primary goal going forward must be to ensure, as mandated by statute, that plans compete on an even playing field and that beneficiaries will gain in terms of cost, plan choices, and generosity of benefits. We believe we can help achieve this goal only if MYBEs are not permitted in subsequent years.

Furthermore with respect to MYBEs, we do not believe that nondrug benefits should be treated differently than Part D benefits. Similarly, with respect to all EGHPs including EGWPs, we believe that the integrity of the competitive bidding process overrides any possible program benefit from MYBEs. Therefore beginning with CY 2007, we are proposing that MA organizations, including all organizations offering EGHPs, would not be permitted to make any midyear changes in benefits, premiums, or cost-sharing, even under the circumstances in which these types of changes were permitted in CY 2006. This includes EGHPs that enroll both beneficiaries and employer/union members (in other words plans open to general enrollment) and plans not open to general enrollment. We note that programs of all-inclusive care for the elderly (PACE) would be able to continue to offer MYBEs in accordance with our guidance for PACE plans.

III. Response to Comments

Because of the large number of items of correspondence we normally receive on Federal Register documents published for comment, we are not able to acknowledge or respond to them individually. We will consider all comments we receive by the date and time specified in the DATES section of this preamble, and, when we proceed with a subsequent document, we will respond to the comments in the preamble to that document.

IV. Collection of Information Requirements

This document does not impose information collection and recordkeeping requirements. Consequently, it need not be reviewed by the Office of Management and Budget under the authority of the Paperwork Reduction Act of 1995.

V. Regulatory Impact Statement

[If you choose to comment on issues in this section, please include the caption “Regulatory Impact Statement” at the beginning of your comments.]

We have examined the impact of this rule as required by Executive Order 12866 (September 1993, Regulatory Planning and Review), the Regulatory Flexibility Act (RFA) (September 19, 1980, Pub. L. 96–354), section 1102(b) of the Social Security Act, the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4), and Executive Order 13132.

Executive Order 12866 directs agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). A regulatory impact analysis (RIA) must be prepared for major rules with economically significant effects ($100 million or more in any 1 year). This rule does not reach the economic threshold and thus is not considered a major rule. However, we are requesting comments regarding the possible impact of our proposal to prohibit MYBEs.

The RFA requires agencies to analyze options for regulatory relief of small businesses. For purposes of the RFA, small entities include small businesses, nonprofit organizations, and small governmental jurisdictions. Most hospitals and most other providers and suppliers are small entities, either by nonprofit status or by having revenues of $6 million to $29 million in any 1 year. Individuals and States are not included in the definition of a small entity. The MA program, by having both regional and local plans, provides an opportunity for health insurance entities of all types and most sizes (but probably not below the “small” insurance entity cutoff level defined by the SBA ($6 million), which is lower than appears viable for a comprehensive, risk-bearing insurance plan) to participate. Therefore, we are not preparing an analysis for the RFA because we have determined that this rule will not have a significant economic impact on a substantial number of small entities.

In addition, section 1102(b) of the Act requires us to prepare a regulatory impact analysis if a rule may have a significant impact on the operations of a substantial number of small rural hospitals. This analysis must conform to the provisions of section 603 of the RFA. For purposes of section 1102(b) of the Act, we define a small rural hospital as a hospital that is located outside of a Metropolitan Statistical Area and has fewer than 100 beds. We are not preparing an analysis for section 1102(b) of the Act because we have determined that this rule will not have a significant impact on the operations of a substantial number of small rural hospitals.

Section 202 of the Unfunded Mandates Reform Act of 1995 also requires an assessment of anticipated costs and benefits before issuing any rule whose mandates require spending in any 1 year of $100 million in 1995 dollars, updated annually for inflation. That threshold level is currently approximately $120 million. This rule will have no consequential effect on State, local, or tribal governments or on the private sector.

Executive Order 13132 establishes certain requirements that an agency must meet when it promulgates a proposed rule (and subsequent final rule) that imposes substantial direct requirement costs on State and local governments, preempts State law, or otherwise has Federalism implications. Since this regulation does not impose any costs on State or local governments, the requirements of E.O. 13132 are not applicable.

In accordance with the provisions of Executive Order 12866, this regulation was reviewed by the Office of Management and Budget.

(Catalog of Federal Domestic Assistance Program No. 93.773, Medicare—Hospital Insurance; and Program No. 93.774, Medicare—Supplementary Medical Insurance Program)


Mark B. McClellan, Administrator, Centers for Medicare & Medicaid Services.

Approved: June 12, 2006.

Michael O. Leavitt, Secretary.

[FR Doc. 06–7394 Filed 8–31–06; 8:45 am]

BILLING CODE 4120–01–P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 171, 172, 173, 174, and 178

[Docket No. PHMSA–06–25736 (HM–231)]

RIN 2137–AD89

Hazardous Material; Miscellaneous Packaging Amendments

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: In this NPRM, PHMSA is proposing to make miscellaneous amendments to the Hazardous Materials Regulations (HMR) based on changes to packaging requirements in the United Nations Recommendations on the Transport of Dangerous Goods as petitions for rulemaking received in accordance with requirements specified in 49 CFR
106.95, and PHMSA initiative. These proposed amendments are intended to clarify certain regulatory requirements specific to bulk and non-bulk packaging. The amendments proposed in this NPRM also include incorporation of requirements for construction, maintenance, and use of large packagings, clarification of specification marking requirements, and revisions to packaging definitions.

DATES: Comments must be received by November 30, 2006.

ADDRESSES: You may submit comments to the docket number PHMSA–06–25736 (HM–231) by any of the following methods:

- Mail: Docket Management System; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL–401, Washington, DC 20590–0001. If sent by mail, comments are to be submitted in two copies. Persons wishing to receive confirmation of receipt of their comments should include a self-addressed stamped postcard.
- Hand Delivery: Docket Management System; Room PL–401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m. Monday through Friday, except Federal holidays.

Instructions: All submissions must include the agency name and docket number or Regulatory Identification Number (RIN) for this rulemaking. All comments received will be posted without change to http://dms.dot.gov including any personal information provided. You may review DOT’s complete Privacy Act Statement in the Federal Register published on April 11, 2000 (volume 65, number 70; pages 19477–78) or you may visit http://dms.dot.gov.

Docket: For access to the docket to read background documents and comments received, go to http://dms.dot.gov at any time or to Room PL–401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.


SUPPLEMENTARY INFORMATION:

I. Background

On December 21, 1990, the Research and Special Programs Administration—the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA; we)—published a final rule (Docket HM–181; 55 FR 52402) based on the UN Recommendations on the Transport of Dangerous Goods (UN Recommendations). The final rule comprehensively revised the Hazardous Materials Regulations (HMR), 49 CFR parts 171 to 180, for harmonization with international standards. Included in these amendments was a change to hazardous materials packaging standards from detailed design specifications to performance oriented standards. This NPRM is designed primarily to clarify requirements specific to packaging issues and to reduce regulatory burdens on industry by incorporating changes into the HMR based on PHMSA’s own initiative and petitions for rulemaking submitted in accordance with 49 CFR 106.95. We are also proposing to add two new subparts to part 178: Subpart P—Large Packaging Performance-Oriented Standards and subpart Q—Testing of Large Packagings.

In this NPRM, we are proposing the following revisions to the HMR:

1. Revise, remove, and add definitions specific to packaging requirements.
2. Amend export and import provisions in §171.12.
3. Revise §172.101 Table entries for packaging requirements.
4. Add and revise special provisions.
5. Clarify shippers’ responsibilities for complying with packaging standards.
6. Clarify requirements for stacking of bulk packaging.
7. Correct error in general IBC requirements related to gauge pressure.
8. Authorize bromine residue in cargo tanks.
10. Add exceptions for marking of steel drums.
11. Add an exception for marking of UN symbol with a stencil.
12. Amend packaging variations.
13. Add standards and provision for the manufacture and use of Large Packagings.

In this NPRM, we are proposing to address eight petitions for rulemaking. We propose changes to the HMR based on six petitions. We are denying two petitions. The petitions are discussed in more detail in the appropriate sections of this preamble. The following table identifies the petitions addressed in this NPRM:

<table>
<thead>
<tr>
<th>Petition*</th>
<th>Company</th>
<th>Section</th>
<th>Status of petition</th>
</tr>
</thead>
<tbody>
<tr>
<td>P–1173</td>
<td>Monsanto Company</td>
<td>§171.8</td>
<td>Amendments proposed based on petition.</td>
</tr>
<tr>
<td>P–1328</td>
<td>Reusable Industrial Packaging Association</td>
<td>§173.28(b)</td>
<td>Denial.</td>
</tr>
<tr>
<td>P–1337</td>
<td>Steel Shipping Container Institute</td>
<td>§178.601(g)</td>
<td>Amendments proposed based on petition.</td>
</tr>
<tr>
<td>P–1356</td>
<td>Connely Containers</td>
<td>§178.703(a)</td>
<td>Denial.</td>
</tr>
<tr>
<td>P–1359</td>
<td>Association of Container Reconditioners</td>
<td>§178.703(a)</td>
<td>Amendments proposed based on petition.</td>
</tr>
<tr>
<td>P–1371</td>
<td>Steel Shipping Container Institute</td>
<td>§§178.3(a) and 178.503(a)</td>
<td>Amendments proposed based on petition.</td>
</tr>
<tr>
<td>P–1431</td>
<td>Arch Chemicals, Inc.</td>
<td>§171.12</td>
<td>Amendments proposed based on petition.</td>
</tr>
<tr>
<td>P–1455</td>
<td>Dangerous Goods Advisory Council</td>
<td>§178.503</td>
<td>Amendments proposed based on petition.</td>
</tr>
</tbody>
</table>

*Each of these petitions can be viewed at the Dockets Management System Web site at: http://dms.dot.gov/reports/rspa_report.cfm.
II. Summary of Proposed Regulatory Changes by Section

Part 171

Section 171.8. We propose to remove the definition for “strong outside container” and add a new definition for “strong outer packaging.” Currently, the HMR uses the terms “strong outside container” and “strong outer packaging” interchangeably; however, there is no definition for “strong outer packaging” in §171.8. Therefore, we are proposing to move the definition for “strong outside container” and add a definition for “strong outer packaging.” Therefore, we see no compelling need to remove the definition for “strong outside container” once in the HMR in §173.338; therefore, we are also proposing to revise the reference to read “strong outer packaging.” The term “strong outside container” is used only once in the HMR in §173.338; therefore, we are also proposing to revise the reference to read “strong outer packaging.” Use of one defined term when referring to “strong outer packaging” will clarify related packaging requirements. The proposed definition states “strong outer packaging” is the outermost enclosure for a hazardous material. As proposed, a strong outer packaging must meet the requirements of part 173, subpart B, but need not be tested in accordance with part 178 of the HMR. In addition, we propose a reference as a reminder to shippers intending to offer hazardous materials by air that §173.27 applies to strong outer packagings.

The Association of Container Reconditers (ACR) petitioned PHMSA (P-1359) to add definitions for “Remanufactured packaging,” “Reused packaging,” and “Reconditioned packaging” to §171.8. ACR contends that these definitions will be easier for the reader to find if they are in §171.8. The definitions of “Remanufactured packaging” and “Reconditioned packaging” contain regulatory requirements; therefore, we are not proposing to move the definitions to §171.8. However, we agree that there should be a reference to the definitions for “Remanufactured packaging” and “Reconditioned packaging” in §171.8. Therefore, we are proposing to insert a reader’s aid into §171.8 to make reference to the definitions and regulatory requirements in §173.28. The meaning of the term “reuse” is evident based on its use in §173.28 and is not used in the HMR other than this section. Therefore, we see no compelling need to add a definition for “Reused packaging” to §171.8 at this time.

In this NPRM we are proposing to revise the definitions for “Bulk packaging” and “Non-bulk packaging” based on the particular packaging specification at issue and volumetric capacity. The current definitions read as follows: Bulk packaging means a packaging, other than a vessel or a barge, including a transport vehicle or freight container, in which hazardous materials are loaded with no intermediate form of containment and which has:

1. A maximum capacity of 450 L (119 gallons) as a receptacle for a liquid;
2. A maximum net mass greater than 400 kg (882 pounds) and a maximum capacity greater than 450 L (119 gallons) as a receptacle for a solid; or
3. A water capacity greater than 454 kg (1000 pounds) as a receptacle for a gas as defined in §173.115 of this subchapter.

Non-bulk packaging means a packaging which has:

1. A maximum capacity of 450 L (119 gallons) or less as a receptacle for a liquid;
2. A maximum net mass greater or 400 kg (882 pounds) or less and a maximum capacity of 450 L (119 gallons) or less as a receptacle for a solid; or
3. A water capacity of 454 kg (1000 pounds) or less as a receptacle for a gas as defined in §173.115 of this subchapter.

Monsanto Company petitioned PHMSA (P-1173) to revise the definition for “Non-bulk packaging” by changing “and” to “or” in paragraph (2) to read “A maximum net mass of 400 kg (882 pounds) or less or a maximum capacity of 450 L (119 gallons) or less as a receptacle for a solid.” If this change were to be made, packagings with a volume greater than 450 L (119 gallons) with a net mass of less than 400 kg (882 pounds) would be defined as non-bulk packagings. It has been our long-standing interpretation that such packagings are defined as bulk packagings. Through letters of interpretation issued from the Office of Hazardous Materials Standards, we have stated the bulk packaging definition is based on the capacity of the receptacle, not on the actual amount contained therein at the time of shipment. We are not proposing to change the meaning of bulk packaging or non-bulk packaging in this NPRM, only clarify how they are defined.

However, we agree the definitions for “Bulk packaging” and “Non-bulk packaging” should be revised to provide clarity in the HMR. For example, under the current language in the HMR, a person attempting to determine whether a UN 4G fiberboard box is a non-bulk packaging must first carefully read the definition for non-bulk packaging in §171.8 and must also read the standards for fiberboard boxes in §178.516. A packaging manufacturer must consult §§171.8 and 178.516 to determine the restrictions on size and capacity before designing, constructing, and testing a UN 4G fiberboard box.

To reduce confusion and clarify the definitions for “bulk packaging” and “non-bulk packaging,” in this NPRM, we propose to define the terms as follows:

**Bulk packaging** means:

1. Any specification cargo tank, tank car, or portable tank constructed and marked in accordance with part 178 of this subchapter;
2. Any Specification 3AX, 3AAX or 3T cylinder constructed, marked and certified in accordance with subpart C of part 178 of this subchapter.

**Non bulk packaging** means:

1. Any packaging constructed, marked, and tested as meeting the standards specified in Subparts L and M of Part 178 of this subchapter.
2. Except for Specifications 3AX, 3AAX and 3T, any Specification cylinder, constructed, marked and certified in accordance with subpart C of part 178 of this subchapter.
3. Any Industrial Packaging, Type A, Type B, Intermediate Bulk Container, Large Packaging, or non-specification packaging that has a volumetric capacity of greater than 450 L (119 gallons).

In addition to the revised definitions, we are proposing to amend subpart L of part 178 to include capacity limitations applicable to individual DOT specification packagings. For example, a plywood box would be limited to a maximum volumetric capacity of 450 L (119 gallons). Using these proposed definitions, a person would determine that a UN 4G is a non-bulk packaging based on the definition in §171.8 alone. Similarly, based on the proposed revisions to part 178, subpart L, a packaging manufacturer could determine the size and capacity restrictions in one section without referring back to §171.8.

The proposed revisions do not change the current thresholds under which packagings are defined as bulk or non-bulk. Rather, the intended effect of these revisions is to clarify the current definitions, thereby eliminating confusion and enhancing voluntary compliance.

The definitions in this NPRM for “bulk packaging” and “non-bulk packaging” clarify packagings with a volume of 450 L (119 gallons) or less and with a gross mass of more than 400 kg are defined as “Non-bulk packagings.” Packagings with a volume greater than 450 L (119 gallons) and with a gross mass less than or equal to 400 kg are defined as “Bulk packagings.” We are currently reviewing these definitions to determine if we should revise or eliminate the volumetric capacity limits for individual packagings and the impact of such revisions. Specifically, we are...
considering eliminating the volumetric limit for boxes, IBC's, and portable tanks. We ask commenters to address the following questions, to the extent possible, when submitting comments to the NPRM:

1. Should we eliminate the volumetric limit for boxes, IBC's, and portable tanks?

2. What are the regulatory and/or cost impacts of eliminating the volumetric limit for boxes, IBC's, and portable tanks?

3. Would this be more consistent with the UN Recommendations?

4. How should marking, labeling and placarding issues be addressed if the volumetric limit is removed or changed?

In this NPRM, we are proposing to add new standards for Large Packagings and to revise §178.801(1) to remove the requirement for approval before manufacture and use of Large Packagings. As a result, it is necessary to make minor revisions to the definition of Large Packaging. We are removing the reference to §178.801, inserting references to the proposed new subparts P and Q to part 178, and removing the reference to gross mass to be consistent with the proposed changes to the definitions for “Bulk packaging” and “Non–bulk packaging.”

Section 171.12. Arch Chemicals, Inc. (“Arch”) petitioned PHMSA (P–1431) to amend §171.12, which establishes requirements for import and export shipments, to reference the marking requirement in §172.313(b). Section 172.313, paragraph (b) requires plastic and composite non-bulk packagings containing Division 6.1 material to be marked “POISON”. In its petition, Arch states that as a result of §171.12 having no provision for compliance with §172.313, import shipments need not have this marking. Arch suggests that this is an inconsistency in the HMR. We agree this is an oversight and are proposing to add a new paragraph (b)(13) to §171.12 to require import and export shipments transported under §171.12 to comply with §172.313(b).

Part 172

The Hazardous Materials Table (HMT). In this NPRM, we are proposing to amend the entries for “Azodicarbonamide” and “Iosorbide-5-monoнатrite.” Because these materials pose similar hazards, they are best packaged in the same manner as Musk xylene (5-tert-Butyl-2,4,6-trinitro-m-xylene); therefore we are changing their references for non-bulk packaging to §173.22. In addition, we are proposing to authorize the transportation of certain explosives in Large Packagings consistent with the UN Recommendations. Therefore several entries for explosives are revised to read “62” rather than “none” in Column (8c).

In addition, we are proposing to make editorial changes to the special provisions and vessel stowage requirements for these entries in the HMT.

Section 172.102. In this NPRM, we are proposing to add two new subparts to Part 172 to authorize the construction of Large Packagings. To authorize the use of these Large Packagings, we are proposing to revise paragraph (c)(4) to include provisions for Large Packagings. The revised language will specify that Large Packagings are authorized when a table entry specifies Special Provision IB3 or IB6. In this section, we will also restrict the use of Large Packagings to Packaging Group III materials, with the exception of the following PG II entries, which will be authorized via a new Special Provision 41: UN 2531, Methacrylic acid, stabilized and UN 3291, Regulated medical waste, n.o.s. We are proposing to authorize these two Packaging Group II entries to be consistent with the UN Recommendations. We propose to insert a new Table 3 authorizing Large Packagings and to revise Table 1 so IB3 and IB6 reference the new Table 3.

Section 172.514. We are proposing to add Large Packagings to the types of packagings that may be placarded on only two opposite sides or labeled instead of placarded.

Part 173

Section 173.12. The Reusable Industrial Packaging Association (RIPA) petitioned PHMSA (P–1328) to amend §173.12(c), which establishes conditions for reuse of previously used packagings for the transportation of hazardous waste. In its petition, RIPA states that the minimum thickness criteria specified in §173.28(b)(4) for the reuse of metal and plastic drums and jerricans, should be applied to packagings reused for hazardous waste under the exception in §173.12(c). RIPA believes this is an oversight and was inadvertently incorporated into the HMR as part of Docket HM–181 (December 21, 1990: 55 FR 52401).

The exception in §173.12(c) is not authorized for packaging intended to be used more than two times (initial use and the return shipment of the waste product). A package may only be shipped under this exception once and must meet the following conditions: (1) It may only be transported by highway; (2) it must be loaded by the shipper and unloaded by the consignee; (3) it may be transported by a private motor carrier; and (4) the packaging may not be offered for transportation less than twenty four hours after it is finally closed for transportation and each package must be inspected for leakage and found to be free from leaks immediately prior to being offered for transportation. If the packaging is subsequently reused, it will be subject to the minimum thickness requirements in §173.28(b)(4). The significant restrictions of §173.12(c) and fact that the exception may only be used once per packaging make it unnecessary to require a shipper to comply with the minimum thickness criteria in §173.28(b)(4). Therefore, we do not believe that these packages that comply with the restrictions in §173.12(c) need to comply with the minimum thickness criteria in §173.28(b)(4). We do not believe that the costs associated with the impacts of RIPA’s request are commensurate with the benefits.

Section 173.22. We are proposing to revise the shipper’s responsibilities in §173.22(a)(4) to include the requirement to maintain a copy of the manufacturer notification, closure instructions, and supporting documentation for variations in §178.601(g). Current requirements specify that the person transferring the package to the shipper or distributor must furnish a copy of the notification; however, there is no requirement for the shipper to retain the documentation. Within an organization, a person other than the person who will be closing the package may receive the written notification. In addition, a packaging might not be filled and closed for several months or years after it has been transferred to an individual or company. In these circumstances the written notification may be lost or unavailable to the person closing the package. We are proposing these changes to ensure each shipper will properly close packagings.

Section 173.24b. We are proposing a new paragraph to clarify that packages not designated and tested for stacking may not be stacked during transportation. In addition, we are proposing to clarify that packaging intended for stacking may not have more weight superimposed upon them than is marked on the packaging.

Section 173.28. We are proposing to add an additional sentence to paragraphs (a) and (f) to clarify that packagings not meeting minimum thickness criteria may not be reconditioned or remanufactured.

Section 173.35. In paragraph (b)(2), we are proposing to correct an error in the pressure limitation for metal IBCs. Currently, paragraph (b)(2) prohibits the gauge pressure in a metal IBC from exceeding 110 kPa (16 psig) at 50 °C.
Section 174.63. In § 174.63, we are proposing to change the section title and paragraph (a) to reflect the addition of Large Packagings to the HMR.

Section 178. Part 178

Section 178.2. Current requirements in paragraph (c)(1)(ii) specify that closure instructions must be provided to whomever a packaging is transferred. However, the HMR do not specify how detailed the closure instructions must be or what they must include. As a result, shippers may not know how to properly close a package so it can be transported safely. Closure instructions generally must provide for a consistent and repeatable means of closure. To this end, the manufacturer’s closure instructions could specify a range of torque values applicable to the closure. Similarly, the closure instructions could include a specific closure method (e.g., tighten the cap until the bottle contacts the cap gasket and then tighten an additional \( \frac{3}{4} \) turn). As an alternative, the packaging and closure could be designed to ensure an effective closure. For example, the packaging could be designed with a stop feature or other indexing to indicate how the cap should be tightened. The manufacturer’s closure instructions should be consistent with the language in the test report and must be written so the user is able to duplicate the closure method based on the instructions. In this NPRM, we are proposing to revise § 178.2(c)(1)(ii) to clarify that closure instructions must provide for a measurable and repeatable means of closure consistent with the means of closure used for performance testing.

Sections 178.3 and 178.503. The Steel Shipping Container Institute (SSI) petitioned PHMSA (P–1371) to modify marking requirements under §§ 178.3(a)(5) and 178.503(a)(10) for packagings with a gross mass of more than 30 kg (66 pounds). Currently, packagings with a gross mass of more than 30 kg (66 pounds) must be marked on the top or side. If the package marking is on the bottom, then a duplicate marking must be on the side or top. SSI’s petition relates to the duplicate marking. In its petition, SSI requests a change in the language in § 178.3(a)(5) to allow the duplicate marking, when applicable, to be a lesser design standard than is marked on the bottom of the package. For example, a package would be tested and marked on the bottom as meeting the Packing Group I performance standard and the duplicate marking on the side would indicate that the packaging is certified to the Packing Group II performance standard. In this NPRM, we are proposing to revise these two paragraphs to allow a lesser design standard on the side or top marking than that which is required on the bottom. This change would not impact safety and would allow drum manufacturers more flexibility when manufacturing and reusing drums.

The Dangerous Goods Advisory Council (DGAC) petitioned PHMSA (P–1453) to allow stenciling of the United Nations symbol. The HMR do not now prohibit stenciling of the UN symbol; however, the current marking requirements in § 178.503 discourage stenciling because they do not tolerate even small gaps in the circle surrounding the letters “u” and “n.” The only way to stencil the UN symbol without leaving gaps in the circle is to use a two-step stenciling system. DGAC states that controlling a two-step process introduces variability, which often results in a smeared image. In response, we are proposing to revise § 178.503 paragraphs (a)(1) and (e)(1) to include an objective standard under which small gaps in the United Nations symbol would be permitted. So that the symbol will remain readily identifiable, we are proposing to restrict the gaps to a size no greater than ten percent of the circumference of the circle and the number of gaps to no more than three. In addition, we are proposing to amend the language in paragraph (a)(1) to authorize this exception.

Sections 178.512 through 178.521. We are proposing to amend § 178.512 through 178.521 to specify volumetric capacity may not exceed 450 L (119 gallons) for the following packaging design types: aluminum boxes, natural wood boxes, plywood boxes, reconstituted wood boxes, fiberboard boxes, plastic boxes, woven plastic bags, plastic film bags, textile bags, and paper bags. We are proposing these revisions together with revisions to the definitions for “Bulk packaging” and “Non-bulk packaging” in an effort to eliminate uncertainty in determining if a package is a bulk package or a non-bulk package.

Section 178.601. Under current requirements, § 178.601(g)(1) provides an exception (Variation 1) that allows a person to substitute an inner receptacle if they determine that the inner packaging, including its closure, maintains an equivalent level of performance. As written, the current requirements allow substitution of the inner receptacle without any documentation of how the person performing the substitution concluded the inner receptacle is equivalent. We are proposing to revise § 178.601(g)(1) to...
specify that the person making a change to a packaging design under the provisions of a selective testing variation must document in writing the methodology used.

The Steel Shipping Container Institute (SSCI) petitioned PHMSA (P–1337) to make several changes to the provisions in §178.601(g)(8), which apply to the approval of selective testing of steel drums that differ in minor respects from a tested type of drum. The changes proposed by SSCI would allow drums with capacities between twelve and fifty liters to be excepted from re-testing design types found under §178.601(g)(8). We are proposing to revise §178.601(g)(8) to include drums with a capacity of 12 liters (3 gallons) or more. However, we do not agree with SSCI that §178.601(g)(8)(viii) should be changed to allow increased thickness of 1.35 mm before being considered a “different packaging.” When a drum’s thickness is altered, the properties of the drum are changed, and further testing must be conducted. Therefore, we are not proposing this provision in SSCI’s petition.

We are proposing to revise §178.601(k) to authorize a lesser quantity of test samples used in testing of stainless steel drums. PHMSA has issued numerous approvals to manufacturers authorizing the use of fewer than eighteen test samples. We are proposing to add the provisions found in these approvals to §178.601(k).

Section 178.700. We propose to revise the lower volumetric limit for flexible IBCs (FIBCs). In Docket HM–181E (59 FR 38068), published July 26, 1994, we defined “Body” as having a lower limit of 450 liters, thus precluding the manufacture of IBCs with a volume of less than 450 L. In reviewing the HMR, we have identified a gap in the allowable packaging specifications for flexible packagings with a capacity between 50 kg and 400 kg. To remedy this gap, we are proposing to allow bags between 50 kg and 400 kg to be manufactured and tested under IBC standards in subparts N and O of part 178. We are currently reviewing the HMR to determine if we should eliminate the lower limit for other IBCs as well. To facilitate this review, we request comments addressing the following questions, to the extent possible, when submitting comments to the NPRM:

1. Is it necessary to address flexible packagings/bags between 50 kg and 450 kg or is there little or no practical application for such packagings?
2. Should we remove the lower limit for all IBC design types?

3. Is it necessary to add further testing requirements for IBCs with a capacity of 450 liters (119 gallons) or less due to difference in the way non-bulk packages are handled in transportation?
4. Are the re-testing provisions for IBCs in part 180 sufficient for a packaging with a capacity less than 450 liters (119 gallons)?

Section 178.703. In §178.503 we are proposing to revise language to authorize small gaps in the United Nations symbol. This would allow stenciling of the symbol. To make this change, it is also necessary to propose amended language to paragraph (a)(1)(i) to authorize stenciling of the United Nations symbol for IBCs.

Connelly Containers petitioned PHMSA (P–1336) to change the marking requirements for rigid fiberboard IBCs (11G). Specifically, Connelly Containers requests a change in the wording in §178.703(a) to exclude packagings of type 11G from the requirement to mark the month of manufacture. Connelly Containers states in its petition that non-fiberboard boxes (4G) are only required to mark the year of manufacture while IBCs (11G) must have both month and year marked on the packaging.

We are not proposing to adopt such changes. The reuse requirements for IBCs are different than those for non-bulk packagings such as 4G fiberboard boxes. It is necessary for a person who intends to reuse an IBC to know both the month and year of manufacture before refilling the packaging because these markings are used to determine if a retest is due. If a retest is due, the re-filler must retest the packaging prior to filling.

Sections 178.705 through 178.710. We are proposing to move the lower limit for IBCs currently in the definition of “Body” in §178.700 to the individual standards in §§178.705 through 178.710. These are more appropriate sections for the lower limit and will result in better understanding of the individual IBC specifications. In addition, we are proposing to authorize smaller flexible IBCs in §178.710 by decreasing the limit to 50 kilograms. We are retaining the 400 kilogram lower limit for rigid IBCs; however, as previously stated, we invite your comments on this issue.

Section 178.801. In this NPRM, we propose to add new standards for Large Packagings. Therefore, the reference to UN standards for Large Packagings in §178.801(i) will no longer be necessary to authorize the use of Large Packagings. We propose to remove the third and fourth sentences in paragraph (i) of this section.

Section 178.810. We are proposing a second drop test for IBCs with a capacity of 0.45 cubic meters (15.9 cubic feet) or less. In this NPRM, we are proposing to remove the lower limit of 450 liters (119 gallons) and 0.45 cubic meters (15.9 cubic feet) from the specifications for FIBCs. Non-bulk packaging are more likely to be dropped while in transportation. Therefore, over the past ten years, when issuing an approval issued in accordance with §178.801(i) we have imposed an additional drop test for non-bulk capacity IBCs. We propose to incorporate this additional drop test in §178.810.

Section 178.815. We propose to revise §178.815 by adding a new paragraph (e)(4) to describe the passing criteria for the dynamic compression test. This revision clarifies existing requirements.

Section 178.819. We are proposing to revise subparagraphs (b)(1) and (2) to clarify testing provisions and provide additional options when performing the vibration test. In paragraph (b)(1), we would clarify that water is a suitable test filler material for the vibration test. In paragraph (b)(2), we would clarify that a vibrating platform may be used that will produce rotary double-amplitude.

Subparts P and Q to Part 178. Under Docket HM–215D (66 FR 33316), published June 21, 2001, we added a provision to authorize Large Packagings under approval from the Associate Administrator to §178.801. In this NPRM, we are proposing to remove the approval requirement and add two new subparts (P and Q) to part 178 for the design, construction, and testing of Large Packagings. Adding the manufacture, testing and use requirements into the HMR provides additional flexibility and effectively removes the need to apply for an approval to manufacture and use these packagings in the United States. The design, construction and testing requirements are based on the UN Recommendations on the Transport of Dangerous Goods, Thirteenth Revised Edition (2003); Chapter 6.6 Requirements for the Construction and Testing of Large Packagings. The regulatory layout and language is modeled on the current requirements for IBCs and includes:

Section 178.900. This section discusses the general purpose and scope of subpart P.

Section 178.902. This section designates Large Packaging codes. For
example, “50” would designate rigid Large Packagings and “G”, like other specification packagings, would designate fiberboard.

Section 178.903. In this section we are proposing to specify requirements for certification marking of Large Packagings. The Large Packaging certification mark would be comprised of the following elements: the “UN” symbol specified in §178.503(e)(1), code numbers designating the Large Packaging design type, performance level achieved by the package (i.e., Packing Group), month and year of manufacture, country where the packaging was authorized (e.g., USA), name and address or symbol of the manufacturer, stacking test load in kilograms, and maximum permissible gross mass (for flexible Large Packagings, the maximum permissible load in kilograms). The NPRM provides three examples of Large Packaging certification marking.

Sections 178.904 through 178.909. Sections 178.904 through 178.909 contain performance standards for Large Packagings.

Section 178.1000. This section describes the general purpose and scope of the new Subpart Q.

Section 178.1001. In this section, we propose general testing, inspection, and recordkeeping requirements for Large Packagings. We propose to require design qualification testing to be conducted at the start of production of each new or different Large Packaging design type and to require production testing and inspection for each newly manufactured Large Packaging. In addition, Large Packaging manufacturers would be required to keep records for the qualification of each Large Packaging design type and for each periodic design re-qualification. Records would be maintained at each location where a Large Packaging is manufactured and at each location where Large Packaging design qualification and periodic design re-qualification testing is performed. Records would be required to be maintained for as long as Large Packagings are manufactured in accordance with each qualified design type and for at least two years thereafter.

Section 178.1002. In this section, we propose requirements for the preparation of Large Packagings for testing. Preparation of packages, as required for non-bulk packagings and IBCs, includes requirements for filling and conditioning of packagings prior to conducting testing.

Section 178.1010. This section establishes the drop test requirements for Large Packagings. The test requirements would be similar to those for IBCs and non-bulk packagings in §§178.603 and 178.810. Large Packagings intended to contain liquids would be required to be filled to at least ninety-eight percent of their capacity, and ninety-five percent for solids, in preparation for the drop test. Rigid Plastic Large Packagings and Large Packagings with plastic inner receptacles would be drop tested when samples and components have been conditioned to −18 °C (0 °F). Samples of Large Packaging design types would be dropped onto a non-resilient, smooth, flat surface. The point of impact would be the most vulnerable part of the base of the Large Packaging being tested.

Section 178.1011. This section contains provisions for a bottom lift test for Large Packagings design types designed to be lifted from the base.

Section 178.1012. This section contains provisions for a top lift test for Large Packaging design types that are designed to be lifted from the top and Flexible Large Packagings designed to be lifted from the side.

Section 178.1015. We propose to require a stacking test for all Large Packaging design types designed to be stacked. Rigid plastic Large Packagings that bear the stacking load would be subject to the stacking test for twenty-eight days; fiberboard and wooden Large Packagings would be subject to the stacking test for twenty-four hours; and all other Large Packagings intended to be stacked would be subject to the stacking test for five minutes. In this NPRM, we are proposing to make minor changes to §178.815 for clarity and to define passing criteria for the dynamic compression test. The proposed new §178.1015 is modeled after the proposed revision to §178.815.

Section 178.1019. This section provides a vibration test for the qualification of all Large Packaging design types. Flexible Large Packagings would have to be capable of passing the vibrations test; all other Large Packaging design types would be subject to the vibration test.

III. Sunset Provision

In an effort to maintain up-to-date regulations and minimize regulatory burdens, PHMSA is considering including “sunset” provisions in some or all of the amendments proposed in this NPRM. The inclusion of sunset provisions in new regulatory requirements would cause those requirements to expire 10 years after the publication date of the final rule, unless repealed or extended by the agency. Such a “sunset” provision would require us to initiate a future rulemaking proceeding, and to take account of intervening developments and data, in order to retain the regulation beyond its sunset date. A future rulemaking could extend the sunset date, revise or rewrite the changes to the HMR proposed in this NPRM, or completely revise the HMR. If we choose to do nothing, after the sunset date, the subject regulation would revert back to the language and requirements in effect before the issuance of the final rule. We are inviting comments regarding the inclusion of a sunset provision for any or all of the requirements proposed in this NPRM. We ask that commenters address the safety, economic, and other policy considerations favoring or disfavoring sunsetting.

IV. Rulemaking Analysis and Notices

A. Statutory/Legal Authority for This Rulemaking

This notice is published under authority of 49 U.S.C. 5103(b), which authorizes the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous materials in intrastate, interstate, and foreign commerce. This notice adopts regulations to enhance the safe and secure transportation of hazardous materials by aircraft in intrastate, interstate, and foreign commerce. To this end, as discussed in detail earlier in this preamble, this notice revises miscellaneous HMR requirements applicable to hazardous materials packaging.

B. Executive Order 12866 and DOT Regulatory Policies and Procedures

This proposed rule is not considered a significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, was not subject to formal review by the Office of Management and Budget. This proposed rule is not considered significant under the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034).

The cost impacts of the changes proposed in this rulemaking are expected to be minimal. Many of the proposed amendments in this rulemaking are intended to clarify current regulatory requirements specific to the construction and use of non-bulk and bulk packagings and do not impose any additional costs on the regulated community. The most significant proposals in the NPRM relate to: (1) The manufacturer, tester, and user of a new packaging category called “Large packagings” (2) the information...
required to be contained in a packaging test report prepared by the person certifying compliance with the HMR; (3) requiring shippers to maintain a copy of the manufacture notification already under current requirements provided to them by the packaging manufacture; and (4) providing guidance to packaging manufacturers on how to instruct shippers to effectively assemble and close packagings.

A “Large Packaging” is a type of packaging design authorized by the UN Recommendations but currently only authorized in the HMR through an approval. Adding the manufacture, testing and use requirements into the HMR provides additional flexibility and effectively removes the need to apply for an approval to manufacture and use these packagings in the United States. This proposal will lead to a reduction in cost to the regulated community. This NPRM includes proposals to require Large Packaging manufacturers to keep records for the qualification of each design type and for each design requalification. We expect this recordkeeping requirement will apply to fewer than 10 regulated entities. Thus, the overall impact of this requirement will be minimal and will be more than offset by the additional flexibility provided by eliminating the current approval provisions.

Currently under the HMR, a person certifying that a packaging meets the construction and testing requirements for UN standard packaging must retain documentation relative to the: (1) Name and address of the packaging manufacturer and testing facility; (2) material of construction; (3) capacity, dimensions, closures, and method of closures; and (4) test results. However, all of the record retention requirements associated with UN standard packaging certification are currently spread out throughout the HMR. This NPRM proposes to locate all of the record retention requirements associated with UN standard packaging certification into a clear and concise location in the HMR. This proposal should not result in any additional cost impacts on the regulated community.

We propose to require shippers to maintain a copy of the manufacturer’s notification for one year. Current requirements specify that the packaging manufacturer must provide the notification. Our proposal to require the shipper to maintain a copy of a document already provided to it should result in minimal, if any, additional cost.

We are also proposing to revise the HMR by providing guidance to packaging manufacturers on how to instruct shippers to effectively assemble and close packagings. Currently packaging manufacturers must provide closure instructions. There is still some confusion as to what closure methods are acceptable. We are proposing to revise the HMR to ensure that the manufacturer’s closure instructions are consistent with the language in the test report and are written so the user is able to duplicate the closure method based on the instructions. The rewording of this requirement will not result in any additional cost to industry.

This NPRM is designed to increase the clarity of the HMR, thereby enhancing voluntary compliance with existing regulatory requirements while reducing compliance costs. Enhanced voluntary compliance by the regulated community improves overall safety. In addition, we anticipate many proposals contained in this rule will have economic benefits. For example, the NPRM proposes to broaden the scope of several packaging exceptions, which manufacturers and shippers may use to reduce transportation costs. Moreover, the incorporation of Large Packaging specifications into the HMR will eliminate the need for shippers to obtain an approval from PHMSA in order to use Large Packagings, thus increasing flexibility and reducing transportation costs. Finally, incorporation of the Large Packaging specifications into the HMR and adoption of other provisions intended to align the HMR with international standards will promote better understanding of the regulations, increased industry compliance, and the smooth flow of hazardous materials in transportation.

C. Executive Order 13132

This notice has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 ("Federalism"). This notice preempts State, local, and Indian tribe requirements but does not propose any regulation with substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

D. Executive Order 13175

This proposed rule addresses subject areas 1, 2, 3, and 5 above. If adopted as final, this rule would preempt any state, local, or Indian tribe requirements concerning these subjects unless the non-Federal requirements are “substantively the same” as the Federal requirements.

6. Regulatory Flexibility Act, Executive Order 13272, and DOT Procedures and Policies

The Regulatory Flexibility Act (5 U.S.C. 601 et seq.) requires an agency to review regulations to assess their impact on small entities. An agency must conduct a regulatory flexibility analysis unless it determines and certifies that a rule is not expected to have a significant impact on a substantial number of small entities. This proposed rule would amend miscellaneous packaging provisions in the HMR to clarify
provisions based on our own initiatives and also on petitions for rulemaking. While maintaining safety, it would relax certain requirements. Many of the proposed amendments in this rulemaking are intended to clarify current regulatory requirements specific to the construction and use of non-bulk and bulk packagings and do not impose any additional costs on small entities.

This proposed rule has been developed in accordance with Executive Order 13272 (“Proper Consideration of Small Entities in Agency Rulemaking”) and DOT’s procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential impacts of draft rules on small entities are properly considered. The changes proposed in this Notice will enhance safety, and I certify that this proposal, if promulgated, would not have a significant economic impact on a substantial number of small entities.

F. Unfunded Mandates Reform Act of 1995

This notice does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It will not result in costs of $120.7 million or more, in the aggregate, to any of the following: State, local, or Native American tribal governments, or the private sector.

G. Paperwork Reduction Act

PHMSA currently has approved information collections under OMB Control No. 2137–0018, “Inspection and Testing of Portable Tanks and Intermediate Bulk Containers,” expiring on July 31, 2007; OMB Control No. 2137–0557, “Approvals for Hazardous Materials,” expiring on March 31, 2008; and OMB Control No. 2137–0572, “Testing Requirements for Non-Bulk Packaging (Formerly: Testing Requirements for Packaging),” expiring on July 31, 2007. We estimate an additional increase in burden as a result of this proposed rulemaking.

Section 1320.8(d), Title 5, Code of Federal Regulations requires PHMSA to provide interested members of the public and affected agencies an opportunity to comment on information collection and recordkeeping requests. This notice identifies proposed new requirements regarding large packagings to the current information collections under OMB Control No. 2137–0018 and the incorporation of existing approvals into the HMR under OMB Control No. 2137–0557. Under OMB Control No. 2137–0572, we anticipate an increase in burden resulting from new testing requirements for non-bulk packaging. PHMSA will submit revised information collections to the Office of Management and Budget (OMB) for approval based on the requirements in this proposed rule. We estimate that the additional information collection burden as proposed under this rulemaking is as follows:

OMB Control No. 2137–0572, “Testing Requirements for Non-Bulk Packaging (Formerly: Testing Requirements for Packaging).”

<table>
<thead>
<tr>
<th>Total Annual Number of Respondents</th>
<th>Total Annual Responses</th>
<th>Total Annual Burden Hours</th>
<th>Total Annual Burden Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,000</td>
<td>15,000</td>
<td>40,000</td>
<td>$941,250.00</td>
</tr>
</tbody>
</table>

PHMSA specifically requests comments on the information collection and recordkeeping burden associated with developing, implementing, and maintaining these requirements for approval under this proposed rule.

Please direct your requests for a copy of this proposed revised information collection and recordkeeping requirements to the OMB for re-approval.

Please direct your requests for a copy of this proposed revised information collection to Deborah Boothe or T. Glenn Foster, Office of Hazardous Materials Standards (PHHS–11), Pipeline and Hazardous Materials Safety Administration (PHMSA), Room 8430, 400 Seventh Street, SW., Washington, DC 20590–0001, Telephone (202) 366–8553.

H. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document may be used to cross-reference this action with the Unified Agenda.

I. Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321–4347), requires Federal agencies to consider the consequences of major federal actions and prepare a detailed statement on actions significantly affecting the quality of the human environment. There are no significant environmental impacts associated with this notice. We are proposing clarifications and changes to certain HMR requirements for the packaging standards for hazardous materials.

J. Privacy Act

Anyone is able to search the electronic form for all comments received into any of our dockets by the name of the individual submitting the comments (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT’s complete Privacy Act Statement in the Federal Register published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78) or you may visit http://dms.dot.gov.

List of Subjects

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Incorporation by reference, Reporting and recordkeeping requirements.

49 CFR Part 172

Education, Hazardous materials transportation, Hazardous waste, Labeling, Markings, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 173

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

49 CFR Part 174

Hazardous materials transportation, Radioactive materials, Railroad safety.

49 CFR Part 178

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

In consideration of the foregoing, we propose to amend 49 CFR Chapter I as follows:

PART 171—GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS

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


2. In § 171.8:
a. The definitions for “Reconditioned packaging,” “Remanufactured packaging,” and “Strong outer packaging” are added.
b. The definition for “Strong outside container” is removed.
c. The definitions for “Bulk packaging,” “Large packaging,” and “Non-bulk packaging” are revised.
The additions and revisions read as follows:

§ 171.8 Definitions and abbreviations.

* * * * *
Bulk packaging means:
(1) Any specification cargo tank, tank car, or portable tank constructed and marked in accordance with part 178 of this subchapter;
(2) Any Specification 3AX, 3AAX or 3T cylinder constructed, marked and certified in accordance with subpart C of part 178 of this subchapter;
(3) Any Industrial Packaging, Type A, Type B, Intermediate Bulk Container, Large Packaging, or non-specification packaging that has a volumetric capacity of greater than 450 L (119 gallons).
* * * * *
Large packaging means a packaging:
(1) Consisting of an outer packaging which contains articles or inner packagings;
(2) Designated for mechanical handling; and
(3) Conforming to the requirements for the use, construction, testing, and marking of Large Packagings as specified in §§ 173.36, and subparts P & Q of part 178 of this subchapter, respectively.
* * * * *
Non bulk packaging means:

§ 171.12 Import and export shipments.

* * * * *
(b) * * *
(13) Non-bulk plastic outer packaging used as a single or composite packaging for materials meeting the definition of Division 6.1 (in § 173.132 of this subchapter) must be marked in accordance with § 172.313(b) of this subchapter.
* * * * *

PART 172—HAZARDOUS MATERIALS TABLE, SPECIAL PROVISIONS, HAZARDOUS MATERIALS COMMUNICATIONS, EMERGENCY RESPONSE INFORMATION, AND TRAINING REQUIREMENTS

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


§ 172.101 [Amended]

5. Section 172.101, the Hazardous Materials Table is amended to read as follows:
a. The entry “Azodicarbonamide,” Column (8B) the reference “212” is removed and “223” is added in its place, and in Column [10B] “12” is removed and “2” is added in its place.
b. The entry “Isosorbide-5-mononitrate,” Column (7) Special Provision 159 is added in the correct numeric order and Column (8B) the reference “213” is removed and “223” is added in its place.
c. In Column (8C), for the following entries, the word “None” is revised to read “62”:

<table>
<thead>
<tr>
<th>Column (2) entry</th>
<th>Column (4) entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammunition smoke, white phosphorus with burster, expelling charge, or propelling charge</td>
<td>UN0245</td>
</tr>
<tr>
<td>Ammunition smoke, white phosphorus with burster, expelling charge, or propelling charge</td>
<td>UN0246</td>
</tr>
<tr>
<td>Ammunition, illuminating with or without burster, expelling charge or propelling charge</td>
<td>UN0171</td>
</tr>
<tr>
<td>Ammunition, illuminating with or without burster, expelling charge or propelling charge</td>
<td>UN0254</td>
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<tr>
<td>Ammunition, incendiary with or without burster, expelling charge or propelling charge</td>
<td>UN0297</td>
</tr>
<tr>
<td>Ammunition, incendiary with or without burster, expelling charge or propelling charge</td>
<td>UN0300</td>
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<td>Ammunition, incendiary with or without burster, expelling charge or propelling charge</td>
<td>UN0009</td>
</tr>
<tr>
<td>Ammunition, incendiary, white phosphorus, with burster, expelling charge or propelling charge</td>
<td>UN0003</td>
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<tr>
<td>Ammunition, incendiary, white phosphorus, with burster, expelling charge or propelling charge</td>
<td>UN0243</td>
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<td>Ammunition, practice</td>
<td>UN0362</td>
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<td>Ammunition, practice</td>
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<tr>
<td>Ammunition, smoke with or without burster, expelling charge or propelling charge</td>
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<td>Ammunition, smoke with or without burster, expelling charge or propelling charge</td>
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<td>Ammunition, smoke with or without burster, expelling charge or propelling charge</td>
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<td>Ammunition, tear-producing with burster, expelling charge or propelling charge</td>
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<tr>
<td>Ammunition, tear-producing with burster, expelling charge or propelling charge</td>
<td>UN0301</td>
</tr>
<tr>
<td>Bombs, photo-flash</td>
<td>UN0038</td>
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<td>Bombs, photo-flash</td>
<td>UN0039</td>
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<tr>
<td>Bombs, photo-flash</td>
<td>UN0299</td>
</tr>
<tr>
<td>Bombs, with bursting charge</td>
<td>UN0035</td>
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<tr>
<td>Bombs, with bursting charge</td>
<td>UN0028</td>
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<tr>
<td>Cartridges for weapons, inert projectile</td>
<td>UN0006</td>
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</table>
§ 172.102 Special provisions.

* * * * *

<table>
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<tr>
<th>Column (2) entry</th>
<th>Column (4) entry</th>
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<tr>
<td>Cartridges for weapons, with bursting charge</td>
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<td>Cartridges, oil well</td>
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<td>UN0278</td>
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<tr>
<td>Cartridges, power device</td>
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<tr>
<td>Cartridges, power device</td>
<td>UN0276</td>
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<tr>
<td>Cartridges, power device</td>
<td>UN0323</td>
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<td>Cartridges, power device</td>
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<td>Charges, demolition</td>
<td>UN0048</td>
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<td>Charges, depth</td>
<td>UN0056</td>
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<td>Cutters, cable, explosive</td>
<td>UN0070</td>
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<td>Fracturing devices, explosive, without detonators for oil wells</td>
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<td>Mines with bursting charge</td>
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<td>Mines with bursting charge</td>
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<td>Projectiles, inert with tracer</td>
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<td>UN0169</td>
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<td>Projectiles, with bursting charge</td>
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<td>Release devices, explosive</td>
<td>UN0173</td>
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<td>Rivets, explosive</td>
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<td>Rocket motors</td>
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<td>Rockets, with bursting charge</td>
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<td>Rockets, with expelling charge</td>
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<td>UN0438</td>
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<td>Rockets, with inert head</td>
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<td>UN0204</td>
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<td>UN0206</td>
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<tr>
<td>Sounding devices, explosive</td>
<td>UN0374</td>
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<td>Sounding devices, explosive</td>
<td>UN0375</td>
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<tr>
<td>Torpedoes with bursting charge</td>
<td>UN0329</td>
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<tr>
<td>Torpedoes with bursting charge</td>
<td>UN0451</td>
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<tr>
<td>Warheads, rocket with burster or expelling charge</td>
<td>UN0370</td>
</tr>
<tr>
<td>Warheads, rocket with bursting charge</td>
<td>UN0286</td>
</tr>
<tr>
<td>Warheads, rocket with bursting charge</td>
<td>UN0287</td>
</tr>
<tr>
<td>Warheads, torpedo with bursting charge</td>
<td>UN0221</td>
</tr>
</tbody>
</table>

§ 172.102 [Amended]

6. In § 172.102:
   a. In paragraph (c)(1), a new Special provision 41 is added in appropriate numerical order.
   b. Paragraph (c)(4) is revised.
   c. Table 1 is amended by revising the entries for IB3 and IB8.
   d. The column headings for the first and second columns and the table headings are revised in Table 1.
   e. The first column heading in Table 2 is revised to read “IP Code.”
   f. The second column heading in Table 2 is removed.
   g. A new Table 3 is added.

The additions and revisions read as follows:

§ 172.102 Special provisions.

* * * * *

(c) * * * *(1) * * * * Code/Special Provisions

41. The following Packing Group II materials may be transported in Large Packagings: Regulated medical waste (UN3291) and Methacrylic acid, stabilized (UN2531).

* * * * *

(4) IB Codes and IP Codes. These provisions apply only to transportation in IBCs and Large Packagings. Table 1 authorizes IBCs through the use of IB Codes assigned in the § 172.101 table of this subchapter for specific proper shipping names. Table 2 defines IP Codes assigned in the § 172.101 Table of this subchapter for specific commodities on the use of IBCs. Table 3 authorizes Large Packagings through the use of IB Codes assigned in the § 172.101 table of this subchapter for specific proper shipping names. Large packagings are authorized when special provisions IB3 or IB8 are assigned in the § 172.101 Table for a specific proper shipping name under the Packing Group III entry. When no IB code is assigned in the § 172.101 Table for a specific proper shipping name, or in § 173.225(e) for Type F organic peroxides, an IBC or Large Packaging may be authorized when approved by the Associate Administrator. The letter “Z” shown in the marking code for composite IBCs must be replaced with a capital code letter designation found in § 178.702(a)(2) of this subchapter to specify the material used for the other packaging. Tables 1, 2, and 3 follow:
TABLE 1.—IB CODES (IBC AUTHORIZATIONS)

<table>
<thead>
<tr>
<th>IB code</th>
<th>Authorized IBCs</th>
</tr>
</thead>
<tbody>
<tr>
<td>IB3</td>
<td>Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 °C (1.1 bar at 122 °F), or 130 kPa at 55 °C (1.3 bar at 131 °F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 3 for UN2672). For authorized Large Packagings, see Table 3.</td>
</tr>
<tr>
<td>IB8</td>
<td>Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2). For authorized Large Packagings, see Table 3.</td>
</tr>
</tbody>
</table>

TABLE 3.—IB CODES (LARGE PACKAGING AUTHORIZATIONS)

<table>
<thead>
<tr>
<th>IB3</th>
<th>Authorized Large Packagings (LIQUIDS) (PG III materials only).2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass—10 liter</td>
<td>Steel (50A).</td>
</tr>
<tr>
<td>Plastics—30 liter</td>
<td>Metal other than steel or aluminum (50N).</td>
</tr>
<tr>
<td>Metal—40 liter</td>
<td>Rigid plastics (50H). Natural Wood (50C) Plywood (50D) Reconstituted wood (50F). Rigid fiberboard (50G).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IB8</th>
<th>Authorized Large Packagings (SOLIDS) (PG III materials only).2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass—10 kg</td>
<td>Steel (50A).</td>
</tr>
<tr>
<td>Plastics—50 kg</td>
<td>Metal other than steel or aluminum (50N).</td>
</tr>
<tr>
<td>Paper—50 kg</td>
<td>Flexible plastics (51H).1</td>
</tr>
<tr>
<td>Fiber—50 kg</td>
<td></td>
</tr>
</tbody>
</table>

1 Flexible plastic (51H) Large Packagings are only authorized for use with flexible inner packagings.
2 Except when authorized under Special Provision 41.

7. In § 172.514, paragraphs (c)(3) and (c)(4) are revised and a new paragraph (c)(5) is added to read as follows:

§ 172.514 Bulk Packagings.

(c) * * * *
(3) A bulk packaging other than a portable tank, cargo tank, or tank car (e.g., a bulk bag or box) with a volumetric capacity of less than 18 cubic meters (640 cubic feet);
(4) An IBC; and
(5) A Large Packaging as defined in § 171.8 of this subchapter.

PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

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


9. In § 173.22, in paragraph (a)(4), two new sentences are added to the end of the paragraph to read as follows:

§ 173.22 Shipper’s responsibility.

(a) * * * *
(4) * * * A person must maintain a copy of the manufacturer’s notification, including closure instructions (see § 178.2(c)), and, if applicable, any supporting documentation for an equivalent level of performance under the selective testing variations in § 178.601. A copy of the notification must be made available for inspection by a representative of the Department upon request for 375 days after offering the package for transportation.

10. In § 173.24b, paragraph (e) is redesignated as paragraph (f) and a new paragraph (e) is added to read as follows:

§ 173.24b Additional general requirements for bulk packagings.

(e) Stacking of bulk packages:
(1) Bulk packagings not designed and tested to be stacked. No packages or
freight (hazardous or otherwise) may be stacked upon a bulk packaging that was not designed and tested to be stacked upon.

2. Bulk packagings designed and tested to be stacked. The superimposed weight placed upon a bulk package designed to be stacked may not exceed the maximum permissible stacking test mass marked on the packaging.

11. In §173.28, in paragraph (a), a third sentence is added and, in paragraph (f), a third sentence is added to read as follows:

§173.28 Reuse, reconditioning, and remanufacture of packagings.

(a) * * * Packagings not meeting the minimum thickness requirements prescribed in paragraph (b)(4)(i) of this section may not be reconditioned or remanufactured.

(b)(4)(i) of this section may not be reconditioned or remanufactured.

12. In §173.35, paragraph (h)(2) is revised to read as follows:

§173.35 Hazardous materials in IBCs.

(h) * * *

(2) Liquids having a vapor pressure greater than 110 kPa (16 psig) at 50 °C (122 °F) or 130 kPa (18.9 psig) at 55 °C (131 °F) may not be transported in metal IBCs.

13. In part 173, a new §173.36 is added to read as follows:

§173.36 Hazardous materials in Large Packagings.

(a) No person may offer or accept a hazardous material for transportation in a Large Packaging except as authorized by this subchapter. Except as otherwise provided for in this subchapter, no Large Packaging may be filled with a Packing Group I or II material. Each Large Packaging used for the transportation of hazardous materials must conform to the requirements of its specification and regulations for the transportation of the particular commodity.

(b) Packaging design—(1) Inner packaging closures. A Large Packaging containing liquid hazardous materials must be packed so that closures on inner packagings are upright.

(2) Flexible (e.g., 51H) Large Packages are only authorized for use with flexible inner packagings.

(3) Friction. The nature and thickness of the outer packaging must be such that friction during transportation is not likely to generate an amount of heat sufficient to dangerously alter the chemical stability of the contents.

(4) Securing and cushioning. Inner packagings of Large Packagings must be packed, secured and cushioned to prevent their breakage or leakage and to control their shifting within the outer packaging under conditions normally incident to transportation. Cushioning material must not be capable of reacting dangerously with the contents of the inner packagings or having its protective properties significantly weakened in the event of leakage.

(5) Metallic devices. Nails, staples and other metallic devices must not protrude into the interior of the outer packaging in such a manner as to be likely to damage inner packagings or receptacles.

(c) Initial use and reuse of Large Packagings. A Large Packaging may be reused. If an inner packaging is constructed of paper or flexible plastic, the inner packaging must be replaced before each reuse. Before a Large Packaging is filled and offered for transportation, the Large Packaging must be given an external visual inspection, by the person filling the Large Packaging, to ensure:

(1) The Large Packaging is free from corrosion, contamination, cracks, cuts, or other damage which would render it unable to pass the prescribed design type test to which it is certified and marked; and

(2) The Large Packaging is marked in accordance with requirements in §178.903 of this subchapter. Additional marking allowed for each design type may be present. Required markings that are missing, damaged or difficult to read must be restored or returned to original condition.

(d) During transportation—

(1) No hazardous material may remain on the outside of the Large Packaging; and

(2) Each Large Packaging must be securely fastened to or contained within the transport unit.

(e) Each Large Packaging used for transportation of solids which may become liquid at temperatures likely to be encountered during transportation may not be transported in paper or fiber inner packagings. The inner packagings must be capable of containing the substance in the liquid state.

(f) Liquid hazardous materials may only be offered for transportation in inner packagings appropriately resistant to an increase of internal pressure likely to develop during transportation.

(g) Large Packaging used to transport hazardous materials may not exceed 3 cubic meters (106 cubic feet) capacity.

(h) Mixed contents. (1) An outer Large Packaging may contain more than one hazardous material only when—

(i) The inner and outer packagings used for each hazardous material conform to the relevant packaging sections of this part applicable to that hazardous material;

(ii) The package as prepared for shipment meets the performance tests prescribed in part 178 of this subchapter for the hazardous materials contained in the package;

(iii) Corrosive materials (except ORM–D) in bottles are further packed in securely closed inner receptacles before packing in outer packagings; and

(iv) For transportation by aircraft, the total net quantity does not exceed the lowest permitted maximum net quantity per package as shown in Column 9a or 9b, as appropriate, of the §172.101 table. The permitted maximum net quantity must be calculated in kilograms if a package contains both a liquid and a solid.

(2) A packaging containing inner packagings of Division 6.2 materials may not contain other hazardous materials, except dry ice.

(i) When a Large Packaging is used for the transportation of liquids with a flash point of 60.5 °C (141 °F) (closed cup) or lower, or powders with the potential for dust explosion, measures must be taken during product loading and unloading to prevent a dangerous electrostatic discharge.

14. In §173.62, paragraph (c) Packing Instruction 130 is revised to read as follows:

§173.62 Specific packaging requirements for explosives.

(c) * * *

* * * * *
15. In § 173.223, the section title is changed to “Packagings for certain flammable solids” and the introductory text to paragraph (a) is revised as follows:

§ 173.223 Packagings for certain flammable solids.

(a) Packagings for “Musk xylene,” “5-tert-Butyl-2,4,6-trinitro-m-xylene,” “Azodicarbonamide,” or “Isosorbide-5-mononitrate,” when offered for transportation or transported by rail, highway, or vessel, must conform to the general packaging requirements of subpart B of part 173, and to the requirements of part 178 of this subchapter at the Packing Group III performance level and may only be transported in the following packagings:

16. In § 173.240, paragraph (e) is added as follows:

§ 173.240 Bulk packagings for certain low hazard solid materials.

(e) Large Packagings. Large Packagings are authorized subject to the conditions and limitations of this section provided the Large Packaging type is authorized according to the IBC packaging code specified for the specific hazardous material in Column (7) of the § 172.101 Table of this subchapter and the Large Packaging conforms to the requirements in subpart Q of part 178 of this subchapter at the Packing Group performance level as specified in Column (5) of the § 172.101 Table for the material being transported.

(1) Except as specifically authorized in this subchapter, Large Packagings may not be used for Packing Group I or II hazardous materials.

(2) Large Packagings with paper or fiberboard inner receptacles may not be used for solids that may become liquid in transportation.

17. In § 173.241, paragraph (e) is added as follows:

§ 173.241 Bulk packagings for certain low hazard liquid and solid materials.

(e) Large Packagings. Large Packagings are authorized subject to the conditions and limitations of this section provided the Large Packaging type is authorized according to the IBC packaging code specified for the specific hazardous material in Column (7) of the § 172.101 Table of this subchapter and the Large Packaging conforms to the requirements in subpart Q of part 178 of this subchapter at the Packing Group performance level as specified in Column (5) of the § 172.101 Table for the material being transported.

(1) Except as specifically authorized in this subchapter, Large Packagings may not be used for Packing Group I or II hazardous materials.

(2) Large Packagings with paper or fiberboard inner receptacles may not be used for solids that may become liquid in transportation.

§ 173.242 Bulk packagings for certain medium hazard liquids and solids, including solids with dual hazards.

(e) Large Packagings. Large Packagings are authorized subject to the conditions and limitations of this section provided the Large Packaging type is authorized according to the IBC packaging code specified for the specific hazardous material in Column (7) of the § 172.101 Table of this subchapter and the Large Packaging conforms to the requirements in subpart Q of part 178 of this subchapter at the Packing Group performance level as specified in Column (5) of the § 172.101 Table for the material being transported.
requirements in subpart Q of part 178 of this subchapter at the Packing Group performance level as specified in Column (5) of the § 172.101 Table for the material being transported. 

(1) Except as specifically authorized in this subchapter, Large Packagings may not be used for Packing Group I or II hazardous materials. 

(2) Large Packagings with paper or fiberboard inner receptacles may not be used for solids that may become liquid in transportation. 

9. In § 173.249, paragraph (b) is revised to read as follows: 

§ 173.249 Bromine. 

* * * * * 

(b) Specification MC 310, MC 311, MC 312 or DOT 412 cargo tank motor vehicles conforming with paragraphs (d) through (f) of this section. Except when transported as a residue, the total quantity in one tank may not be less than 88 percent nor more than 96 percent of the volume of the tank. Cargo tanks in service built prior to August 31, 1991 may continue in service under the requirements contained in § 173.252(a)(4) of this part in effect on September 30, 1991. 

* * * * * 

§ 173.338 [Amended] 

20. In § 173.338, the second sentence, the wording “strong outside container” is removed and the wording “strong outer packaging” is added in its place. 

PART 174—CARRIAGE BY RAIL 

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


22. In § 174.63, the section heading is revised and paragraph (a) is revised to read as follows: 

§ 174.63 Portable tanks, IM portable tanks, IBCs, Large Packagings, cargo tanks, and multi-unit tank car tanks. 

(a) A carrier may not transport a bulk packaging (e.g., portable tank, IM portable tank, IBC, Large Packaging, cargo tank, or multi-unit tank car tank) containing a hazardous material in container-on-flatcar (COFC) or trailer-on-flatcar (TOFC) service except as authorized by this section or unless approved for transportation by the Associate Administrator for Safety, FRA. 

* * * * * 

PART 178—SPECIFICATIONS FOR PACKAGINGS 

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


24. In § 178.2, paragraph (c)(1)(iii) is revised as follows: 

§ 178.2 Applicability and responsibility. 

* * * * * 

(c) * * * 

(1) * * * 

(ii) With information specifying the type(s) and dimensions of the closures, including gaskets and any other components needed to ensure the packaging is capable of successfully passing the applicable performance tests. This information must include any procedures to be followed, including closure instructions for inner packagings and receptacles, to effectively assemble and close the packaging for the purpose of preventing leakage in transportation. Closure instructions must provide for a consistent and repeatable means of closure that is sufficient to ensure the packaging is closed in the same manner as it was tested. For packagings sold or represented as being in conformance with the requirements of this subchapter applicable to transportation by aircraft, this information must include relevant guidance to ensure that the packaging, as prepared for transportation, will withstand the pressure differential requirements in § 173.27 of this subchapter. 

* * * * * 

25. In § 178.3, paragraph (a)(5) is revised to read as follows: 

§ 178.3 Marking of packagings. 

(a) * * * 

(5) For packages with a gross mass of more than 90 kg (66 pounds), the markings or a duplicate thereof must appear on the top or on a side of the packaging. Metal drums having a capacity greater than 100 L must be marked on the bottom in accordance with § 178.503(a)(10). For metal drums the side or top marking may identify a lesser performance standard than the permanent marking on the bottom of the drum. 

* * * * * 

26. In § 178.503, paragraphs (a)(1) and (a)(10) are revised, paragraph (e)(1) is redesignated as (e)(1)(i), and a new paragraph (e)(1)(ii) is added as follows: 

§ 178.503 Marking of packagings. 

(a) * * * 

(1) Except as provided in paragraph (e)(1)(ii) of this section, the United Nations symbol as illustrated in paragraph (e)(1)(i) of this section (for embossed metal receptacles, the letters “UN”) may be applied in place of the symbol; 

* * * * * 

(10) In addition to the markings prescribed in paragraphs (a)(1) through (a)(9) of this section, every new metal drum having a capacity greater than 100 L must bear the marks described in paragraphs (a)(1) through (a)(6), and (a)(9)(i) of this section, in a permanent form, on the bottom. The markings on the top head or side of these packagings required under § 178.3(a)(5) of this part need not be permanent, and need not include the thickness mark described in paragraph (a)(9) of this section. This marking indicates a drum’s characteristics at the time it was manufactured. The information in paragraphs (a)(1) through (a)(6) of this section marked on the top head or side may not identify a greater performance capability than the information in paragraphs (a)(1) through (a)(6) of this section permanently marked by the original manufacturer on the bottom of the drum; and 

* * * * * 

(a) * * * 

(1) * * * 

(ii) The circle that surrounds the letters “u” and “n” may have small breaks provided the following provisions are met: 

(A) The total gap space does not exceed 10 percent of the circumference of the circle; 

(B) There are no more than three gaps in the circle; 

(C) The spacing between gaps is separated by no less than 20 percent of the circumference of the circle (72 degrees); and 

(D) The letters “u” and “n” appear exactly as depicted in § 178.3(e)(1)(ii) with no gaps. 

* * * * * 

27. In § 178.512, paragraph (b)(5) is added as follows: 

§ 178.512 Standards for steel or aluminum boxes. 

* * * * * 

(b) * * * 

(5) Maximum volumetric capacity of: 

450 L (119 gallons). 

28. In § 178.513, paragraph (b)(5) is added as follows: 

§ 178.513 Standards for boxes of natural wood. 

* * * * * 

(b) * * * 

(5) Maximum volumetric capacity of: 

450 L (119 gallons). 

29. In § 178.514, paragraph (b)(3) is added as follows: 

§ 178.514 Standards for plywood boxes. 

* * * * *
§ 178.703 Marking of IBCs.
§ 178.519 Standards for plastic boxes.
§ 178.518 Standards for woven plastic bags.
§ 178.700 Purpose, scope and definitions.
§ 178.601 General requirements.
§ 178.520 Standards for textile bags.
§ 450 L (119 gallons).
§ 178.521 Standards for paper bags.
§ 178.516 Standards for fiberboard boxes.
§ 178.522 Standards for plastic packagings.
§ 178.517 Standards for plastic boxes.
§ 178.515 Standards for reconstituted wood boxes.
§ 178.523 Standards for textile packagings.
§ 178.514 Standards for fiberboard packagings.
§ 178.527 Standards for metallic packagings.
§ 178.513 Standards for paper packagings.
§ 178.529 Standards for paper and fiberboard packagings.
§ 178.512 Standards for reusable fiberboard and paper packagings.
§ 178.528 Standards for wooden packagings.
§ 178.511 Standards for nonreusable fiberboard and paper packagings.
§ 178.524 Standards for reconstituted wood packagings.
§ 178.510 Standards for wood packagings.
§ 178.526 Standards for plastic and textile packagings.
§ 178.525 Standards for plastic and paper packagings.
§ 178.523 Standards for plastic packagings.
§ 178.701 Purpose, scope and definitions.
§ 178.702 Purpose, scope and definitions.
§ 178.600 General requirements.
§ 178.602 General requirements.
§ 178.603 General requirements.
§ 178.604 General requirements.
§ 178.605 General requirements.
§ 178.606 General requirements.
§ 178.607 General requirements.
§ 178.608 General requirements.
§ 178.609 General requirements.
§ 178.610 General requirements.
§ 178.700 Purpose, scope and definitions.
§ 178.701 Purpose, scope and definitions.
§ 178.702 Purpose, scope and definitions.
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§ 178.711 Purpose, scope and definitions.
§ 178.712 Purpose, scope and definitions.
§ 178.713 Purpose, scope and definitions.
§ 178.714 Purpose, scope and definitions.
§ 178.715 Purpose, scope and definitions.
§ 178.716 Purpose, scope and definitions.
§ 178.717 Purpose, scope and definitions.
§ 178.718 Purpose, scope and definitions.
§ 178.719 Purpose, scope and definitions.
§ 178.720 Purpose, scope and definitions.
§ 178.721 Purpose, scope and definitions.
§ 178.722 Purpose, scope and definitions.
§ 178.723 Purpose, scope and definitions.
§ 178.724 Purpose, scope and definitions.
§ 178.725 Purpose, scope and definitions.
§ 178.726 Purpose, scope and definitions.
§ 178.727 Purpose, scope and definitions.
§ 178.728 Purpose, scope and definitions.
§ 178.729 Purpose, scope and definitions.
§ 178.730 Purpose, scope and definitions.
§ 178.731 Purpose, scope and definitions.
§ 178.732 Purpose, scope and definitions.
§ 178.733 Purpose, scope and definitions.
§ 178.734 Purpose, scope and definitions.
(i) Except as provided in § 178.503(e)(1)(ii), the United Nations symbol as illustrated in § 178.503(e)(1)(i). For metal IBCs on which the marking is stamped or embossed, the capital letters “UN” may be applied instead of the symbol. * * * * * 40. In 178.705, paragraph (d) is added to read as follows:

§ 178.705 Standards for metal IBCs.

* * * * * (d) Metal IBCs may not have a volumetric capacity greater than 3,000 L (793 gallons) and not less than 450 L (119 gallons).

41. In 178.706, paragraph (d) is added to read as follows:

§ 178.706 Standards for rigid plastic IBCs.

* * * * * (d) Rigid plastic IBCs may not have a volumetric capacity greater than 3,000 L (793 gallons) and not less than 450 L (119 gallons).

42. In 178.707, paragraph (d) is added to read as follows:

§ 178.707 Standards for composite IBCs.

* * * * * (d) Composite IBCs may not have a volumetric capacity greater than 3,000 L (793 gallons) and not less than 450 L (119 gallons).

43. In 178.708, paragraph (d) is added to read as follows:

§ 178.708 Standards for fiberboard IBCs.

* * * * * (d) Fiberboard IBCs may not have a volumetric capacity greater than 3,000 L (793 gallons) and not less than 450 L (119 gallons).

44. In 178.709, paragraph (d) is added to read as follows:

§ 178.709 Standards for wooden IBCs.

* * * * * (d) Wooden IBCs may not have a volumetric capacity greater than 3,000 L (793 gallons) and not less than 450 L (119 gallons).

45. In 178.710, paragraph (d) is added to read as follows:

§ 178.710 Standards for flexible IBCs.

* * * * * (d) Flexible IBCs;

(1) May not have a volumetric capacity greater than 3,000 L (793 gallons) and not less than 56 L (15 gallons); and
(2) Must be designed and tested to a capacity of no less than 50 kg (110 pounds).

46. Section 178.801 paragraph (i) is revised to read as follows:

§ 178.801 General requirements.

* * * * * (i) Approval of equivalent packagings. An IBC differing from the standards in subpart N of this part, or tested using methods other than those specified in this subpart, may be used if approved by the Associate Administrator. Such IBCs must be shown to be equally effective, and testing methods used must be equivalent.

47. In 178.810, paragraph (c) is revised as follows:

§ 178.810 Drop test.

* * * * * (c) Test method. (1) Samples of all IBC design types must be dropped onto a rigid, non-resilient, smooth, flat and horizontal surface. The point of impact must be the most vulnerable part of the base of the IBC being tested. Following the drop, the IBC must be restored to the upright position for observation.

(2) IBC design types with a capacity of 0.45 cubic meters (15.9 cubic feet) or less must be subject to an addition drop test.

* * * * * 48. In 178.815 is revised to read as follows:

§ 178.815 Stacking test.

(a) General. The stacking test must be conducted for the qualification of all IBC design types intended to be stacked.

(b) Special preparation for the stacking test. (1) All IBCs except flexible IBC design types must be loaded to their maximum permissible gross mass.

(2) The flexible IBC must be filled to not less than 95 percent of its capacity and to its maximum net mass, with the load being evenly distributed.

(c) Test method—(1) Design Qualification Testing. All IBCs must be placed on their base on level, hard ground and subjected to a uniformly distributed superimposed test load for a period of at least five minutes (see paragraph (c)(5) of this section).

(2) Fiberboard, wooden and composite IBCs with outer packagings constructed of other than plastic materials must be subject to the test for 24 hours.

(3) Rigid plastic IBC types and composite IBC types with plastic outer packagings (11HH1, 11HH2, 21HH1, 21HH2, 31HH1 and 31HH2) which bear the stacking load must be subjected to the test for 28 days at 40 °C (104 °F).

(4) For all IBCs, the load must be applied by one of the following methods:

(i) One or more IBCs of the same type loaded to their maximum permissible gross mass and stacked on the test IBC;

(ii) The calculated superimposed test load weight loaded on either a flat plate or a reproduction of the base of the IBC, which is stacked on the test IBC.

(5) Calculation of superimposed test load. For all IBCs, the load to be placed on the IBC must be 1.8 times the combined maximum permissible gross mass of the number of similar IBCs that may be stacked on top of the IBC during transportation.

(d) Periodic Retest. (1) The package must be tested in accordance with § 178.815(c) of this subpart; or

(2) The packaging may be tested using a dynamic compression testing machine. The test must be conducted at room temperature on an empty, unsealed packaging. The test sample must be centered on the bottom platen of the testing machine. The top platen must be lowered until it comes in contact with the test sample. Compression must be applied end to end. The speed of the compression tester must be one-half inch plus or minus one-fourth inch per minute. An initial preload of 50 pounds must be applied to ensure a definite contact between the test sample and the platens. The distance between the platens at this time must be recorded as zero deformation. The force “A” then to be applied must be calculated using the applicable formula:

Liquids: A = (1.8)(n − 1) [w + (s × v × 8.3 × .98)] × 1.5; or

Solids: A = (1.8)(n − 1) [w + (s × v × 8.3 × .95)] × 1.5

Where:

A = applied load in pounds.

n = maximum number of IBCs being stacked during transportation.

w = maximum weight of one empty container in pounds.

s = specific gravity (liquids) or density (solids) of the lading.

v = actual capacity of container (rated capacity + outage) in gallons.

and:

8.3 corresponds to the weight in pounds of 1.0 gallon of water.

1.5 is a compensation factor covering the static load of the stacking test into a load suitable for dynamic compression testing.

(e) Criteria for passing the test. (1) For metal, rigid plastic, and composite IBCs, there may be no permanent deformation, which renders the IBC unsafe for transportation, and no loss of contents.

(2) For fiberboard and wooden IBCs, there may be no loss of contents and no permanent deformation, which renders the whole IBC, including the base pallet, unsafe for transportation.

(3) For flexible IBCs, there may be no deterioration, which renders the IBC,
§178.819 Vibration test.

(b) * * *

(1) * * * IBCs intended for liquids may be tested using water as the filling material for the vibration test.

(2) The sample IBC must be placed on a vibrating platform with a vertical or rotary double-amplitude (peak-to-peak displacement) of one inch. The IBC must be constrained horizontally to prevent it from falling off the platform, but must be left free to move vertically and bounce.

§178.900 Purpose and scope.

(a) This subpart prescribes requirements for Large Packaging intended for the transportation of hazardous materials. Standards for these packagings are based on the UN Recommendations.

(b) Terms used in this subpart are defined in §171.8 of this subchapter.

§178.902 Large Packaging identification codes.

Large packaging code designations consist of: Two numerals specified in paragraph (a) of this section; followed by the capital letter(s) specified in paragraph (b) of this section.

(a) Large packaging code number designation are as follows: 50 for rigid Large Packagings; or 51 for flexible Large Packagings.

(b) Large Packagings code letter designations are as follows:

“A” means steel (all types and surface treatments).

“B” means aluminum.

“C” means natural wood.

“D” means plywood.

“F” means reconstituted wood.

“G” means fiberboard.

“H” means plastic.

“M” means paper, multiwall.

“N” means metal (other than steel or aluminum).

§178.903 Marking of Large Packagings.

(a) The manufacturer must:

(1) Mark every Large Packaging in a durable and clearly visible manner. The marking may be applied in a single line or in multiple lines provided the correct sequence is followed with the information required by this section. The following information is required in the sequence presented:

(i) Except as provided in §178.503(e)(1)(ii), the United Nations packaging symbol as illustrated in §178.503(e)(1)(i). For metal Large Packagings on which the marking is stamped or embossed, the capital letters “UN” may be applied instead of the symbol;

(ii) The code number designating the Large Packaging design type according to §178.901. The letter “W” must follow the Large Packaging design type identification code on a Large Packaging when the Large Packaging differs from the requirements in subpart P of this part, or is tested using methods other than those specified in this subpart, and is approved by the Associate Administrator in accordance with the provisions in §178.1001;

(iii) A capital letter identifying the performance standard under which the design type has been successfully tested, as follows:

(A) X—for Large Packagings meeting Packing Groups I, II and III tests;

(B) Y—for Large Packagings meeting Packing Groups II and III tests; and

(C) Z—for Large Packagings meeting Packing Group III test.

(iv) The month (designated numerically) and year (last two digits) of manufacture;

(v) The country authorizing the allocation of the mark. The letters “USA” indicate that the Large Packaging is manufactured and marked in the United States in compliance with the provisions of this subchapter.

(vi) The name and address or symbol of the manufacturer or the approval agency certifying compliance with subpart P and subpart Q of this part. Symbols, if used, must be registered with the Associate Administrator.

(vii) The stacking test load in kilograms (kg). For Large Packagings not designed for stacking the figure “0” must be shown.

(viii) The maximum permissible gross mass or for flexible Large Packagings, the maximum net mass, in kg.

(2) The following are examples of symbols and required markings:

(i) For a steel Large Packaging suitable for stacking; stacking load: 2,500 kg; maximum gross mass: 1,000 kg.

(ii) For a plastic Large Packaging not suitable for stacking; maximum gross mass: 800 kg.
(iii) For a Flexible Large Packaging not suitable for stacking; maximum gross mass: 500 kg.

(b) [Reserved]

§ 178.904 General Large Packaging standards.

(a) Each Large Packaging must be resistant to, or protected from, deterioration due to exposure to the external environment. Large packagings intended for solid hazardous materials must be silt-proof and water-resistant.

(b) All service equipment must be positioned or protected to minimize potential loss of contents resulting from damage during Large Packaging handling and transportation.

(c) Each Large Packaging, including attachments and service and structural equipment, must be designed to withstand, without loss of hazardous materials, the internal pressure of the contents and the stresses of normal handling and transport. A Large Packaging intended for stacking must be designed for stacking. Any lifting or securing features of a Large Packaging must be sufficient strength to withstand the normal conditions of handling and transportation without gross distortion or failure and must be positioned so as to cause no undue stress in any part of the Large Packaging.

(d) A Large Packaging consisting of packagings within a framework must be so constructed that the packaging is not damaged by the framework and is retained within the framework at all times.

(e) Large packaging design types must be constructed in such a way as to be bottom-lifted or top-lifted as specified in §§ 178.1004 and 178.1005.

§ 178.905 Standards for metal Large Packagings.

(a) The provisions in this section apply to metal Large Packagings intended to contain liquids and solids. Metal Large Packaging types are designated:

1. 50A steel
2. 50B aluminum
3. 50N metal (other than steel or aluminum)

(b) Each Large Packaging must be made of suitable ductile metal materials. Welds must be made so as to maintain design type integrity of the receptacle under conditions normally incident to transportation. Low-temperature performance must be taken into account when appropriate.

(c) The use of dissimilar metals must not result in deterioration that could affect the integrity of the Large Packaging.

(d) Metal Large Packagings may not have a volumetric capacity greater than 3,000 L (793 gallons) and not less than 450 L (119 gallons).

§ 178.906 Standards for rigid plastic Large Packagings.

(a) The provisions in this section apply to rigid plastic Large Packagings intended to contain liquids and solids. Rigid plastic Large Packaging types are designated:

1. 50H rigid plastics.
2. 50G fiberboard.

(b) A Rigid plastic Large Packaging must be manufactured from plastic material of known specifications and be of a strength relative to its capacity and to the service it is required to perform. In addition to conformance to § 173.24 of this subchapter, plastic materials must be resistant to aging and to degradation caused by ultraviolet radiation.

1. If protection against ultraviolet radiation is necessary, it must be provided by the addition of a pigment or inhibitor such as carbon black to plastic materials. These additives must be compatible with the contents and remain effective throughout the life of the plastic Large Packaging body. Where use is made of carbon black, pigments or inhibitors, other than those used in the manufacture of the tested design type, retesting may be omitted if changes in the carbon black content, the pigment content or the inhibitor content do not adversely affect the physical properties of the material of construction.

2. Additives may be included in the composition of the plastic material to improve the resistance to aging or to serve other purposes, provided they do not adversely affect the physical or chemical properties of the material of construction.

3. No used material other than production residues or regrind from the same manufacturing process may be used in the manufacture of rigid plastic Large Packagings.

(c) Rigid plastic Large Packagings:

1. May not have a volumetric capacity greater than 3,000 L (793 gallons); and
2. May not have a volumetric capacity less than 564 450 L (119 gallons).

§ 178.907 Standards for fiberboard Large Packagings.

(a) The provisions in this section apply to fiberboard Large Packagings intended to contain solids. Fiberboard Large Packaging types are designated:

1. 50G fiberboard.

(b) Construction requirements for fiberboard Large Packagings.

1. Fiberboard Large Packagings must be constructed of strong, solid or double-faced corrugated fiberboard (single or multiwall) that is appropriate to the capacity of the Large Packagings and to their intended use. Water resistance of the outer surface must be such that the increase in mass, as determined in a test carried out over a period of 30 minutes by the Cobb method of determining water absorption, is not greater than 155 grams per square meter (0.0316 pounds per square foot)—see ISO 535 (E) [IBR, see § 171.7 of this subchapter]. Fiberboard must have proper bending qualities. Fiberboard must be cut, creased without
cutting through any thickness of fiberboard, and slotted so as to permit assembly without cracking, surface breaks or undue bending. The fluting or corrugated fiberboard must be firmly glued to the facings.

(i) The walls, including top and bottom, must have a minimum puncture resistance of 15 Joules (11 foot-pounds of energy) measured according to ISO 3036 (IBR, see § 171.7 of this subchapter)

(ii) Manufacturers’ joints in the outer packaging of Large Packagings must be made with an appropriate overlap and be taped, glued, stitched with metal staples or fastened by other means at least equally effective. Where joints are made by gluing or taping, a water resistant adhesive must be used. Metal staples must pass completely through all pieces to be fastened and be formed or protected so that any inner liner cannot be abraded or punctured by them.

(2) Integral and detachable pallets. (i) Any integral pallet base forming part of a Large Packaging or any detachable pallet must be suitable for mechanical handling with the Large Packaging filled to its maximum permissible gross mass.

(ii) The pallet or integral base must be designed to avoid protrusions causing damage to the fiberboard Large Packagings in handling.

(iii) The body must be secured to any detachable pallet to ensure stability in handling and transport. Where a detachable pallet is used, its top surface must be free from protrusions that might damage the Large Packaging.

(3) Strengthening devices, such as timber supports to increase stacking performance may be used but must be external to the liner.

(4) The load-bearing surfaces of the Large Packagings intended for stacking must be designed to distribute the load in a stable manner.

(c) Fiberboard Large Packagings may not have a volumetric capacity greater than 3,000 L (793 gallons) and not less than 450 L (119 gallons).

§ 178.908 Standards for wooden Large Packagings.

(a) The provisions in this section apply to wooden Large Packagings intended to contain solids. Wooden Large Packaging types are designated:

(1) 50C natural wood
(2) 50D plywood
(3) 50F reconstituted wood

(b) Construction requirements for wooden Large Packagings are as follows:

(1) The strength of the materials used and the method of construction must be appropriate to the capacity and intended use of the Large Packagings.

(i) Natural wood used in the construction of Large Packagings must be well-seasoned, commercially dry and free from defects that would materially lessen the strength of any part of the Large Packagings. Each Large Packaging part must consist of uncut wood or a piece equivalent in strength and integrity. Large packagings parts are equivalent to one piece when a suitable method of glued assembly is used (i.e., a Lindemann joint, tongue and groove joint, ship, lap or babet joint; or butt joint with at least two corrugated metal fasteners at each joint, or when other methods at least equally effective are used).

(ii) Plywood used in construction must be at least 3-ply. Plywood must be made of well-seasoned rotary cut, sliced or sawn veneer, commercially dry and free from defects that would materially lessen the strength of the Large Packagings. All adjacent piles must be glued with water resistant adhesive. Materials other than plywood may be used for the construction of the Large Packaging.

(iii) Reconstituted wood used in the construction of Large Packagings must be water resistant reconstituted wood such as hardboard, particle board or other suitable type.

(iv) Wooden Large Packagings must be firmly nailed or secured to corner posts or ends or be assembled by similar devices.

(2) Integral and detachable pallets. (i) Any integral pallet base forming part of a Large Packaging, or any detachable pallet must be suitable for mechanical handling of a Large Packaging filled to its maximum permissible gross mass.

(ii) The pallet or integral base must be designed to avoid protrusion that may cause damage to the Large Packaging in handling.

(iii) The body must be secured to any detachable pallet to ensure stability in handling and transportation. Where a detachable pallet is used, its top surface must be free from protrusions that might damage the Large Packaging.

(3) Strengthening devices, such as timber supports to increase stacking performance, may be used but must be external to the liner.

(4) The load bearing surfaces of the Large Packaging must be designed to distribute loads in a stable manner.

(c) Wooden Large Packagings:

(1) May not have a volumetric capacity greater than 3,000 L (793 gallons);

(2) May not have a volumetric capacity less than 56 L (15 gallons); and

(3) Must be designed and tested to a capacity of not less than 50 kg (110 pounds).

§ 178.909 Standards for flexible Large Packagings.

(a) The provisions in this section apply to flexible Large Packagings intended to contain liquids and solids. Flexible Large Packagings types are designated:

(1) 51H flexible plastics
(2) 51M flexible paper

(b) Construction requirements for flexible Large Packagings are as follows:

(1) The strength of the material and the construction of the flexible Large Packagings must be appropriate to its capacity and its intended use.

(2) All materials used in the construction of flexible Large Packagings of types 51M must, after complete immersion in water for not less than 24 hours, retain at least 85 percent of the tensile strength as measured originally on the material conditioned to equilibrium at 67 percent relative humidity or less.

(3) Seams must be stitched or formed by heat sealing, gluing or any equivalent method. All stitched seam-ends must be secured.

(4) In addition to conformance with the requirements of § 173.24 of this subchapter, flexible Large Packaging must be resistant to aging and degradation caused by ultraviolet radiation.

(5) For plastics flexible Large Packagings, if necessary, protection against ultraviolet radiation must be provided by the addition of pigments or inhibitors such as carbon black. These additives must be compatible with the contents and remain effective throughout the life of the Large Packaging. Where use is made of carbon black, pigments or inhibitors other than those used in the manufacture of the tested design type, restesting may be omitted if the carbon black content, the pigment content or the inhibitor content do not adversely affect the physical properties of the material of construction.

(6) Additives may be included in the composition of the material of the Large Packaging to improve the resistance to aging, provided they do not adversely affect the physical or chemical properties of the material.

(7) When flexible material Large Packagings are filled, the ratio of height to width must be no more than 2:1.

(c) Flexible Large Packagings:

(1) May not have a volumetric capacity greater than 3,000 L (793 gallons); and

(2) May not have a volumetric capacity less than 56 L (15 gallons); and

(3) Must be designed and tested to a capacity of not less than 50 kg (110 pounds).
Subpart Q—Testing of Large Packagings

Sec.
178.1000 Purpose and scope.
178.1001 General requirements.
178.1002 Preparation of Large Packagings for testing.
178.1010 Drop test.
178.1011 Bottom lift test.
178.1012 Top lift test.
178.1013 Stacking test.
178.1019 Vibration test.

§178.1000 Purpose and scope.

This subpart prescribes certain testing requirements for Large Packagings identified in subpart P of this part.

§178.1001 General requirements.

(a) General: The test procedures prescribed in this subpart are intended to ensure that Large Packagings containing hazardous materials can withstand normal conditions of transportation. These test procedures are considered minimum requirements. Each packaging must be manufactured and assembled so as to be capable of successfully passing the prescribed tests and to conform to the requirements of §173.24 of this subchapter while in transportation.

(b) Responsibility. It is the responsibility of the Large Packaging manufacturer to ensure each Large Packaging is capable of passing the prescribed tests. To the extent a Large Packagings’ assembly function, including final closure, is performed by the person who offers a hazardous material for transportation, that person is responsible for performing the function in accordance with §§173.22 and 178.2 of this subchapter.

(c) Definitions. For the purpose of this subpart:

(1) Large packaging design type refers to a Large Packaging which does not differ in structural design, size, material of construction and packing.

(2) Design qualification testing is the performance of the drop, stacking, and bottom-lift or top-lift tests, as applicable, prescribed in this subpart, for each different Large Packaging design type, at the start of production of that packaging.

(3) Periodic design requalification test is the performance of the applicable tests specified in paragraph (c)(2) of this section on a Large Packaging design type, in order to requalify the design for continued production at the frequency specified in paragraph (e) of this section.

(4) Production inspection is the inspection, which must initially be conducted on each newly manufactured Large Packaging.

(5) Different Large Packaging design type is one, which differs from a previously qualified Large Packaging design type in structural design, size, material of construction, wall thickness, or manner of construction, but does not include:

(i) A packaging, which differs in surface treatment;

(ii) A rigid plastic Large Packaging, which differs with regard to additives used to comply with §§178.906(b) or 178.909(b);

(iii) A packaging, which differs only in its lesser external dimensions (i.e., height, width, length) provided materials of construction and material thickness or fabric weight remain the same;

(d) Design qualification testing. The packaging manufacturer must achieve successful test results for the design qualification testing at the start of production of each new or different Large Packaging design type.

(e) Periodic design requalification testing.

(1) Periodic design requalification must be conducted on each qualified Large Packaging design type if the manufacturer is to maintain authorization for continued production. The Large Packaging manufacturer must achieve successful test results for the periodic design requalification at sufficient frequency to ensure each packaging produced by the manufacturer is capable of passing the design qualification tests. Design requalification tests must be conducted at least once every 24 months.

(2) Changes in the frequency of design requalification testing specified in paragraph (e)(1) of this section are authorized if approved by the Associate Administrator.

(f) Test samples. The manufacturer must conduct the design qualification and periodic tests prescribed in this subpart using random samples of packagings, in the numbers specified in the appropriate test section.

(g) Selective testing. The selective testing of Large Packagings, which differ only in minor respects from a tested type is permitted as described in this section. For air transport, Large Packagings must comply with §173.27(c)(1) and (c)(2) of this subchapter. Variations are permitted in inner packagings of a tested Large Packaging, without further testing of the package, provided an equivalent level of performance is maintained and the methodology used to determine that the inner packaging, including closure, maintains an equivalent level of performance is documented in writing by the person certifying compliance with this paragraph and retained in accordance with paragraph (l) of this section. Permitted variations are as follows:

(i) Inner packagings of equivalent or smaller size may be used provided—

(ii) The inner packagings are of similar design to the tested inner packagings (i.e., shape-round, rectangular, etc.);

(iii) The material of construction of the inner packagings (glass, plastic, metal, etc.) offers resistance to impact and stacking forces equal to or greater than that of the originally tested inner packaging;

(iv) The inner packagings have the same or smaller openings and the closure is of similar design (e.g., screw cap, friction lid, etc.);

(v) Sufficient additional cushioning material is used to take up void spaces and to prevent significant movement of the inner packagings;

(vi) Inner packagings are oriented within the outer packaging in the same manner as in the tested package; and,

(vii) The gross mass of the package does not exceed that originally tested.

(2) A lessor number of the tested inner packagings, or of the alternative types of inner packagings identified in paragraph (g)(1) of this section, may be used provided sufficient cushioning is added to fill void space(s) and to prevent significant movement of the inner packagings.

(h) Proof of compliance. Notwithstanding the periodic design requalification testing intervals specified in paragraph (e) of this section, the Associate Administrator, or a designated representative, may at any time require demonstration of compliance by a manufacturer, through testing in accordance with this subpart, to ensure packagings meet the requirements of this subpart. As required by the Associate Administrator, or a designated representative, the manufacturer must either:

(1) Conduct performance tests or have tests conducted by an independent testing facility, in accordance with this subpart; or

(2) Make a sample Large Packaging available to the Associate Administrator, or a designated representative, for testing in accordance with this subpart.

(i) Record retention. Following each design qualification test and each periodic retest on a Large Packaging, a
test report must be prepared. The test report must be maintained at each location where the Large Packaging is manufactured and each location where the design qualification tests are conducted, for as long as the Large Packaging is produced and for at least two years thereafter, and at each location where the periodic retests are conducted until such tests are successfully performed again and a new test report produced. In addition, a copy of the test report must be maintained by a person certifying compliance with this part. The test report, at a minimum, must contain the following information:

1. Name and address of test facility;
2. Name and address of applicant (where appropriate);
3. A unique test report identification;
4. Date of the test report;
5. Manufacturer of the packaging;
6. Description of the packaging design type (e.g., dimensions, materials, closures, thickness, etc.), including methods of manufacture (e.g., blow molding) and which may include drawing(s) and/or photograph(s);
7. Maximum capacity;
8. Characteristics of test contents, e.g., viscosity and relative density for liquids and particle size for solids;
9. Mathematical calculations performed to conduct and document testing (for example, drop height, test capacity, outage requirements, etc.);
10. Test descriptions and results; and
11. Signature with the name and title of signatory.

§ 178.1002 Preparation of Large Packagings for testing.

(a) Except as otherwise provided in this subchapter, each Large Packaging and package must be closed in preparation for testing and tests must be carried out in the same manner as if prepared for transportation, including inner packagings. All closures must be installed using proper techniques and torques.

(b) For the drop and stacking test, inner receptacles must be filled to not less than 95 percent of maximum capacity (see § 171.8 of this subchapter) in the case of solids and not less than 98 percent of maximum in the case of liquids. Bags must be filled to the maximum mass at which they may be used. For Large Packagings where the inner packagings are designed to carry liquids and solids, separate testing is required for both liquid and solid contents. The material to be transported in the packagings may be replaced by a non-hazardous material, except for chemical compatibility testing or where this would invalidate the results of the tests.

(c) If the material to be transported is replaced for test purposes by a non-hazardous material, the material used must be of the same or higher specific gravity as the material to be carried, and its other physical properties (grain, size, viscosity) which might influence the results of the required tests must correspond as closely as possible to those of the hazardous material to be transported. It is permissible to use additives, such as bags of lead shot, to achieve the requisite total package mass, so long as they do not affect the test results.

(d) Paper or fiberboard Large Packagings must be conditioned for at least 24 hours immediately prior to testing in an atmosphere maintained—

(1) At 50 percent ±2 percent relative humidity, and at a temperature of 23 °C ±2 °C (73 °F ±4 °F). Average values should fall within these limits. Short-term fluctuations and measurement limitations may cause individual measurements to vary by up to ±5 percent relative humidity without significant impairment of test reproducibility;

(2) At 65 percent 2 percent relative humidity, and at a temperature of 20 °C ±2 °C (68 °F ±4 °F), or 27 °C ±2 °C (81 °F ±4 °F). Average values should fall within these limits. Short-term fluctuations and measurement limitations may cause individual measurements to vary by up to ±5 percent relative humidity without significant impairment of test reproducibility; or

(3) For testing at periodic intervals only (i.e., other than initial design qualification testing), at ambient conditions.

§ 178.1010 Drop test.

(a) General. The drop test must be conducted for the qualification of all Large Packagings design types and performed periodically as specified in § 178.1001(e) of this subpart.

(b) Special preparation for the drop test. Large packagings must be filled in accordance with § 178.1002.

(c) Conditioning. Rigid plastic Large Packagings and Large Packagings with plastic inner receptacles must be conditioned for testing by reducing the temperature of the packaging and its contents to 18 °C (0 °F) or lower. Test liquids must be kept in the liquid state, if necessary, by the addition of anti-freeze. Water/antifreeze solutions with a minimum specific gravity of 0.95 for testing at 18 °C (0 °F) or lower are considered acceptable test liquids, and may be considered equivalent to water for test purposes. Large Packagings conditioned in this way are not required to be conditioned in accordance with § 178.1002(d).

(d) Test method. (1) Samples of all Large Packaging design types must be dropped onto a rigid, non-resilient, smooth, flat and horizontal surface. The point of impact must be the most vulnerable part of the base of the Large Packaging being tested. Following the drop, the Large Packaging must be restored to the upright position for observation.

(2) Large Packaging design types with a capacity of 0.45 cubic meters (15.9 cubic feet) or less must be subject to an addition drop test.

(e) Drop height. (1) For all Large Packagings, drop heights are specified as follows:

(i) Packing group I: 1.8 m (5.9 feet)
(ii) Packing group II: 1.2 m (3.9 feet)
(iii) Packing group III: 0.8 m (2.6 feet)

(2) Drop tests are to be performed with the solid or liquid to be transported or with a non-hazardous material having essentially the same physical characteristics.

(3) The specific gravity and viscosity of a substituted non-hazardous material used in the drop test for liquids must be similar to the hazardous material intended for transportation. Water also may be used for the liquid drop test under the following conditions:

(i) Where the substance to be carried have a specific gravity not exceeding 1.2, the drop heights must be those specified in paragraph (e)(1) of this section for each Large Packaging design type; and

(ii) Where the substances to be carried have a specific gravity exceeding 1.2, the drop heights must be as follows:

(A) Packing Group I: SG x 1.5 m (4.9 feet)
(B) Packing Group II: SG x 1.0 m (3.3 feet)
(C) Packing Group III: SG x 0.67 m (2.2 feet)

(f) Criteria for passing the test. For all Large Packaging design types there may be no loss of the filling substance from inner packaging(s) or article(s). Ruptures are not permitted in Large Packaging for articles of Class 1 which permit the spillage of loose explosive substances or articles from the Large Packaging. Where a Large Packaging undergoes a drop test, the sample passes the test if the entire contents are retained even if the closure is no longer sift-proof.

§ 178.1011 Bottom lift test.

(a) General. The bottom lift test must be conducted for the qualification of all
Large Packagings design types designed to be lifted from the base.  

(b) Special preparation for the bottom lift test. The Large Packaging must be loaded to 1.25 times its maximum permissible gross mass, the load being evenly distributed.  

(c) Test method. All Large Packaging design types must be raised and lowered twice by a lift truck with the forks centrally positioned and spaced at three quarters of the dimension of the side of entry (unless the points of entry are fixed). The forks must penetrate to three quarters of the direction of entry.  

(d) Criteria for passing the test. For all Large Packagings design types designed to be lifted from the base, there may be no permanent deformation which renders the Large Packaging unsafe for transport and there must be no loss of contents.  

§ 178.1012 Top lift test.

(a) General. The top lift test must be conducted for the qualification of all of Large Packagings design types to be lifted from the top or, for flexible Large Packagings, from the side.

(b) Special preparation for the top lift test. (1) Metal and rigid plastic Large Packagings design types must be loaded to twice its maximum permissible gross mass.

(2) Flexible Large Packagings design types must be filled to six times the maximum permissible gross mass, the load being evenly distributed.

(c) Test method. (1) A Large Packaging must be lifted in the manner for which it is designed until clear of the floor and maintained in that position for a period of five minutes.

(2) Rigid plastic Large Packagings design types must be:

(i) Lifted by each pair of diagonally opposite lifting devices, so that the hoisting forces are applied vertically for a period of five minutes; and

(ii) Lifted by each pair of diagonally opposite lifting devices so that the hoisting forces are applied towards the center at 45° to the vertical, for a period of five minutes.

(3) If not tested as indicated in paragraph (c)(1) of this section, a flexible Large Packaging design type must be tested as follows:

(i) Fill the flexible Large Packaging to 95% full with a material representative of the product to be shipped.

(ii) Suspend the flexible Large Packaging by its lifting devices.

(iii) Apply a constant downward force through a specially designed platen. The platen will be a minimum of 60 percent and a maximum of 80 percent of the cross sectional surface area of the flexible Large Packaging.

(iv) The combination of the mass of the filled flexible Large Packaging and the force applied through the platen must be a minimum of six times the maximum net mass of the flexible Large Packaging. The test must be conducted for a period of five minutes.

(v) Other equally effective methods of top lift testing and preparation may be used with approval of the Associate Administrator.

(d) Criterion for passing the test. For all Large Packagings design types designed to be lifted from the top, there may be no permanent deformation which renders the Large Packagings unsafe for transport and no loss of contents.

§ 178.1015 Stacking test.

(a) General. The stacking test must be conducted for the qualification of all Large Packagings design types intended to be stacked.

(b) Special preparation for the stacking test. (1) All Large Packagings except flexible Large Packaging design types must be loaded to their maximum permissible gross mass.

(2) Flexible Large Packagings must be filled to not less than 95 percent of their capacity and to their maximum net mass, with the load being evenly distributed.

(c) Test method. (1) All Large Packaging must be placed on their base on level, hard ground and subjected to a uniformly distributed superimposed test load for a period of at least five minutes (see paragraph (c)(5) of this section).

(2) Fiberboard and wooden Large Packagings must be subjected to the test for 24 hours.

(3) Rigid plastic Large Packagings which bear the stacking load must be subjected to the test for 28 days at 40 °C (104 °F).

(4) For all Large Packagings, the load must be applied by one of the following methods:

(i) One or more Large Packagings of the same type loaded to their maximum permissible gross mass and stacked on the test Large Packaging:

(ii) The calculated superimposed test load weight loaded on either a flat plate or a reproduction of the base of the Large Packaging, which is stacked on the test Large Packaging; or

(5) Calculation of superimposed test load. For all Large Packagings, the load to be placed on the Large Packaging must be 1.8 times the combined maximum permissible gross mass of the number of similar Large Packagings that may be stacked on top of the Large Packaging during transportation.

(d) Periodic Retest. (1) The package must be tested in accordance with § 178.1015(c) of this subpart; or

(2) The packaging may be tested using a dynamic compression testing machine. The test must be conducted at room temperature on an empty, unsealed packaging. The test must be centered on the bottom platen of the testing machine. The top platen must be lowered until it comes in contact with the test sample. Compression must be applied end to end. The speed of the compression tester must be one-half inch plus or minus one-fourth inch per minute. An initial preload of 50 pounds must be applied to ensure a definite contact between the test sample and the platens. The distance between the platens at this time must be recorded as zero deformation. The force “A” to then be applied must be calculated using the applicable formula:

Liquids: $A = (1.8)(n-1) [w + (s \times v \times 8.3 \times .98)] \times 1.5$

or

Solids: $A = (1.8)(n-1) [w + (s \times v \times 8.3 \times .95)] \times 1.5$

Where:

A = applied load in pounds.

n = maximum number of Large Packagings that may be stacked during transportation.

w = maximum weight of one empty container in pounds.

s = specific gravity (liquids) or density (solids) of the lading.

v = actual capacity of container (rated capacity + outage) in gallons.

and:

8.3 corresponds to the weight in pounds of 1.0 gallon of water.

1.5 is a compensation factor that converts the static load of the stacking test into a load suitable for dynamic compression testing.

(e) Criterion for passing the test. (1) For metal or rigid plastic Large Packagings, there may be no permanent deformation which renders the Large Packaging unsafe for transportation and no loss of contents.

(2) For flexible Large Packagings, there may be no deterioration which renders the Large Packaging unsafe for transportation and no loss of contents.

(3) For the dynamic compression test, a container passes the test if, after application of the required load, there is no permanent deformation to the Large Packaging which renders the whole Large Packaging including the base pallet, unsafe for transportation; in no case may the maximum deflection exceed one inch.

8.3 corresponds to the weight in pounds of 1.0 gallon of water.

1.5 is a compensation factor that converts the static load of the stacking test into a load suitable for dynamic compression testing.

(e) Criterion for passing the test. (1) For metal or rigid plastic Large Packagings, there may be no permanent deformation which renders the Large Packaging unsafe for transportation and no loss of contents.

(2) For flexible Large Packagings, there may be no deterioration which renders the Large Packaging unsafe for transportation and no loss of contents.

(3) For the dynamic compression test, a container passes the test if, after application of the required load, there is no permanent deformation to the Large Packaging which renders the whole Large Packaging including the base pallet, unsafe for transportation; in no case may the maximum deflection exceed one inch.
§ 178.1019 Vibration test.

(a) General. The vibration test must be conducted for the qualification of all rigid Large Packaging design types. Flexible Large Packaging design types must be capable of withstanding the vibration test.

(b) Test method. (1) A sample Large Packaging, selected at random, must be filled and closed as for shipment. Large Packagings intended for liquids may be tested using water as the filling material for the vibration test.

(2) The sample Large Packaging must be placed on a vibrating platform that has a vertical or rotary double-amplitude (peak-to-peak displacement) of one inch. The Large Packaging must be constrained horizontally to prevent it from falling off the platform, but must be left free to move vertically and bounce.

(3) The sample Large Packaging must be placed on a vibrating platform that has a vertical double-amplitude (peak-to-peak displacement) of one inch. The Large Packaging must be constrained horizontally to prevent it from falling off the platform, but must be left free to move vertically and bounce.

(4) The test must be performed for one hour at a frequency that causes the package to be raised from the vibrating platform to such a degree that a piece of material of approximately 1.6-mm (0.063-inch) in thickness (such as steel strapping or paperboard) can be passed between the bottom of the Large Packaging and the platform. Other methods at least equally effective may be used (see §178.801(i)).

(c) Criterion for passing the test. A Large Packaging passes the vibration test if there is no rupture or leakage.

Issued in Washington, DC on August 28, 2006 under authority delegated in 49 CFR Part 106.

Robert A. McGuire,
Associate Administration for Hazardous Materials Safety.

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DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 579

[Docket No. NHTSA–2006–25653; Notice 1]

RIN 2127–AJ94

Reporting of Early Warning Information

AGENCY: National Highway Traffic Safety Administration (NHTSA), DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: This document proposes amendments to certain provisions of the early warning reporting rule published pursuant to the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act. This document proposes to modify and clarify some of the manufacturers' reporting requirements under the rule. It would identify a subclass of field reports referred to as product evaluation reports and eliminate the requirement that manufacturers submit copies of them to the agency, revise the definition of fire, modify reporting relating to fuel systems on medium-heavy vehicles and buses, and limit the time period for required updates to a few data elements in reports of deaths and injuries.

DATES: Comments Closing Date: Comments must be received on or before October 31, 2006.

ADDRESSES: You may submit comments identified by DOT DMS Docket Number NHTSA 2006–25653 by any of the following methods:


Follow the instructions for submitting comments on the DOT electronic docket site.

• Fax: 1–202–493–2251.

• Mail: Docket Management Facility; Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590–001.

• Hand Delivery: Room PL401, Washington, DC 20590.

• Federal eRuleringg Portal: Go to http://www.regulations.gov. Follow the online instructions for submitting comments.

Instructions: All submissions must include the agency name and docket number or Regulatory Identification Number (RIN) for this rulemaking. For detailed instructions on submitting comments and additional information on the rulemaking process, see the Request for Comments heading of the SUPPLEMENTARY INFORMATION section of this document. Note that all comments received will be posted without change to http://dms.dot.gov, including any personal information provided. Please see the Privacy Act heading of the SUPPLEMENTARY INFORMATION section of this document regarding documents submitted to the agency’s docket.

Docket: For access to the docket to read background documents or comments received, go to http://dms.dot.gov at any time or to Room PL–401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.


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Introduction

In November 2000, Congress enacted the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act, Public Law 106–414, which was, in part, a response to the controversy surrounding the recall of certain tires that had been involved in numerous fatal crashes. Up until that time, in its efforts to identify safety defects in motor vehicles and equipment, NHTSA relied primarily on its analysis of complaints from consumers and technical service bulletins from manufacturers. Congress concluded that NHTSA did not have access to data that may have provided an earlier warning of the safety defects that existed in the tires that were eventually recalled. Accordingly, the TREAD Act included a requirement that NHTSA prescribe rules establishing early warning reporting requirements. In response to the TREAD Act requirements, NHTSA issued rules (49 CFR part 579; 67 FR 45822; 67 FR 63295) that, in addition to the information motor vehicle and equipment manufacturers were already required to provide, required that they provide certain additional information on foreign recalls and early warning indicators. The rules require:

• Monthly reporting of manufacturer communications (e.g., notices to