petitioner submit additional facts and records to support the appeal. The petitioner shall have 15 days from the date of issuance of such written request to provide such additional information. Failure by the petitioner to provide additional information may, as determined solely by the NCUA Board or its designee, result in denial of the petitioner's appeal.

(d) *Determination on appeal bv NCUA Board or its designee.* (1) Within 90 days from the date of the receipt of an appeal by the NCUA Board or its designee or of its receipt of additional information requested under paragraph (c) of this section, the NCUA Board or its designee shall notify the petitioner whether the disapproval will be continued, terminated, or otherwise modified. The NCUA Board or its designee shall promptly rescind or modify the notice of disapproval where the decision is favorable to the petitioner.

(2) The determination by the NCUA Board on the appeal shall be provided to the petitioner in writing, stating the basis for any decision of the NCUA Board or its designee that is adverse to the petitioner, and shall constitute a final order of the NCUA Board.

(3) Failure by the NCUA Board to issue a determination on the petitioner's appeal within the 90-day period prescribed under paragraph (d) (1) of this section shall be deemed a denial of the appeal for purpose of § 747.905.

§ 747.905 Judicial review.

(a) Failure to file an appeal within the applicable time periods, either to the initial determination or to the decision a request for reconsideration, shall constitute a failure by the petitioner to exhaust available administrative remedies and, due to such failure, any objections to the initial determination or request for reconsideration shall be deemed to be waived and such determination shall be deemed to have been accepted by, and shall be binding upon, the petitioner.

(b) For purposes of seeking judicial review of actions taken pursuant to this section, suit may be filed in the United States District Court for the district where the requester resides, where the credit union's principal place of business is located, or in the District of Columbia.

Subparts K and L [Removed]

5. Subparts K and L are removed.

Dated: June 5, 1991.

Becky Baker,

Secretary of the National Credit Union Administration Board.

[FR Doc. 91–13881 Filed 6–14–91; 8:45 am]

BILLING CODE 4810–33–M, 6210–01–M, 6714–01–M, 6720–01–M, 7535–01–M

federal register

Monday
June 17, 1991

Part III

Department of Transportation

Federal Aviation Administration

14 CFR Part 108
Flight and Cabin Crew Notification Guidelines; Final Rule

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 108

[Docket No. 26459; Amendment No. 108-9]

RIN 2120-AD92

Flight and Cabin Crew Notification Guidelines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This final rule amends the Federal Aviation Regulations and implements a statutory requirement for the notification of flight and cabin crewmembers of threats to the security of their flight. The Aviation Security Improvement Act of 1990 amended title III of the Federal Aviation Act of 1958 and directed the Administrator of the FAA to implement guidelines for such notification. This amendment is needed to clarify an air carrier's responsibility to disseminate threat information to inflight security coordinators and establishes new requirements to disseminate this information to flight and cabin crewmembers. Air carriers are also required to provide any evaluation of the threat information and countermeasures to be applied. This action is intended to enhance civil aviation security.

EFFECTIVE DATE: July 17, 1991.

FOR FURTHER INFORMATION CONTACT: Frederick P. Falcone, Office of Civil Aviation Security Policy and Plans, Policy and Standards Division (ACP-110), Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591, telephone (202) 267-7296.

SUPPLEMENTARY INFORMATION:

Background and Discussion of the Rule

The Federal Aviation Administration (FAA) undertook this rulemaking to comply with a legislative mandate imposed by the Aviation Security Improvement Act of 1990 (the Act), Public Law 101-604, which was signed into law on November 16, 1990. Section 109 of the Act amended title III of the Federal Aviation Act of 1958 (49 U.S.C. app. 1341-1358) and directed the Administrator of the FAA to develop guidelines for ensuring notification of the flight and cabin crews of an air carrier flight of threats to the security of such flight in appropriate cases.

On January 28, 1991, the FAA issued a notice of proposed rulemaking (NPRM) (56 FR 4322; February 4, 1991) to amend § 108.19 of the Federal Aviation Regulations, 14 CFR 108.19, to provide such guidelines. Under the proposed rule, upon receipt of a specific and credible threat to the security of a flight, a certificate holder would be required immediately to notify the ground and in-flight security coordinators of the threat, any evaluation thereof, and any countermeasures to be applied. In addition, the certificate holder would be required to ensure that the in-flight security coordinator (which is the pilot in command under 14 CFR 108.10) notifies the flight and cabin crews of the same threat information.

The current system for evaluating and responding to threats to civil aviation is founded on the principle that it is best for intelligence experts to filter threat information before providing it to aviation personnel directly responsible for dealing with those threats. The air carrier's security experts, generally in consultation with the FAA and other government entities, evaluate threat information against specific FAA-established criteria to determine "specificity" and "credibility." (The terms "specific" and "credible" are not interdependent and are commonly applied by intelligence experts to threat information involving a well defined target and which has been authenticated.)

Excluding those threats which are judged to be groundless or not requiring the application of specific countermeasures is a practical approach, given the hundreds of bogus threats received annually. Eliminating bogus threats is also critical to ensure that real threats are perceived as serious, not diluted in impact by a multiplicity of false alarms. This limited distribution of threat information helps ensure that genuine threats are handled as thoroughly and expeditiously as possible. In the FAA's view, it is not appropriate to provide notification to flight and cabin crews unless the threat information has been judged by security professionals to be specific and credible.

Interested persons were invited to participate in the rulemaking by submitting written comments.

Discussion of Comments

The FAA received seven comments from entities representing regional airlines, major air carriers, pilots, and flight attendants. One comment was received from a member of the general public. No comments were received from Congress or other government agencies. The commenters who express some criticism of FAA's proposed rule address policy choices the FAA described in its NPRM, while not contradicting the factual bases for the FAA's choices. None of the commenters address the Regulatory Evaluation Summary, which concerns the economic consequences of the proposed rule as published in the NPRM.

One commenter has no criticism of the proposed rule and urges that it be adopted as a final rule.

Another commenter supports the essence of the proposed rule, but with one change. This commenter, the Air Transport Association, proposes that the pilot in command decide on a case by case basis whether the crew should be notified of threat information. The FAA does not accept this suggestion. As noted in the preamble of the NPRM, the proposed rule was intended to "eliminate any discretion on this issue, and require the carrier to ensure that the in-flight security coordinator provides the flight and cabin crew with threat information along with any evaluation and the countermeasures to be applied." (56FR 4324) Adoption of this commenter's suggestion would be contrary to the interests of other crewmembers in receiving timely and accurate threat notification and runs counter to the spirit of the Act. Two commenters representing cabin crew members specifically endorse the FAA's policy choice on this issue.

A third supporting commenter urges adoption of the proposed regulatory language without change, and suggests the FAA consider appropriate amendments to the Air Carrier Standard Security Program (ACSSP), which was referenced in the NPRM. The FAA is currently evaluating the need to amend the ACSSP and may do so in connection with implementation of the final rule.

Three commenters accept the limitation in the proposed rule to credible threat information, but suggest that all credible information, even if non-specific, should be communicated to crewmembers. One of the commenters requests clarification of the FAA's definition of "specific." As explained in the NPRM, "specific" in this context refers to threat information that involves a well defined target or targets. A well defined target may include a single flight or series of flights spanning a particular period of time or geographic location. Specific threat information includes positive details describing an individual, airplane, aviation operation, or facility which suggests a particular knowledge of the intended target or targets not widely held by the general public.

If the scope of crew notification is not limited to threat information involving a well defined target, carriers would find it impossible to determine which threat information should be presented to the

crew of a given flight. It would not be appropriate for carriers to relay all known, credible threat information to the crews of all flights, regardless of whether the threat information applied to that particular flight. Doing so would run the risk of inundating crews with a large quantity of irrelevant material, while obscuring the truly useful information.

This conclusion is supported by the legislation, which requires notification of the "crews of an air carrier flight of threats to the security of such flight in appropriate cases" (emphasis added). Congress did not direct the Administrator to develop guidelines for crew notification of threats to the security of *all* or *any* flights, and such notification would not be appropriate. However, carriers may provide notification to flight and cabin crews of any non-specific threats beyond the scope of this rule, if they deem it appropriate.

One commenter suggests that the FAA substitute the term "relevant" for "specific" in the language of the rule. As explained above, "specific" in this context includes information which is relevant to a single flight or series of flights. The term "specific" is preferable because it is a term of art used by security professionals.

One commenter recommends that, when practicable, a cabin crew briefing with the in-flight security coordinator should be held prior to boarding the aircraft of a flight affected by a security threat. This commenter observes that most carriers already follow this procedure and flight attendants have found briefings to be an appropriate opportunity to discuss their concerns. The FAA agrees that such briefings are an appropriate procedure for notification of threat information, and that they should be held when practicable.

Two commenters suggest that crews should be notified of all threat information, whether bogus or credible. The FAA explained in detail in the NPRM why it is inappropriate to notify crews of threat information that has not been determined to be credible. As noted in the preamble, the Report of the President's Commission on Aviation Security and Terrorism supported limiting notification to credible threats. Six commenters, all of whom represent entities directly affected by the proposed rule, either affirmatively endorse or take no exception to this conclusion.

One of these commenters expresses the opinion that security information is comparable to weather or mechanical information, and proposes that all such information should be made available to the pilot to assist him or her in dealing with various eventualities. While the FAA is sensitive to this commenter's concerns, the agency does not agree with this suggestion. The FAA recognizes that a wide diversity of skills and complex training are needed in order to serve as a pilot in command in today's environment. A pilot's training and experience equip him or her to interpret and use a wide variety of information, including weather and mechanical data, in making crucial decisions.

The interpretation of intelligence-based security information, however, has not historically been within the purview of the pilot in command. Instead, responsibility for filtering and interpreting this information has rested with airline and government intelligence and security professionals. The FAA believes it is essential that threat information be filtered and assessed by those professionals if it is to be useful to the pilot in command and crew.

As explained in the preamble to the NPRM, the FAA agrees with the Report of the President's Commission that "the professionals who analyze threat information—the intelligence and law enforcement communities" should retain authority to determine the credibility of threat information (56 FR 4324). This commenter suggests that crews should be trained to perform this evaluation. The FAA believes this suggestion is not practical and would lead to an unproductive duplication of resources.

The rule as proposed will make the most effective use of both professional security and crew resources. This measure will help ensure that crews are thoroughly informed, so that they can focus their attention on possible security problems and perform their security-related functions with a heightened level of care and awareness.

One commenter criticizes the short period allowed for comment. This comment was considered although it was received after the closing date. The FAA issued the NPRM in response to a Congressional mandate to establish crewmember notification guidelines not later than 180 days after the enactment of the Aviation Security Improvement Act. The 30 day comment period reflects the time available to promulgate this expedited rulemaking.

After careful consideration of the comments and available data, the FAA has determined that air safety and the public interest require adoption of the rule as proposed.

Regulatory Evaluation Summary

This section summarizes the full regulatory evaluation prepared by the FAA that provides more detailed estimates of the economic consequences of this final rule. This summary and the full evaluation quantify, to the extent practicable, estimated costs to the private sector, consumers, Federal, State and local governments, as well as anticipated benefits.

Executive Order 12291, dated February 17, 1981, directs Federal agencies to promulgate new regulations or modify existing regulations only if potential benefits to society for each regulatory change outweigh potential costs. This determination is normally made on the basis of a regulatory evaluation. In this case, however, the Congress has already determined that this rule is in the public interest; that is, its collective public benefits outweigh its costs to the public, because Congress has required the rule to be promulgated (The Aviation Security Improvement Act of 1990: Pub. L. 101–604). Nevertheless, the FAA has prepared this conventional regulatory evaluation of the rule. The purpose of this evaluation is not to justify this rulemaking action (which has already been done through Congressional action), but to estimate potential costs and benefits (either qualitatively or quantitatively) to promote a better understanding of the impact of the rule. The order also requires the preparation of a Regulatory Impact Analysis of all "major" rules except those responding to emergency situations or other narrowly defined exigencies. A "major" rule is one that is likely to result in an annual effect on the economy of $100 million or more, a major increase in consumer costs, or a significant adverse effect on competition.

The FAA has determined that this rule is not "major" as defined in the executive order, therefore a full regulatory analysis, including the identification and evaluation of cost-reducing alternatives to the rule, has not been prepared. Instead, the agency has prepared a more concise document termed a regulatory evaluation that analyzes only this rule without identifying alternatives. In addition to a summary of the regulatory evaluation, this section also contains a final regulatory flexibility determination required by the 1980 Regulatory Flexibility Act (Pub. L. 96–354) and an international trade impact assessment. If more detailed economic information is desired than is contained in this summary, the reader is referred to the

full regulatory evaluation contained in the docket.

Costs

The rule is expected to impose a negligible incremental cost of compliance on U.S. air carriers. In addition, the rule is not expected to impose any monetary costs on the flying public. This assessment is based on the rationales contained in the following paragraphs.

The FAA expects the costs of the rule to be negligible based on two assumptions. First, the rule is assumed not to substantially increase the costs associated with the current flow of specific and credible security threat information between air carrier management and ground and in-flight security coordinators. This is because air carriers are already providing most of the security information required by the rule to ground and in-flight security coordinators on a routine basis.

The second assumption is that air carriers will not incur additional costs beyond current industry practice, as the result of ensuring that in-flight security coordinators notify flight and cabin crewmembers of *all* specific and credible security threats. This is also true of the requirement that air carriers provide any evaluation of the threat information and countermeasures to be applied. Disclosure of this information to flight and cabin crewmembers will impose only a negligible cost of compliance on air carrier operators because they already compile specific and credible security threat information on a routine basis.

Although the FAA contends that the rule will impose a negligible cost of compliance for the notification process, it recognizes that the potential for significant costs does exist in some cases. The reason for this assessment is that in-flight security coordinators (pilots in command) have the authority to request additional countermeasures if they consider them to be justified. The magnitude of this potential cost impact will depend on the extent to which flight and cabin crews expand the field of information available to security experts, who could then decide to take additional countermeasures based upon all security information available. These measures could include delaying scheduled flights from departing or requesting airborne flights to land for the purpose of conducting additional security checks or applying countermeasures.

The average time required to conduct a security check for narrow and wide-body aircraft on the ground ranges between 3 and 5 hours. If an aircraft is airborne and forced to land for a security check, there would be an additional cost for landing fees and delay time. Another cost factor (qualitative) associated with this potential situation could be the inconvenience imposed on passengers in the form of delays. According to one air carrier, the cost of an aircraft delay as the result of conducting additional security countermeasures could be as high as $200,000 to over $1 million (in 1990 dollars) per security check. The reader is cautioned that this range should not be considered precise and incorporates a number of general assumptions. Some of the assumptions include: The delayed aircraft is the only one connected to departures from other areas, additional flight crews may be needed due to time and duty limitations, lawsuits may be filed by some passengers, costs may be incurred for another slot at the gate, plus a multitude of other factors.

Over the past 10 years, on average, air carriers have received between 650 and 750 security threats annually. An estimated 600 to 700 of these threats were anonymous that were not determined to be specific and credible. None of these anonymous threats resulted in an explosion or the discovery of a bomb. During the same period, on an annual basis 30, out of 50 credible aircraft security threats were specific. To date, there is no evidence of an explosion or discovery of a bomb relating to a specific and credible security threat.

Benefits

The final rule will generate benefits by ensuring that the current high level of aviation safety remains intact. Under the rule, air carriers will be required to provide all credible and specific security threats, as well as any evaluation thereof and countermeasures to be applied, to the ground and in-flight security coordinators. In turn, the in-flight security coordinator will notify the flight and cabin crewmembers. The flight and cabin crewmembers will benefit directly from the rule. As the "eyes and ears" of an air carrier, flight and cabin crewmembers are trained to be alert to possible security threats and to apply security procedures when a threat is suspected. The rule will better enable flight and cabin crewmembers to conduct their security responsibilities by enhancing their alertness to indications that a threat may be actually carried out. The enhanced awareness of the flight and cabin crews will subsequently benefit the in-flight security coordinator by enhancing the information he or she has as the pilot in command. The rule will benefit the traveling public by reducing the possibility that security threats to a U.S. air carrier not disclosed to flight and cabin crewmembers will result in casualty losses (namely, aviation fatalities and property damage).

Conclusions

The rule will impose only negligible incremental costs on air carriers and could result in benefits to the aviation community and flying public in the form of ensuring that the current high level of aviation safety remains intact. Therefore, the FAA concludes that the rule is cost-beneficial.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) was enacted to ensure that small entities are not unnecessarily and disproportionately burdened by Government regulations. The RFA requires agencies to review rules that may have "a significant economic impact on a substantial number of small entities." The small entities that could be potentially affected by the implementation of this rule are scheduled air carrier operators for hire that own but do not necessarily operate nine or fewer aircraft. A significant economic impact for these small entities will be an annualized cost that exceeds $105,000 (in 1990 dollars). Since the incremental cost of compliance is expected to be negligible (less than $105,000 annually for each air carrier operator), the FAA has determined that the rule will not have a significant economic impact on a substantial number of small entities.

International Trade Impact Assessment

The rule will neither have an effect on the sale of foreign aviation products or services in the United States, nor will it have an effect on the sale of U.S. products or services in foreign countries. This is because the rule is expected to impose only negligible costs on U.S. air carrier operators. This action will not result in a competitive disadvantage to U.S. carriers engaged in international flight operations.

Federalism Implications

The rule will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this rule will not have sufficient federalism implications to

warrant the preparation of a Federalism Assessment.

Conclusion

For the reasons discussed in the preamble, and based on the findings in the Regulatory Flexibility Determination and the International Trade Impact Analysis, the FAA has determined that this regulation is not major under Executive Order 12291. In addition, it is certified that this regulation will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. This regulation is considered significant under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). A regulatory evaluation of the regulation, including a Regulatory Flexibility Determination and International Trade Impact Analysis, has been placed in the docket. A copy may be obtained by contacting the person identified under "For Further Information Contact."

List of Subjects in 14 CFR Part 108

Airplane operator security, Aviation safety, Air transportation, Air carriers, Airlines, Security measures, Transportation, Weapons.

The Amendments

In consideration of the foregoing, the Federal Aviation Administration amends part 108 of the Federal Aviation Regulations (14 CFR part 108) as follows:

PART 108—[AMENDED]

1. The authority citation for part 108 is revised to read as follows:

Authority: 49 U.S.C. App. 1354, 1356, 1357, 1421, 1424, and 1511; 49 U.S.C. 106(g); Sec. 101 *et seq.*, Pub. L. 101–604, 104 Stat. 3066.

2. Section 108.19 is amended by redesignating paragraphs (a) and (b) as (b) and (c) respectively; by adding a new paragraph (a); and by revising the section heading to read as follows:

§ 108.19 Security Threats and Procedures.

(a) Upon receipt of a specific and credible threat to the security of a flight, the certificate holder shall—

(1) Immediately notify the ground and in-flight security coordinators of the threat, any evaluation thereof, and any countermeasures to be applied; and

(2) Ensure that the in-flight security coordinator notifies the flight and cabin crewmembers of the threat, any evaluation thereof, and any countermeasures to be applied.

* * * * *

Issued in Washington, DC, on June 11, 1991.

James B. Busey,

Administrator.

[FR Doc. 91–14321 Filed 6–12–91; 2:46 pm]

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federal register

Monday
June 17, 1991

Part IV

Department of Transportation

Research and Special Programs Administration

49 CFR Parts 107, 173, 178, and 180
Requirements for Cargo Tanks; Final Rule; Corrections and Revisions

DEPARTMENT OF TRANSPORTATION

Research and Special Programs Administration

49 CFR Parts 107, 173, 178, and 180

[Docket No. HM-183, 183A; Amdt. Nos. 107-20, 173-212, 178-89, 180-2]

RIN 2137-AA42

Requirements for Cargo Tanks; Corrections

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

ACTION: Final rule; corrections and revisions.

SUMMARY: This amendment makes corrections and clarifying revisions to certain requirements pertaining to cargo tank motor vehicles in the Hazardous Materials Regulations (HMR, 49 CFR parts 171–180). These requirements were adopted in a final rule issued under Docket Nos. HM–183/183A (June 12, 1989, 54 FR 24982; May 22, 1990, 55 FR 21035; September 7, 1990, 55 FR 37028). The changes contained in this amendment will impose no new requirements on persons subject to the HMR.

EFFECTIVE DATE: June 17, 1991.

FOR FURTHER INFORMATION CONTACT:

Charles Hochman, telephone (202) 366–4545, Office of Hazardous Materials Technology, or Hattie Mitchell, telephone (202) 366–4488, Office of Hazardous Materials Standards, Research and Special Programs Administration, U.S. Department of Transportation, 400 Seventh Street SW., Washington, DC 20590–0001;

or

Richard Singer, telephone (202) 366–2994, Office of Motor Carriers, Federal Highway Administration, U.S. Department of Transportation, 400 Seventh Street SW., Washington, DC 20590–0001.

SUPPLEMENTARY INFORMATION: This document corrects typographical errors, omissions, and discrepancies to requirements in the HMR pertaining to cargo tank motor vehicles. Additionally, in response to inquiries received by RSPA concerning the clarity of particular requirements, changes are made which should reduce uncertainties. These changes impose no new requirements on persons subject to the HMR.

Because the amendments adopted herein clarify and correct certain provisions in the HMR, relieve certain restrictions in those regulations, and impose no new regulatory burden on any person, notice and public procedure are unnecessary. For these same reasons, these amendments are being made effective without the usual 30-day delay following publication.

The following is a section-by-section review of the amendments.

Section 107.504

The second sentence of § 172.504(c) implies that only those persons registered under the provisions of § 172.502(f) are eligible to renew their registrations. This error is corrected by changing "§ 172.502(f)" to "§ 172.502".

Section 173.33

RSPA has received several requests for clarification of the requirements contained in § 173.33(a)(2). The intent of this section is to prevent the transportation of two or more materials in the same cargo tank motor vehicle which, if mixed, would cause a vehicle fire, tank rupture or the release of acutely toxic vapors. An example of materials which would be prohibited are nitric acid and fuel oil. It was not intended to prevent the shipment of materials which if mixed would produce a moderate exothermic reaction that would not start a fire, rupture the tank or release acutely toxic vapors.

For hazardous materials offered for transportation in a cargo tank motor vehicle supplied by the motor carrier, § 173.22(a)(2) was revised in the September 7, 1990 amendment to clarify that shippers' responsibilities extend to the requirements in part 173 but not to the continuing requalification requirements contained in part 180. Section 173.33(a)(3) contains a requirement that, when the prescribed periodic retest or reinspection under subpart E of part 180 is past due, a specification cargo tank motor vehicle may not be filled and offered for transportation until the retest or reinspection has been successfully completed. Hazardous materials are often loaded at bulk loading facilities in cargo tank motor vehicles supplied by the motor carrier without the offeror in attendance. In these instances, verification of a carrier's compliance with part 180 is not possible. To alleviate this discrepancy, paragraph (a)(3) is revised to reflect that this requirement does not apply to an offeror in situations where the cargo tank is supplied by the motor carrier.

Paragraphs (c)(4) and (d)(1) contain criteria for the continued use of certain cargo tanks manufactured prior to December 31, 1990. Included are cargo tanks marked with a design pressure rather than a Maximum Allowable Working Pressure (MAWP), and cargo tanks fitted with non-reclosing pressure relief devices. The December 31, 1990 date should have been adjusted to coincide with the last date on which a cargo tank may be marked or certified to the MC specifications in effect on December 30, 1990. Accordingly in paragraphs (c)(4) and (d)(1), the date "December 31, 1990" is revised to read "August 31, 1993". In paragraph (c)(2), the December 31, 1990 date for requiring a cargo tank to be marked or remarked with an MAWP or design pressure in accordance with § 180.405(k) remains unchanged.

Many hazardous material liquids transported in cargo tanks are required to be completely blanketed with an inert gas, (e.g., see §§ 173.190 and 173.247a). To clarify the intent of the requirements of paragraph (d)(2), the wording "in its gaseous state" is revised to read "with a gas pad".

Formerly, § 173.33 contained various provisions pertaining to commodities, cargo tank design, qualification, maintenance and use of cargo tanks. Under HM–183/183A, these provisions were placed elsewhere in parts 173, 178 and 180, as appropriate. It has been brought to RSPA's attention that several provisions placed in the MC 331 specification, i.e. in §§ 178.337–1(e), 178.337–9 (b) and (d), and 178.337–15, also apply to existing MC 330 cargo tanks, and that Parts 173 and 180 contain no references to apply those requirements to MC 330 cargo tanks. RSPA plans to address reinstating these provisions for MC 330 cargo tanks in a rulemaking proposal in the near future.

Sections 173.245–17.374

In § 173.245, authorization for the use of DOT 406 cargo tanks was inadvertently omitted in the introductory text to paragraph (a)(29). This omission is corrected.

Also in the September amendment, §§ 172.101 and 173.154 were amended by increasing the concentration cut-off point for ammonium nitrate solution from "containing not less than 15% water" to "containing 35% or less water". RSPA stated in the preamble discussion that the entry for "Ammonium nitrate solution" was being revised to reflect that ammonium nitrate solutions with "35% or less water" do not meet the definition of an oxidizer. This statement should have read that such solutions with "over 35% water" do not meet the definition of an oxidizer. Also, in Docket HM–181 (December 21, 1990; 55 FR 52584), § 172.101 Hazardous Materials Table, special provision B5 to the entry "Ammonium nitrate, liquid (hot concentrated solution)" refers to

"ammonium nitrate solutions with 35 percent or more water". This special provision should have referred to solutions containing "35% or less water" which are regulated as oxidizers and will be corrected under HM–181.

Section 178.337–3

Paragraph (c), containing definitions of the terms "S_s" and "S_x", is reorganized for clarity and consistency in numbering of subparagraphs. No substantive change is made. Similar changes are made to these terms in §§ 178.338 and 178.345–3.

Section 178.337–6

Paragraph (a) requires cargo tanks manufactured after August 31, 1990, to have a manhole or, for certain cargo tanks, an inspection opening. The August 31, 1990 date should have been extended to coincide with the last date for which a cargo tank may be marked or certified to the MC 331 specification in effect on December 30, 1990. Accordingly, the date "August 31, 1990" is corrected to read "August 31, 1993".

Section 178.338–3

Paragraph (c), containing definitions of the terms "$_s$" and "S_x", is reorganized for clarity and consistency in numbering of subparagraphs. No substantive change is made.

Section 178.345–2

RSPA has received information to the effect that American Society for Testing and Materials (ASTM) A 607 steel has been used successfully for many years under § 178.340–3 for manufacture of cargo tanks, and that ASTM A 607 steel has chemical and physical properties similar to ASTM A 572 steel authorized under § 178.345–2. Therefore, RSPA is revising paragraph (a)(1) to permit the continued use of ASTM A 607 steel for DOT specification cargo tank motor vehicles.

Section 178.345–3

It was RSPA's intention, in paragraph (a)(1), to provide alternative methods for determining the maximum design stress to be used in calculating stresses as provided by paragraph (c); namely, either the maximum allowable stress value prescribed in Section VIII of the American Society of Mechanical Engineers (ASME) Code, or 25 percent of the actual tensile strength as determined by physical property tests of the material used. The factor of safety is the same regardless of which method is employed. Accordingly, the words "the lesser of" are removed and the words "at design conditions" are added for clarity.

Paragraph (c), containing definitions of the terms "S_s" and "S_x" is reorganized for clarity and consistency in numbering of subparagraphs. No substantive change is made. Also, the number "0.7" is corrected to read "0.75". This was a printing error.

In paragraph (g)(2), lightweight attachments are required to be constructed of materials of lesser strength than the cargo tank wall materials. This paragraph is revised to clarify that these attachments also may be made of the same material of construction as the tank head or shell to which they are welded.

Section 178.345–7

Several cargo tank manufacturers understood the wording "where discontinuity in the alignment of longitudinal shell sheets exceeds the greater of 10 degrees or eight inches," in paragraph (a)(2), to refer to the alignment of longitudinal welded seams in cargo tank shell sheets. The intent of this paragraph was to address the angularity between adjacent conical shell sections, as in double conical tanks, or between conical and cylindrical sections, as at transition structures between forward and rear shells having different cross-sectional dimensions. The numerical value of 10 degrees indicates that the "discontinuity" measured is equivalent to the "half-apex angle" as defined in Mandatory Appendix 1, 1–4 of the ASMC Code, section VIII, Division 1. The description of the angle between adjacent shell sections is revised in this amendment for clarity. In addition, the Truck Trailer Manufacturers Association (TTMA) suggested that "discontinuity in the alignment" between shell sections of "up to 30 degrees" be allowed, citing Mandatory Appendix 1, 1–5, titled "Rules for Conical Reducer Sections and Conical Heads under Internal Pressure," of the ASME Code, section VIII, Division 1. This section of the ASME Code provides analytical rules for the design of such joints with half-apex angles even greater than 30 degrees. However, RSPA believes there is no need to specifically reference this section. With the exception of those parts of the ASME Code which are specifically identified as not applying to individual specifications, all parts of the Code apply.

The limitations on welding contained in paragraph (c) do not apply to welded portions of circumferential reinforcement located external to the tank. Therefore, paragraph (c) is revised for clarity. In paragraph (d), the word "it" is replaced with the word "reinforcement" to clarify that the circumferential reinforcement would be continuous, but the ring stiffener need not be continuous.

Section 178.345–8

RSPA believes the second sentence in paragraph (d)(3) pertaining to design stress levels is unnecessary in view of the design requirements prescribed in the first sentence. Therefore, the second sentence is removed and minor editorial changes are made to the last sentence.

Section 178.345–9

Paragraph (a) requires each loading or unloading pump mounted on a cargo tank motor vehicle that may pressurize the cargo tank to have an automatic means to prevent internal pressure from exceeding the MAWP of the tank and tank mounted equipment. Upon further consideration, RSPA believes that references to the loading or unloading pump and its mounted location are not necessary and that the limitation on internal pressure during loading or unloading operations is inconsistent with the test pressures prescribed by §§ 178.346, 178.347 and 178.348. These inconsistencies are corrected by providing that during loading and unloading the pressure within a cargo tank may not exceed test pressure.

Section 178.345–10

The dynamic surge requirements for the pressure relief system, contained in paragraph (b)(3), are rearranged to clarify the prescribed requirements and their applicable implementation dates.

Section 178.345–11

In the September amendment, we stated in the preamble discussion to § 178.345–11 (55 FR 37039) that a new paragraph (a)(4)(i) [which should have read paragraph "(b)(3)(i)"] was being added to clarify that the requirement for thermal actuation of self-closing stop-valves applies only to self-closing systems. In addition, we stated that a requirement in paragraph (b) concerning a tank outlet which is not a loading/unloading outlet was being broadened to permit the outlet to be equipped with a stop-valve or other leak-tight closure. Through an oversight, neither of these changes was included in the September amendment. These oversights are corrected in this amendment. In addition, based on several requests for clarification of this section, this section is reorganized for clarity.

Section 178.346–1, 178.437–1, 178.348–1

In a letter to RSPA, the Truck Trailer Manufacturers Association (TTMA) requested an exception from paragraph

UW–13(b)(2) and the dimensional requirements in Figure UW–13.1 of the ASME Code because the tooling equipment used by many manufacturers to form heads lacks the capability of providing a flange on the head of dimensions appropriate to meet this requirement. We were unaware that changes in manufacturing equipment would be required to meet this requirement and have no data to suggest that the use of current equipment for forming heads is unsafe. Therefore, we are granting an exception from paragraph UW–13(b)(2) and the dimensional requirements in Figure UW–13.1 to authorize continued use of existing manufacturing equipment.

Section 180.2

A minor editorial change is made in paragraph (b)(2).

Section 180.405

Paragraph (b) contains an authorization for the manufacture of MC 306, MC 307, and MC 312 cargo tanks to the applicable specification in effect on December 30, 1990, until August 31, 1993. Through an oversight, MC 330 and MC 331 cargo tanks were not included but are added under this amendment. A minor editorial revision is made in paragraph (C)(1).

Paragraph (c)(2)(vii) provides that pressure relief devices and outlets on an MC 330 cargo tank may be modified to that specified in § 178.337 for the MC 331 specification. It has been brought to RSPA's attention that the previous requirements in § 173.33(h) and (k) required that outlet and valves on MC 330 cargo tanks used to transport certain compressed gases be retrofitted to meet the MC 331 specification. The provisions previously contained in § 173.33(h) are now found in §§ 173.315 (h) and (o), 178.337–8(a), 178.337–9(b) and 178.337–11, as appropriate. The subject requirements in part 178 also apply to MC 330 cargo tanks in certain compressed gas service, as provided by §§ 173.315(n) and (o)(3). The provisions previously contained in § 173.33(k) are included in § 173.315(n). Therefore, RSPA has revised paragraph 180.405(c)(2)(vii) to include a reference to § 173.315 to alert persons to those requirements.

Requirements in paragraphs (g) (1) and (2) pertaining to the leak-tightness of manhole closures on specification cargo tanks are rearranged for clarity. In addition, provisions are added to clarify that there is no requirement to retest and certify manhole assemblies on MC 310, MC 311 and MC 312 cargo tanks with a test pressure of 36 psig or greater, or on MC 304 and MC 307 cargo tanks. The first sentence in paragraph (g)(3), applying to owners of five or more DOT specification cargo tanks requiring retrofit or certification of the manhole closure, is corrected by revising the year "1990" to read "1991".

The liquid surge requirements for a reclosing pressure relief valve that is replaced on an MC specification cargo tank and the applicable implementation dates for leak-tightness conditions, as prescribed in paragrpah (h), are revised for clarity.

Section 180.407

In paragraph (g)(1)(iv), the year "1990" is corrected to read "1991". Sections 1278.346–10(d)(3), 178.347–10(d)(2) and 178.348–10(d)(2) allow tank pressure, during loading or unloading, to reach test pressure at 1.5 times the MAWP; however, § 180.407(a)(2) does not allow for pressure increase during loading and unloading. For consistency with the specification requirements, paragraph (a)(2) is revised to allow a cargo tank to reach a pressure greater than its design pressure or MAWP during loading or unloading.

In the table in paragraph (c), insulated MC 330 and MC 331 cargo tanks are required to be given an internal visual inspection at least once every five years. However, paragraph (d)(1) provides that if insulation precludes making an external visual inspection, the cargo tank must be given an internal visual inspection annually. RSPA intent was to require insulated MC 330 and MC 331 cargo tanks to be visually inspected at least once every five years, not annually. This error is corrected in this amendment.

At various places in paragraph (f)(1) and (f)(2), the wording "leak" or "leaks" is used erroneously in referring to the presence of a "hole" through the lining. The wording has been revised to read "hole" or "holes". In addition, paragraph (f)(1) is revised for closer alignment with the Rubber Manufacturers Association Technical Bulletin 13, on which the lining inspection requirements are based. No substantive change is made.

The table in paragraph (g)(iv) is revised to show both metric measures and U.S. standard unit equivalents.

Paragraph (h)(1) provides for MC 330 and MC 331 cargo tanks to be leak-tested at normal operating pressure and to prevent the tanks from being operated at higher pressures. The National Propane Gas Association (NPGA) has notified RSPA that the normal opeating pressure for cargo tanks in liquefied petroleum gas service changes substantially with the ambient temperature. NPGA stated that a cargo tank would have to be leak-tested only on the warmest day of the year in order to ensure that it was not operated at pressures exceeding the test pressure. RSPA's intention was to permit a cargo tank which is normally operated at pressure levels substantially below its MAWP to be leak-tested at a lower pressure, provided it is a high-pressure cargo tank used in dedicated service. Therefore, paragraph (h)(1) is revised to permit owners to conduct this test at any ambient temperature, but at the maximum operating pressure experienced year round. Revised paragraph (h)(1) also allows MC 330 and MC 331 cargo tanks in liquefied petroleum gas service to be leak-tested at no less than 60 psig, and the paragraph has been rearranged for clarity.

Section 180.413

Paragraphs (d)(1) (i) and (ii) are revised to clarify that an MC 306, MC 307 and MC 312 cargo tank may be stretched and rebarrelled to the same specification until "August 31, 1991", to coincide with the last date for which these cargo tanks may be marked or certified to the MC specifications in effect on December 30, 1990.

Based on several telephone calls received by RSPA, there appears to be some confusion about the recertification of a cargo tank by a Design Certifying Engineer then certain types of work are performed. Section 180.413(d)(3) requires that the design of a rebarrelled or stretched cargo tank must be certified by a design Certifying Engineer. Such certification also applies to any design types changes to the undercarriage of a cargo tank, which affects the cargo tank's structural integrity, even though no welding is performed on the cargo tank wall. Paragraph (d)(3) is revised for clarity.

In the September amendment, the amendatory language to § 180.413 should have stated that paragraph (d)(2)(v) was being revised and not paragraph (d)(1)(v). This applicable regulatory text is correctly designated as paragraph (d)(2)(v) in the October 1, 1990 edition of the CFR. Therefore, no corrective action is required.

Section 180.415

This section is rearranged for clarity. No substantive change has been made.

Administrative Notices

Executive Order 12291 and Administrative Notices

RSPA has determined that based on the corrections contained herein this rulemaking (1) is not a "major rule" under terms of Executive Order 12291;

(2) will not affect non-for-profit enterprises or small governmental jurisdictions; (3) contains no policies that have Federalism implications as defined in Executive Order 12612; and (4) does not require an environmental impact statement under the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*). However, the final rule issued under Docket HM-183/183A (June 12, 1989, 54 FR 24982; May 22, 1990, 55 FR 21035; September 7, 1990, 55 FR 37028) is a significant rule under DOT implementing procedures (44 FR 11034). The original regulatory evaluation and regulatory flexibility analysis prepared for the final rule were not modified because the amendments herein do not impose additional requirements and are not substantive changes to the final rule. These documents are available for review in the docket.

List of Subjects

49 CFR Part 107

Administrative practice and procedure, Hazardous materials transportation.

49 CFR Part 173

Hazardous materials transportation, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

49 CFR Part 178

Hazardous materials transportation, Motor vehicle safety, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 180

Hazardous materials transportation, Motor carriers, Motor vehicle safety, Packaging and containers, Reporting and recordkeeping requirements.

In consideration of the foregoing, title 49, chapter I, subchapters B and C of the Code of Federal Regulations, are amended as set forth below.

The following amendments apply to parts 107, 173, 178, and 180 in effect as of the date of publication of this final rule:

PART 107—HAZARDOUS MATERIALS PROGRAM PROCEDURES

1. The authority citation for part 107 continues to read as follows:

Authority: 49 App. U.S.C. 1421(c); 49 U.S.C. 1802, 1806, 1808–1811; 49 CFR 1.45 and 1.53; Pub. L. 89–670 (49 App. U.S.C. 1653(d), 1655).

§ 107.504 [Amended]

2. In § 107.504, the last sentence in paragraph (c) is amended by revising the reference "§107.502(f)" to read "§ 107.502".

PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

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

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

4. In § 173.33, paragraph (a)(3) is revised to read as follows:

§ 173.33 Hazardous materials in cargo tank motor vehicles.

(a) * * *

(3) No person may fill and offer for transportation a specification cargo tank motor vehicle for which the prescribed periodic retest or reinspection under subpart E of part 180 of this subchapter is past due until the retest or inspection has been successfully completed. This requirement does not apply to a cargo tank supplied by a motor carrier who is other than the person offering the hazardous material for transportation (see § 177.824 of this subchapter), or to any cargo tank filled prior to the retest or inspection due date.

* * * * *

§ 173.33 [Amended]

4a. In addition, in § 173.33, the following changes are made:

a. In paragraph (c)(4), the wording "manufactured prior to December 31, 1990" is revised to read "marked or certified before August 31, 1993".

b. In paragraph (d)(1), in the second sentence, the wording "constructed before December 31, 1990" is revised to read "marked or certified before August 31, 1993".

c. In paragraph (d)(2), in the first sentence, the wording "in its gaseous state" is revised to read "with a gas pad".

§ 173.245 [Amended]

5. In § 173.245, the introductory text to paragraph (a)(29) is amended by adding "DOT 406," immediately after "MC 312,".

§§ 173.369, 173.373, 173.374 [Amended]

6. The following sections are amended by removing the wording ", and Specification MC 330 and MC 331 are equipped with internal self-closing stop-valves meeting the requirements of § 178.337–11 of this subchapter".

§ 173.369(a)(14)(iii)
§ 173.373(a)(6)(iv)
§ 173.374(a)(4)(v)

PART 178—SHIPPING CONTAINER SPECIFICATIONS

7. 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.

8. In § 178.337–3, paragraph (c) is revised to read as follows:

§ 178.337–3 Structural integrity.

* * * * *

(c) Stresses resulting from static and dynamic loadings, or a combination thereof, are not uniform throughout the cargo tank motor vehicle. The following is a simplified procedure for calculating the effective stress in the cargo tank resulting from static and dynamic loadings. The effective stress (the maximum principal stress at any point) must be determined by the following formula:

$$S = 0.5\,(S_y + S_x) \pm (0.25(S_y - S_x) + S_s^2)^{0.5}$$

Where:

(1) S = effective stress at any given point under the most severe combination of static and dynamic loadings that can occur at the same time, in psi.

(2) S_y = circumferential stress generated by internal and external pressure when applicable, in psi.

(3) S_x = the net longitudinal stress generated by the following loading conditions, in psi,:

(i) The longitudinal tensile stress generated by internal pressure:

(ii) The tensile or compressive stress generated by the axial load resulting from a decelerative force equal to twice the static weight of the fully loaded vehicle applied independently to each suspension assembly at the road surface;

(iii) The tensile or compressive stress generated by the bending moment resulting from a decelerative force equal to twice the static weight of the fully loaded vehicle applied independently to each suspension assembly at the road surface;

(iv) The tensile or compressive stress generated by the axial load resulting from an accelerative force equal to the static weight of the fully loaded vehicle applied to the horizontal pivot of the fifth wheel supporting the vehicle;

(v) The tensile or compressive stress generated by the bending moment resulting from an accelerative force equal to the static weight of the fully loaded vehicle applied to the horizontal pivot of the fifth wheel supporting the vehicle; and

(vi) The tensile or compressive stress generated by a bending moment produced by a vertical force equal to three times the static weight of the fully loaded vehicle.

(4) S_s = The following shear stresses that apply, in psi,:

(i) The shear stress generated by a vertical force equal to three times the static weight of the tank and contents;

(ii) The lateral shear stress generated by a lateral accelerative force which will produce an overturn but not less than 0.75 times the static weight of the fully loaded vehicle, applied at the road surface; and

(iii) The torsional shear stress generated by a lateral accelerative force which will

produce an overturn but not less than 0.75 times the static weight of the fully loaded vehicle, applied at the road surface.

* * * * *

§ 178.337 [Amended]

9. In § 178.337–6, the first sentence in paragraph (a) is amended by removing the wording "manufactured after August 31, 1990" and adding in its place "marked or certified after August 31, 1993".

10. In § 178.338–3, paragraph (c) is revised to read as follows:

§ 178.338–3 Structural integrity.

* * * * *

(c) Stresses resulting from static and dynamic loadings, or a combination thereof, are not uniform throughout the cargo tank motor vehicle. The following is a simplified procedure for calculating the effective stress in the tank resulting from static and dynamic loadings. The effective stress (the maximum principal stress at any point) must be determined by the following formula:

$S=0.5\ (S_y+S_x)\pm(0.25(S_y-S_x)+S_s^2)^{0.5}$

Where:

(1) S=effective stress at any given point under the most severe combination of static and dynamic loadings that can occur at the same time, in psi.

(2) S_y=circumferential stress generated by internal and external pressure when applicable, in psi.

(3) S_x=the net longitudinal stress, in psi, generated by the following loading conditions:

(i) The longitudinal tensile stress generated by internal pressure;

(ii) The tensile or compressive stress generated by the axial load resulting from a decelerative force applied independently to each suspension assembly at the road surface using applicable static loadings specified in § 178.338–13 (b) and (c);

(iii) The tensile or compressive stress generated by the bending moment resulting from a decelerative force applied independently to each suspension assembly at the road surface using applicable static loadings specified in § 178.338–13 (b) and (c);

(iv) The tensile or compressive stress generated by the axial load resulting from an accelerative force applied to the horizontal pivot of the fifth wheel supporting the vehicle using applicable static loadings specified in § 178.338–13 (b) and (c);

(v) The tensile or compressive stress generated by the bending moment resulting from an accelerative force applied to the horizontal pivot of the fifth wheel supporting the vehicle using applicable static loadings specified in § 178.338–13 (b) and (c); and

(vi) The tensile or compressive stress generated by a bending moment produced by a vertical force using applicable static loadings specified in § 178.338–13 (b) and (c).

(4) S_s=The following shear stresses that apply, in psi,: The vectorial sum of the applicable shear stresses in the plane under consideration, including direct shear generated by the static vertical loading; direct lateral and torsional shear generated by a lateral accelerative force applied at the road surface, using applicable static loads specified in § 178.338–13 (b) and (c).

* * * * *

§ 178.345–2 [Amended]

11. In § 178.345–2, paragraph (a)(1) is amended by adding "ASTM A 607" immediately after "ASTM A 572" and before "ASTM A 656".

12. In § 178.345–3, paragraph (a)(1) is amended by removing the wording "the lesser of" and by adding "at design conditions" at the end of the sentence, and paragraph (c) and the first sentence of paragraph (g)(2) are revised to read as follows:

§ 178.345–3 Structural integrity.

* * * * *

(c) Stresses resulting from static or dynamic loadings, or a combination thereof, are not uniform throughout the cargo tank motor vehicle. The following is a simplified procedure for calculating the effective stress in the tank shell and heads resulting from static and dynamic loadings. The effective stress (the maximum principal stress at any point) must be determined by the following formula:

$S=0.5(S_y+S_z)\pm(0.25(S_y-S_z)^2+S_s^2)^{0.5}$

Where:

(1) S=effective stress at any given point under the most severe combination of static and dynamic loadings that can occur at the same time, in psi.

(2) S_y=circumferential stress generated by internal and external pressure, when applicable, in psi.

(3) S_z=the net longitudinal stress generated by the following loading conditions, in psi,:

(i) The longitudinal stresses resulting from the MAWP and from the lowest pressure at which the cargo tank may operate, in combination with the bending stress generated by the weight of the lading, the weight of the cargo tank and other structures and equipment supported by the cargo tank wall;

(ii) The tensile or compressive stress generated by the axial load resulting from a longitudinal decelerative force equal to 0.75 times the vertical reaction at each suspension assembly, applied at the road surface. The vertical reaction must be calculated based on the static weight of the fully loaded cargo tank motor vehicle;

(iii) The tensile or compressive stress generated by the bending moment resulting from a longitudinal decelerative force equal to 0.75 times the vertical reaction at each suspension assembly, applied at the road surface. The vertical reaction must be calculated based on the static weight of the fully loaded cargo tank motor vehicle;

(iv) The tensile or compressive stress generated by the axial load resulting from a longitudinal accelerative force equal to 0.75 times the static weight of the fully loaded cargo tank, applied at the horizontal pivot of the upper coupler (fifth wheel) or turntable supporting the cargo tank motor vehicle;

(v) The tensile or compressive stress generated by the bending moment resulting from a longitudinal accelerative force equal to 0.75 times the static weight of the fully loaded cargo tank applied to the horizontal pivot of the upper coupler (fifth wheel) or turntable supporting the cargo tank motor vehicle; and

(vi) The tensile or compressive stress generated by the bending moment resulting from a vertically up accelerative force equal to 0.7 times the vertical reaction, applied at each suspension assembly. The vertical reaction must be calculated based on the static weight of the lading, the weight of the cargo tank and other structures and equipment supported by the cargo tank wall.

(4) S_s=The following shear stresses that apply, in psi,:

(i) The vertical shear stress generated by a vertical force equal to 1.7 times the vertical reaction, applied at each suspension assembly. The vertical reaction must be calculated based on the static weight of the lading, the weight of the cargo tank and other structures and equipment supported by the cargo tank wall;

(ii) The lateral shear stress generated by a lateral accelerative force equal to 0.4 times the vertical reaction, applied laterally at the road surface. The vertical reaction must be calculated based on the static weight of the fully loaded cargo tank motor vehicle; and

(iii) The torsional shear stress generated by a lateral accelerative force equal to 0.4 times the vertical reaction, applied laterally at the road surface. The vertical reaction must be calculated based on the static weight of the fully loaded cargo tank motor vehicle.

* * * * *

(g) * * *

(2) A lightweight attachment to the cargo tank wall, such as a conduit clip, brakeline clip, skirting structure, lamp mounting bracket, or placard holder, must be of a construction having lesser strength than the cargo tank wall materials and may not be more than 72 percent of the thickness of the material to which it is attached. * * *

* * * * *

13. In § 178.345–7, the last sentence in paragraph (c) is amended by adding the wording "unless reinforced external to the tank" to the end of the sentence; paragraph (d) introductory text is amended by removing the words "it must" and adding, in their place, the words "reinforcement must"; and paragraph (a)(2) is revised to read as follows:

§ 178.345–7 Circumferential reinforcements.

(a) * * *

(2) Where circumferential joints are made between conical shell sections, or between conical and cylindrical shell

sections, and the angle between adjacent sections is less than 160 degrees, circumferential reinforcement must be located within one inch of the shall joint, unless otherwise reinforced with structural members capable of maintaining shell stress levels authorized in § 178.345–3. When the joint is formed by the large ends of adjacent conical shell sections, or by the large end of a conical shell and a cylindrical shell section, this angle is measured inside the shell; when the joint is formed by the small end of a conical shell section and a cylindrical shell section, it is measured outside the shell.

* * * * *

§ 178.345–8 [Amended]

14. In § 178.345–8, paragraph (d)(3) is amended by removing the second sentence and revising the third sentence to read as follows: "Such impact must be considered as being uniformly applied in a horizontal plane at an angle of 30 degrees or less to the longitudinal axis of the vehicle."

15. In § 178.345–9, paragraph (a) is revised to read as follows:

§ 178.345–9 Pumps, piping, hoses and connections.

(a) Suitable means must be provided during loading or unloading operations to ensure that pressure within a cargo tank does not exceed test pressure.

* * * * *

16. In § 178.345–10, paragraph (b)(3) is revised to read as follows:

§ 178.345–10 Pressure relief.

* * * * *

(b) * * *

(3) Each pressure relief system must be designed to withstand dynamic pressure surges in excess of the design set pressure as specified in paragraphs (b)(3) (i) and (ii) of this section. Set pressure is a function of MAWP as set forth in paragraph (d) of this section.

(i) After August 31, 1992, each pressure-actuated relief system must be able to withstand dynamic pressure surge reaching 30 psig above the design set pressure and sustained above the set pressure for at least 60 milliseconds with a total volume of liquid released not exceeding one gallon before the relief system recloses to a leak-tight condition. This capacity must be demonstrated by testing. An acceptable test procedure is outlined in TTMA RP No. 81—"Performance of Spring-Loaded Pressure Relief Valves on MC 306, MC 307, and MC 312 Tanks," May 24, 1989 edition.

(ii) After August 31, 1995, each pressure relief system must be able to withstand a dynamic pressure surge reaching 30 psig above the design set pressure and sustained above the set pressure for at least 60 milliseconds with no loss of lading. This requirement must be met regardless of vehicle orientation.

* * * * *

17. Section 178.345–11 is revised to read as follows:

§ 178.345–11 Tank outlets.

(a) *General.* As used in this section, "loading/unloading outlet" means any opening in the cargo tank wall used exclusively for loading or unloading of lading, as distinguished from outlets such as manhole covers, vents, vapor recovery devices, and similar closures. Tank outlets, closures and associated piping must be protected in accordance with § 178.345–8.

(b) Each tank loading/unloading outlet must be equipped with an internal self-closing stop-valve, or alternatively, with an external stop-valve located as close as practicable to the tank wall. Each tank loading/unloading outlet must be in accordance with the following provisions:

(1) Each loading/unloading outlet must be fitted with a self-closing system capable of closing all such outlets in an emergency within 30 seconds of actuation. During normal operations the outlets may be closed manually. The self-closing system must be designed according to the following:

(i) Each self-closing system must include a remotely actuated means of closure located more than 10 feet from the loading/unloading outlet where vehicle length allows, or on the end of the cargo tank farthest away from the loading/unloading outlet. The actuating mechanism must be corrosion-resistant and effective in all types of environment and weather.

(ii) If the actuating system is accidentally damaged or sheared off during transportation, each loading/unloading outlet must remain securely closed and capable of retaining lading.

(iii) When required by part 173 of this subchapter for materials which are flammable, pyrophoric, oxidizing, or Poison B liquids, the remote means of closure must be capable of thermal activation. The means by which the self-closing system is thermally activated must be located as close as practicable to the primary loading/unloading connection and must actuate the system at a temperature not over 250° F. In addition, outlets on these cargo tanks must be capable of being remotely closed manually or mechanically.

(2) Outlets used only for loading which discharge lading above the maximum liquid level of the cargo tank need not be equipped with a self-closing system.

(c) Any loading/unloading outlet extending beyond an internal self-closing stop-valve, or beyond the innermost external stop-valve which is part of the self-closing system, must be fitted with another stop-valve at the end of such connection.

(d) Each tank outlet that is not a loading/unloading outlet must be equipped with a stop-valve or other leak-tight closure located as close as practicable to the tank outlet. Any connection extending beyond this closure must be fitted with another stop-valve or other leak-tight closure at the end of such connection.

§ 178.346–1 [Amended]

18. In § 178.346–1(d)(8), the end of the sentence is amended by removing the wording "and UW–13.1(f)" and adding, in its place, the wording "UW–13(b)(2), UW–13.1(f) and the dimensional requirements found in Figure UW–13.1".

19. In § 178.347–1(d)(8), the end of the sentence is amended by removing the wording "and UW–13.1(f)" and adding, in its place, the wording "UW–13(b)(2), UW–13.1(f), and the dimensional requirements found in Figure UW–13.1".

§ 178.348–1 [Amended]

20. Section 178.348–1(e)(2)(viii) is amended by removing the wording "and UW–13.1(f)" and adding, in its place, the wording "UW–13(b)(2), UW–13.1(f), and the dimensional requirements found in Figure UW–13.1".

PART 180—CONTINUING QUALIFICATION AND MAINTENANCE OF PACKAGINGS

21. The authority citation for part 180 continues to read as follows:

Authority: 49 App. U.S.C. 1803; 49 CFR Part 1.

22. In § 180.2, paragraph (b)(2) is revised to read as follows:

§ 180.2 Applicability.

* * * * *

(b) * * *

(2) Reintroduces into commerce a packaging that bears markings indicating compliance with this part.

§ 180.405 [Amended]

23. In § 180.405, the following changes are made:

a. The first sentence in paragraph (g)(3) is amended by revising the year "1990" to read "1991".

b. In paragraph (h), the introductory text is amended by removing the letters "DOT" appearing in the second

sentence and revising the last sentence, to read as follows: "The following requirements apply:".

c. Paragraph (h)(1) is amended by removing the last sentence, which reads "This requirement applies to DOT 406, DOT 407 and DOT 412 cargo tank motor vehicles and to all DOT MC-specification cargo tanks except MC 330, MC 331 and MC 338; and".

24. In addition in § 180.405, the last sentence in paragraph (b), paragraphs (c)(1) introductory text, (c)(2)(vii), (g)(1), (g)(2), and the first sentence in paragraph (h)(2) are revised to read as follows:

§ 180.405 Qualification of cargo tanks.

* * * * *

(b) * * * However, no cargo tank may be marked or certified after August 31, 1993, to the applicable MC 306, MC 307, MC 312, MC 331 or MC 338 specification in effect on December 30, 1990.

(c) * * * (1) A cargo tank made to a specification listed in Column 1 may be used when authorized in this part, provided the cargo tank was marked or certified before the date listed in Column 2:

* * * * *

(2) * * *

(vii) A Specification MC 330 cargo tank, to conform with a Specification MC 331 cargo tank, except as specifically required by § 173.315 of this subchapter (see §§ 178.337–8 and 178.337–9 of this subchapter).

(g) * * * (1) MC 306, MC 307, and MC 312 cargo tanks marked or certified after December 30, 1990, and DOT 406, DOT 407, and DOT 412 cargo tank motor vehicles must be equipped with manhole assemblies conforming with § 178.345–5 of this subchapter.

(2) On or before August 31, 1995, each owner of a cargo tank marked or certified before December 31, 1990, authorized for the transportation of a hazardous material, must have the cargo tank equipped with manhole assemblies conforming with § 178.345–5, except for the dimensional requirements in § 178.345–5(a), the hydrostatic testing requirements in § 178.354–5(b), and the marking requirements in § 178.345–5(e) of this subchapter. A manhole assembly meeting one of the following provisions is considered to be in compliance with this paragraph:

(i) Manhole assemblies on MC 300, MC 301, MC 302, MC 303, MC 305, MC 306, MC 310, MC 311 and MC 312 cargo tanks which are marked or certified in writing as conforming to § 178.345–5 of this subchapter or TTMA RP No. 61, or are tested and certified in accordance with TTMA TB No. 107.

(ii) Manhole assemblies on MC 304 and MC 307 cargo tanks.

(iii) Manhole assemblies on MC 310, MC 311, and MC 312 cargo tanks with a test pressure of 36 psig or greater.

* * * * *

(h) * * *

(2) After August 31, 1995, replacements for any reclosing pressure relief valve must withstand pressure surges with no loss of lading regardless of vehicle orientation. * * *

* * * * *

§ 180.407 [Amended]

25. In 180.407, paragraph (a)(2) is amended by adding the phrase "or during loading or unloading" immediately after the word "test"; the first sentence in paragraph (g)(1)(v) is amended by revising the year "1990" to read "1991"; the first sentence in paragraph (d)(1) introductory text, and paragraphs (f)(1), (f)(2), the heading of paragraph (g), the table in paragraph (g)(1)(iv), and paragraph (h)(1) are revised; and introductory text is added to paragraph (g) to read as follows:

§ 180.407 Requirements for test and inspection of specification cargo tanks.

* * * * *

(d) * * * (1) Where insulation precludes external visual inspection, the cargo tank, other than an MC 330 or MC 331 cargo tank, must be given a visual internal inspection in accordance with § 180.407(e). * * *

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(f) * * *

(1) Rubber (elastomeric) lining must be tested for holes as follows:

(i) Equipment must consist of:

(A) A high frequency spark tester capable of producing sufficient voltage to ensure proper calibration;

(B) A probe with an "L" shaped 2.4 mm (0.09 inch) diameter wire with up to a 30.5 cm (12-inch) bottom leg (end bent to a 12.7 mm (0.5 inch) radius), or equally sensitive probe; and

(C) A steel calibration coupon 30.5 cm × 30.5 cm (12 inches × 12 inches) covered with the same material and thickness as that to be tested. The material on the coupon shall have a test hole to the metal substrate made by puncturing the material with a 22 guage hypodermic needle or comparable piercing tool.

(ii) The probe must be passed over the surface of the calibration coupon in a constant uninterrupted manner until the hole is found. The hole is detected by the white or light blue spark formed. (A sound lining causes a dark blue or purple spark.) The voltage must be adjusted to the lowest setting that will produce a minimum 12.7 mm (0.5 inch) spark measured from the top of the lining to the probe. To assure that the setting on the probe has not changed, the spark tester must be calibrated periodically using the test calibration coupon, and the same power source, probe, and cable length.

(iii) After calibration, the probe must be passed over the lining in an uninterrupted stroke.

(iv) Holes that are found must be repaired using equipment and procedures prescribed by the lining manufacturer or lining installer.

(2) Linings made of other than rubber (elastomeric material) must be tested using equipment and procedures prescribed by the lining manufacturer or lining installer.

* * * * *

(g) *Pressure test.* All components of the cargo tank wall, as defined in § 178.320(a) of this subchapter, must be pressure tested as prescribed by this paragraph.

(1) * * *

(iv) * * *

Specification	Test pressure
MC 300, 301, 302, 303, 305, 306.	20.7 kPa (3 psig) or design pressure, whichever is greater.
MC 304, 307	275.8 kPa (40 psig) or 1.5 times the design pressure, whichever is greater.
MC 310, 311, 312.	20.7 kPa (3 psig) or 1.5 times the design pressure, whichever is greater.
MC 330, 331	1.5 times either the MAWP or the re-rated pressure, whichever is applicable.
MC 338	1.25 times either the MAWP or the re-rated pressure, whichever is applicable.
DOT 406	34.5 kPa (5 psig) or 1.5 times the MAWP, whichever is greater.
DOT 407	275.8 kPa (40 psig) or 1.5 times the MAWP, whichever is greater.
DOT 412	1.5 times the MAWP.

* * * * *

(h) * * * (1) Each cargo tank must be tested for leaks in accordance with § 180.407(c). The leakage test must include product piping with all valves and accessories in place and operative, except that any venting devices set to discharge at less than the leakage test pressure must be removed or rendered inoperative during the test. Test pressure must be maintained at least 5 minutes. Suitable safeguards must be provided to protect personnel should a failure occur. MC 330 and MC 331 cargo tanks may be leak tested with the hazardous materials contained in the tank during the test. Leakage test pressure must be not less than 80 percent of the tank design pressure or

MAWP, whichever is marked on the certification or specification plate, except as follows:

(i) A cargo tank with an MAWP of 690 kPa (100 psig) or more may be leak tested at its maximum normal operating pressure provided it is in dedicated service or services; or

(ii) An MC 330 or MC 331 cargo tank in dedicated liquified petroleum gas service may be leak tested at not less than 414 kPa (60 psig).

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§ 180.413 [Amended]

26. In § 180.413, the third sentence in paragraph (c) is amended by removing the word "hydrostatically" appearing after the word "be" and before the word "pressure"; paragraph (d)(2)(iii) is amended by revising the word "regulations" to read "Regulations", and paragraphs (d)(1)(i) through (iii), and (d)(3) are revised to read as follows:

§ 180.413 Repair, modification, stretching, or rebarrelling of cargo tanks.

* * * * *

(d) * * *

(1) * * *

(i) For Specification MC 300, MC 301, MC 302, MC 303, MC 305 and MC 306 cargo tanks in accordance with Specifications MC 306 or DOT 406 until August 31, 1993, and after this date, to Specification DOT 406.

(ii) For Specification MC 304 and MC 307 cargo tanks in accordance with Specification MC 307 or DOT 407 until August 31, 1993, and after this date, to Specification DOT 407.

(iii) For Specification MC 310, MC 311, and MC 312 cargo tanks in accordance with Specification MC 312 or DOT 412 until August 31, 1993, and after this date, to Specification DOT 412.

* * * * *

(3) If the stretching or rebarrelling changes the original approved design, the rebarrelled or stretched cargo tank must be recertified by Design Certifying Engineer. Recertification of a cargo tank also applies if a change to the undercarriage (stretching) affects the structural integrity of the cargo tank, even though no welding is performed on the cargo tank wall. The person performing the stretching or rebarrelling and a Registered Inspector must certify that the stretched or rebarrelled cargo tank has been constructed and tested in accordance with the applicable specification by issuing a supplemental manufacturer's certificate. The registration number of the Registered Inspector and, if applicable, the Design Certifying Engineer must be entered on the certificate.

26a. Section 180.415 is revised to read as follows:

§ 180.415 Test and inspection markings.

(a) Each cargo tank successfully completing the test and inspection requirements contained in § 180.407 must be marked as specified in this section.

(b) Each cargo tank must be durably and legibly marked, in English, with the test date (month and year) followed by the type of test or inspection. The marking must be in letter and numbers at least 32 mm (1.25 inches) high, on the tank shell near the specification plate, or anywhere on the front head. The type of test or inspection may be abbreviated as follows: V for external visual inspection and test; I for internal visual inspection: P for pressure retest: L for lining test, K for leakage test; and T for thickness test. For example, the marking "10–85 P, V, L" would indicate that in October 1985 the cargo tank received and passed the prescribed pressure retest, external visual inspection and test, and the lining inspection.

(c) For a cargo tank motor vehicle composed of multiple cargo tanks constructed to the same specification, which are tested and inspected at the same time, one set of test and inspection markings may be used to satisfy the requirements of this section. For a cargo tank motor vehicle composed of multiple cargo tanks constructed to different specifications, which are tested and inspected at different intervals, the test and inspection markings must appear in the order of the cargo tank's corresponding location, from front to rear.

27. In § 180.417(a)(2), in the first sentence and at the beginning of the second sentence, the wording "motor vehicle" is added immediately after the wording "cargo tank".

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Douglas B. Ham,

Acting Administrator, Research and Special Programs Administration.

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