

REGISTRATION REPORT

Wednesday
September 20, 1989

Part II

**Department of
Transportation**

**Research and Special Programs
Administration**

**49 CFR Part 171 et al.
Transportation of Hazardous Materials;
Miscellaneous Amendments**

DEPARTMENT OF TRANSPORTATION

Research and Special Programs
Administration49 CFR Parts 171 Through 176, 178
and 179

[Docket No. HM-166W; Amdt Nos. 171-104,
172-118, 173-216, 174-66, 175-44, 176-29,
177-72, 178-90, and 179-42]

RIN: 2137-AA44

Transportation of Hazardous
Materials; Miscellaneous Amendments

AGENCY: Research and Special Programs
Administration (RSPA), DOT.

ACTION: Final rule.

SUMMARY: This action is being taken to incorporate into the Department's Hazardous Materials Regulations (HMR) a number of changes based on rulemaking petitions from industry and RSPA's own initiative. This action is necessary to update the regulations, to eliminate the need for certain DOT approvals, and to reduce RSPA's backlog of rulemaking petitions. The amendments in this rulemaking will reduce government regulation and paperwork, and clarify existing regulations.

EFFECTIVE DATE: November 15, 1989. However, compliance with the regulations, as amended herein, is authorized immediately.

FOR FURTHER INFORMATION CONTACT: Marilyn E. Morris, Standards Division, DHM-12, Office of Hazardous Materials Transportation, U.S. Department of Transportation, Washington, DC 20590. (202) 366-4488.

SUPPLEMENTARY INFORMATION: On September 19, 1988, RSPA published a notice of proposed rulemaking under Docket No. HM-166W (Notice No. 88-5; 53 FR 36410), which proposed a number of miscellaneous amendments to the HMR. Notice No. 88-5 included a brief statement concerning each proposal and invited public comment. The interested reader is referred to Notice No. 88-5 for additional background information.

Twenty-three commenters responded to Notice No. 88-5. While a number of commenters expressed support for various proposals and offered suggestions for specific changes, several commenters expressed their opposition to certain proposals. Listed below is a section-by-section summary of the changes and a discussion of comments received.

A. Part 171

In § 171.7, the following changes are made:

1. In paragraph (c)(4), the address for the Bureau of Explosives, Association of American Railroads (AAR) is revised:

2. Paragraph (c)(5), containing an outdated address for AAR is updated:

3. In paragraph (c)(19), the current address for The Fertilizer Institute is revised:

4. Paragraph (d)(2) is amended by updating the AAR Specification for Tank Cars from the 1985 edition to the 1988 edition:

5. Paragraph (d)(7)(iv) is amended by revising the title of a Bureau of Explosives publication; and

6. Paragraph (d)(17) is amended by updating the International Maritime Dangerous Goods Code (IMDG Code) to the latest 1988 edition.

7. Paragraph (d)(33) is added to reference The Fertilizer Institute's publication, "Definition and Test Procedures for Ammonium Nitrate Fertilizer", dated August 1984. References to the 1971 edition of this publication which appeared in §§ 173.182 and 174.510 are removed.

In § 171.8, the definition for "Atmospheric gases" is amended to include "air." Also, the gas "argon" was inadvertently omitted from the definition in the notice. This oversight is corrected.

In § 171.12, the last sentence of paragraph (b) and the penultimate sentence in paragraph (d) are revised to allow stowage and segregation of hazardous materials in freight containers in conformance with the requirements of the IMDG Code, when transported by motor vehicle or railcar. These changes are made for consistency with a similar change made to § 176.11 in this final rule, concerning transportation by vessel.

B. Part 172

In § 172.101, the Hazardous Materials Table is amended as follows:

1. The entry "1,1-Difluoroethylene (R-1132A)" is added. The appropriate refrigerant "R" number is added for consistency with other refrigerant gas entries appearing in the Table, as suggested by a commenter.

2. The entry "Empty cartridge case, primed" is removed.

3. The hazard class for "Hydrogen selenide" is changed from "Flammable gas" to "Poison A" and a restriction regarding stowage on a vessel is added in Column 7(c).

4. The entry "Life rafts, inflatable" is revised to read "Life-saving appliances, self-inflating" with the identification number "UN 2990," for consistency with the description in international regulations for transportation by aircraft.

5. The prefix "NA" for the entry "Paint related material" is revised to read "UN" 1203, for consistency with the international regulations. This change was proposed in Docket HM-181.

6. The entry for "Sulfur, molten" is revised to provide for an alternative spelling of the description as "Sulphur, molten".

7. A cross reference, "Perchloroethylene *see* Tetrachloroethylene" is added to clarify that either name may be used as a proper shipping name. "Perchloroethylene" is commonly used domestically, and "Tetrachloroethylene" is used internationally.

8. The italicized entry "*Tetraethylammonium perchlorate (dry)*" with the word "forbidden" is removed. A new entry is added to allow shipment of the material as a flammable solid.

9. The entry "Vinyl methyl ether" is revised to include a reference to "§ 173.315" in column 5(b).

Section 172.504(c) is revised to clarify that a rail car does not have to be placarded when transporting freight containers or transport vehicles that do not require placarding.

C. Part 173

Section 173.5(a)(2) is revised by increasing the capacity of inside packagings for liquid agricultural chemicals from 1-gallon to 2½ gallons when offered for transportation in less-than-case-lot quantities.

Section 173.25(c) is amended by deleting the words "Poison B material" in order to clarify that a hazardous material labeled POISON is subject to the restrictions of this section, even if it meets the definition for another hazard class.

In § 173.31, the following changes are made:

1. Paragraph (a)(7) is removed and reserved.

2. Paragraphs (a)(5) and (a)(6) are revised to reflect the latest changes regarding coupler vertical restraint systems on tank cars.

3. Two commenters expressed opposing views on the provision in proposed new paragraph (c)(14) for checking a tank car's excess flow valve for tightness at the time of retest. One commenter contended the proposal implies that all tank car tank valves having threaded seats must be tightened with a wrench. The other commenter believed that any time a valve over a seat is removed, the valve seats should be tightened with a 24-inch wrench or longer. RSPA and the Federal Railroad Administration (FRA) believe that the

requirement, as written, allows for the tightening of the valve seats by whatever means necessary to accomplish the job, and imposes little or no burden on tank car repairers or shippers. Therefore, the provision is adopted as proposed.

4. A new paragraph (d)(10) is added to permit the shipment of certain multi-unit tank car tanks, under specified conditions, after expiration of the retest date.

In the Table following the introductory paragraph in § 173.34 (e), the entry "DOT 3A, 3AA, 3AL" is revised to read "DOT 3A, 3AA" and a separate entry is added for "DOT 3AL" to clarify that DOT 3AL cylinders must be retested every 5 years.

Section 173.115 is revised to permit certain alcohol solutions to be reclassified as combustible liquids, even when they contain ORM-E materials, and to indicate that solutions which are hazardous substances and hazardous wastes are subject to regulation in all instances.

Section 173.116(a) is revised to exclude from consideration constituents in flammable liquids that are classed as an ORM-E.

Section 173.118a(b)(7) is revised to clarify that combustible liquids in tank cars are subject to the unloading requirements in § 174.67.

In § 173.182, the footnote in paragraph (a) is revised by removing the date referenced for The Fertilizer Institute's publication. The August 1984 edition of the publication is being incorporated by reference in § 171.7 of this final rule.

It was discovered that § 173.245(a)(29) which proposed the authorization of monoethanolamine; *primary amyl alcohol* for MC 303 cargo tanks made of aluminum, was in error. The exemption, DOT-E 6732 erroneously prescribed the MC 306 and MC 303 cargo tanks made of aluminum or steel as authorized packagings for monoethanolamine; *primary amyl alcohol*. We have no knowledge of any MC 303 cargo tanks made of aluminum which are used to transport monoethanolamine; *primary amyl alcohol*. Therefore, § 173.245(a)(29) remains unchanged.

Section 173.249a(d)(3) is adopted as proposed. One commenter objected to the use of nonspecification packagings for certain corrosives that contain a high percentage of acetic acid, citing an incident involving the spillage of coal tar dye from an opened-head fiber drum, which overturned and the lid came off. The commenter believed that if the drum had been a DOT specification fiber drum with an inner liner, the spillage would not have occurred. However, the commenter provided no data to indicate

that a deficiency in the container was the cause of the incident, and RSPA does not believe withdrawal of the proposed change is warranted.

RSPA has adopted the proposed change to § 173.250 concerning the shipment of motor vehicles equipped with electric storage batteries by vessel. However, the change is made to paragraph (b) instead of paragraph (a) as proposed in the notice. See discussion in this preamble to § 176.905(k).

It was proposed to revise § 173.262 (b)(1), (b)(2) and (b)(3), to prohibit the transportation of Hydrobromic acid greater than 40 percent in polyethylene packagings. The proposed change was based on data received by RSPA that problems with permeation have been experienced. However, a commenter requested that these provisions be retained and submitted substantial data which support the continued use of polyethylene packagings for shipping Hydrobromic acid. Provisions authorizing the use of polyethylene packagings are retained, but a provision is added to require that these packages must satisfy the requirements in § 173.24(d) pertaining to permeability prior to the first shipment.

Section 173.264(b)(1) is revised to authorize the use of DOT 3BN cylinders for the transportation of Hydrofluoric acid, anhydrous (hydrogen fluoride).

Section 173.301(d)(3) is amended by authorizing "1,1-Difluoroethylene" in manifolded cylinders. A commenter, in responding to proposed § 173.301(1), stated that the proposed requirement for mounting DOT 3AX, 3AAX, and 3T cylinders on a motor vehicle or in ISO frames for transportation is overly-restrictive, and that there is no reason for requiring only ISO frames. RSPA agrees and has revised paragraph (1) to authorize the cylinders to be transported in ISO or other frames of equivalent structural integrity.

In § 173.304, the following changes are made:

1. The Table in paragraph (e)(2) is amended by adding an entry for "1,1-Difluoroethylene" in alphabetical sequence; a new Note 12 is added in the entry for "Insecticides, liquefied gas"; and a new Note 13 is added in the entry for "Refrigerant gas, n.o.s., or Dispersant gas, n.o.s."

2. Paragraph (b) is amended by adding "1,1-Difluoroethylene" to follow "carbon dioxide".

In the Table in § 173.314(c), the entry for "Bromotrifluoromethane" is corrected by reinstating the DOT-105A500W tank car which was deleted inadvertently under another rulemaking.

In the Table in § 173.315(a)(1), the entries "Carbon dioxide, refrigerated liquid" and "Nitrous oxide, refrigerated liquid" are corrected to reference paragraph (c)(1) instead of paragraph (c).

An editorial correction is made to Table 4 in § 173.417(b)(1).

D. Part 174

Section 174.510 is revised by removing the data referenced for The Fertilizer Institute's publication. The August 1984 edition of the publication is being incorporated by reference in § 171.7 of this final rule.

E. Part 175

RSPA proposed to include in § 175.10(a)(5) an exception for persons who are traveling under the provisions of 14 CFR 106.11 (a) and (b), and are carrying small arms ammunition, from having to comply with the specified requirements. This proposal is adopted with a minor change. Two commenters suggested that RSPA also should permit, for persons who are subject to § 175.10(a)(6), the use of a specially designed packaging for small amounts of ammunition when carried in baggage. RSPA agrees with the commenters and has adopted their suggestion. In § 175.10(a)(7), the reference to "135.114" is revised to read "135.91".

F. Part 176

Section 176.11(a) is revised to authorize hazardous materials to be stowed and segregated in accordance with the IMDG Code.

A provision on gravity type tanks in § 176.340(a)(2) is removed. Gravity type tanks approved under 46 CFR 98.35 were no longer authorized for use after October 1, 1984.

Three persons commented on the proposal concerning nonspecification portable tanks in new § 176.340 (a)(4) and (b), one in support and two opposed. The opposing commenters criticized the system under which the nonspecification portable tanks would be built and tested, and recommended instead that such construction and testing be closely monitored by the United States Coast Guard (USCG). RSPA and USCG do not agree with these comments. To require such procedures for the nonspecification portable tanks in question would create an additional administrative burden, paperwork burden, and a time delay on tank manufacturers and the government. The proposed nonspecification portable tanks are similar to DOT 57 portable tanks, with the exception of having a larger rated capacity, vibration testing,

and marking requirements. The DOT 57 specification authorizes manufacturers to certify portable tanks as conforming to the specification. DOT 57 portable tanks are authorized to transport flammable liquids and other hazardous materials. The nonspecification portable tanks, although similar to a DOT 57, are authorized to transport combustible liquids only. RSPA and USCG believe that more stringent requirements for these nonspecification portable tanks, which are used for combustible liquids only, are unwarranted. For this same reason, the proposed requirement that owners retain a copy of the manufacturer's data report during the time the tank is in service is removed. However, RSPA and USCG believe that it would be in the best interest of the tank manufacturers or the owners of these tanks to retain data pertinent to the manufacture of the nonspecification portable tanks.

One commenter objected to the proposed revision of § 178.905(k) on the grounds that requiring the batteries in containerized motor vehicles to be disconnected would be costly and lead to possible damage to the vehicles. RSPA does not agree with this comment. Existing § 178.905(c) already requires motor vehicles, whether containerized or not, to have their batteries disconnected when stowed below deck. Therefore, the revision would apply only to motor vehicles carried in containers on deck. The reason for disconnecting the batteries in a hold or compartment below deck is to reduce the possibility of an accidental spark in a potentially explosive atmosphere. Such an atmosphere could also develop in the close confines of an unventilated freight container (a warning sign to this effect is required by § 178.905(k)). In the interest of eliminating a possible fire hazard on board vessels, § 178.905(k) is adopted as proposed.

G. Part 178

One commenter pointed out that the clarification of § 178.39-5 significantly impacts the DOT 3BN specification, to the extent that nickel cylinders could no longer be manufactured. This was not RSPA's intention. The provision is revised in the final rule.

The Tables in §§ 178.224-1(a)(1) and 178.224-2(c) are amended by increasing the maximum capacity of DOT-21C fiber drums from 55 gallons to 75 gallons for drums having a net weight of not over 115 pounds and 250 pounds respectively. Plastic heads are authorized for certain drums. Two typographical errors noted in the Table in § 178.224-1(a)(1) are also corrected.

Proposed § 178.251-7(a) would have required that the certification plate on new DOT 57 portable tanks be marked "Leakage test date" instead of "Original test date". A commenter suggested that to prevent additional costs to manufacturers, RSPA should allow manufacturers to mark either "Original test date" or "leakage test date" on tanks. RSPA agrees with the commenter and has provided for either entry. In either case, the test date marked on a tank must be the date of the leakage test specified in § 178.253-5(b).

H. Part 179

Section 179.14 is revised to reflect the latest changes regarding the coupler vertical restraint systems on tank cars.

Section 179.100-13(d) is revised to clarify the function of excess flow valves in tank cars.

Except for a typographical error, § 179.100-15 is adopted as proposed.

RSPA received no objections to the proposed change to § 179.100-23(c) to authorize the use of an additional head shield design. The provision is adopted as proposed.

In keeping with the Association of American Railroads' request to reflect the latest changes concerning couplers on tank cars, § 179.105-8 is removed and reserved.

Four commenters expressed their concerns that requirements for safety vent closures, as proposed in § 179.200-18(b)(3), may be overly restrictive. RSPA and FRA agreed with the commenters, and have revised the provision. The other changes to 179.200-18 (b) and (c) are adopted. Several typographical errors appearing in the section are also corrected.

Section 179.201-1(a) is amended by adding references to §§ 179.202-8, 179.202-11, and 179.202-16 under the "Special references" column for DOT 111A60W2 tank cars.

In § 179.203-1(c), the reference to "§ 173.8" is amended to "§ 171.12a". In § 179.203-1(d), the reference to "§ 173.9" is amended to read "§ 171.12a".

In § 179.300-7(a), the introductory text and the Table are amended to authorize the use of stainless steel for fabrication of class DOT 106A and 110A-W tank car tanks.

In Part 178, the reference "§ 179.105-6" is removed and replaced with the reference of "§ 179.14" in certain sections.

Administrative notices

I certify that this regulation will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. Furthermore, in view of

the type of changes herein, the RSPA has further determined that this rulemaking (1) is not "major" under Executive Order 12291; (2) is not "significant" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); (3) will not affect not-for-profit enterprises, or small governmental jurisdictions; and (4) does not require an environmental impact statement under the National Environmental Policy Act (49 U.S.C. 4321 *et seq.*) A regulatory evaluation is not considered necessary because the anticipated impact is minimal. I have reviewed this regulation in accordance with Executive Order 12612 ("Federalism"). It has no substantial direct effects on the States, in the Federal-State relationship or the distribution of power and responsibilities among levels of government. Thus, this regulation contains no policies that have Federalism implications, as defined in Executive Order 12612.

The following list of Federal Register Thesaurus of Indexing Terms apply to this rulemaking:

List of Subjects

49 CFR Part 171

Hazardous materials transportation, Definitions, Incorporation by reference.

49 CFR Part 172

Hazardous materials transportation, Labeling, Packagings and containers.

49 CFR Part 173

Hazardous materials transportation, Packaging and containers.

49 CFR Part 174

Hazardous materials transportation, Rail carriers, Railroad safety.

49 CFR Part 176

Hazardous materials transportation, Air carriers.

49 CFR Part 178

Hazardous materials transportation, Maritime carriers.

49 CFR Part 179

Hazardous materials transportation, Packaging and containers.

49 CFR Part 179

Hazardous materials transportation, Railroad safety, Tank cars.

PART 171—GENERAL INFORMATION—REGULATIONS AND DEFINITIONS

1. The authority citation for part 171 continues to read as follows:

Authority: 49 App. U.S.C. 1802, 1803, 1804, 1808; 49 CFR part 1, unless otherwise noted.

2. In § 171.7, paragraph (d)(33) is added, and paragraphs (c)(4), (c) (5), (c)(19), (d)(2), (d)(7)(iv), and (d)(17) are revised to read as follows:

§ 171.7 Matter incorporated by reference.

(c) * * *
 (4) Bureau of Explosives: Hazardous Materials Systems (Bureau of Explosives) Association of American Railroads, American Railroads Building, 50 F Street, NW., Washington, DC 20001.

(5) AAR: Association of American Railroads, American Railroads Building, 50 F Street NW., Washington, DC 20001.

(19) TFI: The Fertilizer Institute, 501 Second Street NE., Washington, DC, 20002.

(d) * * *
 (2) AAR's publication, "Specifications for Tank Cars", Specification M-1002, 1988 edition.

(7) * * *
 (iv) Bureau of Explosive's publication, "Emergency Handling of Hazardous Materials in Surface Transportation", dated February 1987.

(17) International Maritime Organization's publication, "International Maritime Dangerous Goods Code" (IMDG Code), 1988 Consolidated Edition.

(33) The Fertilizer Institute's publication, "Definition and Test Procedures for Ammonium Nitrate Fertilizer", dated August 1984.

3. In § 171.8 the definition for "Atmospheric gases" is revised to read as follows:

§ 171.8 Definitions and abbreviations.

"Atmospheric gases" means air, nitrogen, oxygen, argon, krypton, neon and xenon.

3a. In § 171.12, in paragraph (b), the words "In addition—" are added to the end of the current paragraph, new paragraphs (b)(1) and (b)(2) are added, and paragraph (d), is revised to read as follows:

§ 171.12 Import and export shipments.

(b) * * * In addition—
 (1) An appropriate shipping name specified for a material in § 172.102 of this subchapter may be substituted for its proper shipping name in § 172.101 of this subchapter (subject to the conditions and limitations of this paragraph and § 172.102 of this subchapter) if all or a portion of the transportation of the material is by vessel; and
 (2) A hazardous material may be stowed and segregated in freight containers in conformance with the IMDG Code, when transported by motor vehicle or rail car, if a portion of the

transportation of the material is by vessel.

(d) Section 171.2 notwithstanding, a hazardous material (other than Class A or B explosives or radioactive materials) being imported into or exported from the United States or passing through the United States in the course of being shipped between places outside the United States may be offered and accepted for transportation and transported by motor vehicle within a single port area (including contiguous harbors) when packaged, marked, classed, labeled, stowed and segregated in accordance with the IMDG Code, if the hazardous material is offered and accepted in accordance with the requirements of Subparts C and F of part 172 of this subchapter pertaining to shipping papers and placarding (See § 176.11 of this subchapter for exceptions applicable to vessels.)

PART 172—HAZARDOUS MATERIALS TABLES AND HAZARDOUS MATERIALS COMMUNICATIONS REGULATIONS

4. The authority citation for part 172 continues to read as follows:

Authority: 49 App. U.S.C. 1803, 1804, 1805, 1808; 49 CFR part 1, unless otherwise noted.

5. In § 172.101, the Hazardous Materials Table is amended by removing, adding, or revising, as indicated, the following entries:

§ 172.101 Hazardous materials table.

+ /A/ W	Hazardous materials descriptions and proper shipping names	Hazard class	Identification number	Label(s) required (if not excepted)	Packaging		Maximum net quantity in one package		Water shipments		
					Excep-tions	Specific require-ments	Passenger carrying aircraft or railcar	Cargo only aircraft	Cargo ves-sel	Pas-senger vessel	Other requirements
(1)	(2)	(3)	(3A)	(4)	5(a)	5(b)	6(a)	6(b)	7(a)	7(b)	7(c)
	REMOVE Empty cartridge case, primed. Tetraethylammonium perchlorate (dry).	Class C explosive. Forbidden		Explosive C....	None	173.107	50 pounds...	150 pounds...	1,3	1,3	
A	ADD 1,1-Difluoroethylene (R-1132A). Life-saving appliances, self-inflating.	Flammable gas. ORM-C.....	UN 1959 UN 2990	Flammable gas. None.....	173.306	173.304 None 173.906	Forbidden... 1 per inaccessible cargo compartment.	300 pounds. No limit.....	1,2 1,2	5 1,2	Stow away from living quarters.
	Perchloroethylene See Tetrachloroethylene. Tetraethylammonium perchlorate (dry).		NA 1897 UN 1325	Flammable solid.		173.153 173.154	25 pounds... 25 pounds...		1,2 1,2		

+ / A / W	Hazardous materials descriptions and proper shipping names	Hazard class	Identification number	Label(s) required (if not excepted)	Packaging		Maximum net quantity in one package		Water shipments		
					Exceptions	Specific requirements	Passenger-carrying aircraft or railcar	Cargo only aircraft	Cargo vessel	Passenger vessel	Other requirements
(1) +	REVISE (2) Hydrogen cyanide	(3) Poison A	(3A) UN 2202	(4) Poison gas & Flammable gas	5(a) None	5(b) 173.328	6(a) Forbidden	6(b) Forbidden	7(a) 1	7(b) 5	7(c) Store away from living quarters.
	Paint related material Sulfur, molten or Sulfur, molten	Flammable liquid, ORM-C	UN 1263 UN 2448	Flammable liquid None	173.118 173.505	173.128 173.1080	1 quart Forbidden	55 gallons Forbidden	1 1	1 1	Store away from oxidizers and living quarters. Store away from living quarters.
	Vinyl methyl ether	Flammable gas	UN 1067	Flammable gas	173.306	173.304 173.314 173.315	Forbidden	20 pounds	1,2	1	Store away from living quarters.

6. In § 172.504, paragraph (c) is revised to read as follows:

§ 172.504 General placarding requirements.

(c) Except for transport vehicles and freight containers subject to § 172.505, portable tanks, cargo tanks, tank cars, or transportation by aircraft or vessel, placards for hazardous materials covered by Table 2 are not required on—

(1) A transport vehicle or freight container which contains less than 1000 pounds (453.6 kilograms) aggregate gross weight of hazardous materials covered by Table 2; or

(2) A rail car loaded with transport vehicles or freight containers, none of which is required to be placarded.

The exceptions provided in this paragraph do not prohibit the display of placards in the manner prescribed in this subpart, if not otherwise prohibited (see § 172.502), on transport vehicles or freight containers which are not required to be placarded.

PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

7. The authority citation for part 173 continues to read as follows:

Authority: 49 U.S.C. 1803, 1804, 1805, 1806, 1807, 1808; 49 CFR part 1, unless otherwise noted.

8. In § 173.5, paragraph (a)(2) is revised to read as follows:

§ 173.5 Agricultural operations.

(a) * * *
(2) Each inside packaging does not exceed 2½ gallons capacity for liquids or 25 pounds for dry materials.

9. In § 173.25, the introductory text to paragraph (c) is revised to read as follows:

§ 173.25 Authorized packages and overpacks.

(c) Hazardous materials which are required to be labeled POISON, may be transported in the same motor vehicle with material that is marked or known to be foodstuffs, feed or any edible material intended for consumption by humans or animals provided the hazardous material is marked, labeled, and packaged in accordance with this subchapter, conforms to the requirements of paragraph (a) of this section and is overpacked as specified in § 177.841(e) or is in an overpack meeting the following requirements:

10. In § 173.31, paragraph (a)(7) is removed and reserved, paragraphs (a)(5) and (a)(6) are revised, and paragraphs (c)(14) and (d)(10) are added to read as follows:

§ 173.31 Qualification, maintenance, and use of tank cars.

(a) * * *
(5) Each DOT specification tank car shall be equipped with a coupler vertical restraint system that meets the requirements of § 179.14 of this subchapter.

(6) Effective November 15, 1990, each non-specification tank car used for the transportation of hazardous materials shall be equipped with a coupler vertical restraint system that meets the requirements of § 179.14 of this subchapter.

(7) [Reserved]

(c) * * *
(14) Excess flow valves having threaded seats must be checked for tightness and tightened at the time of

each tank retest or safety relief valve retest.

(d) * * *
(10) A class DOT 106A or 110A tank car tank (§§ 179.300, 179.301, 179.302 of this subchapter) used exclusively for transportation of non-corrosive gases (as listed in the table in § 173.34(e)(10)), for which the retest has become due, may not be filled and shipped until it has been properly tested. However, tanks filled prior to the expiration of the retest date may be shipped on a one-time basis.

§ 173.34 [Amended]

11. In the Table which follows the introductory text in § 173.34(e), the entry, "DOT-3A, 3AA, 3AL" is removed and new entries for DOT-3A, 3AA and DOT-3AL are added to read as follows:

Specification under which cylinder was made	Minimum retest pressure (p.s.i.)	Retest period (years)
DOT-3A, 3AA	5/3 times service pressure, except noncorrosive service (see § 173.34 (e)(10))	5 or 10 (see § 173.34 (e)(11), (e)(14), and (e)(15)).
DOT-3AL	5/3 times service pressure	5.

12. In § 173.115, paragraphs (b)(1), (b)(2)(i), and (b)(2)(ii) are revised to read as follows:

§ 173.115 Flammable combustible, and pyrophoric liquids; definitions.

(b) *Combustible liquid.* (1) For the purposes of this subchapter, a combustible liquid is defined as any liquid that does not meet the definition

of any other hazard class defined in this subchapter, other than ORM-E, and which has a flash point at or above 100 °F. (37.8 °C.) and below 200 °F. (93.3 °C.) Notwithstanding this definition, a mixture having one component or more with a flash point at 200 °F. (93.3 °C.) or higher, that makes up at least 99 percent of the total volume of the mixture, is not subject to the requirements of this subchapter.

(2) * * *

(i) An aqueous solution containing 24 percent or less alcohol by volume is considered to have a flash point of no less than 100 °F. (37.8 °C.) if the remainder of the solution contains no material (other than an ORM-E) that is subject to this subchapter.

(ii) An aqueous solution containing 24 percent or less alcohol by volume is not subject to the requirements of this subchapter if it is not a hazardous substance or a hazardous waste and contains no less than 50 percent water and no material (other than alcohol) which is subject to this subchapter.

13. In § 173.118, the first sentence in paragraph (a) is revised to read as follows:

§ 173.118 Limited quantities of flammable liquids.

(a) Limited quantities of flammable liquids that do not meet the definition of another hazard class defined in this subchapter (other than ORM-E), and for which exceptions are permitted as noted by reference to this section in § 172.101 of this subchapter, are exempted from labeling (except when offered for transportation by air) and specification packaging requirements of this subchapter when packaged according to the following paragraphs. * * *

14. In § 173.118a, paragraph (b)(7) is revised to read as follows:

§ 173.118a Exceptions for combustible liquids.

(b) * * *

(7) The requirements of §§ 173.1, 173.3, 173.24, 173.29, 173.30, 173.31, 174.67 and 177.804 of this subchapter.

15. In § 173.182, footnote 1 is amended by removing the phrase "dated May 7, 1971".

16. In § 173.249a, paragraph (d)(3) is revised to read as follows:

§ 173.249a Cleaning compound, liquid; coal tar dye, liquid; dye intermediate liquid; mining reagent, liquid; and textile treating compound mixture, liquid.

(d) * * *

(3) Removable (open) head or tight-head fiber drum lined or coated on the inside with a plastic material, not over 55-gallon capacity. Not authorized for shipment by aircraft.

17. In § 173.250, paragraph (b) is revised to read as follows:

§ 173.250 Automobiles, other self-propelled vehicles, engines or other mechanical apparatus.

(b) For transportation by aircraft or vessel the following provisions apply:

(1) For transportation by passenger-carrying aircraft, wheelchairs equipped with wet electric storage batteries must be shipped as prescribed in § 175.10 of this subchapter.

(2) For transportation by vessel, the requirements in § 176.905 apply.

18. In § 173.262, a sentence is added to paragraphs (b)(1), (b)(2), and (b)(3), to read as follows:

§ 173.262 Hydrobromic acid.

(b) * * *

(1) * * * The shipper shall assure conformance with the requirements of § 173.24(d) of this part prior to first shipment.

(2) * * * The shipper shall assure conformance with the requirements of § 173.24(d) of this part prior to first shipment.

(3) * * * The shipper shall assure conformance with the requirements of § 173.24(d) of this part prior to first shipment.

§ 173.264 [Amended]

19. In § 173.264, the introductory text of paragraph (b)(1) is amended by adding "3BN," immediately after "3B," and adding "178.39," immediately after "173.38."

20. In § 173.301, the first sentence in paragraph (d)(3) is amended by adding "1,1-Difluoroethylene" immediately after the word "gases" and in paragraph (l) (1) the phrase "or framework" is added immediately after the word "vehicle". Also, the introductory text of paragraph (l) is revised to read as follows:

§ 173.301 General requirements for shipment of compressed gases in cylinders.

(l) Specifications 3AX, 3AAX, and 3T cylinders are authorized for transportation only when horizontally mounted on a motor vehicle or in an ISO framework or other framework of equivalent structural integrity. Cylinders may be transported in COFC or TOFC service only under conditions approved by the Associate Administrator for Safety, Federal Railroad Administration. Cylinder valves and safety devices must be protected as follows:

§ 173.304 [Amended]

21. In § 173.304, paragraph (b) is amended by adding "1,1-Difluoroethylene (R-1132A)," immediately following "carbon dioxide," and paragraph (a)(2) Table is amended by adding an entry for "1,1-Difluoroethylene (R-1132A)" in alphabetical sequence, revising the entries for "Insecticide, liquefied gas" and "Refrigerant gas, n.o.s. or Dispersant gas, n.o.s.", and adding Notes 12 and 13 following the Table, to read as follows:

Kind of gas	Maximum permitted filling density (pounds per gallon) (See Note 1)	Containers marked as shown in this column or of the same type with highest service pressure must be used except as provided in § 173.34(a), (c), § 173.301(i) (See notes following Table).
1,1-Difluoroethylene (R-1132A)	73	DOT-3A2200, DOT-3AA2200, DOT-3AX2200, DOT-3AAX2200, DOT-3T2200, DOT-39.
Insecticide, liquefied gas (See Notes 8 and 12).	Not liquid full at 130 °F	DOT-3A300; DOT-3AA300; DOT-3B300; DOT-4B300; DOT-4BA300; DOT-4BW300; DOT-9; DOT-40; DOT-41; DOT-3E1800.

Kind of gas	Maximum permitted filling density (percent) (See Note 1)	Containers marked as shown in this column or of the same type with higher service pressure must be used except as provided in § 173.34(a), (b), § 173.301(f) (See notes following table).
Refrigerant gas, n.o.s. or Dispersant gas, n.o.s. (see Notes 8 and 13).	Not liquid full at 130 °F	DOT-3A240; DOT-3AA240; DOT-3B240; DOT-3E1800; DOT-4A240; DOT-4B240; DOT-4BA240; DOT-4BW240; DOT-4E240; DOT-9; DOT-39; and DOT-3AL240.

Note 1: The "filling density" is hereby defined as the percent ratio of the weight of gas in a container to the weight of water that the container will hold at 60 °F. (1 lb of water = 27.737 cubic inches at 60 °F.)

Note 2: See § 173.301(f).

Note 12: For an insecticide gas which is nonpoisonous and nonflammable, see § 173.305(c).

Note 13: For a refrigerant or dispersant gas which is nonpoisonous and nonflammable, see § 173.304(e).

§ 173.314 [Amended]
 22. In § 173.314, the table in paragraph (c) is amended by revising the entry for "Bromotrifluoromethane (R-13B1 or H-1301)" to read as follows:

§ 173.314 Requirements for Compressed Gases in Tank Cars.
 (c) * * *

Kind of Gas	Maximum permitted filling density, Note 1	Required tank car, see § 173.31(a) (2) and (3)
Bromotrifluoromethane.	124	DOT-110A900W, Notes 13 and 25.
(R-13B1 or H-1301).	140	DOT-105A500W, Note 13.

¹ Use of existing tank cars authorized, but new construction not authorized.

Note 1: The filling density for liquefied gases is hereby defined as the percent ratio of the weight of gas in the tank to the weight of water that the tank will hold. For determining the water capacity of the tank in pounds, the weight of a gallon (231 cubic inches) of water of 60 °F. in air shall be 8.32828 pounds.

Note 13: This gas may be transported in authorized tank car tanks stenciled "DISPERSANT GAS" or "REFRIGERANT GAS."

Note 25: Specification 109 and 110A tanks for these commodities are authorized for transportation by rail freight, highway, and cargo vessel. (See §§ 174.204, 176.200, 176.230, 177.834(m) of this subchapter for additional requirements.)

§ 173.315 [Amended]
 23. In § 173.315(a)(1) Table, for the entries "Carbon dioxide, refrigerated liquid" and "Nitrous oxide, refrigerated liquid", the references to "par. (c)" in the second column are revised to read "par. (c)(1)".

§ 173.417 [Amended]
 24. In § 173.417, Table 4 in paragraph (b)(1) is amended by changing " $3 < H/X < 10$ " under the heading Uranium-235 to read " $3 < H/Z < 20$ ".

PART 174—CARRIAGE BY RAIL

25. The authority citation for part 174 continues to read as follows:

Authority: 49 U.S.C. 1803, 1804, 1805, 1808; 49 CFR part 1, unless otherwise noted.

§ 174.510 [Amended]
 20. In § 174.510, the third sentence is amended by removing the phrase "dated May 7, 1971".

PART 175—CARRIAGE BY AIRCRAFT

27. The authority citation for part 175 continues to read as follows:

Authority: 49 App. U.S.C. 1803, 1804, 1806, 1807, 1808; 49 CFR 1.53(c).

28. In § 175.10, paragraphs (a)(5) and (a)(7) are revised to read as follows:

§ 175.10 Exceptions.

(a) * * *
 (5) Small-arms ammunition for personal use carried by a crewmember or passenger in his baggage (excluding carry-on baggage) if securely packed in fiber, wood or metal boxes, or other packagings specifically designed to carry small amounts of ammunition. This paragraph does not apply to persons traveling under the provisions of 14 CFR 108.11 (a) and (b).

(7) Oxygen, or any hazardous material used for the generation of oxygen, carried for medical use by a passenger in accordance with 14 CFR 121.574 or 135.91.

PART 176—CARRIAGE BY VESSEL

29. The authority citation for part 176 is revised to read as follows:

Authority: 49 U.S.C. 1803, 1804, 1805, 1808; 49 CFR 1.53.

30. In § 176.11, the introductory text of paragraph (a) is revised to read as follows:

§ 176.11 Exceptions.

(a) A hazardous material may be offered and accepted for transportation by vessel when in conformance with the requirements of the IMDG Code in place of the corresponding requirements of this subchapter pertaining to packaging, marking, labeling, classification, description, certification, placarding, stowage and segregation. All hazardous

materials must otherwise be stowed and carried in accordance with this subchapter.

31. In § 176.340, paragraph (a)(2) is revised to read as follows:

§ 176.340 Combustible liquids in portable tanks.

(a) * * *

(2) In nonspecification portable tanks, subject to the following conditions:

- (i) Each portable tank must conform to §§ 178.251 and 178.253 of this subchapter, except as otherwise provided in this paragraph;
- (ii) The rated capacity of the tank may not exceed 1,200 gallons, and the rated gross weight may not exceed 30,000 pounds;
- (iii) The vibration test in § 178.253-5 need not be performed;
- (iv) When the total surface area of the tank exceeds 160 square feet, the total emergency venting capacity must be determined in accordance with Table III in § 178.341-4;
- (v) In place of a specification identification marking required by § 178.251-7, the tank must be marked, on two sides in letters at least two inches high on contrasting background: "FOR COMBUSTIBLE LIQUIDS ONLY" and "49 CFR 176.340". This latter marking is the certification of the person offering the combustible liquid for transportation that the portable tank conforms to this paragraph;

- (vi) Each tank must be made of steel;
- (vii) The design pressure of the tank must be no less than 9 psig;
- (viii) No pressure relief device may open at less than 5 psig;
- (ix) Each tank must be retested and marked at least once every 2 years in accordance with § 173.32(e) (2), (3), and (4) of this subchapter; and
- (x) Each tank must conform to the provisions of § 173.24 and paragraphs (g), (h), (i), and (k) of § 173.32

32. In § 176.905, the introductory text of paragraph (k) before the quoted material is revised to read as follows:

§ 178.905 Motor vehicles or mechanical equipment powered by internal combustion engines.

(k) Motor vehicles with fuel in their tanks may be stowed in a closed freight container if the battery cables are disconnected and secured away from the battery terminals and the following warning is affixed to the access doors:

PART 178—SHIPPING CONTAINER SPECIFICATIONS

33. The authority citation for part 178 continues to read as follows:

Authority: 49 App. U.S.C. 1803, 1804, 1805, 1806, 1808; 49 CFR part 1, unless otherwise noted.

34. In § 178.38-5, paragraph (a) is revised to read as follows:

§ 178.38-5 Nickel.

(a) The percentage of nickel plus cobalt must be at least 99.0 percent.

35. In § 178.224, the Tables in § 178.224-1 and § 178.224-2 are revised to read as follows:

§ 178.224-1 Construction requirements.

(a) * * *
(1) * * *

Net weight of contents (pounds) not over	Capacity maximum (gals.) (not over)	Diameter inside maximum (inches)	Sidewall strength (psf.) ¹	Tops and bottoms					Plywood at least 3-ply construction Top thickness
				Fiber ²		Steel, (U.S. gauge)	Wood Thickness (inches)	Plastic: Solid ³	
				Thickness (inches)	Strength				
60	5	11 1/4	500	0.080	600	28	13/16	3/11	
60	20	18 1/4	600	.120	800	28	13/16	3/10	
115	20	18 1/4	700	.120	800	28	13/16	3/8	
115	75	23	600	.160	1100	28	13/16	7/16	680
250	75	23	800	.200	1200	24	13/16	7/16	680
400	75	23	1600	.200	1300	24	13/16	7/16	680

¹ Method of Cady Test. Either of the following test methods may be used. When more than single ply, test shall be determined from the summation of the tests of individual plies or, where test is made on a composite drum, the punctures shall be made from the exterior to the interior surface in which case the values for sidewall shall be not less than 60 percent of the value in the above table and the values for fiber tops and bottoms shall be not less than the value in the above table. There shall be a minimum of six tests and the average shall be not less than the prescribed minimum requirements.

² Sidewalls. Sidewalls to be completely wound of fiberboard at least 0.012 inch thick, the plies being secured together with adhesive; or may consist of an outer shell and an inner tube each completely wound with each fiberboard ply not less than 0.012 inch thick and secured together with adhesive. Drums may contain barrier or lining materials.

³ When made of 2 or more discs, the discs must be fastened together with adhesive.

⁴ Joints in head must be Linderman joints, glued, except as specified in footnote 5.

⁵ Wooden heads of least one-half inch thick having kraft paper glued on both sides at all contact areas with water-resistant adhesive are authorized provided tests prescribed in § 178.224-2 are successful. Joints of any type are authorized.

⁶ Minimum thickness may be reduced to 25/32 inch for lumber dressed two sides.

§ 178.224-2 Type tests.

(c) * * *

Maximum net weight	Maximum capacity (gallons)	Maximum inside diameter (inches)	Compression (pounds)	
			Static ¹	Dynamic ²
60	5	11 1/4	1200	1600
60	20	18 1/4	1200	1600
115	20	18 1/4	1200	1600
115	75	23	1500	2000
250	75	23	1800	2400
400	75	23	2100	2800

¹ Static Test. Compression as specified must be applied to full area of top cover of drum for a period of 48 hours.

² Dynamic Test. Compression as specified must be applied end to end. Speed of compression tester to be one-half inch plus or minus one-fourth inch per minute.

§ 178.251-7 (Amended)

36. In § 178.251-7, in paragraph (a) the entry for "Original test date" is revised to read: "Original test date" or "Leakage test date."

PART 179—SPECIFICATIONS FOR TANK CARS

37. The authority citation for part 179 continues to read as follows:

Authority: 49 U.S.C. 1803, 1804, 1805, 1806, 1808; 49 CFR part 1, unless otherwise noted.

38. Section 179.14, is revised to read as follows:

§ 179.14 Coupler vertical restraint systems

(a) *Performance standard.* Each tank car shall be equipped with couplers capable of sustaining, without disengagement or material failure, vertical loads of at least 200,000 pounds (90,718.5 kg) applied in upward and downward directions in combination with buff loads of 2,000 pounds (907.2 kg), when coupled to cars which may or may not be equipped with couplers having this vertical restraint capability.

(b) *Test verification.* Except as provided in paragraph (d) of this section, compliance with the requirements of paragraph (a) of this section shall be achieved by verification testing of the coupler vertical restraint system in accordance with paragraph (c) of this section.

(c) *Coupler vertical restraint tests.* A coupler vertical restraint system shall be tested under the following conditions:

(1) The test coupler shall be tested with a mating coupler (or simulated coupler) having only frictional vertical

force resistance at the mating interface; or a mating coupler (or simulated coupler) having the capabilities described in paragraph (a) of this section;

(2) The testing apparatus shall simulate the vertical coupler performance at the mating interface and may not interfere with coupler failure or otherwise inhibit failure due to force applications and reactions; and

(3) The test shall be conducted as follows:

(i) A minimum of 200,000 pounds (90,718.5 kg) vertical downward load shall be applied continuously for at least 5 minutes to the test coupler head simultaneously with the application of a nominal 2,000 pounds (907.2 kg) buff load;

(ii) The procedures prescribed in paragraph (c)(3)(i) of this section shall be repeated with a minimum vertical upward load of 200,000 pounds (90,718.5 kg); and

(iii) A minimum of three consecutive successful tests shall be performed for each load combination prescribed in paragraphs (c)(3) (i) and (ii) of this section. A test is successful when a vertical disengagement or material failure does not occur during the application of any of the loads prescribed in this subparagraph.

(d) *Authorized couplers.* As an alternative to the test verifications in paragraph (c) of this section, the following couplers are authorized:

(1) E double shelf couplers designated by the Association of American Railroads' Catalog Nos., SE60CHT, SE60CC, SE60CHTE, SE60CE, SE60DC, SE60DE, SE67CC, SE67CE, SE67BHT, SE67BC, SE67BHTE, SE67BE, SE68BHT, SE68BC, SE68BHTE, SE68BE, SE69AHTE, and SE69AE.

(2) F double shelf couplers designated by the Association of American Railroads' Catalog Nos., SF70CHT, SF70CC, SF70CHTE, SF70CE, SF73AC, SF73AE, SF73AHT, SF73AHTE, SF79CHT, SF79CC, SF79CHTE, and SF79CE.

39. In § 179.100-13, paragraph (d) is revised to read as follows:

§ 179.100-13 *Venting, loading and unloading valves, measuring and sampling devices.*

(d) An excess flow valve as referred to in this specification, is a device which closes automatically against the outward flow of the contents of the tank in case the external closure valve is broken off or removed during transit. Excess flow valves may be designed

with a by-pass to allow the equalization of pressures.

40. In § 179.100-15, paragraph (c) is revised to read as follows:

§ 179.100-15 *Safety relief valves.*

(c) When a safety relief valve is used in combination with a frangible disc, the frangible disc must be designed to burst at a pressure of 75 percent of the tank test pressure and the safety relief valve must be set for a start-to-discharge pressure of 71 percent of the tank test pressure, as prescribed in § 179.101. A device must be installed to detect any accumulation of pressure between the frangible disc and the safety relief valve. The detection device must be a needle valve, trycock, tell-tale indicator or other approved device. The detection device must be closed during transportation. Alternative pressures for certain commodities are permitted in accordance with § 179.102-11. The tolerance on the valve start-to-discharge pressure is ± 3 psi for 100 psi test pressure tanks and ± 3 percent for all higher test pressure tanks. The minimum vapor tight pressure is 80 percent of the valve start-to-discharge pressure.

41. In § 179.100-23, paragraph (c) is added to read as follows:

§ 179.100-23 *Alternative requirements for tank head puncture resistance systems.*

(c) A head shield that was installed on a tank car before December 31, 1987, and that is in the size and shape of the head of the tank car tank (except for any portion of the tank car tank that is below the top of the center sill of the tank car) need not comply with paragraph (a)(2) of this section.

§ 179.105-6 [Removed and Reserved]

§ 179.105-9 [Removed]

42. Section 179.105-9 is removed and reserved, and the designation for § 179.105-9 which is currently reserved is removed.

43. In § 179.200-18, paragraph (b) is revised, and paragraph (c) is added to read as follows:

§ 179.200-18 *Safety relief devices.*

(b) *Safety Vents:* (1) When permitted in § 179.201-1, a safety vent, having an inside diameter of at least 1 3/4 inches and an approved design to prevent interchange with other fixtures may be installed in place of a safety relief valve on tank cars or compartments used for the transportation of corrosive materials, flammable solids, oxidizing materials, or poisonous liquids or solids.

(2) The safety vent shall be closed with a frangible disc which:

(i) Is compatible with the lading;

(ii) Is not subject to rapid deterioration by the lading;

(iii) Is designed to rupture at 100 percent of the tank test pressure, and manufactured and marked in accordance with Appendix A of the AAR Specifications for Tank Cars;

(iv) Is provided with a means for holding the frangible disc in place that will prevent distortion or damage to the disc when properly applied.

(3) A cover, with suitable means of preventing misplacement, shall be provided for the safety vent that will direct any discharge of the lading downward.

(4) All tanks equipped with safety vents shall be stenciled "NOT FOR FLAMMABLE LIQUIDS".

(c) When a safety relief valve is used in combination with a frangible disc on a 100 psi-test pressure tank, the frangible disc must be designed to burst at 75 psi and the safety relief valve must be set for a start-to-discharge pressure of 71 psi. On 60 psi-test pressure tanks, the frangible disc must be designed to burst at 45 psi and the safety relief valve must be set for a start-to-discharge pressure of 35 psi. Provision must be made to detect accumulation of pressure between the frangible disc and the safety relief valve. The detection device shall be a needle valve, try-cock, tell-tale indicator or other approved device. The detection device must be closed during transportation. The tolerance on the valve start-to-discharge pressure is ± 3 psi. The minimum vapor tight pressure is 80 percent of the valve start-to-discharge pressure.

§ 179.201-1 [Amended]

44. In § 179.201-1(a) Table, under the column heading "111A60W2", the entry "Special references" is amended by adding "§§ 179.202-8, 179.202-11, and 179.202-16."

§ 179.203-1 [Amended]

45. In § 179.203-1(c), the reference to "§ 173.6" is revised to read "§ 171.12a."

46. In § 179.203-1(d), the reference to "§ 173.9" is revised to read "§ 171.12a."

47. In § 179.300-7, paragraph (a) is revised to read as follows:

§ 179.300 *General specifications applicable to multi-unit tank car tanks designed to be removed from the car structure for filling and emptying (Classes DOT 106A and 110A-W).*

§ 179.300-7 Materials.

(a) Steel plate material used to fabricate tanks having heads fusion welded to the tank shell must conform with the following specifications with the indicated minimum tensile strength and elongation in the welded condition. The maximum allowable carbon content for carbon steel must be 0.31 percent when the individual specification allows carbon content greater than this amount. The plates may be clad with other approved materials:

Specifications	Tensile strength (psi) welded condition ¹ (minimum)	Elongation in 2 inches welded condition ¹ (longitudinal) (minimum)
ASTM A 240 type 304....	75,000	25
ASTM A 240 type 304L.....	70,000	25

Specifications	Tensile strength (psi) welded condition ¹ (minimum)	Elongation in 2 inches welded condition ¹ (longitudinal) (minimum)
ASTM A 240 type 316....	75,000	25
ASTM A 240 type 316L.....	70,000	25
ASTM A 240 type 321....	75,000	25

¹ Maximum stresses to be used in calculations.

§§ 179.105-1, 179.105-2, 179.105-3, 179.106-1 through 179.106-4, and 179.203-2 [Amended]

48. In Part 179, reference to "§ 179.105-6 is removed and "§ 179.14" is inserted in its place in the following sections:

- § 179.105-1(c)(1)
- § 179.105-2(a)

- § 179.105-2(b)(1)
- § 179.105-2(c)(1)
- § 179.105-3(a)
- § 179.106-1(c)
- § 179.106-2(a)
- § 179.106-2(b)(1)
- § 179.106-2(c)(1)
- § 179.106-3(a)
- § 179.106-3(b)(1)
- § 179.106-3(c)(1)
- § 179.106-4(a)
- § 179.106-4(b)
- § 179.203-2(a)(1)

Issued in Washington, DC on September 7, 1989, under authority delegated in 49 CFR 1.53.

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Administrator, Research and Special Programs Administration.

[FR Doc. 89-21533 Filed 9-19-89; 8:45 am]

BILLING CODE 4910-00-00