(a) (2))

SUBCHAPTER H—PASSENGER VESSELS

PART 70—GENERAL PROVISIONS

Subpart 70.05—Application

§ 70.05-1 [Amended]

23. In § 70.05-1(a), Table 70.05-1(a) is amended by adding an eighth column, by adding two footnotes at the end of the table (footnotes 10 and 11), and by revising the entries in the fifth column for "non-self-propelled" vessels to read as follows:

TABLE 70.05-1(a)

Method of propulsion	Classes of vessels (including motorboats) examined or inspected under various Coast Guard regulations ¹		
	Vessels inspected and certificated under Subchapter I—Cargo and Miscellaneous Vessels ^{2,4}	Vessels subject to the provisions of Subchapter O—Certain Bulk Dangerous Cargoes ¹⁰	
Column 1	Column 5	Column 8	
Steam.....	***	***	None.
Motor.....	***	***	None.
Sail.....	***	***	None.
Nonself-propelled.	***	***	None.
	Those vessels carrying dangerous cargoes when required by 46 CFR Part 146.	***	All tank barges ¹¹ carrying certain flammable and combustible liquids and liquefied gases in bulk.
	All seagoing barges except those covered by columns 3 and 4; and those inland barges carrying dangerous cargoes when required by 46 CFR Part 146.	***	All tank barges ¹¹ carrying certain flammable and combustible liquids and liquefied gases in bulk.

¹⁰ Bulk dangerous cargoes are cargoes specified in Tables 30.25-5 and 151.01-10(b) of this chapter.

¹¹ For manned tank barges see § 151.01-10(e) of this chapter.

(R.S. 4405, as amended, 4462, as amended, sec. 6(b) (1), 80 Stat. 937; 46 U.S.C. 375, 416, 49 U.S.C. 1655(b) (1); 49 CFR 1.4(a) (2))

SUBCHAPTER I—CARGO AND MISCELLANEOUS VESSELS

PART 90—GENERAL PROVISIONS

Subpart 90.05—Application

§ 90.05-1 [Amended]

24. In § 90.05-1(a), Table 90.05-1(a) is amended by adding an eighth column, by adding two footnotes at the end of the table (footnotes 10 and 11), and by revising the entries in the fifth column for "non-self-propelled" vessels to read as follows:

TABLE 90.05-1(a)

Classes of vessels (including motorboats) examined or inspected under various Coast Guard regulations ¹			
Method of propulsion	Vessels inspected and certificated under Subchapter I—Cargo and Miscellaneous Vessels ²		Vessels subject to the provisions of Subchapter O—Certain Bulk Dangerous Cargoes ¹⁰
Column 1	Column 5		Column 8
Steam.....	***	***	None.
Motor.....	***	***	None.
Sail.....	***	***	None.
Nonsself-propelled.	***	***	None.
	Those vessels carrying dangerous cargoes when required by 46 CFR Part 146.	***	All tank barges ¹¹ carrying certain flammable and combustible liquids and liquefied gases in bulk.
	All seagoing barges except those covered by columns 3 and 4; and those inland barges carrying dangerous cargoes when required by 46 CFR Part 146.	***	All tank barges ¹¹ carrying certain flammable and combustible liquids and liquefied gases in bulk.

¹⁰ Bulk dangerous cargoes are cargoes specified in Tables 30.25-5 and 151.01-10(b) of this chapter.
¹¹ For manned tank barges see § 151.01-10(e) of this chapter.

(R.S. 4405, as amended, 4462, as amended, sec. 6(b) (1), 80 Stat. 937; 46 U.S.C. 375, 416, 49 U.S.C. 1655(b) (1); 49 CFR 1.4(a) (2))

PART 98—SPECIAL CONSTRUCTION, ARRANGEMENT, AND PROVISIONS FOR CERTAIN DANGEROUS CARGOES IN BULK

Subpart 98.01—Application

25. Section 98.01-1 is amended by revising paragraph (a) and adding paragraphs (c), (d), and (e) to read as follows:

§ 98.01-1 General.

(a) The provisions of this part shall apply to all self-propelled cargo vessels which carry in bulk any of the dangerous cargoes specifically noted in this part.

(c) The regulations for barges carrying any of the bulk chemical cargoes listed in Subparts 98.01 through 98.25 are found in Subchapter O of this chapter.

(d) The word "vessel" as used in Subparts 98.01 through 98.25 refers to a self-propelled cargo vessel.

(e) Manned barges carrying any of the cargoes listed in Table 151.01-10(b) of this chapter will be considered individually by the Commandant and may be required to meet the applicable requirements of Subchapter O of this chapter, as well as the requirements of this subchapter.

Subpart 98.03—Barges Carrying Dangerous Cargoes

26. Part 98 is amended by revoking Subpart 98.03.

Subpart 98.05—Elemental Phosphorus in Water in Bulk

27. Section 98.05-1 is revised to read as follows:

§ 98.05-1 General.

(a) Elemental phosphorus, white or yellow, in water may be carried in bulk in self-propelled cargo vessels in accordance with the provisions of this subpart.

(b) Any self-propelled vessel carrying elemental phosphorus in water in bulk shall be inspected and certificated in accordance with the provisions of this subchapter or Subchapter D of this chapter, as applicable.

§ 98.05-50 [Amended]

28. Section 98.05-50 is amended by revoking paragraphs (h) and (i) and redesignating paragraph (j) as paragraph (h).

Subpart 98.10—Sulfuric Acid in Bulk

29. Section 98.10-1 is revised to read as follows:

§ 98.10-1 General.

(a) Sulfuric acid or spent sulfuric acid may be carried in bulk in self-propelled cargo vessels in accordance with the provisions of this subpart.

(b) Any self-propelled vessel carrying sulfuric acid or spent sulfuric acid in bulk shall be inspected and certificated in accordance with the applicable provisions of this subchapter or Subchapter D of this chapter.

30. Section 98.10-15(c) is revised to read as follows:

§ 98.10-15 Pressure-vessel type cargo tanks.

(c) Tanks designed, inspected, and tested as required by Department of Transportation Specification 103A, 103A-W, 103B, or 103B-W will be accepted as pressure-vessel type cargo tanks, provided the maximum pressure to which the tanks may be subjected does not exceed 30 pounds per square inch: *And provided*, That prior to installing such tanks on a self-propelled cargo vessel, the owner shall furnish the Commandant with a copy of the inspection report certifying that the tanks and appurtenances comply with Department of Transportation specifications.

Subpart 98.15—Hydrochloric Acid in Bulk

31. Section 98.15-1 is revised to read as follows:

§ 98.15-1 General.

(a) Hydrochloric acid may be carried in bulk in self-propelled cargo vessels in accordance with the provisions of this subpart.

(b) Any self-propelled vessel carrying hydrochloric acid in bulk shall be inspected and certificated in accordance with the applicable provisions of this subchapter or Subchapter D of this chapter.

32. Section 98.15-15(c) is revised to read as follows:

§ 98.15-15 Pressure-vessel type cargo tanks.

(c) Tanks designed, inspected, and tested as required by Department of Transportation Specification 103B or 103B-W will be accepted as pressure-vessel type cargo tanks. However, the maximum pressure to which the tanks may be subject shall not exceed 30 pounds per square inch. Prior to installing such tanks on a self-propelled cargo vessel, the owner shall furnish the Commandant with a copy of the inspection report certifying that the tanks and appurtenances comply with Department of Transportation specifications.

Subpart 98.18—Phosphoric Acid in Bulk

33. Section 98.18-1 is amended by revising paragraphs (b) and (c) to read as follows:

§ 98.18-1 General.

(b) Phosphoric acid may be carried in bulk in self-propelled cargo vessels in accordance with the provisions of this subpart.

(c) Any self-propelled cargo vessel carrying phosphoric acid in bulk shall be inspected and certificated in accordance with the applicable provisions of this subchapter or Subchapter D of this chapter.

Subpart 98.20—Liquid Chlorine in Bulk

34. Part 98 is amended by revoking Subpart 98.20.

Subpart 98.25—Anhydrous Ammonia in Bulk

35. Section 98.25-1 is revised to read as follows:

§ 98.25-1 General.

(a) Anhydrous ammonia may be carried in bulk in self-propelled cargo vessels in accordance with the provisions of this subpart.

(b) Any self-propelled cargo vessel carrying anhydrous ammonia in bulk shall be inspected and certificated in accordance with the applicable provisions of this subchapter or Subchapter D of this chapter.

§ 98.25-20 [Amended]

36. Section 98.25-20 is amended by deleting the words "barge or" from the first sentences of paragraphs (a) and (b).

§ 98.25-25 [Revoked]

37. Subpart 98.25 is amended by revoking § 98.25-25.

§ 98.25-40 [Amended]

38. Section 98.25-40(b) is amended by deleting the third sentence.

§ 98.25-50 [Amended]

39. Section 98.25-50 is amended by revoking paragraphs (e), (e)(1), and (e)(2).

40. Section 98.25-70 is amended by revoking paragraph (b), redesignating paragraphs (c), (d), (e), (f), and (g) respectively as paragraphs (b), (c), (d), (e), and (f) and revising the newly designated paragraphs (b) and (c) to read as follows:

§ 98.25-70 Venting.

(b) The capacity of branch vents or vent headers shall depend upon the number of cargo tanks connected to such branch or header as provided in Table 98.25-70(b).

TABLE 98.25-70(b)—CAPACITY OF BRANCH VENTS OR VENT HOLDERS

Number of cargo tanks:	Percent of total valve discharge
1 or 2	100
3	90
4	80
5	70
6 or more	60

(c) In addition to the requirement specified in paragraph (b) of this section, the size of the branch vents or vent headers shall be such that the back pressure in relief valve discharge lines shall not be more than 10 percent of the safety relief valve setting.

§ 98.25-85 [Amended]

41. Section 98.25-85 is amended by deleting the words "barge or" in the second sentence.

42. Section 98.25-90 is revised to read as follows:

§ 98.25-90 Special operating requirements.

(a) Repairs involving welding or burning shall not be undertaken on the cargo tanks or piping while anhydrous ammonia in either the liquid or vapor state is present in the system.

(b) During the time anhydrous ammonia is laden in the tanks the vessel shall be under constant surveillance.

(c) Authorization from the Commandant (MHM) shall be obtained to transport lading other than anhydrous ammonia in the cargo tanks.

(d) Sufficient hose stations shall be installed with adequate water supply so that if leakage of anhydrous ammonia occurs the vapors may be removed by use of a stream of water.

(e) (1) At least two units of approved self-contained breathing apparatus, one stowed forward of the cargo tanks and one stowed aft of the cargo tanks, shall be carried on board the vessel at all times.

(2) All approved self-contained breathing apparatus, masks and respiratory protective devices shall be of types suitable for starting and operating at the temperatures encountered, and shall be maintained in good operating condition.

(3) Personnel involved in the filling or discharge operations shall be adequately trained in the use of the equipment.

(4) For all self-propelled cargo vessels, during filling or discharge operations every person on the vessel shall carry on his person or have close at hand at all times a canister mask approved for ammonia; or each person shall carry on his person a respiratory protective device which will protect the wearer against ammonia vapors and provide respiratory protection for emergency escape from a contaminated area which would result from cargo leakage. This respiratory protective equipment shall be of such size and weight that the person wearing it will not be restricted in movement or in the wearing of lifesaving device.

(f) While fast to a dock, a vessel during transfer of bulk cargo shall display a red flag by day or a red light by night, which signal shall be so placed that it will be visible on all sides. When at anchor, a vessel during transfer of bulk cargo shall display a red flag by day, which signal shall be so placed that it will be visible on all sides.

(R.S. 4405, as amended, 4462, as amended, sec. 6(b)(1), 80 Stat. 937; 46 U.S.C. 375, 416, 49 U.S.C. 1655(b)(1); 49 CFR 1.4(a)(2))

SUBCHAPTER J—ELECTRICAL ENGINEERING

PART 110—GENERAL PROVISIONS

Subpart 110.05—Application

§ 110.05-1 [Amended]

43. In § 110.05-1(a), Table 110.05-1(a) is amended by adding an eighth column, by adding two footnotes at the end of the table (footnotes 10 and 11), and by revising the entries in the fifth column for "non-self-propelled" vessels to read as follows:

TABLE 110.05-1(a)

Method of propulsion	Classes of vessels (including motorboats) examined or inspected under various Coast Guard regulations ¹		
	Vessels inspected and certificated under Subchapter I—Cargo and Miscellaneous Vessels ^{2,4}	Vessels subject to the provisions of Subchapter O—Certain Bulk Dangerous Cargoes ¹⁰	
Column 1	Column 5	Column 8	
Steam	***	***	None.
Motor	***	***	None.
Sail	***	***	None.
Nonself-propelled.	***	***	None.
	Those vessels carrying dangerous cargoes when required by 46 CFR Part 146.	***	All tank barges ¹¹ carrying certain flammable and combustible liquids and liquefied gases in bulk.
	All seagoing barges except those covered by columns 3 and 4; and those inland barges carrying dangerous cargoes when required by 46 CFR Part 146.	***	All tank barges ¹¹ carrying certain flammable and combustible liquids and liquefied gases in bulk.

¹⁰ Bulk dangerous cargoes are cargoes specified in Tables 30.25-5 and 151.01-10(b) of this chapter.

¹¹ For manned tank barges see § 151.01-10(e) of this chapter.

(R.S. 4405, as amended, 4462, as amended, sec. 6(b)(1), 80 Stat. 937; 46 U.S.C. 375, 416, 49 U.S.C. 1655(b)(1); 49 CFR 1.4(a)(2))

SUBCHAPTER N—DANGEROUS CARGOES

PART 146—TRANSPORTATION OR STORAGE OF EXPLOSIVES OR OTHER DANGEROUS ARTICLES OR SUBSTANCES, AND COMBUSTIBLE LIQUIDS ON BOARD VESSELS

Subpart 146.02—General Regulations

44. Section 146.02-2 is amended by revising paragraph (i) and by adding paragraph (j) to read as follows:

§ 146.02-2 Application to vessels.

(i) In addition to complying with the requirements of this part, foreign vessels of novel design or construction or whose operation involves potentially unusual risks shall be subject to inspection to the extent necessary to safeguard life and property in U.S. ports. For details concerning inspection, see §§ 2.01-13, 30.01-5, 70.05-3, 90.05-1, and 151.01-10 of this chapter.

(j) Unmanned tank barges carrying in bulk any of the cargoes enumerated in Table 151.01-10(b) of this chapter shall be subject to the provisions of Subchapter O of this chapter. The regulations of this part shall not apply to any barge subject to the provisions of Subchapter O of this chapter and carrying any cargo listed in Table 151.01-10(b) of this chapter, except such vessel shall be subject to the provisions of R.S. 4472, as amended (46 U.S.C. 170), with respect to explosives prohibited to be transported, stored, or stowed on board any vessel.

Subpart 146.10—Barges

45. Section 146.10-50 is amended by making the following changes in the table:

a. The introductory text is revised to read as follows:

§ 146.10-50 Stowage of explosives or other dangerous articles or substances on board barges.

There is indicated in this table the explosives or other dangerous articles or substances, separated according to their classification, that are permitted or re-

stricted in their transportation and stowage on board the various class barges. Unless otherwise stated in the table, a permitted stowage applies to substances when in containers only.

b. For the substance "Corrosive liquids" delete in columns AA, AB, AC, BA and BB the words, "also bulk in tanks" and add the numeral "9" (as a footnote indicator) after the word, "Yes".

c. For the substance "Corrosive liquids" delete in columns AD and BC the words, "except bulk in tanks" and add the numeral "9" (as a footnote indicator) after the word "No".

d. To the footnotes add footnote 9 to read as follows:

* Transportation of certain hazardous cargoes in bulk is governed by the rules and regulations contained in Subchapter O of this chapter.

Subpart 146.21—Detailed Regulations Governing Inflammable Liquids

46. Subpart 146.21 is amended by adding § 146.21-80 to read as follows:

§ 146.21-80 Certain inflammable liquids in bulk.

Vessels transporting in bulk inflammable liquids shall comply with the applicable provisions of Subchapters D or O of this chapter.

Subpart 146.22—Detailed Regulations Governing Inflammable Solids and Oxidizing Materials

47. Section 146.22-35 is revised to read as follows:

§ 146.22-35 Elemental phosphorus in water in bulk.

(a) Elemental phosphorus, white or yellow, in water may be carried in bulk only in inspected and certificated cargo barges, tank barges, or cargo vessels. For applicable requirements, see Subchapters I and O of this Chapter.

§ 146.22-100 [Amended]

48. In § 146.22-100, Table E is amended by deleting for the article, "phosphorus, white or yellow in water" the note in column 1 reading, "Note: For bulk shipments, see Subchapter I (Cargo and Miscellaneous Vessels) of this chapter".

Subpart 146.23—Detailed Regulations Governing Corrosive Liquids

49. Section 146.23-35 is revised to read as follows:

§ 146.23-35 Certain corrosive liquids in bulk.

(a) Vessels transporting corrosive liquids in bulk shall comply with applicable provisions of Subchapters D, I, or O of this chapter.

§ 146.23-50 [Revoked]

50. Subpart 146.23 is amended by revoking § 146.23-50.

§ 146.23-100 [Amended]

51. In § 146.23-100, Table F is amended by making the following changes:

a. For the article, "Hydrochloric (Muriatic) Acid" delete the note in column 1 reading:

NOTE: For bulk shipments, see Subchapter I (Cargo and Miscellaneous Vessels) of this subchapter.

b. For the article, "Sulfuric Acid (oil of vitriol)" delete the note in column 1 reading:

NOTE: For bulk shipments, see Subchapter I (Cargo and Miscellaneous Vessels) of this chapter.

Subpart 146.24—Detailed Regulations Governing Compressed Gases

52. Section 146.24-80 is revised to read as follows:

§ 146.24-80 Compressed gases in bulk.

(a) Vessels transporting compressed gases in bulk shall comply with the applicable provisions of Subchapters D, I, or O of this chapter.

§ 146.24-85 [Revoked]

53. Subpart 146.24 is amended by revoking § 146.24-85.

§ 146.24-100 [Amended]

54. In § 146.24-100 Table G is amended by making the following changes:

a. For the article, "Ammonia, anhydrous", delete the note in column 1 reading:

NOTE: For bulk shipments, see Subchapter I (Cargo and Miscellaneous Vessels) of this chapter.

b. For the article, "Chlorine", delete the note in column 1 reading:

NOTE: For bulk shipments, see Subchapter I (Cargo and Miscellaneous Vessels) of this chapter.

Subpart 146.25—Detailed Regulations Governing Poisonous Articles

55. Subpart 146.25 is amended by adding § 146.25-70 to read as follows:

§ 146.25-70 Poisonous articles in bulk.

(a) Vessels transporting certain poisons in bulk shall comply with the appli-

cable provisions of Subchapters D or O of this chapter.

Subpart 146.26—Detailed Regulations Governing Combustible Liquids

56. Section 146.26-5 is amended by adding paragraph (d) to read as follows:

§ 146.26-5 Application to vessels.

(d) Vessels transporting combustible liquids in bulk shall comply with applicable provisions of Subchapters D or O of this chapter.

Subpart 146.27—Detailed Regulations Governing Hazardous Articles

57. Section 146.27-50 is revised to read as follows:

§ 146.27-50 Certain hazardous articles in bulk.

(a) Vessels transporting certain hazardous substances in bulk shall comply with the applicable provisions of Subchapters D, I, or O of this chapter.

§ 146.27-100 [Amended]

58. In § 146.27-100, Table K is amended by deleting for the article, "Phosphoric Acid", the note in column 1 reading:

NOTE: For bulk shipments, see Subchapter I (Cargo and Miscellaneous Vessels) of this chapter.

(R.S. 4405, as amended, 4462, as amended, 4472, as amended, sec. 6(b)(1), 80 Stat. 937; 46 U.S.C. 375, 416, 170, 49 U.S.C. 1655(b)(1); 49 CFR 1.4(a)(2))

SUBCHAPTER T—SMALL PASSENGER VESSELS (UNDER 100 GROSS TONS)

PART 175—GENERAL PROVISIONS

Subpart 175.05—Application

§ 175.05-1 [Amended]

59. In § 175.05-1, Table 175.05-1(a) is amended by adding an eighth column, by adding two footnotes at the end of the table (footnotes 10 and 11), and by revising the entries in the fifth column for "non-self-propelled" vessels to read as follows:

TABLE 175.05-1(a)

Classes of vessels (including motorboats) examined or inspected under various Coast Guard regulations ¹				
Method of propulsion	***	Vessels inspected and certificated under Subchapter I—Cargo and Miscellaneous Vessels ²	***	Vessels subject to the provisions of Subchapter O—Certain Bulk Dangerous Cargoes ¹⁰
Column 1	***	Column 5	***	Column 8.
Steam.....	***	***	***	None.
Motor.....	***	***	***	None.
Sail.....	***	***	***	None.
Nonself-propelled:	***	Those vessels carrying dangerous cargoes when required by 46 CFR Part 146.	***	All tank barges ¹¹ carrying certain flammable and combustible liquids and liquefied gases in bulk.
	***	All seagoing barges except those covered by columns 3 and 4; and those inland barges carrying dangerous cargoes when required by 46 CFR Part 146.	***	All tank barges ¹¹ carrying certain flammable and combustible liquids and liquefied gases in bulk.

¹⁰ Bulk dangerous cargoes are cargoes specified in Tables 30.25-5 and 151.01-10(b) of this chapter.

¹¹ For manned tank barges see § 151.01-10(c) of this chapter.

(R.S. 4405, as amended, 4462, as amended, sec. 3, 70 Stat. 152, sec. 6(b)(1), 80 Stat. 937; 46 U.S.C. 375, 416, 390b, 49 U.S.C. 1655(b)(1); 49 CFR 1.4(a)(2))

60. Chapter I is amended by adding Subchapter O and Part 151 to read as follows:

SUBCHAPTER O—CERTAIN BULK DANGEROUS CARGOES

PART 151—UNMANNED BARGES

Subpart 151.01—General

- Sec.
151.01-1 Purpose of regulations.
151.01-3 Assignment of functions.
151.01-5 Authority for regulations.
151.01-10 Application of vessel inspection regulations.
151.01-15 Dangerous cargoes not specifically named.
151.01-20 Use of minimum requirements.
151.01-25 Existing barges.
151.01-30 Effective date.

Subpart 151.02—Equivalents

- 151.02-1 Conditions under which equivalents may be used.
151.02-5 Design of unmanned barges.

Subpart 151.03—Definitions

- 151.03-1 Definitions of terms.
151.03-3 Angle of downflooding.
151.03-5 Approved.
151.03-7 Barge.
151.03-9 Cargo.
151.03-11 Coastwise.
151.03-13 Cofferdam.
151.03-15 Commandant.
151.03-17 Compatible.
151.03-19 Environment.
151.03-21 Filling density.
151.03-23 Flame arrestor.
151.03-25 Flame screen.
151.03-27 Gas free.
151.03-29 Great Lakes.
151.03-31 Headquarters.
151.03-33 Lakes, bays, and sounds.
151.03-35 Limiting draft.
151.03-37 Maximum allowable working pressure.
151.03-39 Ocean.
151.03-41 Officer in Charge, Marine Inspection.
151.03-43 Pressure.
151.03-45 Rivers.
151.03-47 Service.
151.03-49 Sounding tube.
151.03-51 Tank barge.
151.03-53 Tankerman.
151.03-55 Vessel.

Subpart 151.04—Inspection and Certification

- 151.04-1 Certificate of Inspection.
151.04-2 Inspection required.
151.04-3 Initial inspection.
151.04-5 Inspection for certification.

Subpart 151.05—Summary of Minimum Requirements for Specific Cargoes

- 151.05-1 Explanation of column headings in Table 151.05.

Subpart 151.10—Barge Hull Construction Requirements

- 151.10-1 Barge hull classifications.
151.10-5 Intact stability.
151.10-10 Subdivision and damage stability.
151.10-15 Stability and subdivision calculations.
151.10-20 Hull construction.

Subpart 151.13—Cargo Segregation

- 151.13-1 General.
151.13-5 Cargo segregation—tanks.
151.13-10 Cargo segregation—piping.

Subpart 151.15—Tanks

- 151.15-1 Tank types.
151.15-3 Construction.
151.15-5 Venting.
151.15-6 Venting piping.
151.15-10 Cargo gaging devices.

Subpart 151.20—Cargo Transfer

- 151.20-1 Piping—general.
151.20-5 Cargo system valving requirements.
151.20-10 Cargo system instrumentation.
151.20-15 Cargo hose if carried on the barge.
151.20-20 Cargo transfer methods.

Subpart 151.25—Environmental Control

- 151.25-1 Cargo tank.
151.25-2 Cargo handling space.

Subpart 151.30—Portable Fire Extinguishers

- 151.30-1 Type.

Subpart 151.40—Temperature or Pressure Control Installations

- 151.40-1 Definitions.
151.40-2 Materials.
151.40-5 Construction.
151.40-10 Operational requirements.
151.40-11 Refrigeration systems.

Subpart 151.45—Operations

- 151.45-1 General.
151.45-2 Special operating requirements.
151.45-3 Manning.
151.45-4 Cargo handling.
151.45-5 Open hopper barges.
151.45-6 Maximum amount of cargo.
151.45-7 Shipping papers.
151.45-8 Illness, alcohol, drugs.
151.45-9 Signals.

Subpart 151.50—Special Requirements for Certain Cargoes

- 151.50-1 General.
151.50-5 Cargoes having toxic properties.
151.50-6 Motor fuel antiknock compounds.
151.50-10 Alkylene oxides.
151.50-12 Ethylene oxide.
151.50-13 Propylene oxide.
151.50-20 Inorganic acids.
151.50-21 Sulfuric acid.
151.50-22 Hydrochloric acid.
151.50-23 Phosphoric acid.
151.50-24 Hydrofluoric acid.
151.50-30 Compressed gases.
151.50-31 Chlorine.
151.50-32 Anhydrous ammonia.
151.50-33 Anhydrous hydrogen chloride.
151.50-34 Vinyl chloride.
151.50-40 Additional requirements for carbon bisulfide and ethyl ether.
151.50-41 Carbon bisulfide.
151.50-42 Ethyl ether.
151.50-50 Elemental phosphorus in water.
151.50-55 Liquid sulfur.
151.50-60 Ethylenimine.
151.50-65 Hydrogen fluoride.

Subpart 151.55—Special Requirements for Materials of Construction

- 151.55-1 General.

AUTHORITY: The provisions of this Part 151 issued under R.S. 4472, as amended, 4417a, as amended, 4405, as amended, 4462, as amended, sec. 6(b)(1), 80 Stat. 937; 46 U.S.C. 170, 391a, 375, 416, 49 U.S.C. 1655(b)(1); 49 CFR 1.4(a)(2).

Subpart 151.01—General

§ 151.01-1 Purpose of regulations.

(a) The purpose of the regulations in this part is to set forth uniform minimum requirements for unmanned tank barges, whether being navigated or not, used for the transportation of those

liquids or liquefied gases in bulk which have dangerous characteristics within the definitions listed in § 146.03-8 of this chapter, or which have flammability or combustibility characteristics within the scope of Title 46, United States Code, section 391(a), and within the definitions in §§ 30.10-15, 30.10-22, and 30.10-39 of this chapter.

(b) A dangerous cargo within the meaning of the regulations in this subchapter is any cargo meeting any one of the following classifications:

Explosives.	Oxidizing materials.
Flammable liquids.	Corrosive liquids.
Combustible liquids.	Compressed gases.
Liquefied flammable gases.	Poisons.
Flammable solids.	Hazardous articles.

(c) The classifications of dangerous cargoes are defined in other parts of this chapter. The definitions applicable to this subchapter are found in the following sections:

Explosives	146.20-1, 146.20-9, 146.20-11
Flammable liquids	30.10-22
Combustible liquids	30.10-15
Liquefied flammable gases	30.10-39
Flammable solids	146.22-1
Oxidizing material	146.22-1
Corrosive liquids	146.23-1
Compressed gases	146.24-1
Poisons	146.25-1
Hazardous articles	146.27-1

(d) Other subchapters of these regulations referenced in the text of this subchapter are as follows:

- Subchapter D—Parts 30-40, Tank Vessels.
Subchapter E—Parts 42-46, Load Lines.
Subchapter F—Parts 50-63, Marine Engineering.
Subchapter I—Parts 90-98, Cargo and Miscellaneous Vessels.
Subchapter J—Parts 110-113, Electrical Engineering.
Subchapter N—Parts 146-149, Dangerous Cargoes.
Subchapter Q—Parts 160-164, Specifications.

§ 151.01-3 Assignment of functions.

(a) By subsection 6(b)(1) of the Department of Transportation Act (49 U.S.C. 1655(b)(1)) the Coast Guard was transferred to the Department of Transportation and there was transferred to and vested in the Secretary of Transportation all functions, powers, and duties, relating to the Coast Guard, of the Secretary of the Treasury and of other officers and offices of the Department of the Treasury. Effective April 1, 1967, the Secretary of Transportation by a rule designated 49 CFR 1.4(a)(2) authorized the Commandant, U.S. Coast Guard, to exercise the functions, powers, and duties vested in the Secretary by subsection 6(b)(1) relating generally to functions, powers, and duties of the Coast Guard except as specifically restricted to certain designated subjects as described in 49 CFR Part 1.

(b) By Order No. 2, the National Transportation Safety Board, pursuant to the authority set forth in subsection 5(m) of the Department of Transportation Act (49 U.S.C. 1654(m)), with the approval of the Secretary of Transportation, made the following delegation to

"* * * the Commandant of the Coast Guard, all the functions, powers, and duties of the National Transportation Safety Board under subsection 5(b) of such Act regarding matters arising in the administration of functions and responsibilities assigned to the Commandant except: (1) The review to determine cause or probable cause and to report the facts and circumstances after the actions of a Marine Board of Investigation, appointed by the Commandant pursuant to Part 136, Subpart 136.09 of this chapter, have been completed; and, (2) the authority to review decisions of the Commandant on appeals from orders of hearing examiners revoking licenses, certificates, documents or registers under the procedures of R.S. 4450, as amended (46 U.S.C. 239), the Act of July 15, 1954 (46 U.S.C. 239a, b) or under section 4, Great Lakes Pilotage Act (46 U.S.C. 216b)."

§ 151.01-5 Authority for regulations.

(a) The authority to prescribe regulations generally is set forth in 46 U.S.C. 375 and 416, as well as in certain other provisions of that title. Under the provisions of 46 U.S.C. 372, the Commandant, U.S. Coast Guard is required to superintend the administration of the vessel inspection laws and to produce a correct and uniform administration of the inspection laws, rules, and regulations.

(b) The regulations regarding vessels, carrying bulk dangerous cargoes are issued under 46 U.S.C. 170, 391a, 392, 395, 435, and 481. Vessels of 150 gross tons or over which engage in foreign or coastwise voyages by sea or voyages on the Great Lakes are also subject to 46 U.S.C., 85a or 88a, and the regulations issued thereunder in Subchapter E of this chapter.

§ 151.01-10 Application of vessel inspection regulations.

(a) The regulations in this part are requirements which may be in addition to, supplement, or modify requirements in other subchapters in this chapter. When a specific requirement in another part or section in another subchapter in this chapter is in conflict with or contrary to requirement or intent expressed in this part, the regulations in this part shall take precedence.

(b) Every unmanned tank barge which carries or is intended to carry in bulk any liquid or liquefied gas listed in Table 151.01-10(b) and has flammability or combustibility characteristics as indicated by a fire protection requirement in Table 151.05 shall be inspected and certificated under the provisions in Subchapter D (Tank Vessels) of this chapter and the regulations in this part.

TABLE 151.01-10(b)—CARGOES REGULATED BY SUBCHAPTER O

Acetaldehyde.
Acetic acid.
Acetic anhydride.
Acetone cyanohydrin.
Acetonitrile.
Acrylonitrile.
Adiponitrile.
Allyl alcohol.

Allyl chloride.
Aminoethylethanolamine.
Ammonia, Anhydrous.
Ammonium hydroxide (not to exceed 28 percent NH_3).
Aniline.
Benzene.
Butadiene, inhibited.
Butyl acrylate (n-).
Butyl acrylate (iso).
Butyraldehyde (n-).
Butyraldehyde (iso).
Camphor oil.
Carbolic oil.
Carbon bisulfide.
Carbon tetrachloride.
Caustic potash solution.
Caustic soda solution.
Chlorine.
Chlorobenzene.
Chloroform.
Chlorohydrins (crude).
Chlorosulfonic acid.
Cresols.
Crotonaldehyde.
Dichlorodifluoromethane.
Dichloropropane.
Dichloropropene.
Diethanolamine.
Diethylenetriamine.
Diisopropanolamine.
Dimethylamine.
Epichlorohydrin.
Ethyl acrylate.
Ethyl chloride.
Ethylene cyanohydrin.
Ethylenediamine.
Ethylene dichloride.
Ethyleneimine.
Ethylene oxide.
Ethyl ether.
2-Ethyl-3-propylacrolein.
Formaldehyde solution.
Formic acid.
Furfural.
Hydrochloric acid.
Hydrofluoric acid.
Hydrogen chloride.
Hydrogen fluoride.
Isoprene.
Methyl acrylate.
Methyl bromide.
Methyl chloride.
Methyl methacrylate.
Monochlorodifluoromethane.
Monoethanolamine.
Monoisopropanolamine.
Morpholine.
Motor fuel antiknock compounds containing lead alkyls.
Oleum.
Phenol.
Phosphoric acid.
Phosphorus.
Propionic acid.
Propylene oxide.
Styrene.
Sulfur (liquid).
Sulfuric acid.
Sulfuric acid, spent.
Triethanolamine.
Triethylenetetramine.
Vinyl acetate.
Vinyl chloride.
Vinylidene chloride, inhibited.

(c) Every unmanned tank barge prior to the carriage in bulk of any liquid or liquefied gas listed in Table 151.01-10(b) which does not have the flammability or combustibility characteristics as indicated by the fire protection requirement in Table 151.05 shall be inspected and certificated under the applicable provisions of Subchapter D or Subchapter I of this chapter, at the option of the barge owner, in addition to the regulations in this part. However, unless the barge

owner notifies the Officer in Charge, Marine Inspection of his option to have the barge inspected and certificated under Subchapter I at the time he submits the application for inspection (Form CG-3752), the unmanned tank barge shall be inspected and certificated under the provisions of Subchapter D of this chapter and the regulations in this part.

(d) The provisions of Subchapter D of this chapter shall apply to all unmanned tank barges which carry in bulk any of the liquids or liquefied gases listed in Table 151.01-10(d). The provisions of this part shall not apply to such barges unless it is also desired to carry one or more of the liquids or liquefied gases listed in Table 151.01-10(b).

TABLE 151.01-10(d)—CARGOES TO BE REGULATED BY SUBCHAPTER D

If flammable or combustible (see § 151.01-1 (c))

Acetone.
Amyl acetate.
n-Amyl alcohol.
Asphalt.
Asphalt blending stocks:
Roofers flux.
Straight run residue.
Butane.
n-Butyl acetate.
sec-Butyl acetate.
n-Butyl alcohol.
sec-Butyl alcohol.
tert-Butyl alcohol.
Butylene.
Corn syrup.
Cyclohexane.
Cumene.
p-Cymene.
n-Decyl alcohol.
Decaldehyde.
1-Decene.
Dextrose solution.
Diacetone alcohol.
Dicyclopentadiene.
Diethylbenzene.
Diethylene glycol.
Diethylene glycol monoethyl ether.
Diethylene glycol monomethyl ether.
Diisobutyl carbinol.
Diisobutylene.
Diethyl phthalate.
Dipropylene glycol.
Distillates:
Straight run.
Flashed feed stocks.
Dodecanol.
Dodecene.
1-Dodecene.
Ethane.
Ethoxy triglycol.
Ethoxylated dodecanol.
Ethoxylated pentadecanol.
Ethoxylated tetradecanol.
Ethoxylated tridecanol.
Ethyl acetate.
Ethyl alcohol.
Ethyl benzene.
Ethyl butanol.
2-Ethyl hexanol.
Ethyl hexyl tallate.
Ethylene.
Ethylene glycol.
Ethylene glycol monobutyl ether.
Ethylene glycol monoethyl ether.
Ethylene glycol monoethyl ether acetate.
Ethylene glycol monomethyl ether.
Gas oil:
Cracked.
Gasolines:
Automotive (containing not over 4.23 grams lead per gallon).
Aviation (containing not over 4.86 grams lead per gallon).

Casinghead (natural).
 Polymer.
 Straight run.
 Gasoline blending stocks:
 Alkylates.
 Reformates.
 Glycerine.
 Heptane.
 Heptanol.
 1-Heptene.
 Hexane.
 Hexanol.
 1-Hexene.
 Hexylene glycol.
 Isobutyl acetate.
 Isobutyl alcohol.
 Isodecyl alcohol.
 Isodecylaldehyde.
 Isohexane.
 Isooctyl alcohol.
 Isooctylaldehyde.
 Isopentane.
 Isopropyl acetate.
 Isopropyl alcohol.
 Jet fuels:
 JP-1 (kerosene).
 JP-3.
 JP-4.
 JP-5 (kerosene, heavy).
 Kerosene.
 Latex, liquid synthetic.
 Linear alcohols.
 (12-15 carbon).
 Methane.
 Methyl alcohol.
 Methyl amyl acetate.
 Methyl amyl alcohol.
 Methyl ethyl ketone.
 Methyl isobutyl ketone.
 Methyl isobutyl carbinol.
 Mineral spirits.
 Molasses, all.
 Naphtha:
 Coal tar.

Solvent.
 Stoddard solvent.
 VM&P (75 percent Naphtha).
 Naphthalene, molten.
 Nonanol.
 Nonene.
 1-Nonene.
 Nonylphenol.
 Octanol.
 1-Octene.
 Oils:
 Clarified.
 Crude.
 Diesel.
 Edible oils, including:
 Castor.
 Cotton seed.
 Fish.
 Olive.
 Peanut.
 Soya bean.
 Vegetable.
 Fuel oils:
 No. 1 (kerosene).
 No. 1-D.
 No. 2.
 No. 2-D.
 No. 4.
 No. 5.
 No. 6.
 Miscellaneous oils, including:
 Absorption.
 Coat tar.
 Lubricating.
 Mineral seal.
 Mineral.
 Motor.
 Neatsfoot.
 Penetrating.
 Range.
 Resin.
 Rosin.
 Sperm.

Spindle.
 Spray.
 Tall.
 Tanner's.
 Turbine.
 Road.
 Transformer.
 Pentadecanol.
 n-Pentane.
 1-Pentene.
 Petrolatum.
 Petroleum naphtha.
 Polybutene.
 Polypropylene glycol methyl ether.
 Propylene.
 Propylene butylene polymer.
 Propylene tetramer.
 Propane.
 Propionaldehyde.
 n-Propyl acetate.
 n-Propyl alcohol.
 Propylene glycol.
 Sorbitol.
 Tallow.
 Tetradecanol.
 1-Tetradecene.
 Tetrahydronaphthalene.
 Toluene.
 Tridecanol.
 1-Tridecene.
 Triethyl benzene.
 Triethylene glycol.
 Turpentine.
 Undecanol.
 1-Undecene.
 Valeraldehyde.
 Vinyl toluene.
 Waxes:
 Carnauba.
 Paraffin.
 m-Xylene.
 o-Xylene.
 p-Xylene.

TABLE 151.01-10(f)

Classes of vessels (including motorboats) examined or inspected under various Coast Guard regulations¹

Method of propulsion	Size or other limitations ¹	Vessels inspected and certificated under Subchapter D—Tank Vessels ²	Vessels inspected and certificated under either Subchapter H—Passenger Vessels ^{2, 3, 4, 5} or Subchapter T—Small Passenger Vessels ^{2, 4}	Vessels inspected and certificated under Subchapter I—Cargo and Miscellaneous Vessels ^{2, 6}	Vessels subject to provisions of Subchapter C—Uninspected Vessels ^{2, 3, 6, 7, 8}	Vessels subject to provisions of Subchapter U—Oceanographic Vessels ^{2, 3, 6, 7, 9}	Vessels subject to the provisions of Subchapter O—Certain bulk dangerous cargoes. ¹⁰
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Steam.....	Vessels not over 65 feet in length.	All vessels carrying combustible or flammable liquid cargo in bulk.	All vessels carrying more than 6 passengers. ⁷	All tugboats and towboats.	All vessels except those covered by columns 3, 4, 5, and 7.	None.....	None.
	Vessels over 65 feet in length.	All vessels carrying combustible or flammable liquid cargo in bulk. ⁵	1. All vessels carrying more than 12 passengers on an international voyage, except yachts. 2. All vessels of not over 15 gross tons which carry more than 6 passengers. ⁷ 3. All other vessels carrying passengers, ⁷ except: a. Yachts. b. Documented cargo or tank vessels issued a permit to carry not more than 16 persons in addition to the crew. c. Towing and fishing vessels, in other than ocean and coastwise service, may carry persons on the legitimate business of the vessel, in addition to crew, but not to exceed one for each net ton of the vessel.	All vessels except those covered by columns 3 and 4.	None.....	All vessels engaged in oceanographic research.	None.

See footnotes at end of document.

TABLE 151.01-10(f)—Continued

Classes of vessels (including motorboats) examined or inspected under various Coast Guard regulations ¹							
Method of propulsion	Size or other limitations ¹	Vessels inspected and certificated under Subchapter D—Tank Vessels ²	Vessels inspected and certificated under either Subchapter H—Passenger Vessels ^{2,3,4,5} or Subchapter T—Small Passenger Vessels ^{2,4}	Vessels inspected and certificated under Subchapter I—Cargo and Miscellaneous Vessels ^{2,4}	Vessels subject to provisions of Subchapter C—Uninspected Vessels ^{2,3,6,7,8}	Vessels subject to provisions of Subchapter U—Oceanographic Vessels ^{2,3,6,7,9}	Vessels subject to the provisions of Subchapter O—Certain bulk dangerous cargoes, ¹⁰
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Motor.....	Vessels not over 15 gross tons.	All vessels carrying combustible or flammable liquid cargo in bulk.	All vessels carrying more than 6 passengers.	Those vessels carrying dangerous cargoes when required by 46 CFR Part 98 or 146.	All vessels except those covered by columns 3, 4, 5, and 7.	None.....	None.
	Vessels over 15 gross tons except seagoing motor vessels of 300 gross tons and over.	All vessels carrying combustible or flammable liquid cargo in bulk. ³	1. All vessels carrying more than 12 passengers on an international voyage, except yachts. 2. All vessels not over 65 feet in length which carry more than 6 passengers. ⁷ 3. All other vessels of over 65 feet in length carrying passengers for hire except documented cargo or tank vessels issued a permit to carry not more than 16 persons in addition to the crew.	All vessels carrying freight for hire except those covered by columns 3 and 4.	All vessels except those covered by columns 3, 4, 5, and 7.	None.....	None.
	Seagoing motor vessels of 300 gross tons and over.	All vessels carrying combustible or flammable liquid cargo in bulk. ³	1. All vessels carrying more than 12 passengers on an international voyage, except yachts. 2. All other vessels carrying passengers, ⁷ except: a. Yachts. b. Documented cargo or tank vessels issued a permit to carry not more than 16 persons in addition to the crew.	All vessels except those covered by columns 3 and 4, and those engaged in the fishing, oystering, clamming, crabbing, or any other branch of the fishery, kelp, or sponge industry.	All vessels except those covered by columns 3, 4, 5, and 7.	All vessels engaged in oceanographic research.	None.
Sail.....	Vessels not over 700 gross tons.	All vessels carrying combustible or flammable liquid cargo in bulk.	All vessels carrying more than 6 passengers. ⁷	Those vessels carrying dangerous cargoes when required by 46 CFR Part 98 or 146.	None.....	None.....	None.
	Vessels over 700 gross tons.	All vessels carrying combustible or flammable liquid cargo in bulk.	All vessels carrying passengers for hire.	Those vessels carrying dangerous cargoes when required by 46 CFR Part 98 or 146.	None.....	None.....	None.
Non-self-propelled.	Vessels less than 100 gross tons.	All vessels carrying combustible or liquid cargo in bulk.	All vessels carrying more than 6 passengers. ⁷	Those vessels carrying dangerous cargoes when required by 46 CFR Part 98 or 146.	All barges carrying passengers except those covered by column 4.	None.....	All tank barges ¹¹ carrying certain flammable and combustible liquids and liquefied gases in bulk.
	Vessels 100 gross tons or over.	All vessels carrying combustible or flammable liquid cargo in bulk.	All vessels carrying passengers for hire.	All seagoing barges except those covered by columns 3 and 4; and those inland barges carrying dangerous cargoes when required by 46 CFR Part 98 or 146.	All barges carrying passengers except those covered by columns 4 and 7.	All seagoing barges engaged in oceanographic research.	All tank barges ¹¹ carrying certain flammable and combustible liquids and liquefied gases in bulk.

¹ Where length is used in this table it means the length measured from end to end over the deck, excluding sheer. This expression means a straight line measurement of the overall length from the foremost part of the vessel to the aftermost part of the vessel, measured parallel to the centerline.

² Subchapters E (Load Lines), F (Marine Engineering), J (Electrical Engineering), and N (Dangerous Cargoes) of this chapter may also be applicable under certain conditions. The provisions of 46 U.S.C. 170 and Subchapter N (Dangerous Cargoes) of this chapter apply whenever explosives or dangerous articles or substances are on board vessels (including motorboats), except when specifically exempted by law.

³ Public nautical schoolships, other than vessels of the Navy and Coast Guard, shall meet the requirements of Part 167 of Subchapter R (Nautical Schools) of this chapter. Civilian nautical schoolships, as defined by 46 U.S.C. 1331, shall meet the requirements of Subchapter II (Passenger Vessels) and Part 168 of Subchapter R (Nautical Schools) of this chapter.

⁴ Subchapter H (Passenger Vessels) of this chapter covers only those vessels of 100 gross tons or more. Subchapter T (Small Passenger Vessels) of this chapter covers only those vessels of less than 100 gross tons.

⁵ Vessels covered by Subchapter H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of this chapter, where the principal purpose or use of the vessel is not for the carriage of liquid cargo, may be granted a permit to carry a limited amount of flammable or combustible liquid cargo in bulk. The portion of the vessel used for the carriage of the flammable or combustible liquid cargo shall meet the require-

ments of Subchapter D (Tank Vessels) in addition to the requirements of Subchapter H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of this chapter.

⁶ Any vessel on an international voyage is subject to the requirements of the International Convention for Safety of Life at Sea, 1960.

⁷ The meaning of the term "passenger" is as defined in the Act of May 10, 1956 (Sec. 1, 70 Stat. 151; 46 U.S.C. 390). On oceanographic vessels scientific personnel on board shall not be deemed to be passengers nor seamen, but for calculations of lifesaving equipment, etc., shall be counted as persons.

⁸ Boilers and machinery are subject to examination on vessels over 40 feet in length.

⁹ Under 46 U.S.C. 441 an "oceanographic research vessel" is a vessel " * * * being employed exclusively in instruction in oceanography or limnology, or both, or exclusively in oceanographic research, * * *." Under 46 U.S.C. 443, "an oceanographic research vessel shall not be deemed to be engaged in trade or commerce." If or when an oceanographic vessel engages in trade or commerce, such vessel cannot operate under its certificate of inspection as an oceanographic vessel, but shall be inspected and certificated for the service in which engaged, and the scientific personnel aboard then become persons employed in the business of the vessel.

¹⁰ Bulk dangerous cargoes are cargoes specified in Table 151.01-10(b) of § 30.25-5 of this chapter.

¹¹ For manned tank barges see § 151.01-10(e).

(e) Manned barges which carry or intend to carry in bulk the cargoes specified in Table 151.01-10(b) will be considered individually by the Commandant and may be required to meet the requirements of this subchapter and of Subchapter D (Tank Vessels) or I (Cargo and Miscellaneous Vessels) of this chapter as applicable.

(f) This subchapter shall be applicable to all unmanned barges indicated in column 8 of Table 151.01-10(f).

§ 151.01-15 Dangerous cargoes not specifically named.

(a) Any liquid or liquefied gas, which meets the definitions referred to in § 151.01-1 and is not named in Table 151.01-10(b) or Table 151.01-10(d) shall not be transported in bulk in a manned or unmanned tank barge without the prior specific approval of the Commandant.

(b) Mixtures or blends of two or more cargoes, one or more of which appears in Table 151.01-10(b), will be treated as though they were new products and specific approval of the Commandant must be obtained prior to undertaking their transportation.

(c) Mixtures or blends of two or more cargoes appearing in Table 151.01-10(d) may be treated as though that mixture were included on the list and may be transported under the provisions of Subchapter D (Tank Vessels) of this chapter.

§ 151.01-20 Use of minimum requirements.

(a) The minimum requirements governing transportation of any liquid or liquefied gas listed in Table 151.01-10(b) are set forth in this part when such substances are carried in bulk in unmanned tank barges.

(b) Before any liquid or liquefied gas listed in Table 151.01-10(b) may be carried in an unmanned tank barge, the certificate of inspection issued to such barge shall be appropriately endorsed to show approval to transport such cargo.

§ 151.01-25 Existing Barges.

(a) Except as provided in paragraph (c) of this section, barges certified for, or used within the previous 2 years prior to the effective date of this regulation, or barges equivalent to such barges, for the transportation of any cargo regulated by this subchapter which do not meet the specific requirements herein, may be continued in service subject to the following conditions:

(1) Venting, gaging, and all operating requirements shall be met within a 1-year period subsequent to the effective date.

(2) All other requirements shall be met within a 2-year period subsequent to the effective date.

(b) If an existing barge, which has been designed to carry or has regularly been carrying one or more of the cargoes regulated by this subchapter, is found to be so arranged or outfitted that conversion to bring it into compliance with any or all of the requirements of this subchapter is impractical or impossible, the Commandant, upon application, may

review the plans of the barge to determine if it is suitable and safe for the cargoes to be transported.

(c) Except for operating requirements, barges constructed and certificated for the transportation of any cargo for which specific regulations existed, in Parts 36, 38, 39, 40, and 98 of this chapter at the time of their construction or conversion, may continue and will be certificated to operate without the requirement that they comply with the provisions of Subchapter O of this subchapter.

§ 151.01-30 Effective date.

(a) The regulations in this subchapter are effective on and after June 1, 1970. However, amendments, revisions, or additions shall become effective ninety (90) days after the date of publication in the FEDERAL REGISTER unless the Commandant shall fix a different time.

(b) The regulations in this subchapter are not retroactive in effect unless specifically made so at the time the regulations are issued. Changes in specification requirements of articles of equipment, or materials used in construction of tank barges, shall not apply to such items which have been passed as satisfactory until replacement shall become necessary, unless a specific finding is made that such equipment or materials used is unsafe or hazardous and has to be removed from tank barges.

Subpart 151.02—Equivalents

§ 151.02-1 Conditions under which equivalents may be used.

(a) Where in this part it is provided that a particular fitting, material, appliance, apparatus, or equipment, or type thereof, shall be fitted or carried in a vessel, or that any particular provision shall be made or arrangement including cargo segregation shall be adopted, the Commandant may accept in substitution therefore any other fitting, material, apparatus or equipment, or type thereof, or any other provision or arrangement. However, the Commandant shall be satisfied by suitable evidence that the fitting, material, appliance, apparatus, or equipment, or the type thereof, or the provision or arrangement shall be at least as effective as that specified in this part.

(b) In any case where it is shown to the satisfaction of the Commandant that the use of any particular equipment, apparatus, or arrangement not specifically required by law is unreasonable or impracticable, the Commandant may permit the use of alternate equipment, apparatus, or arrangement to such an extent and upon such conditions as will insure, to his satisfaction, a degree of safety consistent with the minimum standards set forth in this part.

§ 151.02-5 Design of unmanned barges.

(a) In order not to inhibit design and application, the Commandant may approve vessels of novel design, both new and for conversion, after it is shown to his satisfaction that such a vessel is at least as safe as any vessel which meets the standards required by this part.

Subpart 151.03—Definitions

§ 151.03-1 Definitions of terms.

Certain terms used in the regulations in this subchapter are defined in this subpart.

§ 151.03-3 Angle of downflooding.

The angle of heel of the vessel at which any opening in the hull not provided with a water tight closure would be immersed.

§ 151.03-5 Approved.

This term means approved by the Commandant unless otherwise stated.

§ 151.03-7 Barge.

This term means any non-self-propelled vessel designed to carry cargo.

§ 151.03-9 Cargo.

This term means any liquid, gas or solid having one or more of the dangerous properties defined in this subchapter.

§ 151.03-11 Coastwise.

This designation refers to all vessels normally navigating the waters of any ocean or the Gulf of Mexico 20 nautical miles or less offshore.

§ 151.03-13 Cofferdam.

This term means a void or empty space separating two or more compartments for the purpose of isolation or to prevent the contents of one compartment from entering another in the event of the failure of the walls of one to retain their tightness.

§ 151.03-15 Commandant.

This term means Commandant of the U.S. Coast Guard.

§ 151.03-17 Compatible.

Compatible means that a cargo will not react in an unsafe manner with other cargo or materials used in construction of the barge. The prime considerations are the chemical, physical, or thermal properties of the reaction including heat, pressure, toxicity, stability, and explosive nature of the reaction and its end products.

§ 151.03-19 Environment.

This term refers to the atmosphere within a cargo tank and the spaces adjacent to the tank or spaces in which cargo is handled.

§ 151.03-21 Filling density.

The ratio, expressed as a percentage, of the weight of cargo that may be loaded into a tank compared to the weight of water that the tank will hold at 60° F. The weight of a gallon of water at 60° F. in air shall be 8.32828 pounds.

§ 151.03-23 Flame arrestor.

Any device or assembly of cellular, tubular, pressure or other type used for preventing the passage of flames into enclosed spaces.

§ 151.03-25 Flame screen.

A fitted single screen of corrosion-resistant wire of at least 30 by 30 mesh, or two fitted screens, both of corrosion-resistant wire, of at least 20 by 20 mesh

spaced not less than one-half inch or more than 1½ inches apart.

§ 151.03-27 Gas free.

Free from dangerous concentrations of flammable or toxic gases.

§ 151.03-29 Great Lakes.

A designation for all vessels in Great Lakes service.

§ 151.03-31 Headquarters.

The Office of the Commandant, U.S. Coast Guard, Washington, D.C. 20591.

§ 151.03-33 Lakes, bays, and sounds.

A designation for all vessels navigating the waters of any of the lakes, bays, or sounds other than the waters of the Great Lakes.

§ 151.03-35 Limiting draft.

Maximum allowable draft to which a barge may be loaded. Limiting draft is a function of hull type and cargo specific gravity. A barge may be assigned different limiting drafts for different hull types or within one hull type for different specific gravities.

§ 151.03-37 Maximum allowable working pressure.

The maximum allowable working pressure shall be as defined in section 8 of the ASME Boiler and Pressure Vessel Code.

§ 151.03-39 Ocean.

A designation for all vessels normally navigating the waters of any ocean or the Gulf of Mexico more than 20 nautical miles offshore.

§ 151.03-41 Officer in Charge, Marine Inspection.

Any person from the civilian or military branch of the Coast Guard designated as such by the Commandant and who, under the superintendence and direction of the Coast Guard District Commander, is in charge of an inspection zone for the performance of duties with respect to the enforcement and administration of title 52 R.S., acts amendatory thereof or supplemental thereto, and rules and regulations thereunder.

§ 151.03-43 Pressure.

Terminology used in this part are: pounds per square inch gage (p.s.i.g.) or pounds per square inch absolute (p.s.i.a.). 14.7 p.s.i.a. is equal to 0 p.s.i.g. P.s.i.g. is normally used in reference to design or operating requirements.

§ 151.03-45 Rivers.

A designation for all vessels whose navigation is restricted to rivers and/or canals, exclusively.

§ 151.03-47 Service.

The waters upon which a vessel may be operated as endorsed upon the certificate of inspection.

§ 151.03-49 Sounding tube.

This is an unperforated tube fitted to an ullage hole, secured so as to be vapor tight to the underside of the tank top,

open at the bottom, and extending to within 18 inches or less of the bottom of the tank.

§ 151.03-51 Tank barge.

A non-self-propelled vessel especially constructed or converted to carry bulk liquid cargo in tanks.

§ 151.03-53 Tankerman.

A person holding a certificate issued by the Coast Guard attesting to his competency in handling flammable or combustible liquid cargo in bulk or is any person holding a valid license as master, mate, pilot, or engineer.

§ 151.03-55 Vessel.

The word "vessel" as used in this subchapter applies to those classes indicated in column 8 of Table 151.01-10(f).

Subpart 151.04—Inspection and Certification

§ 151.04-1 Certificate of inspection.

(a) A certificate of inspection is required for every unmanned tank barge subject to the requirements in this subchapter. A certificate of inspection shall be issued to the barge or to its owners by the Officer in Charge, Marine Inspection, if the barge is found to comply with applicable inspection laws and the regulations in this chapter.

(b) The certificate of inspection shall be endorsed with respect to the waters over which the barge may be operated.

(c) The certificate shall be endorsed describing the cargoes by name as given in Table 151.01-10(b) or as specifically approved by the Commandant. No other dangerous cargo as defined in 151.01-1 shall be carried. Certificates shall specify maximum cargo weight (short tons), maximum density (pounds per gallon), and any operating limitations and a limiting draft.

§ 151.04-2 Inspection required.

(a) Every unmanned tank barge subject to the regulations in this subchapter shall be inspected biennially. More frequent inspections may be required, if necessary, by the Officer in Charge, Marine Inspection, to see that the hull, equipment and appliances of the vessel comply with the marine inspection laws, and the regulations of this subchapter and other subchapters where applicable.

§ 151.04-3 Initial inspection.

(a) The initial inspection which may consist of a series of inspections during the construction of an unmanned barge shall include a complete inspection of the structure, auxiliary machinery, and equipment. The inspection shall be such as to insure that the arrangement, materials, and scantlings of the hull structure, tanks and pressure vessels and their appurtenances comply with applicable regulations of this chapter and with the requirements of this part.

§ 151.04-5 Inspection for certification.

(a) An inspection for certification is a prerequisite of the reissuance of a Certificate of Inspection as provided for in applicable regulations of this chapter.

(b) Unless otherwise specified by special requirements, cargo tanks shall be internally examined according to the following:

(1) Where the cargo tank is of the gravity type and the structural framing is on the internal tank surface, the tank shall be inspected internally at the time of inspection for certification.

(2) Where the cargo tank is of the pressure-vessel type, it shall be examined internally at 8-year intervals.

(3) Where the cargo tank is of the pressure-vessel type, it shall be examined internally at 8-year intervals.

(4) Internal inspection may be required at more frequent intervals as deemed necessary by the Officer in Charge, Marine Inspection.

(c) Cargo tanks shall be visually inspected externally at the time of the vessel's inspection for certification. In the case of single skin construction, underwater portions of the tanks need not be examined unless deemed necessary by the Officer in Charge, Marine Inspection.

(1) For tanks where external examination of the tank proper is not possible due to insulation, the Officer in Charge, Marine Inspection, may require a sufficient portion of the insulation to be removed to determine the soundness of the tank. As an alternative to removing the insulation for external examination, the Officer in Charge, Marine Inspection, may accept, upon request, an internal examination.

(2) In addition to visual inspection, the Officer in Charge, Marine Inspection, may require the tank to be tested by such nondestructive means as he considers necessary to determine the condition of the tank.

(d) Quick closing valves shall be tested by operating the emergency shutoff system from each operating point at the time of each vessel's inspection for certification.

(e) Excess flow valves shall be inspected at the time of inspection for certification. The Officer in Charge, Marine Inspection, shall satisfy himself that the valve is in working condition by visual inspection, and if this is impossible, by one of the following means:

(1) Removing the valve and bench testing ashore; the valve shall close at or below its rated closing flow.

(2) By any other means acceptable to the Officer in Charge, Marine Inspection, which will demonstrate that the valve is operable.

(f) Pressure vacuum relief valves shall be examined to determine that the operating mechanism is free and capable of activation.

(g) Safety relief valves shall be tested by bench testing or other suitable means. The valves shall relieve and reset within the design tolerances of the set pressure, or it shall be removed and reset prior to being returned to service. This test shall be conducted at the time of the inspection for certification.

(h) Cargo hose stored on board the vessel which is used in transferring cargoes listed in Table 151.01-10(b) shall be inspected every 2 years. This inspection shall consist of a visual examination and a hydrostatic test of $1\frac{1}{2}$ times the maximum pressure to which the hose will be subjected in service. The date of the most recent inspection and the test pressure shall be stenciled or otherwise marked on the hose.

(i) Cargo piping shall be inspected and tested at the same time as the cargo tanks.

Subpart 151.05—Summary of Minimum Requirements for Specific Cargoes

§ 151.05-1 Explanation of column headings in Table 151.05.

(a) *Cargo identification/name.* This column identifies commodities by name as listed in Table 151.01-10(b).

(b) *Cargo identification/pressure.* This column identifies cargo in terms of pressure within the tank. Terms used are:

(1) *Pressurized.* Cargo carried at a pressure in excess of 10 pounds per square inch gage as measured at the top of the tank (i.e., exclusive of static head).

(2) *Atmospheric pressure.* Cargo carried at not more than 10 pounds per square inch gage, exclusive of static head.

(c) *Cargo identification/temperature.* This column identifies the cargo by the temperature of the cargo during transit.

(1) *Ambient temperature.* Cargo which is carried at naturally occurring temperatures.

(2) *Low temperature.* Cargo carried below ambient temperatures when the product temperature is below 0°F.

(3) *Elevated temperature.* Cargo carried above ambient temperatures.

(d) *Hull type.* This column refers to the flotation features of the barge. Terms used are explained and defined in Subpart 151.10 of this part.

(e) *Cargo segregation/tanks.* This column refers to the separation of the cargo from its surroundings. Terms are explained in § 151.13-5 and in footnotes to Table 151.05 of this part.

(n) *Fire protection.* This column specifies whether portable fire extinguishers are required on barges carrying the cargo named. Requirements for cargoes requiring extinguishers are given in Subpart 151.30 of this part.

(o) *Special requirements.* This column refers to requirements which apply to specific cargoes and which cannot be stated in generalized terms. Where applicable, detailed requirements are given in Subparts 151.50 and 151.55 of this part.

(g) *Tanks/type.* This column refers to the design requirements for cargo tanks and their placement within the hull of the vessel. Terms are explained in § 151.15-1.

(h) *Tanks/venting.* This column refers to arrangements for preventing excess pressure or vacuum within the cargo tank. Terms used are explained and defined in § 151.15-5.

(i) *Tanks/gaging devices.* This column refers to arrangements provided for determining the amount of cargo present in cargo tanks. Terms used are explained and defined in § 151.15-10.

(j) *Cargo transfer/piping.* This column refers to the classification of piping in accordance with Subchapter F of this chapter as discussed in § 151.20-1.

(k) *Cargo transfer/control.* This column refers to the valving requirements for the cargo piping system. These requirements are defined in § 151.20-5.

(l) *Environmental control/cargo tanks.* This column refers to control of

the composition of the environment within cargo tanks. Definitions and detailed requirements are given in § 151.25-1.

(m) *Environmental control/cargo handling space.* This column refers to control of the environment in the cargo handling spaces. Definitions and detailed requirements are found in § 151.25-2.

(n) *Fire protection.* This column specifies whether portable fire extinguishers are required on barges carrying the cargo named. Requirements for cargoes requiring extinguishers are given in Subpart 151.30 of this part.

(o) *Special requirements.* This column refers to requirements which apply to specific cargoes and which cannot be stated in generalized terms. Where applicable, detailed requirements are given in Subparts 151.50 and 151.55 of this part.

(p) *Electrical installations/hazard group and class.* This column refers to the hazardous material group and class ratings of § 111.60-40, of this chapter. These group and class ratings are to be used in the selection of electrical equipment for use within the hazardous areas as permitted by Subpart 111.70 of this chapter. All the cargoes listed in Table 151.05 are classified and group ratings are, and will continue to be, indicated when available.

(q) *Temperature control installations.* This column refers to systems which are used to control the temperature of the cargo. Definitions and requirements which applicable if such systems are used are given in Subpart 151.40 of this part.

(r) *Tank inspection period.* This column refers to the maximum period in years between internal cargo tank inspections. Applicable requirements are given in § 151.04-5.

TABLE 151.05—SUMMARY OF MINIMUM REQUIREMENTS

Cargo identification			Hull type	Cargo segregation	Tanks			Cargo transfer		Environmental control		Fire protection required	Special requirements (Section)	Electrical hazard group-class	Temp. control install.	Tank internal inspection period—years
Name	Pressure	Temp.			Type	Vent	Gaging device	Piping class	Control	Cargo tanks	Cargo handling space					
Acetaldehyde	Press.	Amb.	II	INA 2li	Ind. Pressure	SR	Restr.	II	P-1	Inerted	Vent F	Yes	151.55-1(b)	I-C	NA	G
Acetic acid	Atmos.	Amb.	III	II 2li	Integral Gravity	Open	Open	II	G-1	NR	Vent N	Yes	151.55-1(g)	I	NA	G
Acetic anhydride	Atmos.	Amb.	III	II 2li	Integral Gravity	PV	Restr.	II	G-1	NR	Vent F	Yes	151.55-1(g)	I	NA	G
Acetone cyanohydrin	Atmos.	Amb.	I	III 2li	Integral Gravity	PV	Closed	I	G-1	NR	Vent F	Yes	151.50-5	I	NA	G
Acetonitrile	Atmos.	Amb.	III	II 2li	Integral Gravity	PV	Restr.	II	G-1	NR	Vent F	Yes	No	I-D	NA	G
Acrylonitrile	Atmos.	Amb.	II	III 2li	Integral Gravity	PV	Closed	II	G-1	NR	Vent F	Yes	151.55-1(e)	I-D	NA	G
Adiponitrile	Atmos.	Amb.	II	III 2li	Integral Gravity	PV	Open	II	G-1	NR	Vent F	Yes	No	I	NA	G
Allyl alcohol	Atmos.	Amb.	I	III 2li	Integral Gravity	PV	Closed	I	G-1	NR	Vent F	Yes	151.50-5	I	NA	G
Allyl chloride	Atmos.	Amb.	I	III 2li	Integral Gravity	PV	Closed	I	G-1	NR	Vent F	Yes	151.50-5	I-D	NA	G
For requirements see these sections:			151.10	151.13-5	151.15-1	151.15-5	151.15-10	151.20-1	151.20-5	151.25-1	151.25-2	151.30		111.60-40 (Subchapter J)	151.40	151.04-5

See footnotes at end of document.

RULES AND REGULATIONS

3721

TABLE 151.05—SUMMARY OF MINIMUM REQUIREMENTS—Continued

Cargo identification			Hull type	Cargo segregation	Tanks			Cargo transfer		Environmental control		Fire protection required	Special requirements (Section)	Electrical hazard group-class	Temp. control install.	Tank internal in-spect. period—years
Name	Pressure	Temp.			Tank	Type	Vent	Gaging device	Piping class	Control	Cargo tanks	Cargo handling space				
Aminoethyl-ethanolamine	Atmos.	Amb.	III	II	Integral Gravity	Open	Open	II	G-1	NR	Vent N	Yes	151.55-1(b)	I	NA	G
Ammonia, anhydrous	Press.	Amb.	II	1NA 2II	Ind. Pressure	SR 250 p.s.i.	Restr.	II	P-2	NR	Vent F	No	151.50-30 151.50-32	I-D	NA	8
Ammonia, anhydrous	Atmos.	Low	II	1NA 2II	Ind. Gravity	PV	Restr.	II-L	G-2	NR	Vent F	No	151.50-30 151.50-32	I-D	151.40-1(b)(1)	8
Ammonium hydroxide, not to exceed 28% NH ₃	Atmos.	Amb.	III	II	Integral Gravity	PV	Restr.	II	G-1	NR	Vent F	No	No	I-③	NA	G
Aniline	Atmos.	Amb.	I	III 2II	Integral Gravity	PV	Closed	I	G-1	NR	Vent F	Yes	151.50-5	I-D	NA	G
Benzene	Atmos.	Amb.	III	II	Integral Gravity	PV	Open	II	G-1	NR	Vent F	Yes	No	I-D	NA	G
Butadiene, inhibited	Press.	Amb.	II	1NA 2II	Ind. Pressure	SR	Restr.	II	P-2	NR	Vent F	Yes	No	I-B	NA	8
N-butyl acrylate	Atmos.	Amb.	III	II	Integral Gravity	PV	Open	II	G-1	NR	Vent N	Yes	No	I	NA	G
Isobutyl acrylate	Atmos.	Amb.	III	II	Integral Gravity	PV	Open	II	G-1	NR	Vent N	Yes	No	I	NA	G
Butyraldehyde, (N)	Atmos.	Amb.	III	II	Integral Gravity	PV	Open	II	G-1	NR	Vent F	Yes	151.55-1(h)	I	NA	G
Isobutyraldehyde	Atmos.	Amb.	III	II	Integral Gravity	PV	Open	II	G-1	NR	Vent F	Yes	151.55-1(h)	I	NA	G
Camphor oil (light)	Atmos.	Amb.	II	III 2II	Integral Gravity	Open	Open	II	G-1	NR	Vent N	Yes	No	I	NA	G
Carbolic oil	Atmos.	Amb.	I	III 2II	Integral Gravity	PV	Closed	I	G-1	NR	Vent F	Yes	151.50-5	I	NA	G
Carbon bisulfide	Atmos.	Amb.	II	1NA 2II	Ind. Gravity	PV	Restr.	II	G-1	Inert	Vent F	Yes	151.50-40 151.50-41	151.50-41(g)	NA	G
Carbon tetrachloride	Atmos.	Amb.	III	II	Integral Gravity	PV	Open	II	G-1	NR	Vent N	No	No		NA	G
Caustic potash solution	Atmos.	Amb. Elev.	III	II	Integral Gravity	Open	Open	II	G-1	NR	NR	No	151.55-1(b)		NA	G
Caustic soda solution	Atmos.	Amb. Elev.	III	II	Integral Gravity	Open	Open	II	G-1	NR	NR	No	151.55-1(b)		NA	G
Chlorine	Press.	Amb.	I	1NA 2II	Ind. Pressure	SR 300 p.s.i.	Indirect	I	P-2	NR	Vent F	No	151.50-30 151.50-31		NA	2
Chlorobenzene	Atmos.	Amb.	III	II	Integral Gravity	PV	Open	II	G-1	NR	Vent N	Yes	No	I	NA	G
Chloroform	Atmos.	Amb.	III	II	Integral Gravity	Open	Open	II	G-1	NR	Vent F	No	No		NA	G
Chlorohydrins (crude)	Atmos.	Amb.	I	III 2II	Integral Gravity	PV	Closed	I	G-1	NR	Vent F	Yes	151.50-5	I	NA	G
Chlorosulfonic acid	Atmos.	Amb.	III	III 2II	Integral Gravity	PV	Open	II	G-1	NR	Vent N	No	151.50-20 151.50-21	I	NA	G
Cresols	Atmos.	Amb.	III	II	Integral Gravity	Open	Open	II	G-1	NR	Vent N	Yes	No	I-D	NA	G
Crotonaldehyde	Atmos.	Amb.	II	III 2II	Integral Gravity	PV	Restr.	II	G-1	NR	Vent F	Yes	151.55-1(h)	I	NA	G
Dichlorodifluoromethane	Press.	Amb.	III	1NA 2I	Ind. Pressure	SR	Restr.	II	P-1	NR	NR	No	No		NA	8
Dichloropropane	Atmos.	Amb.	III	II	Integral Gravity	PV	Restr.	II	G-1	NR	Vent F	Yes	No	I	NA	G
Dichloropropene	Atmos.	Amb.	II	III 2II	Integral Gravity	PV	Restr.	II	G-1	NR	Vent F	Yes	No	I-D	NA	G
Diethanolamine	Atmos.	Amb.	III	II	Integral Gravity	Open	Open	II	G-1	NR	Vent N	Yes	151.55-1(c)	I	NA	G
Diethylene-triamine	Atmos.	Amb.	III	II	Integral Gravity	Open	Open	II	G-1	NR	Vent N	Yes	151.55-1(c)	I	NA	G
Diisopropylamine	Atmos.	Amb.	III	II	Integral Gravity	Open	Open	II	G-1	NR	Vent N	Yes	151.55-1(c)	I	NA	G
For requirements see these sections:																
	151.10	151.13-5		151.15-1	151.15-5	151.15-10	151.20-1	151.20-5	151.25-1	151.25-2	151.30		111.60-40 (Subchapter J)		151.40	151.04-5

See footnotes at end of document.

TABLE 151.05—SUMMARY OF MINIMUM REQUIREMENTS—Continued

Cargo Identification			Hull type	Cargo segregation	Tanks			Cargo transfer		Environmental control		Fire protection required	Special requirements (Section)	Electrical hazard group-class	Temp. control install.	Tank internal i spec. period—years
Name	Pressure	Temp.			Tank	Type	Vent	Gaging device	Piping class	Control	Cargo tanks	Cargo handling space				
Dimethylamine	Press.	Amb.	II	1NA 2ii	Ind. Pressure	SR	Restr.	II	P-2	NR	Vent F	Yes	151.55-1(e)	I-D	NA	8
Epichlorohydrin	Atmos.	Amb.	I	1ii 2ii	Integral Gravity	PV	Closed	I	G-1	NR	Vent F	Yes	151.50-5	I	NA	G
Ethyl acrylate	Atmos.	Amb.	III	1i 2ii	Integral Gravity	PV	Restr.	II	G-1	NR	Vent F	Yes	No	I	NA	G
Ethyl chloride	Press.	Amb.	II	1NA 2ii	Ind. Pressure	SR	Restr.	II	P-2	NR	Vent F	Yes	No	I	NA	8
Ethyl Ether	Atmos.	Amb.	II	1NA 2ii	Ind. Gravity	PV	Closed	II	G-1	Inert	Vent F	Yes	151.50-40 151.50-42	I-C	NA	G
2-Ethyl, 3-Propyl Acrolein	Atmos.	Amb.	III	1i 2i	Integral Gravity	PV	Restr.	II	G-1	NR	Vent F	Yes	No	I	NA	G
Ethylene cyanohydrin	Atmos.	Amb.	III	1i 2ii	Integral Gravity	Open	Open	II	G-1	NR	Vent N	Yes	No	I	NA	G
Ethylene diamine	Atmos.	Amb.	III	1i 2ii	Integral Gravity	PV	Restr.	II	G-1	NR	Vent F	Yes	151.55-1(c)	I	NA	G
Ethylene dichloride	Atmos.	Amb.	III	1ii 2ii	Integral Gravity	PV	Restr.	II	G-1	NR	Vent F	Yes	No	I	NA	G
Ethyleneimine	Atmos.	Amb.	I	1NA 2ii	Ind. Pressure	SR	Closed	II	G-1	Inert	Vent F	Yes	151.50-60	I	151.40-1 (b) (2)	G
Ethylene oxide	Press.	Amb.	I	1NA 2ii	Ind. Pressure	SR	Restr.	II	P-2	Inert	Vent F	Yes	151.50-10 151.50-12	I-B	151.40-1 (c) (2)	4
Formaldehyde solution 37-50%	Atmos.	Amb.	III	1ii 2ii	Integral Gravity	PV	Restr.	II	G-1	NR	Vent F	No	151.55-1(h)	I	NA	G
Formic acid	Atmos.	Amb.	III	1ii 2i	Integral Gravity	PV	Restr.	II	G-1	NR	Vent F	Yes	151.55-1(i)	I	NA	G
Furfural	Atmos.	Amb.	III	1ii 2i	Integral Gravity	PV	Restr.	II	G-1	NR	Vent F	Yes	151.55-1(h)	I	NA	G
Hydrochloric acid	Atmos.	Amb.	III	1NA 2ii	Ind. Gravity	Open	Open	II	G-1	NR	Vent F	No	151.50-20 151.50-22		NA	4
Hydrofluoric acid (3)	Atmos.	Amb.	I	1NA 2ii	Ind. Gravity	PV	Closed	II	G-1	NR	Vent F	No	151.50-24		NA	G
Hydrogen chloride (3)	Press.	Amb. or Low	I	1NA 2ii	Ind. Pressure	SR	Closed	I or I-L	P-2	NR	Vent F	No	151.50-33 151.55-1(e)		151.40-1 (b) (2)	2
Hydrogen fluoride (3)	Press.	Amb.	I	1NA 2ii	Ind. Pressure	SR	Closed	I	P-2	NR	Vent F	No	151.50-65		151.40-1 (b) (2)	G
Isoprene	Atmos.	Amb.	III	1i 2ii	Integral Gravity	PV	Open	II	G-1	NR	Vent F	Yes	No	I-C	NA	G
Methyl acrylate	Atmos.	Amb.	III	1i 2ii	Integral Gravity	PV	Restr.	II	G-1	NR	Vent F	Yes	No	I	NA	G
Methyl bromide	Press.	Amb.	I	1NA 2ii	Ind. Pressure	SR	Closed	I	P-2	NR	Vent F	Yes	151.50-5	I-D	NA	2
Methyl chloride	Press.	Amb.	II	1NA 2ii	Ind. Pressure	SR	Restr.	II	P-2	NR	Vent F	Yes	151.55-1(c)	I-D	NA	8
Methyl methacrylate	Atmos.	Amb.	III	1i 2ii	Integral Gravity	PV	Restr.	II	G-1	NR	Vent F	Yes	No	I-D	NA	G
Monochlorodifluoromethane	Press.	Amb.	III	1NA 2i	Ind. Pressure	SR	Restr.	I	P-1	NR	NR	No	No	I	NA	8
Monoethanolamine	Atmos.	Amb.	III	1i 2i	Integral Gravity	Open	Open	II	G-1	NR	Vent N	Yes	151.55-1(c)		NA	G
Monoisopropanolamine	Atmos.	Amb.	III	1i 2i	Integral Gravity	Open	Open	II	G-1	NR	Vent N	Yes	151.55-1(c)	I	NA	G
Morpholine	Atmos.	Amb.	III	1i 2ii	Integral Gravity	Open	Open	II	G-1	NR	Vent N	Yes	155.55-1(c)	I	NA	G
Motorfuel antiknock compounds	Atmos.	Amb.	I	1ii 2ii	Ind. Gravity	PV	Closed	I	G-1	NR	Vent F	Yes	151.50-6	I	NA	151.50-6 4
Oilum	Atmos.	Amb.	III	1ii 2ii	Integral Gravity	Open	Open	II	G-1	NR	Vent N	No	151.50-20 151.50-21	I	NA	
Phenol	Atmos.	Amb.	I	1ii 2i	Integral Gravity	PV	Closed	I	G-1	NR	Vent F	Yes	151.50-5	I-D	NA	2
For requirements see these sections:			151.10	151.13-5	151.15-1	151.15-5	151.15-10	151.20-1	151.20-5	151.25-1	151.25-2	151.30		111.60-40 (Subchapter J)	151.40	151.04-5

See footnotes at end of document.

TABLE 151.05—SUMMARY OF MINIMUM REQUIREMENTS—Continued

Cargo identification			Hull type	Cargo segregation	Tanks			Cargo transfer		Environmental control		Fire protection required	Special requirements (Section)	Electrical hazard group-class	Temp. control install.	Tank internal inspect. period—years
Name	Pressure	Temp.			Tank	Type	Vent	Gaging device	Piping class	Control	Cargo tanks					
Phosphorus, elemental	Atmos.	Elev.	I	1ii 2ii	Integral Gravity	PV	Closed	I	G-1	Water Pad	Vent F	Yes	151.50-50		NA	8-4
Phosphoric acid	Atmos.	Amb.	III	1ii 2i	Integral Gravity	Open	Open	II	G-1	NR	Vent N	No	151.50-20 151.50-23	I	NA	4
Propionic acid	Atmos.	Amb.	III	1i 2ii	Integral Gravity	Open	Open	II	G-1	NR	Vent N	Yes	151.55-1(g)	I	NA	G
Propylene oxide	Press.	Amb.	II	1NA 2ii	Ind. Pressure	SR	Restr.	II	P-1	Inerted	Vent F	Yes	151.50-10 151.50-13	I-B	NA	4
Styrene monomer	Atmos.	Amb.	III	1i 2ii	Integral Gravity	Open	Open	II	G-1	NR	Vent N	Yes	No	I-D	NA	G
Sulfur (liquid)	Atmos.	Elev.	III	1i 2ii	Integral Gravity	Open	Open	II	G-1	Vent N	Vent N	Yes	151.50-55	I-C	151.40-1 (f) (1)	G
Sulfuric acid	Atmos.	Amb.	III	1ii 2ii	Integral Gravity	Open	Open	II	G-1	NR	Vent N	No	151.50-20 151.50-21	I	NA	4
Sulfuric acid spent	Atmos.	Amb.	III	1ii 2ii	Integral Gravity	Open	Open	II	G-1	NR	Vent N	No	151.50-20 151.50-21	I	NA	4
Triethanolamine	Atmos.	Amb.	III	1i 2i	Integral Gravity	Open	Open	II	G-1	NR	Vent N	Yes	151.55-1(b)	I	NA	G
Triethylene tetramine	Atmos.	Amb.	III	1i 2i	Integral Gravity	Open	Open	II	G-1	NR	Vent N	Yes	151.55-1(b)	I	NA	G
Vinyl acetate	Atmos.	Amb.	III	1i 2ii	Integral Gravity	PV	Open	II	G-1	NR	Vent F	Yes	No	I-D	NA	G
Vinyl chloride	Press.	Amb.	II	1NA 2ii	Ind. Pressure	SR	Restr.	II	P-2	NR	Vent F	Yes	151.50-30 151.50-34	I-D	NA	8
Vinyl chloride	Atmos.	Low	II	1NA 2ii	Ind. Gravity	PV	Restr.	II-L	G-2	NR	Vent F	Yes	151.50-30 151.50-34	I-D	151.40-1 (b) (1)	8
Vinylidene chloride inhibited	Atmos.	Amb.	II	1NA 2ii	Ind. Gravity	PV	Closed	II	P-2	Padded	Vent F	Yes	151.55-1(f)	I	NA	G
For requirements see these sections:			151.10	151.13-5	151.15-1	151.15-5	151.15-10	151.20-1	151.20-5	151.25-1	151.25-2	151.30		111.60-40 (Subchapter J)	151.40	151.04-5

FOOTNOTES AND TERMS USED IN TABLE 151.05

Footnotes:

- ① Group D required as indicated in Subpart 111.60, Subchapter J of this chapter.
- ② May be necessary under certain climatic conditions in order to maintain temperature.
- ③ Special requirements not completed as of this date.

Terms and symbols:

Segregation—Tank—

Line 1—Segregation of cargo from surrounding waters:

- 1=Skin of vessel (single skin) only required. Cargo tank wall can be vessel's hull.
- 1i=Double skin required. Cargo tank wall cannot be vessel's hull.

Line 2—Segregation of cargo space from machinery spaces and other spaces which have or could have a source of ignition:

- 1=Single bulkhead only required. Tank wall can be sole separating medium.

Subpart 151.10—Barge Hull Construction Requirements

§ 151.10-1 Barge hull classifications.

(a) Each barge constructed or converted in conformance with this subpart shall be assigned a hull type number.

(1) Effective dates for certain requirements:

(i) Barges constructed or converted between July 1, 1964, and June 1, 1970, in accordance with the construction requirements of § 32.63 of this chapter and § 98.03 of this chapter are considered to comply with the basic provisions of this subpart and shall retain the hull type classification for the service for which

they were originally approved. Changes in product endorsement shall not be considered a change in service, except when a change to a product of higher specific gravity necessitates a reevaluation of the intact and damage stability requirements of §§ 151.10-5 and 151.10-10.

(b) For this purpose the barge hull types shall be defined as follows:

(1) *Type I barge hull.* Barge hulls classed as Type I are those designed to carry products which require the maximum preventive measures to preclude the uncontrolled release of the cargo. These barges are required to meet standards of intact stability, § 151.10-5; a modified two-compartment standard of

subdivision and damage stability, § 151.10-10; and hull structural requirements, including an assumed grounding condition.

(2) *Type I-S (special) barge hulls.* Type I-S (special) barge hulls are those constructed or converted for the carriage of chlorine in bulk prior to July 1, 1964, and modified to higher stability standards prior to July 1, 1968, but not meeting the requirements for full Type I classification.

(3) *Type II barge hull.* Barge hulls classed as Type II are those designed to carry products which require significant preventive measures to preclude the uncontrolled release of the cargo. These

1i=Double bulkhead required. Cofferdam, empty tank, pump-room, tank with Grade E Liquid (if compatible with cargo) is satisfactory.

Internal tank inspection—

G—Indicates cargo is subject to general provisions of § 151.04-5(b).

Specific numbers in this column are changes from the general provisions.

Abbreviations used:

Tank type: Ind=Independent.

Vent: PV=Pressure vacuum valve.

SR=Safety relief.

Gaging device: Restr.=Restricted.

General usage: NR=No requirements.

NA=Not applicable.

barges are required to meet standards of intact stability, § 151.10-5; a modified one-compartment standard of subdivision and damage stability, § 151.10-10; and hull structural requirements including an assumed grounding condition.

(4) *Type III barge hull.* Barge hulls classed as Type III are those designed to carry products of sufficient hazard to require a moderate degree of control. These barges are required to meet standards of intact stability, § 151.10-5; and hull structural requirements.

§ 151.10-5 Intact stability.

(a) *Transverse stability.* (1) All barges shall have at least the following amounts of transverse stability up to the angle of maximum righting arm or angle of downflooding, whichever is less:

River service—5-foot degrees.

Lakes, bays, and sounds (Great Lakes—summer)—10-foot degrees.

Ocean service (Great Lakes—winter)—15-foot degrees.

(2) As an alternate to determination of stability requirements under the foregoing requirements, the minimum required metacentric height (GM) in feet at any particular draft may be determined by the following formula:

$$GM = \frac{kB}{je}$$

where:

$k = 0.3$ for river service

$= 0.4$ for lakes, bays, and sounds service (Great Lakes—summer)

$= 0.5$ for ocean service (Great Lakes—winter)

$B = \text{beam (ft.)}$

$je = \text{effective freeboard (} f + fa \text{) in feet. This is freeboard to the deck at side (} f \text{) plus a freeboard augmentation (} fa \text{) for those barges with a watertight (structural) trunk. Where draft (} d \text{) is less than } je \text{, it shall be used in lieu of } je \text{. The freeboard augmentation (} fa \text{) may be calculated by the following formula:}$

$$fa = (1.25) \left(\frac{l}{L} \right) \left(\frac{2b}{B} - 1 \right) (h)$$

where:

$l = \text{trunk length (ft.)}$

$L = \text{overall length (ft.)}$

$b = \text{trunk breadth (ft.)}$

$h = \text{trunk height at side (ft.)}$

(b) *Longitudinal stability.* (1) The minimum required longitudinal metacentric height (GMI) in feet at any particular draft shall be determined by the following formula:

$$GMI = \frac{0.02L^2}{d}$$

where:

$L = \text{overall length (ft.)}$

$d = \text{draft (ft.)}$

§ 151.10-10 Subdivision and damage stability.

(a) *Types I and II barge hulls.* (1) Types I and II hopper barge hulls shall be constructed with a complete watertight (rainshield) deck, or if of the "open-hopper" type with such construction that positive buoyancy and stability will be maintained when the barge is fully loaded and the hopper space is flooded to the level of the main deck.

Credit may be given for the buoyancy, if any, of the immersed portion of cargo tanks when an effective arrangement for securing the tanks is provided.

(2) (i) Type I barge hulls shall retain positive buoyancy and stability after holing the bottom or side shell plating anywhere including the intersection of a transverse and a longitudinal watertight bulkhead.

(ii) Type I box barge hulls, specifically designed for operation in an integrated tow, shall retain positive buoyancy and stability after holing the bottom shell plating except in way of a transverse watertight bulkhead, or after holing the side shell plating in way of a transverse watertight bulkhead.

(3) Type II barge hulls shall retain positive buoyancy and stability after holing the bottom or side shell plating anywhere except in way of a transverse watertight bulkhead.

(b) *Extent of damage.* (1) *Transverse bulkheads.* When the spacing of any two transverse bulkheads is less than 6 feet, only one of these bulkheads shall be regarded as forming a part of the subdivision of the vessel when determining extent of flooding.

(2) *Longitudinal wing bulkheads.* Longitudinal wing bulkheads less than 30 inches inboard of the side shell plating shall be considered as ineffective when determining extent of flooding caused by side damage.

(3) *Inner bottom.* Inner bottoms with a depth of less than 15 inches shall be considered ineffective when determining the extent of flooding caused by bottom damage.

(c) *Limits of heel, trim, and freeboard.* (1) *Hopper barges.* The limits of submergence in heel and trim is the deck edge, except that in way of coamings at least 36 inches in height, the limit of submergence may be extended to the intersection of the coaming and deck edge, but in no case should the limit of submergence in heel exceed that specified for an integral trunked tank barge with identical dimensions as specified in subparagraph (2) (i) of this paragraph.

(2) *Integral tank barges.* No part of the actual cargo tank top may be under water.

(i) *Limits of heel:* The limit of submergence in heel is the deck edge, except that for trunked barges an additional submergence at the deck edge may be permitted. This additional submergence is equal to the freeboard augmentation (fa) calculated in § 151.10-5(a) (2).

(ii) *Limits of trim:* The limit of submergence in trim is the deck edge, except that for trunked barges the limit is the intersection of the trunk and deck at the forward and after ends of the trunk. If there is simultaneous heel and trim, the above restriction would apply at the centerline, and an additional submergence on the low side may be permitted by subdivision (i) of this subparagraph.

(iii) Where barges are fitted with a "step-down" in hull depth on either or both ends to permit the barge of greater hull depth to "headlog" or match-up

with adjacent barges of shallower hull depth, the actual deck edge and tank top in such stepped-down area may be submerged provided that all cargo tank openings are located on the higher deck level.

§ 151.10-15 Stability and subdivision calculations.

(a) *General.* The requirements of §§ 151.10-5 and 151.10-10 shall be determined by direct calculations which take into consideration the proportions and design characteristics of the barge and the arrangement and configuration of the damaged compartments. When it is desired to operate a barge in two or more type categories or at different limiting drafts calculations shall be submitted for each condition.

(b) *Free surface.* (1) In preparing calculations, the barge shall be assumed to be in the most severe service condition as regards stability, having due regard to free surface effects of liquids, particularly under conditions of partial filling with high density cargoes.

(2) Calculations shall consider the effect of both transverse and longitudinal free surface.

(3) When calculations are submitted, a maximum specific gravity and capacity shall be established for each tank. This specific gravity may be greater than that for which the scantlings of the tank are designed, provided that there is compliance with the provisions of § 151.15-3(c).

(c) *Certificate endorsement.* The following information shall be submitted, and upon approval of calculations shall form part of the endorsement on the Certificate of Inspection:

(1) Limiting draft for each hull type service for which approval is requested.

(2) Maximum density (lb./gal.) and maximum cargo weight (tons) for each tank for which approval is requested. These weights will normally reflect uniform loading except that for trim purposes the individual tank cargo weight may exceed the uniform loading tank cargo weight, corresponding to the barge fresh water deadweight at the limiting draft, by 5 percent. Where a greater degree of nonuniform loading is desired, longitudinal strength calculations shall be submitted.

§ 151.10-20 Hull construction.

(a) *Construction features.* (1) Each barge hull shall be constructed with a suitable bow form (length, shape, and height of headlog) to protect against diving at the maximum speed at which the barge is designed to be towed. In any integrated tow, only the lead barge need comply with this requirement.

(2) All "open hopper" type barges shall be provided with coamings around the hopper space and a 36-inch minimum height plowshare breakwater on the forward rake. The plowshare breakwater may be omitted, if it is demonstrated to the satisfaction of the Commandant that sufficient protection is achieved without it. Coamings shall have a minimum height of 36 inches forward and may be graduated to a minimum height of 24 inches at midlength and 18

inches thereafter. All hopper barges constructed with a weathertight rain shield over the hopper space are exempt from these requirements, except that they shall be provided with an 18-inch minimum coaming all around the hopper.

(3) All "open hopper" type barges modified for the carriage of chlorine in bulk shall be provided with 36-inch minimum height coamings around the hopper.

(4) All barges in ocean or coastwise service shall be provided with a structural deck and hatches in accordance with the applicable provisions of Subchapter E of this chapter and the scantling requirements of the American Bureau of Shipping.

(b) *Hull structural requirements.* (1) All Types I, II, and III barges shall comply with the basic structural requirements of the American Bureau of Shipping for barges of the ordinary types and the applicable supplementary requirements of this section.

(2) Types I and II barges in inland service: A grounding condition shall be assumed where the forward rake bulkhead rests upon a pinnacle at the water surface. The maximum hull and tank bending moment and tank saddle reactions (if applicable) shall be determined. The hull bending stress shall not exceed the applicable limits of subdivision (i), (ii), or (iii) of this subparagraph. The maximum tank bending moment and saddle reaction shall be used in the tank design calculations required by § 151.15-2(b)(3).

(i) Independent tanks supported by only two saddles do not contribute to the strength and stiffness of the barge hull. In such case, the hull stress shall not exceed either 50 percent of the minimum ultimate tensile strength of the material or 70 percent of the yield strength when specified, whichever is greater.

(ii) Independent tanks supported by three or more saddles contribute to the strength and stiffness of the hull. In such case, the hull stress shall not exceed the percentage stress values prescribed in § 151.10-20(b)(2)(i), multiplied by the quantity $(1.5 - SWT)$, where SWT

UTS

is the stress calculated without including the effect of the tanks, and UTS is the minimum ultimate tensile strength of the material. The value SWT , however, shall in no case be more than 75 percent of UTS .

(iii) Integral tanks may be considered as contributing to the strength and stiffness of the barge hull. The hull stresses for integral tank barges shall not exceed the percentage stress values prescribed in subdivision (i) of this subparagraph.

(3) Types I and II barges in ocean service:

(i) Independent tank barges with tanks supported by three or more saddles shall be subject to a $0.6L^{0.9}$ trochoidal wave hogging analysis to determine the maximum hull and tank bending moments and tank saddle reactions.

(ii) All independent tank barges, regardless of the number of saddle supports shall be subject to a still water

bending analysis to determine the hull bending moment. For those barges with independent tanks supported by three or more saddles, this analysis shall consider tank-hull interaction so as to determine tank bending moments and saddle reactions.

(iii) The still water tank bending moments and saddle reactions shall be superimposed upon those obtained by simultaneous application of the following dynamic loadings:

(a) Rolling 30° each side (120° full cycle) in 10 seconds.

(b) Pitching 6° half amplitude (24° full cycle) in 7 seconds.

(c) Heaving $L/80$ half amplitude ($L/20$ full cycle) in 8 seconds.

(iv) The hull structure and saddle support system shall be analyzed, using the maximum hull bending moments and saddle reactions obtained from the foregoing. Bending stress shall not exceed 60 percent of the yield strength or 42 percent of the minimum tensile strength of the material, whichever is less. Critical buckling strength shall be at least 75 percent greater than calculated buckling stresses. The maximum tank bending moments and saddle reactions shall be used in the tank design calculations required by § 151.15-3(b)(8).

Subpart 151.13—Cargo Segregation

§ 151.13-1 General.

(a) This subpart prescribes the requirements for cargo segregation for cargo tanks, cargo piping, and cargo vents. These requirements are based on considerations of cargo reactivity, stability, and contamination of the surroundings and other cargoes.

§ 151.13-5 Cargo segregation—tanks.

(a) The configurations listed in this paragraph refer to the separation of the cargo from its surroundings and list the various degrees of segregation required. Subparagraphs (1), (2), and (3) of this paragraph explain the symbols used in lines 1 and 2, in order, under the tank segregation column of Table 151.05.

(1) Segregation of cargo from surrounding waters (Line 1 of Table 151.05).

i = Skin of vessel (single skin) only required. Cargo tank wall can be vessel's hull.

ii = Double skin required. Cargo tank wall cannot be vessel's hull.

NA = Nonapplicable for this case. Independent tanks already have such segregation built in through design.

(2) Segregation of cargo space from machinery spaces and other spaces which have or could have a source of ignition (Line 2 of Table 151.05).

i = Single bulkhead only required. Tank wall can be sole separating medium.

ii = Double bulkhead required. Cofferdam, empty tank, pumproom, tank with Grade E Liquid (if compatible with cargo) is satisfactory.

(b) Cargoes which when mixed with each other react in a hazardous manner must be separated from each other by a

cofferdam, empty tank, or a mutually compatible cargo.

(c) If a cofferdam is required for segregation purposes and a secondary barrier is required for low temperature protection by § 151.15-3(d)(4), the void space between the primary and secondary barriers shall not be acceptable in lieu of the required cofferdam.

§ 151.13-10 Cargo segregation-piping.

(a) Tanks containing cargoes which when mixed with each other react in a hazardous manner must have separate pipeline and tank vent systems.

Subpart 151.15—Tanks

§ 151.15-1 Tank types.

This section lists the definitions of the various tank types required for cargo containment by Table 151.05.

(a) *Integral.* A cargo containment envelope which forms a part of the vessel's hull in which it is built, and may be stressed in the same manner and by the same loads which stress the contiguous hull structure. An integral tank is essential to the structural completeness of its vessel's hull.

(b) *Independent.* A cargo containment envelope which is not a contiguous part of the hull structure. An independent tank is built and installed so as to eliminate, whenever possible (or, in any event, to minimize) its stressing as a result of stressing or motion of the adjacent hull structure. In general, therefore, motion of parts of the tank relative to the adjacent hull structure is possible. An independent tank is not essential to the structural completeness of its carrying vessel's hull.

(c) *Gravity.* Tanks having a design pressure (as described in Part 54 of this chapter) not greater than 10 pounds per square inch gage and of prismatic shape or other geometry where stress analysis is neither readily nor completely determinate. (Integral tanks are of the gravity type.)

(d) *Pressure.* Independent tanks whose design pressure (as described in Part 54 of this chapter) is above 10 pounds per square inch gage and fabricated in accordance with Part 54, of this chapter. Independent gravity tanks which are of normal pressure vessel configuration (i.e., bodies of revolution, in which the stresses are readily determinate) shall be classed as pressure vessel type tanks even though their maximum allowable working pressure is less than 10 pounds per square inch gage. Pressure vessel tanks shall be of Classes I, I-L, II, II-L, or III, as defined in Subchapter F of this chapter.

§ 151.15-3 Construction.

This section lists the requirements for construction of the types of cargo tanks defined in § 151.15-1.

(a) *Gravity type tanks:* Gravity type cargo tanks vented at a pressure of 4 pounds per square inch gage or less shall be constructed and tested as required by standards established by the American Bureau of Shipping or other recognized classification society. Gravity type tanks vented at a pressure exceeding 4 but not

exceeding 10 pounds per square inch gage will be given special consideration by the Commandant.

(b) Pressure vessel type tanks: Pressure vessel type tanks shall be designed and tested in accordance with the requirements of Part 54 of this chapter.

(1) Uninsulated cargo tanks, where the cargo is transported, at or near ambient temperatures, shall be designed for a pressure not less than the vapor pressure of the cargo at 115° F. The design shall also be based on the minimum internal pressure (maximum vacuum), plus the maximum external static head to which the tank may be subjected.

(2) When cargo tanks, in which the cargo is transported at or near ambient temperature, are insulated with an insulation material of a thickness to provide a thermal conductance of not more than 0.075 B.t.u. per square foot per degree Fahrenheit differential in temperature per hour, the tanks shall be designed for a pressure of not less than the vapor pressure of the cargo at 105° F. The insulation shall also meet the requirements of paragraph (f) of this section.

(3) Cargo tanks in which the temperature is maintained below the normal atmospheric temperature by refrigeration or other acceptable means shall be designed for a pressure of not less than 110 percent of the vapor pressure corresponding to the temperature of the liquid at which the system is maintained, or the pressure corresponding to the greatest dynamic and static loads expected to be encountered in service. For mechanically stressed relieved cargo tanks, additional factors relating design pressure and maximum allowable pressure shall be as specified by the Commandant. The material of the tank shall meet the material requirements specified in Part 54 of this chapter for the service temperature, and this temperature shall be permanently marked on the tank as prescribed in § 54.10-20 of this chapter.

(4) The maximum allowable temperature of the cargo is defined as the boiling temperature of the liquid at a pressure equal to the setting of the relief valve.

(5) The service temperature is the minimum temperature of a product at which it may be contained, loaded and/or transported. However, the service temperature shall in no case be taken higher than given by the following formula.

$$t_s = t_w - 0.25 (t_w - t_b)$$

where:

t_s = Service temperature.

t_w = Boiling temperature of gas at normal working pressure of container but not higher than +32° F.

t_b = Boiling temperature of gas at atmospheric pressure.

Under normal circumstances, only temperatures due to refrigerated service will be considered in determining the service temperature. Refrigerated service for purposes of this paragraph is defined as service where the temperature is controlled in the process rather than being caused by atmospheric conditions.

(6) Heat transmission studies, where required, shall assume the minimum ambient temperatures of 0° F. still air and

32° F. still water, and maximum ambient temperatures of 115° F. still air and 90° F. still water.

(7) Where applicable, the design of the cargo tanks shall investigate the thermal stresses induced in the tanks at the service temperature.

(8) Calculations showing the stress level in the tanks under dynamic loading conditions for ocean service barges (see § 151.10-20(b)(4)) and grounding conditions for inland service barges (see § 151.10-20(b)(2)) shall be submitted to the Commandant for approval. These calculations shall take into account the local stresses due to the interaction between the barge hull and the tanks.

(c) High density cargo: Cargoes with a specific gravity greater than that for which the scantlings of the tank are designed may be carried provided that:

(1) The maximum cargo weight (tons) in a specific tank does not exceed the maximum cargo weight (tons) endorsed on the certificate of inspection.

(2) The scantlings of the tank are sufficient to prevent rupture under a full head of the higher density cargo. Scantlings meeting ordinary bulkhead requirements for the full head will satisfy this requirement.

(d) Arrangements:

(1) Collision protection. (i) Tanks containing cargoes which are required to be carried in Type I hulls by Table 151.05 shall be located a minimum of 4 feet inboard from the side shell and box end of the vessel. Tanks containing cargoes which are required to be carried in Type II hulls by Table 151.05 shall be located a minimum of 3 feet inboard from the side shell and box end of the vessel.

(ii) All independent cargo tanks installed on Type I or Type II barge hulls shall be protected with suitable collision chocks or collision straps. A longitudinal collision load of one and one half times the combined weight of the tank and the cargo shall be assumed. All other independent cargo tanks shall be provided with suitable collision chocks or collision straps assuming a longitudinal collision load equal to the combined weight of the tank and the cargo. The design bearing stress shall not exceed 2 times the yield strength or 1.5 times the minimum ultimate strength, whichever is less.

(iii) Tanks containing cargoes, which are required to be carried in Type I or Type II hulls by Table 151.05, shall be located a minimum of 25 feet from the head log at the bow. Box barges and trail barges need not comply with this requirement.

(2) Inspection clearances. The distance between tanks or between a tank and the vessel's structure shall be such as to provide adequate access for inspection and maintenance of all tank surfaces and hull structure; but shall not normally be less than 15 inches except in way of web frames or similar major structural members where the minimum clearance shall be equal to the flange or faceplate width.

(3) Access openings. Each tank shall be provided with at least a 15" x 18" diameter manhole, fitted with a cover located above the maximum liquid level

as close as possible to the top of the tank. Where access trunks are fitted to tanks, the diameter of the trunks shall be at least 30 inches.

(4) Low temperature protection. (i) When low temperature cargoes are to be carried in gravity type tanks at a temperature lower than that for which the hull steel is adequate, a secondary barrier designed to contain leaked cargo temporarily shall be provided. The design of the cargo containment system shall be such that under normal service conditions, or upon failure of the primary tank, the hull structure shall not be cooled down to a temperature which is unsafe for the materials involved. The secondary barrier and structural components of the hull which may be exposed to low temperatures shall meet the material requirements (i.e., chemistry and physical properties) specified in Part 54 of this chapter for the service temperature involved. Heat transmission studies and tests may be required to demonstrate that the structural material temperatures in the hull are acceptable.

(ii) The design shall take into consideration the thermal stresses induced in the cargo tank at the service temperature during loading.

(iii) Where necessary, devices for spray loading or other methods of pre-cooling or cooling during loading shall be included in the design.

(iv) Pressure-vessel type tanks shall be radiographed in accordance with the requirements of Part 54 of this chapter. For gravity type tanks, all weld intersections or crossings in joints of primary tank shells shall be radiographed for a distance of 10 thicknesses from the intersection. All other welding in the primary tank and in the secondary barrier, shall be spot radiographed in accordance with the requirements specified in Part 54 of this chapter for Class II-L pressure vessels.

(v) For nonpressure vessel type containment systems, access shall be arranged to permit inspection one side each of the primary tank and secondary barrier, under normal shipyard conditions. Containment systems which, because of their peculiar design, cannot be visually inspected to this degree, may be specially considered provided an equivalent degree of safety is attained.

(e) Installation of cargo tanks:

(1) Cargo tanks shall be supported on foundations of steel or other suitable material and securely anchored in place to prevent the tanks from shifting when subjected to external forces. Each tank shall be supported so as to prevent the concentration of excessive loads on the supporting portions of the shell or head.

(2) Foundations, and stays where required, shall be designed for support and constraint of the weight of the full tank, and the dynamic loads imposed thereon. Thermal movement shall also be considered.

(3) Foundations and stays shall be suitable for the temperatures they will experience at design conditions.

(4) Cargo tanks may be installed "on deck," "under deck," or with the tanks protruding through the deck. All tanks

shall be installed with the manhole openings located in the open above the weather deck. Provided an equivalent degree of safety is attained, the Commandant may approve cargo tanks installed with manhole openings located below the weather deck. Where a portion of the tank extends above the weather deck, provision shall be made to maintain the weathertightness of the deck, except that the weathertightness of the upper deck need not be maintained on:

(i) Vessels operating on restricted routes which are sufficiently protected; or,

(ii) Open hopper type barges of acceptable design.

(5) No welding shall be performed on tanks which require and have been stress relieved unless authorized by the Commandant.

(f) Materials:

(1) Materials used in the construction of cargo tanks shall be suitable for the intended application and shall be in accordance with the applicable requirements of Part 54 of this chapter. For cargoes carried at low temperatures, the tank supports and foundations, and portions of the hull which may be exposed to low temperature, shall also meet the applicable requirements of that part.

(2) When required, cargo tanks shall be lined with rubber or other material acceptable to the Commandant. The interior surfaces of the cargo tanks shall be made smooth, welds chipped or ground smooth, and the surfaces thoroughly cleaned before the lining is applied. The lining material shall be resistive to attack by the cargo, not less elastic than the metal of the tank proper, and non-porous when tested after application. It shall be of substantially uniform thickness. The lining shall be directly bonded to the tank plating, or attached by other satisfactory means acceptable to the Commandant.

(g) Insulation:

(1) Insulation, when provided, shall be compatible with the cargo and the tank materials.

(2) Insulation in a location exposed to possible high temperature or source of ignition shall be one of the following:

(i) Incombustible, complying with the requirements of Subpart 164.009 of Part 164 of this chapter; or

(ii) Fire retardant, having a flame spread rating of 50 or less as determined by ASTM Specification E-84 (Tunnel Test); or,

(iii) Nonburning or "self-extinguishing" as determined by ASTM Specification D-1692, "Flammability of Plastics" and covered by a steel jacket having a minimum thickness of 18 gage (0.0428 inches) (U.S. Standard Gage) or an equivalent means of protection acceptable to the Commandant.

(3) Insulation in a location protected against high temperature or source of ignition need satisfy no requirement for combustibility.

(4) Insulation shall be impervious to water vapor, or have a vapor-proof coating of a fire-retardant material acceptable to the Commandant. Unless the vapor barrier is inherently weather

resistant, tanks exposed to the weather shall be fitted with a removable sheet metal jacket of not less than 18 gage over the vapor-proof coating and flashed around all openings so as to be weathertight. Insulation which is not exposed to the weather when installed on tanks carrying cargoes above ambient temperatures need not be impervious to water vapor nor be covered with a vapor-proof coating.

(5) Insulation shall be adequately protected in areas of possible mechanical damage.

(h) Fire exposure protection: Tanks which are provided with fire exposure protection of one of the following categories may be allowed a reduction in the size of relief valves.

(1) Approved incombustible insulation meeting the requirements of Subpart 164.007 of Part 164 of this chapter which is secured to the tank with steel bands.

(2) Located in a hold or protected by a self-supporting steel jacket or cover (such as a hopper cover) of at least 10 gage (0.1345) for insulation.

(i) Tanks not protected against fire exposure as described in this paragraph shall not be permitted a reduction in size of relief valves.

§ 151.15-5 Venting.

This section contains definitions and requirements for the various methods of venting specified in Table 151.05. In addition to the requirement that all vents must penetrate into tanks at the top of the vapor space, the following methods of venting and the applicable restrictions are listed:

(a) *Open venting.* A venting system which offers no restriction (except pipe losses and flame screen, where used) to the movement of liquid or vapor to or from the cargo tank (via the vent) under normal operating conditions. The total cross-sectional area of the vents shall not be less than the total cross-sectional area of the filling pipe or pipes. Ullage openings may be counted as part of the required cross-sectional area: *Provided*, That each cargo tank has at least one permanent vent. The minimum size of a cargo tank vent shall be not less than 2½ inches. The outlet end of the vent shall terminate in a gooseneck bend and shall be located at a reasonable height above the weather deck, clear of all obstructions. No shut-off valve or frangible disk shall be fitted in the vent lines except that a float check valve may be installed so as to exclude the entry of water into the tank (i.e., to prevent downflooding). An open venting system may be fitted with a flame screen.

(b) *Pressure-vacuum venting.* A normally closed venting system fitted with a device to automatically limit the pressure or vacuum in the tank to design limits. Pressure-vacuum relief valves shall comply with the requirements of Subpart 162.017 of this chapter. The required capacity of the venting system shall be in accordance with Part 54 of this chapter.

(c) *Safety relief venting.* A closed venting system fitted with a device to

automatically limit the pressure in the tank to below its maximum allowable working pressure. The maximum safety relief valve setting shall not exceed the maximum allowable working pressure of the tank. For cargoes carried at ambient temperatures, the minimum safety relief valve setting shall correspond to the saturated vapor pressure of the cargo at 105° F. if carried in an insulated tank, or 115° F. if carried in an uninsulated tank. For cargoes carried below ambient temperature, the safety relief valve setting shall be selected to provide a suitable margin between normal operating pressure of the tank and the opening pressure of the valve but in no case shall it exceed the maximum allowable working pressure of the tank. The safety relief valves shall be of a type approved under subparts 162.001 or 162.018 of Subchapter Q of this chapter. The required capacity of the safety relief valves shall be in accordance with the requirements of Part 54 of this chapter.

(d) *Rupture disks.* (1) When required by the nature of the cargo, rupture disks may be installed in lieu of or in addition to other pressure limiting devices in accordance with the requirements of § 54.15-13 of this chapter.

(2) When a pressure-vacuum relief valve or safety relief valve normally protected by a rupture disk or breaking pin device is exposed to the cargo due to breakage of the disk, the valve shall be reinspected before being returned to service.

§ 151.15-6 Venting piping.

(a) The back pressure in the relief valve discharge lines shall be taken into account when determining the flow capacity of the relief valve to be used. The back pressure in the discharge line shall be limited to 10 percent of the valve operating pressure or a compensating-type valve shall be used. Suitable provision shall be made for draining condensate which may accumulate in the vent piping.

§ 151.15-10 Cargo gaging devices.

This section contains definitions and requirements for types of gaging devices specified in Table 151.05.

(a) *Open gaging:* A gaging method which uses an opening in the cargo tank and which may expose the gage user to the cargo and its vapors. Examples of this type are gage hatch, ullage hole.

(b) *Restricted:* A gaging device which penetrates the cargo tank and which, in operation, causes or permits the release to the atmosphere of small quantities of cargo vapor or liquid. The amount of cargo released is controlled by the small diameter of the tank penetration opening and by a locally operated valve or similar closure device in that opening. When not in use, this type gaging device is closed to maintain the complete integrity of cargo containment. Examples of this type are rotary tube, fixed tube, slip tube, sounding tube. (See §§ 151.03-43 and 151.15-10(g).)

(c) *Closed:* A gaging device which penetrates the cargo tank, but which is part of a closed system maintaining the

complete integrity of cargo containment. This device is designed and installed so as not to release cargo liquid or vapor in any amount to the atmosphere. Examples of this type are automatic float, continuous tape (magnetic coupled), sight glass (protected), electronic probe, magnetic, differential pressure cell.

(d) Isolated or indirect: A gaging method or device which is isolated from the tank (no penetration of the tank shell) and which may employ an indirect measurement to obtain the desired quantity. Examples of this type are weighing of cargo, sonic depth gage (without penetration of tank shell), pipe flow meter.

(e) All gaging devices and related fixtures which form a part of the cargo containment barrier shall be of suitable material and shall be designed for the pressure and temperature of the cargo in accordance with the requirements of Subchapter F of this chapter.

(f) Use of restricted gaging devices:

(1) When required in Table 151.05, cargoes carried under pressure shall have restricted gaging devices designed so that the maximum bleed valve opening is not larger than 0.055" diameter, unless provided with an excess flow valve. Sounding tubes are prohibited for use with cargoes having a vapor pressure in excess of 14.7 p.s.i.a. at 115° F., if carried in an uninsulated tank, or at 105° F., if carried in an insulated tank.

(2) When utilizing a sounding tube, the cargo tank vent system shall be designed to prevent the discharge of cargo through the sounding tube due to pressure build up in the cargo tank vapor space. (See § 151.03-43) When cargoes carried at atmospheric pressure are required to have a restricted gaging device, open gages may be provided in addition to restricted gages for this type of cargo. However, open gages may not be used while cargo transfer operations are actually being performed.

(g) Fixed tube gages are not acceptable as primary means of gaging. They may be used as a check on the calibration of other gaging devices.

(h) For pressure-vessel type tanks, each automatic float, continuous reading tape or similar type gage not mounted directly on the tank or dome shall be fitted with a shutoff device located as close to the tank as practicable. When an automatic float gaging device, which gages the entire height of the tank, is used, a fixed tube gage set in the range of 85 percent to 90 percent of the water capacity of the tank shall be provided in addition as a means of checking the accuracy of the automatic float gage, or other alternate means acceptable to the Commandant may be used.

(i) Gage glasses of the columnar type are prohibited.

(j) Flat sight glasses may be used in the design of automatic float continuous reading tape gages. However such glasses shall be made of high strength material, suitable for the operating temperatures, of not less than one-half inch in thickness and adequately protected by a metal cover.

Subpart 151.20—Cargo Transfer

§ 151.20-1 Piping—general.

(a) Cargo piping systems shall be arranged and fabricated in accordance with this section and Subchapter F. The class of piping system required for a specific cargo shall be as listed in Table 151.05 as a minimum; however, a higher class may be required when the actual service temperature or pressure so dictates. See Table 56.04-2 of this chapter.

(b) Piping system components shall be suitable for use with the cargoes for which the barge is certificated, and shall be of materials listed in Subchapter F of this chapter, or such other material as the Commandant may specifically approve. All piping materials shall be tested in accordance with the requirements of Subchapter F of this chapter. The valve seat material, packing, gaskets, and all other material which comes into contact with the cargo shall be resistant to the chemical action of the cargoes for which the barge is certificated.

(c) Cargo piping systems, when subject to corrosive attack of the cargo, and when serving cargo tanks which are required by this subchapter to be lined or coated, shall be constructed of, lined or coated with corrosion-resistant material. Vent systems shall be similarly constructed, lined, or coated up to and including the vent control device.

(d) All piping systems components shall have a pressure rating at operating temperature (according to the applicable American National Standards Institute, Inc., pressure/temperature relations) not less than the maximum pressure to which the system may be subjected. Piping which is not protected by a relief valve, or which can be isolated from its relief valve, shall be designed for the greatest of:

- (1) The cargo vapor pressure at 115° F.
- (2) The maximum allowable working pressure of the cargo tank.
- (3) The pressure of the associated pump or compressor relief valve.
- (4) The total discharge head of the associated pump or compressor where a discharge relief valve is not used.

The escape from cargo piping system relief valves shall be run to venting system or to a suitable recovery system. Provisions shall be made for pressure relief of all piping, valves, fittings, etc., in which excessive pressure build-up may occur because of an increase in product temperature.

(e) Provisions shall be made by the use of offsets, loops, bends, expansion joints, etc., to protect the piping and tank from excessive stress due to thermal movement and/or movements of the tank and hull structure. Expansion joints shall be held to a minimum and where used shall be subject to individual approval by the Commandant.

(f) Low temperature piping shall be isolated from the hull structure. Where necessary, arrangements to provide for the protection of the hull structure from

leaks in low temperature systems in way of pumps, flanges, etc., shall be provided.

(g) Connections to tanks shall be protected against mechanical damage and tampering. Underdeck cargo piping shall not be installed between the outboard side of cargo containment spaces and the skin of the barge, unless provision is made to maintain the minimum inspection and collision protection clearances (where required) between the piping and the skin. Cargo piping which is external to tanks, and is installed below the weather deck shall be joined by welding, except for flanged connections to shutoff valves and expansion joints.

(h) Piping shall enter independent cargo tanks above the weatherdeck, either through or as close to the tank dome as possible.

(i) Horizontal runs of cargo piping on integral tank barges may be run above or below the weatherdeck. When run below the weatherdeck, the following are applicable:

(1) Horizontal runs located entirely within integral cargo tanks shall be fitted with a stop valve, located inside the tank that is being serviced and operable from the weatherdeck. There shall be cargo compatibility in the event of a piping failure.

(2) Horizontal runs of cargo piping installed in pipe tunnels may penetrate gravity type tanks below the weatherdeck: *Provided*, That each penetration is fitted with a stop valve operable from the weatherdeck. If the tunnel is directly accessible from the weatherdeck without penetrating the cargo tank, the stop valve shall be located on the tunnel side. If the tunnel is not accessible from the weatherdeck, the valve shall be located on the tank side of the penetration.

(3) The tunnel shall comply with all tank requirements for construction, location, ventilation, and electrical hazard. There shall be cargo compatibility in the event of a piping failure.

(4) The tunnel shall have no other openings except to the weatherdeck or a cargo pumproom.

§ 151.20-5 Cargo system valving requirements.

For the purpose of adequately controlling the cargo, both under normal operating and casualty conditions, every cargo piping system shall be provided with one of the following sets of control valves and meet the requirements listed below. Cargo tanks, whether gravity or pressure vessel type, for cargoes having a saturated vapor pressure of 10 pounds per square inch gage or less at 115° F. (105° F. if the tank is insulated) shall be provided with a valving system designated as Gravity-1. Cargo tanks, whether gravity or pressure vessel type, for cargoes which are carried below ambient temperature and whose vapor pressure is maintained at 10 pounds per square inch gage or below shall be provided with a valving system designated as Gravity-2. Cargo tanks for cargoes which have vapor pressures above 10 p.s.i.g. at 115° F. (105° F. if tank is insulated) shall be provided with a valving system designated as Pressure-1. Cargo

tanks for cargoes which have vapor pressures above 10 pounds per square inch gage at 115° F. (105° F. if tank is insulated) and which require greater protection due to their hazardous characteristics shall be provided with a valving system designated as Pressure-2. The requirements of paragraphs (a) through (d) of this section for stop valves or excess flow valves to be fitted at tank penetrations are not applicable to nozzles at which pressure vacuum or safety relief valves are fitted.

(a) Gravity-1 (G-1):

(1) One manually operated stop valve shall be installed on each tank filling and discharge line, located near the tank penetration.

(2) One stop valve or blind flange shall be installed at each cargo hose connection. When a cargo hose connection is in use, it shall be provided with a stop valve; which may be part of the vessel's equipment or may be part of the shore facility and attached to the barge end of the loading hose. When a cargo hose connection is not in use, it may be secured with a blind flange.

(3) If individual deepwell pumps are used to discharge the contents of each cargo tank, and the pumps are provided with a remote shutdown device, a stop valve at the tank is not required on the tank discharge line.

(b) Gravity-2 (G-2):

(1) One manually operated stop valve shall be installed on each tank penetration, located as close as possible to the tank.

(2) One remote operated, quick closing shut-off valve shall be installed at each cargo hose connection.

(3) A remote shutdown device shall be installed for all cargo handling machinery.

(c) Pressure-1 (P-1):

(1) One manually operated stop valve and one excess flow valve shall be installed on each tank penetration, located as close as possible to the tank.

(2) One manually operated stop valve shall be installed at each cargo hose connection, when in use.

(d) Pressure-2 (P-2):

(1) One manually operated stop valve and one excess flow valve shall be installed at each tank penetration, located as close as possible to the tank.

(2) One remote operated quick closing shutoff valve shall be installed at each cargo hose connection when in use.

(3) No tank penetration shall be less than 1 inch diameter.

(e) Cargo tank penetrations which are connections for gaging or measuring devices need not be equipped with excess flow or remote operated quick closing valves provided that the opening is constructed so that the outward flow of tank contents shall not exceed that passed by a No. 54 drill size (0.055-inch diameter).

(f) The control system for any required quick closing shutoff valves shall be such that the valves may be operated from at least two remote locations on the vessel; if means of fire protection is required by Table 151.05, the control sys-

tem shall also be provided with fusible elements designed to melt between 208° F. and 220° F., which will cause the quick closing shutoff valves to close in case of fire. Quick closing shutoff valves shall be of the fail-closed (closed on loss of power) type and be capable of local manual operation. Quick closing shutoff valves shall operate from full open to full closed under all service conditions in not more than 10 seconds, without causing excessive pressure surges.

(g) Excess flow valves, where required, shall be closed automatically at the rated closing flow of vapor or liquid as tested and specified by the manufacturer. The piping, including fittings, valves, and appurtenances protected by an excess flow valve, shall have a greater capacity than the rated closing flow of the excess flow valve. Excess flow valves may be designed with a bypass not to exceed 0.040-inch diameter opening to allow equalization of pressure, after an operating shutdown.

(h) Suitable means shall be provided to relieve the pressure and remove liquid contents from cargo lines and hoses to the cargo tank or other safe location prior to effecting disconnections.

§ 151.20-10 Cargo system instrumentation.

(a) Each tank operated at other than ambient temperature shall be provided with at least one remote reading temperature sensor located in the liquid phase of the cargo. The temperature gage shall be located at the cargo handling control station or another approved location.

(b) Where required, each tank equipped with safety relief valves shall be fitted with a pressure gage which shall be located at the cargo handling control station or at another approved location.

§ 151.20-15 Cargo hose if carried on the barge.

(a) Liquid and vapor line hose used for cargo transfer shall be of suitable material resistant to the action of the cargo. Hose shall be suitable for the temperatures to which it may be subjected and shall be acceptable to the Commandant.

(b) Hose subject to tank pressure, or the discharge pressure of pumps or vapor compressors, shall be designed for a bursting pressure of not less than 5 times the maximum safety relief valve setting of the tank, pump, or compressor, whichever determines the maximum pressure to which the hose may be subjected in service.

(c) Each new type of cargo hose, complete with end fittings, shall be prototype tested to a pressure not less than five times its specified maximum working pressure. The hose temperature during this prototype test shall duplicate the intended extreme service temperature. Thereafter, each new length of cargo hose produced shall be hydrostatically tested at ambient temperature to a pressure not less than twice its maximum working pressure nor more than two-fifths its bursting pressure. The hose shall be marked with its maximum work-

ing pressure, and if used in other than ambient temperature service, its maximum or minimum temperature.

§ 151.20-20 Cargo transfer methods.

(a) Cargo transfer may be accomplished by means of gravity, pumping, vapor or gas pressurization, or fluid displacement unless otherwise provided in Subpart 151.50 of this part.

(b) Vapor or gas pressurization may be used only in transferring cargo from pressure vessel type cargo tanks. The pressurizing vapor or gas lines shall be provided with safety relief device in the lines set to open at a pressure no greater than 90 percent of the set pressure of the cargo tank safety relief valve. The pressurizing line shall be fitted with a stop valve at the tank, and a check valve to prevent the accidental release of cargo through the pressure line.

(c) Fluid displacement is permitted with either gravity or pressure vessel type cargo tanks. The displacing fluid shall enter the tank under low relative pressure. The fluid entry line shall be fitted with a safety relief valve set to lift at a pressure no higher than 80 percent of the cargo tank safety relief valve setting.

(d) When cargo vapors are flammable, combustible or toxic, cargo filling lines entering the top of the tank shall lead to a point at or near the bottom. Spray filling lines, discharging near the top of the tank, may be fitted in lieu of, or in addition to, the above cargo filling lines.

Subpart 151.25—Environmental Control

§ 151.25-1 Cargo tank.

When carrying certain commodities regulated by this subchapter, one of the following types of cargo protection may be required, within the main cargo tank, and in some cases, in the space between the primary and secondary barriers.

(a) *Inerted*. All vapor spaces within the cargo tank are filled and maintained with a gas or vapor which will not support combustion and which will not react with the cargo.

(b) *Padded*. All vapor spaces within the cargo tanks are filled and maintained with a liquid, gas (other than air), or vapor which will not react with the cargo.

(c) *Ventilated (forced)*. Vapor space above the liquid surface in the tank is continuously swept with air by means of blowers or other mechanical devices requiring power.

(d) *Ventilated (natural)*. Vapor space above the liquid surface in the tank is continuously swept with atmospheric air without the use of blowers or other mechanical devices requiring power (e.g., "chimney-effect" ventilation).

§ 151.25-2 Cargo handling space.

Pump rooms, compressor rooms, refrigeration rooms, heating rooms, instrument rooms or other closed spaces regularly entered by operating personnel, in which work is performed on the cargo or in which the cargo movement is locally controlled, may be required to be fitted

with one of the following types of ventilation:

(a) *Forced ventilation.* The forced ventilation system shall be designed to insure sufficient air movement through these spaces to avoid the accumulation of toxic or flammable vapors and to insure sufficient oxygen to support life, and, in any event, the ventilation system shall have a minimum capacity sufficient to permit a change of air every 3 minutes.

(b) *Natural ventilation.* The natural ventilation system shall be designed to insure sufficient air movement to avoid the accumulation of toxic or flammable vapors and to insure sufficient oxygen to support life.

Subpart 151.30—Portable Fire Extinguishers

§ 151.30-1 Type.

When required by Table 151.05, approved portable fire extinguishers shall be installed in accordance with Subpart 34.50 of this chapter. The fire extinguishing media shall be dry chemical or other suitable agent for all locations.

Subpart 151.40—Temperature of Pressure Control Installations

§ 151.40-1 Definitions.

This section defines the various methods by which the cargo may be heated or cooled.

(a) *Boiloff.* Cargo pressure and temperatures are maintained by permitting the cargo to boil naturally and the cargo vapor thus generated removed from the tank by venting.

(b) *External cargo cooling.*—(1) *Cargo vapor compression.* A refrigeration system in which the cargo vapors generated within the tank are withdrawn, compressed, and the lower energy vapor or its condensate returned to the tank.

(2) *External heat exchange.* A refrigeration system in which the cargo vapor or liquid is cooled outside the cargo tanks by being passed through a heat exchanger. Refrigeration is not accomplished by direct compression of the cargo.

(c) *Internal heat exchange.* A refrigeration system in which a cooling fluid is passed through heat transfer coils immersed in the cargo tank liquid or vapor phases.

(d) *Tank refrigeration.* A refrigeration system in which the cooling fluid is passed around the cargo tank exterior in order to remove heat from the tank or its surroundings.

(e) *No refrigeration.* A system that allows the liquefied gas to warm up and increase in pressure. The insulation and tank design pressure shall be adequate to provide for a suitable margin for the operating time and temperatures involved.

(f) *Tank heating.* (1) A system in which the cargo is heated by means of steam or other heat transfer fluid running through coils within or around the tank. The cargo itself does not leave the tank.

(2) A recirculating system in which the cargo leaves the tank, is pumped through a heater and then returned to the tank.

§ 151.40-2 Materials.

Materials used in the construction of temperature or pressure control systems shall be suitable for the intended application and meet the requirements of Subchapter F and the Special Requirements section of this subchapter.

§ 151.40-5 Construction.

Construction of machinery or equipment, such as heat exchangers, condensers, piping, etc., associated with temperature or pressure control systems shall meet the requirements of Subchapter F of this chapter. The electrical portions of these installations shall meet the requirements of Subchapter J of this chapter.

§ 151.40-10 Operational requirements.

Control systems, required by Table 151.05 shall be provided with an audible or visual high cargo temperature or high cargo pressure alarm which is discernible at the towboat. The alarm shall operate when either the pressure or the temperature exceeds the operating limits of the system. The alarm may monitor either pressure or temperature, but must be independent of the control system.

§ 151.40-11 Refrigeration systems.

(a) *Boiloff systems:* The venting of cargo boiloff to atmosphere shall not be used as a primary means of temperature or pressure control unless specifically authorized by the Commandant.

(b) *Vapor compression, tank refrigeration, and secondary refrigeration systems:* The required cooling capacity of refrigeration systems shall be sufficient to maintain the cargo at design operating conditions with ambient temperature of 115° F. still air and 90° F. still water. The number and arrangement of compressors shall be such that the required cooling capacity of the system is maintained with one compressor inoperative. Portions of the system other than the compressors need not have standby capacity.

Subpart 151.45—Operations

§ 151.45-1 General.

(a) Barges certificated as tank barges (Subchapter D of this chapter) or cargo barges (Subchapter I of this chapter) for the carriage of cargoes regulated by this subchapter shall meet all applicable requirements for operations in the appropriate subchapter; in addition, requirements prescribed in this subpart shall apply to either type of certification.

§ 151.45-2 Special operating requirements.

(a) The requirements of this section shall apply to all barges carrying in bulk any cargoes regulated by this subchapter; however, the provisions of this section are not applicable to such barges when empty and gas-free.

(b) When it is necessary to operate box or square-end barges as lead barges of tows, the person in charge of the towing vessel shall control the speed to insure protection against diving and swamping of such barges, having due regard to their design and freeboard, and to the operating conditions.

(c) No cargo tank hatch, ullage hole, or tank cleaning openings shall be opened or remain open except under the supervision of the person in charge, except when the tank is gas free.

(d) Barges, when tendered to the carrier for transportation, shall have all bilges and void spaces (except those used for ballasting) substantially free of water. Periodic inspections and necessary pumping shall be carried out to insure maintenance of such water-free condition in order to minimize the free surface effects, both in longitudinal and transverse directions. Except when otherwise considered necessary for inspection or pumping, all hatch covers and other hull closure devices for void spaces and hull compartments other than cargo spaces shall be closed and secured at all time.

(e) Cargo signs and cards:

(1) Warning signs shall be displayed on the vessel, port and starboard, facing outboard without obstruction, at all times except when the vessel is gas free. The warning sign shall be rectangular and a minimum of 3 feet wide and 2 feet high. It shall be of sufficient size to accommodate the required alerting information, which shall be shown in black block style letters and numerals (characters) at least 3 inches high on a white background. The minimum spacing between adjacent words and lines of characters shall be 2 inches. The minimum spacing between adjacent characters shall be one-half inch. All characters shall have a minimum stroke width of one-half inch and shall be a minimum of 2 inches wide, except for the letters "M" and "W", which shall be a minimum of 3 inches wide, and except for the letter "I" and the Numeral "1", which may be 1/2-inch wide. The signs shall have a 2-inch minimum white border clear of characters. The signs shall be maintained legible. The alerting information shall include the following:

WARNING

DANGEROUS CARGO

(This sign may be covered or removed when Subchapter O commodities are not being carried.)

NO VISITORS

NO SMOKING

(This sign may be removed or covered when the commodity is not flammable or combustible.)

NO OPEN LIGHTS

(This sign may be removed or covered when the commodity is not flammable or combustible.)

(2) (i) Names and locations of all cargoes will be displayed in a readily discernible manner on all barges carrying one or more commodities regulated by

this subchapter. This may be an individual sign at or on each tank or by a single sign similar to the following example:

Tank No.	Cargo
IP -----	/xxxx/
IS -----	/xxxx/
2P -----	/xxxx/
2S -----	/xxxx/

These signs may be printed, handwritten, permanent or changeable, but be visible and readable at all times. These signs should be as readable, as those specified in subparagraph (1) of this paragraph. Cargoes regulated by other subchapters will be included whenever carried simultaneously with commodities regulated by this subchapter.

(ii) When the dangerous cargo barge is carrying only a single product, the Warning Sign required by subparagraph (1) of this paragraph can be considered as meeting the requirements for the cargo location sign. The name of the commodity shall be added to the Warning Sign.

(3) A cargo information card for each cargo regulated by this subchapter, shall be carried on the bridge or in the pilot house of the towing vessel, readily available for use by the person in charge of the watch. This information card shall also be carried aboard the barge, mounted near the Warning Sign required by subparagraph (1) of this paragraph, in such position as to be easily read by a man standing on the deck of the barge. The minimum card size shall be 7" x 9 1/2". The card shall have legible printing on one side only. The card shall be laminated in clear plastic or otherwise made weatherproof. The following data shall be listed:

(i) Cargo identification and characteristics: Identification of the cargo, as listed in Table 151.01-10(b), its appearance and odor. A statement of the hazards involved and instructions for the safe handling of the cargo and, as applicable, the need for special cargo environments.

(ii) Emergency procedures: Precautions to be observed in the event of spills, leaks, or equipment or machinery breakdown and/or uncontrolled release of the cargo into the waterway or atmosphere. Precautions to be observed in the event of exposure of personnel to toxic cargoes.

(iii) Firefighting procedures: Precautions to be observed in the event of a fire occurring on or adjacent to the barge, and enumeration of firefighting media suitable for use in case of a cargo fire.

(f) Surveillance: During the time the cargo tanks contain any amount of liquid or gaseous dangerous cargoes requiring Type I or Type II barge hulls, the barge shall be under surveillance, as set forth in this paragraph:

(1) A strict watch of each unmanned barge in tow shall be maintained from the towing vessel while under way.

(2) A towing vessel engaged in transporting such unmanned barges shall not leave them unattended. When a barge

is moored, but not gas free, it shall be under the care of a watchman who may be a member of the complement of the towing vessel, or a terminal employee, or other person. This person shall be responsible for the security of the barge and for keeping unauthorized persons off the barge. Such person shall be provided with, read, and have in his possession for ready reference the information cards required by paragraph (e) of this section.

(g) All cargo hatches shall be closed, dogged down, or otherwise tightly secured.

§ 151.45-3 Manning.

Except as provided for in this section, barges need not be manned unless in the judgment of the Officer in Charge, Marine Inspection, such manning is necessary for the protection of life and property and for safe operation of the vessel. Vessels requiring manning for safe operation shall be subject to additional requirements as determined by the Commandant. Towing vessels, while towing barges which are not required to be manned, shall be provided with and have on board the information card required by § 151.45-2(e)(3). This card shall be in the possession of the master or person in charge.

§ 151.45-4 Cargo handling.

(a) Men on duty: A sufficient number of persons shall be on duty to perform cargo transfer operations.

(1) When the product to be transferred has flammable or combustible characteristics as defined in this part, the shipper and the owners, charterer, agent, masters, or persons in charge of such barges shall insure that a person holding a valid license as master, mate, pilot, or engineer, or a certificated tankerman is on duty to perform transfer operations. This licensed person or certificated tankerman shall be considered as the person in charge of the unmanned tank barge. In addition, the Officer in Charge, Marine Inspection, shall be furnished satisfactory, documentary evidence that this person is trained in, and capable of performing competently, the necessary operation which relates to the transfer of the specific cargo.

(2) When the product to be transferred does not meet the definition of flammability or combustibility as defined in these regulations, the shipper and the owners, charterer, agent, masters, or persons in charge of such barges shall insure that a person especially qualified in the handling of the specific cargo to be transferred shall be on duty to perform or supervise cargo transfer operations. This person shall be considered to be in charge of such operations. The Officer in Charge, Marine Inspection, shall be furnished satisfactory documentary evidence that this person is trained in, and capable of performing competently, the necessary operation which relates to the transfer of such cargo.

(b) Closing of sea and ballast valves: All sea and ballast valves are to be properly aligned and lashed, or sealed in

their correct position prior to beginning cargo transfer operations. Under no circumstances shall such valves be secured by locks.

(c) Connecting for cargo transfer:

(1) Movement of the vessel shall be considered when making the cargo connections to insure safe cargo transfer. Suitable material shall be used in joints and in couplings when making connections to insure that they are tight. Under no circumstances shall less than three bolts be used in a bolted flanged coupling.

(2) When cargo connections are supported by the vessel's tackle, the person in charge of the transfer operations shall inspect the vessel to insure that sufficient tackles are used.

(3) Pans or buckets shall be placed under cargo hose connections.

(4) Cargo transfer operations for any cargo requiring a PV or safety relief venting device in Table 151.05 shall be performed with cargo hatch covers closed.

(d) Inspection prior to transfer of cargo: Prior to the transfer of cargo, the person in charge of the transfer operation shall inspect the barge and other cargo equipment to assure himself that the following conditions exist:

(1) The Certificate of Inspection is endorsed for the products to be loaded. Loading restrictions, if any, should be noted.

(2) Warning signs are displayed as required.

(3) Cargo information cards for the product are aboard.

(4) No repair work in way of cargo space is being carried out.

(5) Cargo connections and hatch covers conform with the provisions of paragraph (c) of this section and cargo valves are properly set.

(6) All connections for cargo transfer have been made to the vessel's fixed pipeline system.

(7) In transferring flammable or combustible cargoes, there are no fires or open flames present on the deck, or in any compartment which is located on, facing, open or adjacent to the part of the deck on which cargo connections have been made.

(8) The shore terminal or other tank vessel concerned has reported itself in readiness for transfer of cargo.

(9) All sea valves are properly set and those connected to the cargo piping are closed.

(10) When transferring flammable or combustible cargoes that a determination was made as to whether or not boiler and/or galley fires can be maintained with reasonable safety.

(11) Cargoes which when mixed with each other react in a hazardous manner must be separated from each other by a cofferdam, empty tank or mutually compatible cargo. Nor shall such cargoes be stowed in tanks having common pipelines or vent systems. See §§ 151.13-5 and 151.13-10.

(e) Duties of the person in charge during transfer operations: The person in charge of the transfer operations shall control the operations as follows:

(1) Supervise the operation of the cargo system valves.

(2) Start transfer of cargo slowly.

(3) Observe cargo connections and hose for leakage.

(4) Observe operating pressure on cargo systems.

(5) Comply with loading limitations placed on the vessel by the Certificate of Inspection, if any, for the purpose of not overloading individual tanks or the vessel.

(6) Observe the loading rate for the purpose of avoiding overflow of the tanks.

(f) Cargo transfer operations shall not be started or, if started, shall be discontinued under the following conditions.

(1) During severe electrical storms.

(2) If a fire occurs on the barge, the wharf or in the immediate vicinity.

(3) If potentially dangerous leakage occurs.

(g) No vessel shall come alongside or remain alongside a barge in way of its cargo tanks while it is transferring cargo unless the conditions then prevailing are mutually acceptable to the persons in charge of cargo handling.

(h) Auxiliary steam, air, fuel, or electric current: When discharging cargo from one or more barges, the towing vessel may furnish steam, air, fuel, or electric current for pumps on barges or dock, but in no case shall the cargo pass through or over the towing vessel.

(i) Termination of transfer operations: When transfer operations are completed, the valves on cargo connections on the vessel shall be closed. The cargo connections shall be drained of cargo.

(j) Transfer of other cargo or stores on a barge.

(1) Packaged goods, freight, and ship's stores shall not be loaded or discharged during the loading of flammable cargoes except by permission of the person in charge of the transfer operation. Explosives shall not be loaded or carried on any barge containing products regulated by this subchapter.

(2) Where package and general cargo is carried directly over bulk cargo tanks, it shall be properly dunnaged to prevent chafing of metal parts and securely lashed or stowed.

(k) Transportation of other cargo or stores on barges: Barges may be permitted to transport deck cargoes directly over bulk cargo spaces when the nature of such deck cargoes and the methods of loading and unloading same do not create an undue hazard. Such barges shall have their decks properly dunnaged to prevent chafing between the steel parts of the vessel and the deck cargo.

(l) Deck construction must be adequate to support the intended load. Provisions for carrying deck cargo shall be endorsed on the Certificate of Inspection by the Officer in Charge, Marine Inspection.

(m) Emergencies: In case of emergencies, nothing in the regulations in this subchapter shall be construed as preventing the person in charge of trans-

fer operations from pursuing the most effective action in his judgment for rectifying the conditions causing the emergency.

§ 151.45-5 Open hopper barges.

(a) All open hopper barges not constructed or modified in conformance with the provisions of Subpart 151.10 of this part when carrying in bulk any cargoes regulated by this subchapter shall meet the provisions of this section. However, the provisions of this section are not applicable to such barges when empty (not necessarily cleaned or gas-freed).

(1) Except as otherwise provided in this section, no such open hopper type barge shall be placed as lead barge in any tow. These barges shall be placed in protected positions within the tow so that the danger from diving or swamping will be minimized. Where, due to operating conditions, compliance with this subparagraph is impossible, the provisions of subparagraph (3) of this paragraph apply. The person in charge of the towing vessel shall be responsible for compliance with this subparagraph.

(2) No such open hopper type barge shall be moved from a loading facility unless all void spaces and bilges are substantially free of water. Periodic inspections and necessary pumping shall be carried out to insure the maintenance of such water-free conditions, in order to minimize the free surface effect in both the longitudinal and transverse directions. Except when considered necessary for inspection or pumping, all hatch covers and other hull closure devices for void spaces and hull compartments shall be closed and secured at all times. In the case of unmanned barges, the person in charge of the towing vessel shall be deemed to be in charge of the barge, and all requirements to be carried out on the barge shall be carried out by or under the direction of this person.

(3) When an open hopper type barge is in an exposed position, such that protection from swamping provided by adjoining barges cannot be obtained from the location within the tow, it shall be the responsibility of the person in charge of the towing vessel to control speed so as to insure protection against diving and swamping of the barge, having regard to its design and freeboard, and other operating conditions.

(b) To show that special operating requirements apply to a specific open hopper type barge, additional placards or signs shall be displayed in at least four different locations on the barge when the cargoes subject to this part are carried in any form in the cargo tanks. The placards or signs shall be posted on the barge approximately amidships on each side and near the centerline fore and aft facing outboard. Racks, or other suitable means for mounting such placards or signs, shall be so arranged as to provide clear visibility and shall be protected from becoming readily damaged or obscured. The placards or signs shall be at least equal in dimensions to the DOT standard tank car "Dangerous" placard (10 3/4 inches square or larger)

and shall display a circle (10 inches in diameter or larger) with alternating quadrants of white and red, and so mounted that the red quadrants are centered on the vertical axis. The shipper and/or owner of the barge shall be responsible for the installation of the required placards or signs, including maintenance of them while such barge is in temporary storage with cargo aboard. The person in charge of the towing vessel shall be responsible for the continued maintenance of the placards or signs while such barge is in transit.

§ 151.45-6 Maximum amount of cargo.

(a) Tanks carrying liquids or liquefied gases at ambient temperatures regulated by this subchapter shall be limited in the amount of cargo loaded to that which will avoid the tank being liquid full at 105° F. if insulated, or 115° F. if uninsulated. If specific filling densities are designated in Subpart 151.50 of this part, they shall take precedence over that noted above.

(b) Refrigerated and semirefrigerated tanks shall be filled so that there is an outage of at least 2 percent of the volume of the tank at the temperature corresponding to the vapor pressure of the cargo at the safety relief valve setting. A reduction in the required outage may be permitted by the Commandant when warranted by special design considerations. Normally, then, the maximum volume to which a tank may be loaded is:

$$V_L = \frac{0.98d_r V}{d_L}$$

where:

V_L = Maximum volume to which tank may be loaded.

V = Volume of tank.

d_r = Density of cargo at the temperature required for a cargo vapor pressure equal to the relief valve setting.

d_L = Density of cargo at the loading temperature and pressure.

§ 151.45-7 Shipping papers.

Each barge carrying dangerous cargo shall have on board a bill of lading, manifest, or shipping document giving the name of shipper, location of the loading point, and the kind, grade, and approximate quantity by compartment of each cargo in the barge. Such manifest or bills of lading may be made out by the shipper, master of the towing vessel, owner, or agent of the owner. However, in the case of unmanned barges the master of the towing vessel shall either have a copy of the shipping papers for each barge in his tow or he shall make an entry in the towing vessel's log book giving the name of the shipper, location where the barge was loaded, and the kind, grade, and quantity of cargo by compartment in the barge. The barge shall not be delayed in order to secure the exact quantities of cargo.

§ 151.45-8 Illness, alcohol, drugs.

A person who is under the influence of liquor or other stimulants, or is so ill as to render him unfit to perform service shall not be permitted to perform any duties on the barge.

§ 151.45-9 Signals.

While fast to a dock, a vessel during transfer of bulk cargo shall display a red flag by day or a red light by night, which signal shall be so placed that it will be visible on all sides. When at anchor, a vessel during transfer of bulk cargo shall display a red flag by day, placed so that it will be visible on all sides. This flag may be metallic.

Subpart 151.50—Special Requirements for Certain Cargoes

§ 151.50-1 General.

Special requirements found in this subpart pertain to specific cargoes and to similar groups of cargoes. These requirements are in addition to and take precedence over any other requirements found in these regulations.

§ 151.50-5 Cargoes having toxic properties.

(a) This section contains requirements for the transportation of cargoes defined as Class "B" or "C" poisons in §§ 146.25-10 and 146.25-15 of this chapter.

(b) Independent tanks shall be designed and tested for a head of at least 8 feet above the top of the tank using the specific gravity of the product to be carried. In addition, tank design calculations shall demonstrate that the tank can withstand, without rupture, a single loading to the highest level to which the product may rise, if that exceeds 8 feet. In general, plate less than five-sixteenths inch in thickness shall not be used in the fabrication of independent tanks unless otherwise approved.

(c) (1) Cargo tanks transporting liquids having a Reid vapor pressure exceeding 14 pounds per square inch absolute or vented at a gage pressure exceeding 4 pounds per square inch, or where air or water pressure is used to discharge the cargo, shall be fabricated as arc-welded unfired pressure vessels.

(2) Unfired pressure vessel cargo tanks shall be designed for a pressure not less than the vapor pressure, in pounds per square inch gage, of the lading at 115° F., or the maximum air or water pressure used to discharge the cargo, whichever is greater, but in no case shall the design pressure of such tanks be less than 30 pounds per square inch gage.

(d) Piping:

(1) The pumps and piping used for cargo transfer shall be independent of all other piping.

(2) Where multiple cargoes are carried, and the cargo piping conveying cargoes covered under this section are led through cargo tanks containing other products, the piping shall be encased in a tunnel.

(3) Where cargo lines handling other products, or bilge and ballast piping are led through tanks containing cargoes covered by this section, the piping shall be encased in a tunnel.

(e) Gravity type cargo tanks shall be fitted with an approved pressure-vacuum relief valve of not less than 2½-inch size, which shall be set at a pressure of not less than 3 pounds per square inch

gage, but not in excess of the design pressure of the tank.

(f) The discharge fittings from each safety relief or pressure vacuum relief valve shall be directed in such a manner as to not impinge on another tank, piping or any other equipment which would increase the fire hazard should burning products be discharged from the safety or pressure vacuum relief valve as a result of a fire or other casualty. In addition, the discharges shall be directed away from areas where it is likely that persons might be working and as remote as practicable from ventilation inlets and ignition sources. A common discharge header may be employed if desired. The area near the discharge fittings shall be clearly marked as a hazardous area.

(g) A means shall be provided for either the reclamation or safe venting of vapors during the loading and unloading operations. For this purpose the safety relief or pressure vacuum relief valve shall be provided with a valved bypass to a vapor return line shore connection which shall be used whenever vapor return shore facilities are available. In the event vapors must be vented to the atmosphere, a vent riser shall extend at least 12 feet above the highest level accessible to personnel. The vent riser may be collapsible for ease of stowage when not in use. Vapor return lines or vent risers for tanks carrying the same class product may be connected to a common header system if desired. Tanks carrying cargoes covered by this section shall be vented independent of tanks carrying other products.

(h) The pump room ventilation outlet duct exhausts shall terminate at a distance of at least 6 feet above the enclosed space or pump room and at least 6 feet from any entrance to the interior part of the vessel. The discharge end of the exhaust ducts shall be located so as to preclude the possibility of recirculating contaminated air through the pump room, or other spaces where personnel may be present.

§ 151.50-6 Motor fuel antiknock compounds.

When transporting motor fuel antiknock compounds containing tetraethyl lead and tetramethyl lead the requirements listed in this section shall be observed.

(a) Tanks used for these cargoes shall not be used for the transportation of any other cargo except those commodities to be used in the manufacture of tetraethyl lead and tetramethyl lead.

(b) Pump rooms shall be equipped with forced ventilation with complete air change every 2 minutes. Air analysis shall be run for lead content to determine if the atmosphere is satisfactory prior to personnel entering the pump room.

(c) Entry into cargo tanks used for the transportation of these cargoes is not permitted.

(d) No internal tank inspection is required. If it is desired to internally inspect tanks used for these cargoes, the Commandant must be notified in advance before such inspection is made.

(e) The provisions of § 151.50-5 shall also be met as a requirement for shipping antiknock compounds containing tetraethyl lead and tetramethyl lead.

§ 151.50-10 Alkylene oxides.

(a) For the purpose of this part, alkylene oxides are considered to be ethylene oxide and propylene oxide.

(b) Alkylene oxides transported under the provisions of this part shall be acetylene free.

(c) (1) No other product may be transported in tanks certified for an alkylene oxide except that the Commandant may approve subsequent transportation of other products and return to alkylene oxide service if tanks, piping and auxiliary equipment are adequately cleaned to the satisfaction of the Marine Inspector.

(2) Unless authorized by the Commandant, no other kind of cargo except methane, ethane, propane, butane and pentane shall be on board a tank vessel certificated for the carriage of an alkylene oxide at the same time an alkylene oxide in either the liquid or vapor state is present in any cargo tank. Alkylene oxide tanks shall not be installed in tanks intended for any other cargo.

(d) All valves, flanges, fittings, and accessory equipment shall be of a type suitable for use with the alkylene oxides and shall be made of steel or stainless steel, or other materials acceptable to the Commandant. Impurities of copper, magnesium and other acetylide-forming metals shall be kept to a minimum. The chemical composition of all material used shall be submitted to the Commandant for approval prior to fabrication. Disks or disk faces, seats and other wearing parts of valves shall be made of stainless steel containing not less than 11 percent chromium. Mercury, silver, aluminum, magnesium, copper, and their alloys shall not be used for any valves, gages, thermometers, or any similar devices. Gaskets shall be constructed of spirally wound stainless steel with "Teflon" or other suitable material. All packing and gaskets shall be constructed of materials which do not react spontaneously with or lower the autoignition temperature of the alkylene oxides.

(e) The pressure rating of valves, fittings, and accessories shall be not less than the maximum pressure for which the cargo tank is designed or the shut-off head of the cargo pump, whichever is greater, but in no case less than 150 pounds per square inch. Welded fittings manufactured in accordance with A.N.S.I. Standards shall be used wherever possible, and the number of pipe joints shall be held to a minimum. Threaded joints in the cargo liquid and vapor lines are prohibited.

(f) The thermometer shall terminate in the liquid space and shall be attached to the shell by welding with the end of the fitting being provided with a gastight screwed plug or bolted cover.

(g) Automatic float continuous reading tape gage, and similar types, shall be fitted with a shutoff valve located as close to the tank as practicable, which shall be designed to close automatically in the event of fracture of the external

gaging piping. An auxiliary gaging device shall always be used in conjunction with an automatic gaging device.

(h) Filling and discharge piping shall extend to within 4 inches of the bottom of the tank or sump pit if one is provided.

(i) Venting:

(1) The discharge fittings from each safety relief or pressure vacuum relief valve shall be directed in such a manner as to not impinge on another tank, piping or any other equipment which would increase the fire hazard should burning products be discharged from the safety or pressure vacuum relief valve as a result of a fire or other casualty. In addition, the discharges shall be directed away from areas where it is likely that persons might be working and as remote as practicable from ventilation inlets and ignition sources. A common discharge header may be employed if desired. The area near the discharge fittings shall be clearly marked as a hazardous area.

(2) A means shall be provided for either the reclamation or safe venting of vapors during the loading and unloading operations. For this purpose, the safety relief or pressure vacuum relief valve shall be provided with a valved bypass to a vapor return line shore connection which shall be used whenever vapor return shore facilities are available. In the event vapors must be vented to the atmosphere, a vent riser shall be connected to the vapor return line and extend at least 12 feet above the highest level accessible to personnel. The vent riser may be collapsible for ease of stowage when not in use. The vent riser shall not be connected to a safety relief or pressure vacuum valve. Vapor return lines or vent risers for tanks carrying the same class product may be connected to a common header system if desired. Tanks carrying alkylene oxides shall be vented independent of tanks carrying other products.

(3) The outlet of each vent riser shall be fitted with acceptable corrosion-resistant flame screen of suitable material or a flame arrester suitable for use with alkylene oxide.

(j) Ventilation:

(1) All enclosed spaces within the hull shall be vented or ventilated in accordance with the provisions of this subchapter except as otherwise provided for in this subpart.

(2) The enclosed spaces in which the cargo tanks are located shall be inerted by injection of a suitable inert gas or shall be well ventilated.

(3) The enclosed spaces in which the cargo tanks are located, if an inerting system is not installed, shall be fitted with forced ventilation of such capacity to provide a complete change of air every three minutes and arranged in such a manner that any vapors lost into the space will be removed. The ventilation system shall be in operation at all times cargo is being loaded or discharged. No electrical equipment shall be fitted within the spaces or within ten feet of the ventilation exhaust from these spaces.

(4) All ventilation machinery shall be of nonsparking construction and shall not provide a source of vapor ignition

(5) Each vent shall be fitted with a flame screen of corrosion resistant wire which is suitable for use with the alkylene oxide.

(k) (1) Flexible metal hose fabricated of stainless steel or other acceptable material, resistant to the action of the alkylene oxide, shall be fitted to the liquid and vapor lines during cargo transfer.

(2) The hose shall be marked with the maximum pressure guaranteed by the manufacturer, and with his certification with the words "Certified for ----- Oxide."

(3) Cargo hose intended for alkylene oxide service shall not be used for any other products except those which are compatible with the alkylene oxide.

(l) Vessel shall be electrically bonded to the shore piping prior to connecting the cargo hose. This electrical bonding shall be maintained until after the cargo hose has been disconnected and any spillage has been removed.

(m) Cargo shall be discharged by pumping or by displacement with nitrogen or other acceptable inert gas. In no case shall air be allowed to enter the system. During loading and unloading operations, the vapor shall not be discharged to the atmosphere. Provisions shall be made to return all displaced vapor to the loading facility. The loading rate and the pressure applied to the tank to discharge the cargo shall be so limited to prevent opening the safety relief valves.

(n) During cargo transfer, a water hose with pressure to the nozzle, when atmospheric temperatures permit, shall be connected to a water supply for immediate use during filling and discharge operations and any spillage of alkylene oxide shall be immediately washed away. This requirement can be met by facilities provided from shore.

(o) Prior to disconnecting shore lines, the pressure in the liquid and vapor lines shall be relieved through suitable valves installed at the loading header. The liquid and vapor discharged from these lines shall not be discharged to atmosphere.

(p) A hydrostatic test of $1\frac{1}{2}$ times the design pressure shall be made on the cargo tanks at least once in each 4 years at the time the internal examination is made and at such other times as considered necessary by the Officer in Charge, Marine Inspection.

(q) The safety relief valves shall be tested by liquid, gas, or vapor pressure at least once every 2 years to determine the accuracy of adjustment and, if necessary, shall be reset. Alkylene oxides shall not be used as the testing medium.

(r) The special requirements for ethylene oxide contained in § 151.50-12 and for propylene oxide contained in § 151.50-13 shall also be observed.

§ 151.50-12 Ethylene oxide.

(a) (1) Ethylene oxide shall be carried in fixed, independent, pressure vessel type cargo tanks, designed, constructed, arranged and, if necessary, equipped with machinery to maintain the cargo temperature below 90° F. except as otherwise provided for in subparagraph (3) of this paragraph.

(2) Ethylene oxide shall be loaded at a temperature below 70° F.

(3) When ethylene oxide is to be transported at or near atmospheric pressure, the Commandant may permit the use of alternate methods of storage which are consistent with the minimum requirements of this subpart.

(b) (1) All cargo tanks shall be constructed of a carbon steel or stainless steel acceptable to the Commandant. Impurities of copper, magnesium and other acetylide-forming metals shall be kept to a minimum. The chemical composition of all steel used shall be submitted to the Commandant for approval prior to fabrication. Aluminum, copper and other acetylide-forming metals, such as silver, mercury, magnesium, and their alloys shall not be used as materials of construction for tanks or equipment used in handling ethylene oxide.

(2) Cargo tanks shall meet the requirements of Class I pressure vessels.

(3) Cargo tanks shall be designed for the maximum pressure of vapor or gas used in discharging the cargo but in no case shall the design pressure of such tanks be less than 75 pounds per square inch gage. The tank shell and heads shall not be less than $\frac{3}{16}$ -inch thick.

(c) (1) Cargo tanks shall be located below deck in holds or enclosed spaces with the domes or trunks extended above the weather deck and terminating in the open. Provisions shall be made to maintain the watertightness of the deck by means of watertight seals around such domes or trunks. The holds or enclosed spaces, in which the ethylene oxide tanks are located, shall not be used for any other purpose. However, in open hopper type barges of a suitable design approved for such service, the weatherdeck may not be required to be watertight.

(2) All cargo tanks shall be installed with the manhole openings and all tank connections located above the weather deck in the open.

(3) Tanks shall be electrically bonded to the hull.

(4) No welding of any kind shall be done on cargo tanks or supporting structure unless authorized by the Commandant.

(d) All cargo tanks, piping, valves, fittings, and similar equipment which may contain ethylene oxide in either the liquid or vapor phase, including the vent risers, shall be insulated. Flanges need not be covered, but if covered, a small opening shall be left at the bottom of the flange cover to detect leaks. Insulation shall be of an approved incombustible material suitable for use with ethylene oxide, which does not significantly lower the autoignition temperature and which does not react spontaneously with ethylene oxide. The insulation shall be of such thickness as to provide a thermal conductance of not more than 0.075 B.t.u. per square foot per degree Fahrenheit differential in temperature per hour.

(e) (1) When cooling systems are installed to maintain the temperature of the liquid below 90° F., at least two complete cooling plants, automatically regulated by temperature variations within the tanks shall be provided; each to be complete with the necessary auxiliaries

for proper operation. The control system shall also be capable of being manually operated. An alarm shall be provided to indicate malfunctioning of the temperature controls. The capacity of each cooling system shall be sufficient to maintain the temperature of the liquid cargo at or below the design temperature of the system.

(2) An alternate arrangement may consist of three cooling plants, any two of which shall be sufficient to maintain the temperature of the liquid cargo at or below the design temperature of the system.

(3) Cooling systems requiring compression of ethylene oxide are prohibited.

(f) In addition to the shutoff valve required, all tank connections larger than one-half inch inside pipe size, except safety relief valves and liquid level gaging devices, shall be fitted with either internal back pressure check valves or internal excess flow valves in conjunction with a quick closing stop valve operable from at least two remote locations. The quick closing stop valve shall be of the "fail safe" type acceptable to the Commandant and shall be equipped with a fusible plug designed to melt between 208° F. and 220° F., which will cause the quick closing valve to close automatically in case of fire. The quick closing valve shall be located as close to the tank as possible.

(g) Piping systems intended for ethylene oxide service shall not be used for any other product and shall be completely separate from all other systems. The piping system shall be designed so that no cross connections may be made either through accident or design.

(h) Each safety relief valve shall be set to start to discharge at not less than 75 pounds per square inch gage, nor more than the design pressure of the tank.

(i) The filling density shall not exceed 83 percent.

(j) (1) The cargo shall be shipped under a suitable protective inerting gas system, such as nitrogen. When nitrogen gas is used, the gas inerting system shall be so designed that the vapor space above the liquid cargo will be filled and maintained with a gas mixture of not less than 45 percent nitrogen. Other gases proposed for inerting use may be given consideration by the Commandant. Original charging only of protective inerting gas at the loading facility is not considered adequate. A sufficient amount of spare inerting gas as approved by the Commandant shall be provided on the vessel in order to maintain the proper concentration of the gas in the event of normal leakage or other losses.

(2) Any inerting gas selected should be at least 98 percent pure and free of reactive materials, such as ammonia, hydrogen sulfide, sulfur compounds, and acetylene.

(k) Prior to loading, a sample from the cargo tank will be taken to insure that the pad gas will meet the requirements of paragraph (j) of this section and that the oxygen content of the vapor space will be not more than 2 percent maximum. If necessary, a sample will

be taken after loading to insure the vapor space meets this requirement.

(l) The cargo piping shall be inspected and tested at least once in each 2 calendar years.

(m) In those cases where the cargo transfer hose used is not part of the barge's equipment, the person in charge of the transfer operation shall determine that the provisions of §151.50-10(k) have been met before using this hose. A certificate of test, supplied by the transfer facility, will be considered as adequate for this determination.

(n) The provisions of §151.50-10 shall be complied with as a requirement for shipping ethylene oxide.

§ 151.50-13 Propylene oxide.

(a) (1) Pressure vessel cargo tanks shall meet the requirements of Class II pressure vessels.

(2) Cargo tanks shall be designed for the maximum pressure expected to be encountered during loading, storing and discharging the cargo but in no case shall the design pressure of pressure vessel tanks be less than thirty (30) pounds per square inch gage. The tank shell and heads shall not be less than 3/16-inch thick.

(b) When propylene oxide is carried on board a vessel, piping systems in propylene oxide service shall not be used for any other product and shall be completely separate from all other systems. The piping system shall be designed so that no cross connection may be made through inadvertence.

(c) Each safety relief valve shall be set to start to discharge at not less than 30 pounds per square inch gage, nor more than the design pressure of the tank.

(d) Filling density shall not exceed 80 percent.

(e) (1) The cargo shall be shipped under a suitable protective padding, such as nitrogen gas. Other gases proposed for use as padding may be given consideration by the Commandant. Original charging only of protective gas padding at the loading facility is not considered adequate. A sufficient amount of spare padding gas as approved by the Commandant shall be provided on the vessel in order to maintain the proper concentration of the gas in the event of normal leakage or other losses.

(2) Any padding gas selected should be at least 98 percent pure and free of reactive materials.

(f) Prior to loading, a sample from the cargo tank will be taken to insure that the pad gas will meet the requirements of paragraph (e) of this section and that the oxygen content of the vapor space will be not more than 2 percent maximum. If necessary, a sample will be taken after loading to insure the vapor space meets this requirement.

(g) The cargo piping shall be subjected to a hydrostatic test of 1½ times the maximum pressure to which they may be subjected in service.

(h) The Commandant may permit the transportation of propylene oxide in other than pressure vessel type tanks if it is shown to his satisfaction that a de-

gree of safety is obtained consistent with the minimum requirements of this subpart.

(i) The provisions of §151.50-10 shall be complied with as a requirement for shipping propylene oxide.

§ 151.50-20 Inorganic acids.

(a) (1) Gravity type cargo tanks shall be designed and tested to meet the rules of the American Bureau of Shipping for a head of water at least 8 feet above the tank top or the highest level the lading may rise, whichever is the greater. The plate thickness of any part of the tank shall not be less than three-eighths inch.

(2) Gravity tank vents.

(i) The outlet end of the gravity tank vent shall terminate above the weather-deck, clear of all obstructions and away from any source of ignition.

(ii) The gravity tank vent shall terminate in a gooseneck bend and shall be fitted with a single flame screen or two fitted flame screens as described in §151.03-25. No shutoff valve or frangible disk shall be fitted in the vent lines.

(b) (1) Pressure vessel type cargo tanks shall be independent of the vessel's structure and shall be designed for the maximum pressure to which they may be subjected when compressed air is used to discharge the cargo, but in no case shall the design pressure be less than that indicated as follows:

Hydrochloric Acid—50 pounds per square inch gage.

Phosphoric Acid—30 pounds per square inch gage.

Sulfuric Acid—50 pounds per square inch gage.

(2) Pressure vessel type cargo tanks shall be of welded construction meeting the requirements for Class II or Class III given in Part 54 of this chapter.

(3) When compressed air is used to discharge the cargo, the tank shall be fitted with a vent led to the atmosphere in which a rupture disk shall be installed. The rupture disk shall be designed to burst at a pressure not exceeding the design pressure of the tank. An auxiliary vent to relieve the pressure or vacuum in the tank during the cargo transfer operation may be led from the vent line between the tank and the rupture disk. A shutoff valve may be fitted in the auxiliary vent.

(c) Openings in tanks are prohibited below deck, except for access openings used for inspection and maintenance of tanks, or unless otherwise specifically approved by the Commandant. Openings shall be fitted with bolted cover plates and acid-resistant gaskets.

(d) Where special arrangements are approved by the Commandant to permit a pump suction to be led from the bottom of the tank, the filling and discharge lines shall be fitted with shutoff valves located above the weatherdeck or operable therefrom.

(e) The outage shall not be less than 1 percent.

(f) All enclosed compartments containing cargo tanks and all machinery spaces containing cargo pumps shall be

fitted with effective means of ventilation.

(g) A separator shall be fitted in compressed air lines to the tank when air pressure is used to discharge the cargo.

(h) Only installed electric or portable battery lights shall be used during the cargo transfer operations. Smoking is prohibited and the person in charge of cargo transfer shall post No Smoking signs during cargo transfer operations.

(i) Tanks approved for the transportation of acid cargoes subject to this section shall not be used for the transportation of any other commodity, except upon authorization by the Commandant (MHM).

(j) Each cargo tank shall be subjected to an internal examination at least once in every 4 years. If cargo tank lining is required and the lining of the cargo tank has deteriorated in service or is not in place, the Marine Inspector may require the tank to be tested by such nondestructive means as he may consider necessary to determine its condition.

(k) The special requirements for sulfuric acid contained in § 151.50-21, for hydrochloric acid contained in § 151.50-22 and for phosphoric acid contained in § 151.50-23 shall also be observed.

§ 151.50-21 Sulfuric acid.

(a) How sulfuric acid may be carried:

(1) Sulfuric acid of concentration of 77.5 percent (1.7019 specific gravity) (59.8° Baume) or greater concentrations with or without an inhibitor, provided the corrosive effect on steel measured at 100° F. is not greater than that of 66° Baume commercial sulfuric acid, may be transported in unlined gravity type cargo tanks or unlined pressure vessel type cargo tanks.

(2) Sulfuric acid of concentration of 65.25 percent (1.559 specific gravity) (52° Baume) or greater concentrations, provided the corrosive effect on steel measured at 100° F. is not greater than that of 52° Baume commercial sulfuric acid, may be transported in unlined pressure vessel type cargo tanks independent of the vessel's structure.

(3) Sulfuric acid of concentration not to exceed 65.25 percent (1.559 specific gravity) (52° Baume) may be transported in gravity type cargo tanks or pressure-vessel type cargo tanks which are lined with lead or other equally suitable acid-resistant material acceptable to the Commandant.

(4) Sulfuric acid of concentration not to exceed 51 percent (1.408 specific gravity) (42° Baume) and spent sulfuric acid resulting from the use of sulfuric acid in industrial processes may be transported in gravity type cargo tanks which are lined with rubber or other equally suitable acid-resistant material acceptable to the Commandant. See § 151.15-3(f)(2).

(5) Spent or sludge sulfuric acid resulting from the use of sulfuric acid in industrial processes may be transported in unlined gravity type cargo tanks or unlined pressure vessel type cargo tanks, provided the corrosive effect on steel is not greater than that of commercial sulfuric acid as prescribed in subparagraph (1) of this paragraph.

(b) Heating coils will be the only acceptable means of liquefying frozen or congealed sulfuric acid.

(c) During cargo transfer, a water hose shall be connected to a water supply ready for immediate use and any leakage or spillage of acid shall be immediately washed down. This requirement can be met by facilities provided from shore.

(d) The requirements of § 151.50-20 are also applicable to the shipment of sulfuric acid.

§ 151.50-22 Hydrochloric acid.

(a) Hydrochloric acid shall be carried in gravity or pressure type cargo tanks which are independent of the vessel's structure provided such tanks are lined with rubber or other equally suitable material acceptable to the Commandant. See § 151.15-3(f)(2).

(b) Notwithstanding the provisions of § 151.50-20(b)(3), compressed air may be used to discharge hydrochloric acid from gravity type cargo tanks only if the tanks are of cylindrical shape with dished heads, provided the air pressure does not exceed the design pressure of the tank but in no case shall it exceed 10 pounds per square inch gage. Such tanks shall be fitted with pressure relief devices and need not be vented to the atmosphere as required by § 151.50-20(b)(3).

(c) During cargo transfer, a water hose shall be connected to a water supply and be ready for immediate use. Any leakage or spillage of acid shall be immediately washed down. This requirement can be met by facilities provided from shore.

(d) Spent hydrochloric acid or hydrochloric acid adulterated by other chemicals, inhibitors, oils, solvents, water, etc., shall not be transported in bulk except upon authorization by the Commandant (MHM).

(e) The requirements of § 151.50-20 are also applicable to the shipment of hydrochloric acid.

§ 151.50-23 Phosphoric acid.

(a) The term "phosphoric acid" as used in this subpart shall include, in addition to phosphoric acid, aqueous solutions of phosphoric acid, and super phosphoric acid.

(b) Phosphoric acid may be carried in either gravity or pressure type cargo tanks. The tanks shall be rubber-lined, or lined or clad with other suitable material acceptable to the Commandant, or shall be fabricated of a phosphoric acid resistant stainless steel. See § 151.15-3(f)(2).

(c) The vessel's shell plating shall not be used as any part of the boundaries of gravity type cargo tanks.

(d) Cargo piping, including valves, fittings, and flanges where exposed to the acid, shall be rubber-lined, or lined, coated or clad with other corrosion-resistant material, or shall be fabricated of a phosphoric acid resistant stainless steel. Vent piping, including flanges and fittings, shall be similarly protected at least to the height of the frangible disk if such is installed.

(e) Phosphoric acid adulterated by other chemicals, inhibitors, oils, solvents,

etc., shall not be transported in bulk cargo tanks except upon authorization by the Commandant (MHM).

(f) The requirements of § 151.50-20 are also applicable to the shipment of phosphoric acid.

§ 151.50-24 Hydrofluoric acid. [Reserved]

§ 151.50-30 Compressed gases.

(a) All tank inlet and outlet connections, except safety relief valves, liquid level gaging devices, and pressure gages shall be marked to designate whether they terminate in the vapor or liquid space. Labels, when used, shall be of corrosion-resistant materials and may be attached to valves.

(b) Venting:

(1) Except as provided in subparagraph (2) of this paragraph, each safety relief valve installed on a cargo tank shall be connected to a branch vent of a venting system which shall be constructed so that the discharge of gas will be directed vertically upward to a point at least 10 feet above the weatherdeck or the top of any tank or house located above the weatherdeck.

(2) Safety valves on cargo tanks in barges may be connected to individual or common risers which shall extend to a reasonable height above the deck. Where the escape of vapors from the venting system may interfere with towing operations, the installation shall be acceptable to the Commandant, and the arrangement shall be such as to minimize the hazard of escaping vapors. Arrangements specially provided for venting cargo tanks forming part of the hull on unmanned barges will be given special consideration by the Commandant.

(3) The capacity of branch vents or vent headers shall depend upon the number of cargo tanks connected to such branch or header as provided in Table 151.50-30(b)(3).

TABLE 151.50-30(b)(3)—CAPACITY OF BRANCH VENTS OR VENT HEADERS

Number of cargo tanks:	Percent of total value discharge
1 or 2.....	100
3.....	90
4.....	80
5.....	70
6 or more.....	60

(4) Return bends and restrictive pipe fittings are prohibited. Vents and headers shall be so installed as to minimize stresses on safety relief valves and their mounting nozzles.

(5) When vent discharge risers are installed, they shall be so located as to protect against physical damage and be fitted with loose raincaps.

(6) When vent discharge risers are installed and their installation in accordance with the provisions of this paragraph results in restrictions in the operation of the barge due to navigation clearances, the vents may be designed so as to be collapsible when passing under such low clearance obstacles.

(c) Repairs involving welding or burning:

(1) Repairs involving welding or burning shall not be undertaken on the cargo tanks or piping while cargo in either the liquid or vapor state is present therein.

(2) Repairs involving welding or burning on parts of the barge other than cargo tanks or piping may be undertaken provided positive pressure is maintained in the tanks or the tanks have been vented or washed internally.

(d) Respiratory equipment:

(1) At least one approved self-contained breathing apparatus shall be available in a readily accessible location off the barge at all times during the cargo transfer operations. This equipment shall not be considered to be part of the barge equipment, and the barge shall not be required to carry this equipment en route.

(2) The approved self-contained breathing apparatus, masks, and all respiratory protective devices shall be of types suitable for starting and operating at the temperatures encountered, and shall be maintained in good operating condition.

(3) Personnel involved in the cargo transfer operations shall be adequately trained in the use of the respiratory equipment.

(e) Filling densities and container design pressure. For compressed gases transported at or near ambient temperatures, the maximum filling densities and minimum design pressure of container as indicated in Table 151.50-30(e) shall apply. Deviations from the tabulated values shall be submitted to the Commandant for approval. Where cargo is to be carried at temperatures below ambient, the tank shall be designed in accordance with § 151.15-3(b)(3) and the maximum amount of cargo shall be in accordance with § 151.45-6(b).

TABLE 151.50-30(e)—FILLING DENSITIES AND CONTAINER DESIGN PRESSURES

Kind of gas	Maximum permitted filling density (percent by weight, see § 151.03-21)		Minimum design pressure of tank (pounds per square inch gage)	
	Uninsulated tanks	Insulated tanks	Uninsulated tanks	Insulated tanks
Ammonia, anhydrous	57	58	250	215
Chlorine	125	125	300	300
Dichlorodifluoromethane	123	125	147	127
Dimethylamine	61	62	46	36
Hydrogen chloride	62	68	1070	955
Methyl chloride	85	87	131	112
Monochlorodifluoromethane	110	113	243	211
Vinyl chloride	86	87	81	67

(f) The shell and head thickness of liquefied compressed cargo tanks shall not be less than five-sixteenths inch.

(g) The special requirements for chlorine, contained in § 151.50-31, anhydrous ammonia, contained in § 151.50-32, anhydrous hydrogen chloride, contained in § 151.50-33, and vinyl chloride, contained in § 151.50-34, are also applicable.

§ 151.50-31 Chlorine.

(a) Chlorine barges: Subparts 98.03 and 98.20 of Part 98 of this chapter have been revoked. However, chlorine barges that were certified in accordance with the requirements of Subpart 98.20 of Part 98 of this chapter and having hulls modified, if necessary, to comply with §§ 98.03-5(c) and 98.03-25(c) of this chapter, shall be considered as complying with this part.

(b) Design and construction of cargo tanks:

(1) The cargo tanks shall meet the requirements of Class I pressure vessels.

(2) Tanks shall be designed for a pressure of not less than 300 pounds per square inch gage. For the maximum allowable working pressure of tanks in service, see paragraph (q) of this section.

(3) Each tank shall be provided with one or more 24-inch inside diameter manhole, fitted with a cover located above the maximum liquid level and as close as possible to the top of the tank. There shall be no other openings in the tank.

(c) Tanks may be installed "on deck" or "under deck" with the tank protruding above deck. If a portion of the tank extends above the weatherdeck, provision shall be made to maintain the weathertightness on the deck. All tanks shall be installed with the manhole opening located above the weatherdeck. Hopper type barges operating on protected inland waters may have tanks located in the hopper space.

(d) All valves, flanges, fittings and accessory equipment shall be of a type suitable for use with chlorine and shall be made of metal, corrosion-resistant to chlorine in either the gas or liquid phase. Cast or malleable iron shall not be used. Valves, flanges, and flanged joints shall be 300 pounds A.N.S.I. standard minimum with tongue and groove or raised face. Joints shall be fitted with sheet lead or other suitable gasket material. Welded fittings shall be used wherever possible and the number of pipe joints held to a minimum. Threaded joints in cargo lines and vapor lines shall not be used in sizes above 1 inch internal diameter. Welded "hammerlock" unions or other unions approved by the Commandant may be used at terminal points of fixed barge piping.

(e) Each tank shall be provided with liquid and vapor connections fitted with manually operated shutoff valves and with safety relief valves. All valves shall be bolted to the cover or covers specified in paragraph (b)(3) of this section and shall be protected against mechanical damage by a suitable protective metal housing. A drain connection shall be provided from the protective housing.

(f) All liquid and vapor connections, except safety relief valves, shall be fitted with automatic excess flow valves, which shall be located on the inside of the tank. Bypass openings are not permitted in excess flow valves.

(g) Chlorine barge cargo piping shall not be fitted with the nonreturn valves specified by § 151.20-20(b).

(h) Liquid level gaging devices of any type are prohibited on chlorine tanks.

(i) A pressure gage shall be attached to the vapor shutoff valve or vapor line so as to indicate the pressure in the tank at all times during loading and unloading.

(j) Piping including connections between tank valves and fixed barge piping, shall be of a thickness of not less than Schedule 80.

(k) In multiple tank installations the tanks shall not be interconnected by piping or manifolds which may contain liquid chlorine. Manifolding of vapor lines of individual tanks into a common header for connection to shore is permitted. More than one cargo tank may be filled or discharged at a time, provided each tank is filled from or discharged to shore tanks through separate lines.

(l) Connections between fixed barge piping and shore piping shall be fabricated from one of the following:

(1) Schedule 80 seamless pipe, having flexible metallic joints.

(2) Corrosion-resistant metallic pipe (equivalent to Schedule 80) not subject to deterioration by chlorine, having flexible metallic joints.

(3) Flexible metallic hose acceptable to the Commandant. If subparagraphs (1) or (2) of this paragraph are used, the flexible metallic joints shall meet the requirements for cargo hose. See § 151.04-5(h).

(m) Safety relief valves shall discharge into the protective housing surrounding the valves. Suitable provisions shall be made to vent the housing. The arrangement shall be such as to minimize the hazard of escaping vapors.

(n) Cargo transfer operations:

(1) The amount of chlorine loaded into each cargo tank shall be determined by weight. Draft marks shall not be used as a means of weighing. Any chlorine vapors vented during the filling operation shall be disregarded when calculating the maximum amount of chlorine to be loaded into the cargo tanks.

(2) Prior to the start of filling operations, care shall be exercised to insure that the cargo tanks are empty, dry, and free from foreign matter.

(3) After the filling operation is completed, the vapor in each cargo tank shall be analyzed to determine the percentage of gaseous chlorine in the vapor space. If it should contain less than 80 percent chlorine by volume, vapors shall be withdrawn through the vent or vapor line until the vapor in the cargo tanks contains at least 80 percent chlorine by volume.

(4) After filling connections are removed, upon completion of the loading of a cargo tank, all connections at the tank shall be tested for leakage of chlorine by the aqua ammonia method.

(5) The chlorine in the cargo tanks shall be discharged by the pressure differential method. If the vapor pressure of the chlorine is not sufficient to force the liquid out of the tank, compressed air, or other nonreactive gas, may be used to secure the desired rate of discharge, provided the air or gas is oil-free and thoroughly dried by passing it over

activated aluminum oxide, silica gel, or other acceptable drying agent, and provided the supply pressure is limited to 75 percent of maximum allowable pressure of chlorine tanks.

(6) After completion of cargo transfer, any liquid chlorine in the cargo piping shall be removed and cargo transfer piping shall be disconnected at the cargo tanks. After disconnecting the cargo piping, both ends of the line shall be closed and all inlet and outlet valves on the tank shall be plugged or fitted with blind flanges.

(o) During cargo transfer, every person on the barge shall carry on his person a respiratory protective device which will protect the wearer against chlorine vapors and will provide respiratory protection for emergency escape from a contaminated area resulting from cargo leakage. This respiratory protective equipment shall be of such size and weight that the person wearing it will not be restricted in movement or in the wearing of a lifesaving device.

(p) Each cargo tank shall be subjected to biennial hydrostatic test of $1\frac{1}{2}$ times the maximum allowable pressure as determined by the safety relief valve setting.

(q) When periodic inspection indicates that a cargo tank has deteriorated in service, the maximum allowable pressure shall be recalculated, using the minimum thickness found by actual measurement. The recalculated maximum allowable pressure shall be not less than 275 pounds per square inch gage. If the recalculated maximum allowable pressure is less than 275 pounds per square inch gage, the cargo tanks shall be withdrawn from service.

(r) The following substances shall not be carried as stores on board barges transporting chlorine in bulk: hydrogen, methane, liquefied petroleum gases, coal gas, acetylene, ammonia, turpentine, compounds containing metallic powders, finely divided metals or finely divided organic materials.

(s) The requirements of § 151.50-30 for compressed gases are also applicable to the shipment of chlorine.

§ 151.50-32 Anhydrous ammonia.

(a) The anhydrous ammonia tanks may be installed in the bulk liquid cargo tanks provided the liquid surrounding the enclosed anhydrous ammonia tanks complies with the following chemical and physical properties:

(1) Boiling point above 125° F. at atmospheric pressure.

(2) Inert to ammonia at 100° F. at atmospheric pressure.

(3) Noncorrosive in the liquid and vapor phase to the ammonia tanks and piping.

(b) Copper, copper alloys, and copper bearing alloys shall not be used as materials of construction for tanks, pipelines, valves, fittings, and other items of equipment that may come in contact with anhydrous ammonia liquid or vapor.

(c) Valves, flanges and pipe fittings shall be of the tongue and groove or raised-face type, fitted with suitable gasket material. Welded fittings shall

be used wherever possible and the number of pipe joints shall be held to a minimum. Threaded joints are not permitted for pipe diameters exceeding 2 inches. Brazed joints are prohibited.

(d) All enclosed spaces containing cargo tanks fitted with bottom outlet connections shall be provided with mechanical ventilation of sufficient capacity to assure a change of air every 3 minutes.

(e) Each cargo tank shall be electrically grounded to the hull.

(f) When transferring cargo, a hose shall be connected to a water supply so that if leakage of anhydrous ammonia occurs the vapor may be dispersed by the use of water fog. This requirement can be met by facilities provided from shore.

(g) During cargo transfer operations, every person on the vessel shall carry on his person or have close at hand at all times a canister mask approved for ammonia or each person shall carry on his person a respiratory protective device which will protect the wearer against ammonia vapors and will provide respiratory protection for emergency escape from a contaminated area resulting from cargo leakage. This respiratory protective equipment shall be of such size and weight that the person wearing it will not be restricted in movement or in the wearing of a lifesaving device.

(h) To the extent he deems it necessary, the Officer in Charge, Marine Inspection, may require that sufficient insulation shall be removed from insulated tanks at least once in each 8 calendar years to permit spot external examination of the tanks and insulation in accordance with § 151.04-5(c).

(i) The requirements of § 151.50-30 for compressed gases are also applicable to the shipment of anhydrous ammonia.

§ 151.50-33 Anhydrous hydrogen chloride. [Reserved]

§ 151.50-34 Vinyl chloride.

(a) Copper, aluminum, magnesium, mercury, silver, and their alloys shall not be used as materials of construction for tanks, pipelines, valves, fittings, and other items of equipment that may come in contact with vinyl chloride liquid or vapor.

(b) Valves, flanges, and pipe fittings shall be of the tongue and groove or raised-face type, fitted with suitable gasket material. Welded fittings shall be used wherever possible and the number of pipe joints shall be held to a minimum. Threaded joints are not permitted for pipe diameters exceeding 2 inches. Brazed joints are prohibited.

(c) Each cargo tank shall be electrically grounded to the hull.

(d) The vessel shall be electrically bonded to the shore piping prior to connecting the cargo hose. This electrical bonding shall be maintained until after the cargo hose has been disconnected and any spillage has been removed.

(e) To the extent he deems it necessary, the Officer in Charge, Marine Inspection, may require that sufficient insulation shall be removed from insulated tanks at least once in each 8

calendar years to permit spot external examination of the tanks and insulation in accordance with § 151.04-5(c).

(f) The requirements of § 151.50-30 for compressed gases are also applicable to the shipment of vinyl chloride.

§ 151.50-40 Additional requirements for carbon bisulfide and ethyl ether.

(a) The provisions of this section are applicable if specifically referenced in the Special Requirements column of Table 151.05.

(b) Cargo tanks shall be electrically bonded to the hull of the vessel. A vessel shall be electrically bonded to the shore piping prior to connecting the cargo hose. This electrical bonding shall be maintained until after the cargo hose has been disconnected and any spillage has been removed.

(c) Pumps may be used for discharging cargo: *Provided*, That they are the vertical submerged type designed to avoid liquid pressure against the shaft gland and are suitable for use with the cargo.

(d) Provisions shall be made to maintain an inert gas padding in the cargo tank during loading, unloading and during transit.

(e) Provisions shall be made to prevent any leakage being washed into the waterways at the loading and unloading points.

(f) The special requirements of § 151.50-41 for carbon bisulfide and § 151.50-42 for ethyl ether shall also be observed.

§ 151.50-41 Carbon bisulfide.

(a) All openings shall be in the top of the tank.

(b) Loading lines shall terminate near the bottom of the tank.

(c) A standard ullage opening shall be provided for secondary and emergency sounding.

(d) If a cargo discharge pump is used, it shall be inserted through a cylindrical well extending from the tank top to a point near the tank bottom. A blanket of water shall be formed in this well before attempting pump removal.

(e) Water or inert gas displacement may be used for discharging cargo provided the cargo system is designed for the expected pressure and temperature. This method for discharging may be used with pressure type tanks only.

(f) Adequate natural ventilation shall be provided for the voids around the cargo tanks while the vessel is under way. During loading and unloading, forced ventilation shall be used. The forced ventilation shall be of sufficient capacity to provide a complete change of air within each void space every 5 minutes. The ventilating fan shall be of nonsparking construction.

(g) Because of its low ignition temperature and the close clearances required to arrest its flame propagation, carbon bisulfide requires safeguards beyond those required for any electrical hazard groups.

(h) The requirements of § 151.50-40 are also applicable to the shipment of carbon bisulfide.

§ 151.50-42 Ethyl ether.

(a) (1) Gravity tanks shall be designed and tested to meet the rules of the American Bureau of Shipping for a head of water at least 8 feet above the tank top or the highest level the lading may rise, whichever is greater. All openings shall be in the top of the tank.

(2) Pressure vessel type tanks shall be designed for the maximum pressure to which they may be subjected when pressure is used to discharge the cargo, but in no case shall the design pressure be less than 50 pounds per square inch gage. All openings shall be in the top of the tank.

(b) Adequate natural ventilation shall be provided for the voids around the cargo tanks while the vessel is underway. If a power ventilation system is installed, all blowers shall be of nonsparking construction. Power driven ventilation equipment shall not be located in the void spaces surrounding the cargo tanks.

(c) Pressure relief valve settings shall not be less than 3 pounds per square inch gage for gravity tanks. For pressure vessels, the relief valve setting shall not exceed the design pressure of the tank.

(d) Inert gas displacement may be used for discharging cargo from pressure vessel tanks provided the cargo system is designed for the expected pressure and the discharge pressure does not exceed 50 pounds per square inch gage or the design pressure of the tank, whichever is less.

(e) No electrical equipment except for approved lighting fixtures shall be installed in enclosed spaces adjacent to the cargo tanks. Lighting fixtures must be approved for use in Class 1, Group C, hazardous locations. The installation of electrical equipment on the weather deck shall comply with the requirements of § 111.70-10(c) (4) of this chapter.

(f) Copper, silver, mercury and magnesium or other acetylide forming metals and their alloys shall not be used as materials of construction for tanks, pipelines, valves, fittings and other items of equipment that may come in contact with the cargo vapor or liquid.

(g) Precautions shall be taken to prevent the contamination of ethyl ether by strong oxidizing agents.

(h) The requirements of § 151.50-40 are also applicable to the shipment of ethyl ether.

§ 151.50-50 Elemental phosphorus in water.

(a) Tanks shall be designed and tested for a head equivalent to the design lading of phosphorus and its water blanket extended to 8 feet above the tank top. In addition, tank design calculations shall demonstrate that the tank can withstand, without rupture, a single loading to the highest level to which the water blanket may rise, if that exceeds 8 feet. Tanks shall not be less than $\frac{5}{16}$ -inch thick.

(b) When a water displacement method of discharge is used, pressure vessel type cargo tanks, designed and tested in accordance with Subchapter F of this chapter shall be employed. Such tanks shall be designed for the maximum pres-

sure to which they may be subjected when water pressure is used to discharge the cargo.

(c) Each cargo tank shall be fitted with an approved pressure vacuum relief valve set to discharge at a pressure not exceeding 2 pounds per square inch. When transferring cargo, the vent discharge shall lead overboard above the waterline. When pressure vessel type tanks are used, each tank shall be fitted with a relief valve of suitable size.

(d) Sufficient outage shall be provided to prevent the tank from being liquid full at any time, but in no case shall the outage be less than 1 percent. When pressure vessel type tanks are used, outage need not be provided.

(e) The use of compressed air to discharge cargo is prohibited.

(f) Cargo shall be loaded at a temperature not exceeding 140° F., and then cooled until the water above the cargo has a temperature not exceeding 105° F. prior to the movement of the vessel. Upon presentation of satisfactory proof that procedures followed will provide adequate safety in transportation and handling, the Commandant may authorize movement of the vessel following cooling of the water above the cargo to a temperature exceeding 105° F.

(g) Coils in which steam or hot water is circulated to heat the cargo so that it may be pumped shall be located outside the cargo tanks.

(h) A fixed ballast piping system (including a power driven pump of ample capacity), or other means acceptable to the Commandant shall be installed so that any void space surrounding the tanks may be flooded.

(i) All openings shall be in the top of the tank and shall be fitted with bolted cover plates and gaskets resistant to the attack of phosphorus pentoxide.

(j) All enclosed compartments containing cargo tanks shall be provided with effective means of ventilation.

(k) Cargo lines shall be traced with steam piping and secured thereto by lagging to prevent solidification of cargo during transfer operations.

(l) During cargo transfer, a water hose shall be connected to a water supply ready for immediate use, and any spillage of phosphorus shall be immediately washed down. This requirement can be met by facilities provided from shore.

(m) At least two fresh air masks or self-contained breathing apparatus shall be stowed on board the vessel at all times for use of personnel entering the tanks or adjacent spaces.

(n) Authorization from the Commandant (MHM) shall be obtained to transport lading other than phosphorus in the cargo tanks or to have on board any other cargo when phosphorus is laden in the tanks.

(o) Mechanical ventilation of sufficient capacity to insure a change of air within the cargo tanks every 3 minutes shall be provided during the inspection and maintenance of the cargo tanks.

(p) Cargo tanks shall be electrically bonded to the hull of the barge. A vessel shall be electrically bonded to the shore piping prior to connecting the cargo

hose. This electrical bonding shall be maintained until after the cargo hose has been disconnected.

§ 151.50-55 Liquid sulfur.

(a) Ventilation (cargo tank):

(1) Cargo tank ventilation shall be provided to maintain the concentration of H₂S below one-half of its lower explosive limit throughout the cargo tank vapor space for all conditions of carriage; i.e., below 1.85 percent by volume.

(2) Where mechanical ventilation systems are used for maintaining low gas concentrations in cargo tanks, an alarm system shall be provided to give warning if the system fails.

(3) Connections shall be provided to enable sampling of the atmosphere over the cargo in each cargo tank for analysis.

(4) The ventilation system shall be designed and arranged to preclude the depositing of sulfur within the system.

(b) Void spaces:

(1) Openings to void spaces adjacent to cargo tanks shall be designed and fitted to prevent the entry of water, sulfur or cargo vapors.

(2) Connections shall be provided to enable sampling and analyzing vapors in void spaces.

(c) Temperature controls shall be provided in accordance with § 151.20-10 and applicable sections of Subpart 151.40 of this part. Heat transfer media shall be steam, and alternate media shall require specific approval of the Commandant.

§ 151.50-60 Ethyleneimine.

(a) (1) Ethyleneimine transported under the provisions of this part shall be not less than 99.9 percent pure.

(2) Unless otherwise authorized by the Commandant, no other cargo may be transported in tanks certified for ethyleneimine.

(b) Cargo tanks:

(1) All cargo tanks shall be constructed of carbon steel or stainless steel. Aluminum or silver or their alloys or silver solder shall not be used as materials of construction for tanks and equipment used in handling ethyleneimine.

(2) Cargo tanks shall meet the requirements of Class I pressure vessels.

(3) Cargo tanks shall be designed for the maximum pressure of vapor or gas used in discharging the cargo, but in no case shall the design pressure of such tanks be less than the one hundred (100) pounds per square inch gage. The tank shell and heads shall not be less than $\frac{5}{16}$ -inch thick.

(c) (1) Cargo tanks shall be located above or below deck in holds or enclosed spaces with the domes or trunks extended above the weatherdeck and terminating in the open. Provisions shall be made to maintain the watertightness of the deck by means of watertight seals around the domes or trunks. The holds or enclosed spaces in which the ethyleneimine tanks are located shall not be used for any other purpose. The watertightness of the weatherdeck may not be required to be fully maintained on open hopper type barges of a suitable design approved for such service.

(2) All cargo tanks shall be installed with the manhole openings and all tank connections located above the weather-deck in the open.

(3) Tanks shall be suitably mounted on steel supports anchored in place and suitably electrically bonded to the hull.

(4) No welding of any kind shall be done on cargo tanks or supporting structure unless authorized by the Commandant.

(d) Piping systems intended for ethyleneimine service shall not be used for any other product and shall be completely separate from all other systems. The piping system shall be designed so that no cross connections may be made either through accident or design.

(e) All valves, flanges and accessory equipment shall be of a type suitable for use with ethyleneimine and shall be made of steel, stainless steel, or other materials acceptable to the Commandant. Impurities of copper and silver shall be kept to a minimum. Such metals and their alloys shall not be used for valves, gages, or thermometers. All packing and gaskets shall be constructed of materials suitable for use with ethyleneimine.

(f) The pressure rating of valves, fittings and accessories shall be not less than the maximum pressure for which the cargo tank is designed or the shut-off head of the cargo pump, whichever is greater, but in no case less than 150 pounds per square inch, U.S.A.S.I. Standard B-16. Welded fittings shall be used wherever possible, and the number of pipe joints shall be held to a minimum. Threaded joints in the cargo liquid and vapor lines are prohibited.

(g) Filling and discharge piping shall extend to within four inches of the bottom of the tank or sump pit, if one is provided.

(h) Each cargo tank shall be equipped with either a temperature or pressure alarm system. Such system shall have either an audible or visual signal as part of the system.

(i) Automatic float continuous reading tape gage and similar types shall be fitted with a shutoff valve located as close to the tank as practicable and be designed to close automatically in the event of fracture of the external gage piping. An auxiliary gaging device shall always be used in conjunction with an automatic gaging device.

(j) Cargo shall be discharged by pumping or by displacement with nitrogen or other acceptable inert gas. In no case shall air be allowed to enter the system. During cargo transfer operations, the cargo vapor shall not be discharged to the atmosphere. The loading rate and the pressure applied to the tank to discharge the cargo shall be so limited to prevent opening the safety relief valves.

(k) Venting:

(1) Each safety relief valve shall be set to start to discharge at not less than 100 pounds per square inch gage, nor more than the design pressure of the tank.

(2) The discharge fittings from each safety relief or pressure vacuum relief

valve shall be directed in such a manner as to not impinge on another tank, piping or any other equipment which would increase the fire hazard should burning products be discharged from the safety or pressure vacuum relief valve as a result of a fire or other casualty. In addition, the discharge shall be directed away from areas where it is likely that persons might be working and as remote as practicable from ventilation inlets and ignition sources. A common discharge header may be employed if desired. The area near the discharge fittings shall be clearly marked as a hazardous area.

(3) A means shall be provided for either the reclamation or safe venting of vapors during the loading and unloading operations. For this purpose the safety relief or pressure vacuum relief valve shall be provided with a valved bypass to a vapor return line shore connection which shall be used whenever vapor return shore facilities are available. In the event vapors must be vented to the atmosphere, a vent riser shall be connected to the vapor return line and extend at least 12 feet above the highest level accessible to personnel. The vent riser may be collapsible for ease of stowage when not in use. The vent riser shall not be connected to a safety relief or pressure vacuum valve. Vapor return lines or vent risers for tanks carrying the same class product may be connected to a common header system. Tanks carrying ethyleneimine shall be vented independent of tanks carrying other products.

(4) The outlet of each vent riser shall be fitted with acceptable corrosion-resistant flame screen of suitable material or a flame arrester suitable for use with ethyleneimine.

(l) Ventilation:

(1) All enclosed spaces within the hull shall be vented or ventilated in accordance with the provisions of this subchapter except as otherwise provided for in this subpart.

(2) All ventilation machinery shall be of nonsparking construction and shall not provide a source of vapor ignition.

(3) Each vent shall be fitted with a flame screen of corrosion resistant wire which is suitable for use with ethyleneimine.

(m) Flexible metal hose fabricated of stainless steel or other acceptable material, resistant to the action of ethyleneimine, shall be fitted to the liquid and vapor lines during filling and discharging of the tanks.

(n) The cargo piping shall be inspected and tested at least once in each 2 calendar years.

(o) If cooling systems are used, compression of ethyleneimine is prohibited.

(p) Each cargo tank shall be electrically bonded to the hull. A vessel shall be electrically bonded to the shore piping prior to connecting the cargo hose. This electrical bonding shall be maintained until after the cargo hose has been disconnected and any spillage has been removed.

(q) When ethyleneimine is to be transported at or near atmospheric pres-

sure, the Commandant may permit the use of alternate methods of stowage if it is shown to his satisfaction that a degree of safety is obtained consistent with the minimum requirements of this subpart.

§ 151.50-65 Hydrogen fluoride. [Reserved]

Subpart 151.55—Special Requirements for Materials of Construction

§ 151.55-1 General.

(a) This section provides special requirements for the materials of construction of equipment that may come into contact with various cargoes. Table 151.05 contains specific requirements for various cargoes.

(b) Copper, copper alloys, zinc, and aluminum shall not be used as materials of construction for tanks, pipelines, valves, fittings, and other items of equipment that may come in contact with the cargo liquid or vapor.

(c) Copper, copper alloys, zinc, galvanized steel, and mercury shall not be used as materials of construction for tanks, pipelines, valves, fittings, and other items of equipment that may come in contact with the cargo liquid or vapor.

(d) Aluminum, magnesium, zinc, and lithium shall not be used as materials of construction for tanks, pipelines, valves, fittings, and other items of equipment that may come in contact with the cargo liquid or vapor.

(e) Copper and copper bearing alloys shall not be used as materials of construction for tanks, pipelines, valves, fittings, and other items of equipment that may come in contact with the cargo liquid or vapor.

(f) Aluminum or copper or alloys of either shall not be used as materials of construction for tanks, pipelines, valves, fittings, and other items of equipment that may come in contact with the cargo vapor or liquid.

(g) Aluminum, stainless steel, or steel covered with a suitable protective lining or coating shall be used as materials of construction for tanks, pipelines, valves, fittings, and other items of equipment that may come in contact with the cargo liquid or vapor.

(h) Alkaline or acidic materials, such as caustic soda or sulfuric acid, should not be allowed to contaminate this cargo.

(i) For concentrations of 98 percent or greater, aluminum or stainless steel shall be used as materials of construction. For concentrations of less than 98 percent, 304L or 316 stainless steel shall be used as materials of construction.

Effective date. The regulations in this document shall become effective on June 1, 1970.

Dated: February 13, 1970.

W. J. SMITH,
Admiral, U.S. Coast Guard,
Commandant.

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