detector (FID), a photoionization detector (PID) or a non-dispersive infrared analyzer (NDIR)
N.J.A.C. 7:27B–3.8. Procedures for the direct measurement of volatile organic compounds using a gas chromatograph (GC) with a flame ionization detector (FID) or other suitable detector
N.J.A.C. 7:27B–3.9. Procedures for the sampling and remote analysis of known volatile organic compounds using a gas chromatograph (GC) with a flame ionization detector (FID) or other suitable detector
N.J.A.C. 7:27B–3.10. Procedures for the determination of volatile organic compounds in surface coating formulations
N.J.A.C. 7:27B–3.11. Procedures for the determination of volatile organic compounds emitted from transfer operations using a flame ionization detector (FID) or non-dispersive infrared analyzer (NDIR)
N.J.A.C. 7:27B–3.12. Procedures for the determination of volatile organic compounds in cutback and emulsified asphalts
N.J.A.C. 7:27B–3.13. Procedures for the determination of leak tightness of gasoline delivery vessels
N.J.A.C. 7:27B–3.14. Procedures for the direct detection of fugitive volatile organic compound leaks
N.J.A.C. 7:27B–3.15. Procedures for the direct detection of fugitive volatile organic compound leaks from gasoline tank trucks and vapor collection systems using a combustible gas detector
N.J.A.C. 7:27B–3.18. Test methods and sources incorporated by reference

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[FR Doc. E8–15352 Filed 7–3–08; 8:45 am]
**BILLING CODE 6560–50–P**

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## FEDERAL COMMUNICATIONS COMMISSION

### 47 CFR Part 73

**[DA 08–1410; MB Docket Nos. 04–348, 04–407; RM–10718, RM–11153, RM–11154, RM–11106]**

### Radio Broadcasting Services; Bertram, Blanket, Burnet, Cherokee, Cross Plains, Granite Shoals, Junction, Kempner, and Llano, TX

**AGENCY:** Federal Communications Commission.

**ACTION:** Proposed rule; dismissal.

**SUMMARY:** The staff approves the withdrawal of three petitions for rulemaking filed by Charles Crawford and a counterproposal filed by Munbilla Broadcasting Properties, Ltd. in this consolidated FM allotment proceeding. *See* **SUPPLEMENTARY INFORMATION**.

**FOR FURTHER INFORMATION CONTACT:** Andrew J. Rhodes, Media Bureau, (202) 418–2180.

**SUPPLEMENTARY INFORMATION:** This is a synopsis of the Commission's *Report and Order*, MB Docket Nos. 04–348 and 04–407, adopted June 11, 2008, and released June 13, 2008. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Reference Information Center (Room CY–A257), 445 12th Street, SW, Washington, DC 20554. The complete text of this decision may also be purchased from the Commission's copy contractor, Best Copy and Printing, Inc., Portals II, 445 12th Street, SW., Room CY–B402, Washington, DC 20554, telephone 1–800–378–3160 or *http://www.BCPIWEB.com*.

The withdrawal of these rulemaking petitions and counterproposal complies with Section 1.420(j) of the Commission's rules because the withdrawing parties are not receiving any money or other consideration in return for the withdrawals. *See* 69 FR 55547 (September 15, 2004) and 69 FR 67882 (November 22, 2004).

This document is not subject to the Congressional Review Act. (The Commission, is, therefore, not required to submit a copy of this Report and Order to GAO, pursuant to the Congressional Review Act, see 5 U.S.C. 801(a)(1)(A) because the petitions for rulemaking and counterproposal were dismissed).

**List of Subjects in 47 CFR Part 73**

Radio, Radio broadcasting.

Federal Communications Commission.
**John A. Karousos,**
*Assistant Chief, Audio Division, Media Bureau.*

[FR Doc. E8–14639 Filed 7–3–08; 8:45 am]
**BILLING CODE 6712–01–P**

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## DEPARTMENT OF TRANSPORTATION

### Pipeline and Hazardous Materials Safety Administration

### 49 CFR Parts 171, 173, and 178

**[Docket No. PHMSA–07–29364 (HM–231A)]**

**RIN 2137–AE32**

### Hazardous Materials; Combination Packages Containing Liquids Intended for Transport by Aircraft

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

**ACTION:** Advance notice of proposed rulemaking (ANPRM).

**SUMMARY:** PHMSA and the Federal Aviation Administration (FAA) are considering changes to requirements in the Hazardous Materials Regulations applicable to non-bulk packagings used to transport hazardous materials in air transportation. To enhance aviation safety, the two agencies are seeking to identify cost-effective solutions that can be implemented to reduce incident rates and potentially detrimental consequences without placing unnecessary burdens on the regulated community. We are soliciting comments on how to accomplish these goals, including measures to: (1) Enhance the effectiveness of performance testing for packagings used to transport hazardous materials on aircraft; (2) more clearly indicate the responsibilities of shippers that offer packages for air transport in the Hazardous Materials Regulations (HMR); and (3) authorize alternatives for enhancing package integrity. We are also considering ways to simplify current requirements. Commenters are also invited to present additional ideas for improving the safe transportation of hazardous materials by aircraft.

**DATES:** Comments must be received by September 5, 2008.

**ADDRESSES:** You may submit comments identified by the docket number PHMSA–07–29364 (HM–231A) by any of the following methods:

- *Federal eRulemaking Portal:* Go to *http://www.regulations.gov*. Follow the online instructions for submitting comments.
- *Fax:* 1–202–493–2251.
- *Mail:* Docket Operations, U.S. Department of Transportation, West Building, Ground Floor, Room W12–140, Routing Symbol M–30, 1200 New Jersey Avenue, SE., Washington, DC 20590.
- *Hand Delivery:* To Docket Operations, Room W12–140 on the ground floor of the West Building, 1200 New Jersey Avenue, SE., Washington, DC 20590, 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 for this notice at the beginning of the comment. Note that all comments received will be posted without change to the docket management system, including any personal information provided.

*Docket:* For access to the dockets to read background documents or comments received, go to *http://www.regulations.gov* or DOT's Docket Operations Office (see **ADDRESSES**).

*Privacy Act:* Anyone is able to search the electronic form of any written communications and comments received into any of our dockets by the name of the individual submitting the document (or signing the document, 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).

**FOR FURTHER INFORMATION CONTACT:**

Michael G. Stevens, Office of Hazardous Materials Standards, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., Washington, DC 20590–0001, telephone (202) 366–8553.

**SUPPLEMENTARY INFORMATION:**

**Contents**



## I. Background

The Hazardous Materials Regulations (49 CFR parts 171–180) authorize a variety of packaging types for the transportation of hazardous materials in commerce. Combination packagings are the most common type of packaging used for the transportation of hazardous materials by aircraft. A combination packaging consists of one or more inner packagings secured in a non-bulk outer packaging. (A non-bulk outer packaging is one that has a maximum capacity of 450 liters (119 gallons) as a receptacle for a liquid or a maximum net mass of 400 kg (882 pounds) or less and a maximum capacity of 450 liters (119 gallons) or less as a receptacle for a solid; see 49 CFR 171.8.) Combination packagings are used for the transportation of both solid and liquid hazardous materials, including materials such as sodium hydroxide, paint, and sulfuric acid and articles such as lithium batteries.

When used to transport liquid hazardous materials, a combination packaging must conform to one of the specifications (*i.e.,* ''Specification Packaging'') in part 178 of the HMR or an authorized UN Standard; the packaging must be tested to ensure that it conforms to the applicable specification or standard. Inner packagings within a combination packaging must be closed in preparation for testing, and tests must be carried out on the completed package in the same manner as if prepared for transportation. See 49 CFR 178.602.

Under the HMR, certain classes and quantities of hazardous materials may be transported in non-specification combination packagings. A non-specification packaging is not required to meet specific performance requirements. Rather, a non-specification packaging must meet general packaging requirements. For example, a non-specification packaging must be designed, constructed, filled, and closed so that it will not release its contents under conditions normally incident to transportation. In addition, the effectiveness of the packaging must be maintained for temperature changes, changes in humidity and pressure, and shocks, loadings, and vibrations normally encountered during transportation. See 49 CFR 173.24. In addition, a non-specification packaging authorized for transportation by aircraft must be designed and constructed to prevent leakage that may be caused by changes in altitude and temperature. See 49 CFR 173.27. Non-specification packagings need not be tested to demonstrate that they conform to applicable HMR requirements.

Incident data and testing indicate that a number of combination packaging designs authorized for the transportation of liquid hazardous materials are not able to withstand conditions normally incident to air transportation. The packagings of most concern to PHMSA and FAA are non-specification combination packagings that must be ''capable'' of meeting pressure differential requirements but are not required to be certified as meeting a specific performance test method to verify compliance with pressure differential performance standards.

We are aware that there are a number of contributing factors that may cause packaging failures and releases in air transport, including non-compliance with existing requirements and lack of function specific training of hazmat employees. In this ANPRM, we are soliciting comments on cost-effective measures that can be taken to reduce or eliminate the number of liquid hazardous materials releases from combination packagings in air transport. As discussed in more detail below, PHMSA and FAA developed this ANPRM, in part, utilizing data and information provided by stakeholders in a meeting on June 21, 2007. PHMSA's review of incident data is discussed in section III.E. of this notice. A summary of the meeting, including presentations by participants, is available for review in the public docket for this rulemaking.

In 1990, PHMSA's predecessor agency, the Research and Special Programs Administration (RSPA), published a final rule under Docket HM–181 (55 FR 52402; December 21, 1990), revisions and response to petitions for reconsideration (56 FR 66124; December 20, 1991) to align the HMR with international standards applicable to hazardous materials packagings. See 49 CFR part 178, subparts L and M, adopted at 55 FR 52716–28. That final rule adopted non-bulk hazardous material packaging standards based on performance criteria rather than the detailed construction specifications that applied prior to 1990 and were phased out in 1996. See former 49 CFR 171.14(b)(1), adopted at 55 FR 52473–74. Under these performance-oriented packaging requirements, packaging strength and integrity are demonstrated through a series of performance tests that a packaging must pass before it is authorized for the transportation of hazardous materials. The performance criteria provide packaging design flexibility that is not possible with detailed design specifications.

In the HM–181 rulemaking, we adopted requirements that all non-bulk packaging ''must be capable of withstanding * * * the vibration test procedure'' set forth in 49 CFR 178.608 (55 FR at 52727) and that metal and plastic and composite packagings ''intended to contain liquids'' must pass a hydrostatic pressure test. 49 CFR 178.605 (55 FR at 52726). However, we did not adopt our proposal in the notice of proposed rulemaking to require a hydrostatic pressure test to be performed on all inner packagings of combination packages containing liquids intended for transportation by aircraft, which would have addressed pressure differentials potentially encountered during air transportation. (See 52 FR 16482, May 5, 1987). Instead, consistent with the International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions), we adopted a requirement that all packagings intended to contain liquids ''must be *capable* of withstanding without leakage'' a specified internal pressure depending on the hazard class/division and packing group. 49 CFR 173.27(c)(2)(i), adopted at 55 FR 52612.

The ICAO Technical Instructions include guidance that indicates in more precise terms what is meant by ''*being capable,*'' but specific test methods have not been adopted. The ICAO Technical Instructions suggest that the capability of packaging to meet the pressure differential performance standard should be determined by testing, with the appropriate test method selected based on packaging type. See ''Note'' following 4.1.1.6.

The HMR, at 49 CFR 173.27(c), specify that inner packagings of combination packagings for which retention of liquid is a basic function must be capable of withstanding the greater of: (1) An internal pressure which produces a gauge pressure of not less than 75 kPa for liquids in Packing Group III of Class 3 or Division 6.1 or 95 kPa for other liquids; *or* (2) a pressure related to the vapor pressure of the liquid to be conveyed as determined by formulae in subsequent paragraphs.

## II. Closures and Packages May Fail at High Altitude

When packages reach high altitudes during transport, they experience low pressure on the exterior of the package. This results in a pressure differential between the interior and exterior of the package since the pressure inside remains at the higher ground-level pressure. Higher altitudes will create lower external pressures and, therefore, larger pressure differentials. This condition is especially problematic for packages containing liquids.

When a packaging, such as a glass bottle or receptacle, is initially filled and sealed, the cap must be tightened to a certain level to obtain sealing forces sufficient to contain the liquids in the packaging. This will require certain forces to be placed upon the bottle and cap threads as well as the sealing surface of the cap or cap liner to ensure the packaging remains sealed throughout transportation. Once at altitude, due to the internal pressure of the liquid acting upon the closure, combined with the reduced external air pressure, the forces acting on the threads and the forces acting on the sealing surfaces may not be the same as when the packaging was initially closed. Under normal conditions encountered in air transport (26 kPa @ 8000 ft), conditions are not overly severe. However, if the compartment is depressurized at altitude or if the compartment is not pressurized at all (*e.g.*, feeder aircraft), the pressure differential (55 kPa–90 kPa) may be severe enough to cause package failure and release of contents.

When first closed, and if closed properly, the typical cap and bottle do not deform to the point where sealing integrity is immediately compromised, although studies have demonstrated that plastic bottles and caps do begin to exhibit stress relaxation and a reduction in sealing force immediately after the bottles are sealed. When the bottle is closed in a manner that accounts for the initial stress relaxation of the cap and threads, and there is no altitude induced pressure differential in the packaging, no pressure change inside the bottle and no change in the spacing between the top of the cap and the rim of the bottle, there will be no immediate change in the sealing force that affects the bottle's ability to maintain a seal. An increase in altitude will cause an increase in the thread contact force, but no immediate change in the sealing force. These conditions persist for as long as the pressure differential is maintained. Even though the sealing force remains unchanged, the increased thread forces could distort the cap and cause the cap threads to expand over the bottle threads.

Vibration further complicates the force on the bottle. The net effect of the vibration force intermittently compresses and decompresses the closure in rapid succession. This can temporarily reduce the sealing force to zero. A rapid removal of the compression force, which occurs naturally during vibration, may not allow the closure to recover quickly enough to maintain a seal. It may take several seconds, even minutes, for the closure to return to its original configuration, if it returns to the original configuration at all. Thus, while the bottle and cap are intermittently compressing and decompressing, there may be a gap, which could result in a leak of material from the package.

Finally, the effect of internal pressure and stress relaxation after initial closure of the inner receptacle, particularly with thermoplastic bottles and caps, can lead to a reduction of sealing force on the inner receptacle and may also cause failure of a packaging during air transport. Studies reviewed in section III of this notice demonstrate that when a thermoplastic bottle and cap are initially closed, stress relaxation can account for a reduction of nearly 50% in removal torque within minutes of application and an 80% reduction of removal torque over several days or weeks. Loss of sealing force due to the combination of creep and stress relaxation can also contribute to packages leaking in air transportation. As can be understood, the combination of stress relaxation, vibration, and low pressure at high altitudes may reduce the overall sealing force, thereby compromising the closure integrity of a packaging and resulting in leakage from the packaging. The air transportation of small parcels typically includes multiple flights to reach destination. Therefore, this stress cycle on the closure systems of inner packagings repeats itself multiple times from origination to destination.

## III. Analyses of the Problem

The following studies simulated the stresses of low external pressure and vibration on combination package integrity and performance before, during, and while in-flight. These same stresses induced by low external pressure and vibration are encountered in-flight when cargo and feeder aircraft transport combination packages in non-pressurized or partially-pressurized cargo holds. These conditions result in substantial changes in pressure when compared to combination packages being transported at or near sea level and require a higher level of integrity as a result.

### *A. FAA Study*

In 1999, the FAA began a detailed study of hazardous material package failures in air transportation. FAA analyzed incident data from the DOT Hazardous Materials Information System (HMIS) during 1998 and 1999 and focused on properly declared hazardous material shipments. The study concluded that of 1,583 air incidents reported to PHMSA, a failure of inner packagings in combination packaging designs contributed to 333 spills or leaks. Further study of the spill or leak incidents concluded that package closure/seal failure rates were as high as 65% for plastic and metal inner packagings and 23% for glass inner packagings. All failed inner packagings were packaged in outer UN 4G marked fiberboard boxes. Based on these study results, FAA concluded that either the inner packagings were not closed properly as specified in the packaging manufacturer's closure instructions or that the inner packagings were not capable of meeting the pressure differential requirement or vibration standard of the HMR or both. In addition, because the majority (85%) of the materials that spilled or leaked during flight were toxic, corrosive or flammable, they could have released potentially harmful fumes or vapors into the cabin posing a threat to passengers and crew members. FAA determined that further research on the actual effects of vibration and pressure differential in air transport was warranted.

As a result of the conclusions of FAA's study of combination packaging failures in 2000, FAA conducted extensive laboratory research and public outreach in multiple fora to analyze the problem and develop potential solutions. Conclusions reached as a result of the following laboratory studies indicate problems exist under the current regulatory standards for which solutions need to be developed and implemented.

*B. UPS Study*

UPS presented a study in 2000 to the American Society of Testing and Materials (ASTM) outlining the conditions that packages experience in the air transport environment. A copy of the UPS study is available for review in the public docket for this rulemaking. The study resulted in the following key observations related to air transport as described in ASTM D 6653–01:

1. Aircraft cargo compartments are typically pressurized to an altitude of 8,000 ft resulting in a pressure differential of approximately 26kPa on packages filled at or near sea level. Temperature is maintained at approximately 20°–23 °C (68 °–74 °F).

2. Non-pressurized ''feeder aircraft'' typically fly at approximately 13,000–16,000 feet. The highest recorded altitude in a non-pressurized feeder aircraft was 19,740 ft. Temperatures ranged from approximately 4° to 24 °C (25 °–75 °F). Based on these findings, it is evident that packaged products transported by the feeder aircraft network used by air cargo carriers may experience potential altitudes as high as 20,000 feet, resulting in a pressure differential of approximately 55 kPa. An inadequate packaging design containing liquids at this pressure differential can fail in transportation.

*C. Michigan State University Study for FAA (FAA/MSU Study)*

In 2002, the FAA initiated a study with Michigan State University (MSU) to replicate actual air and pre- and post-truck transportation conditions to determine which conditions contribute to package failures. FAA examined the effects of vibration alone, altitude alone, and a combination of vibration and altitude on the performance of UN standard hazardous material combination packages containing liquids. In the study, the combination packages were placed in various orientations, not all of which are authorized in the HMR. The study did not include temperature effects because the temperatures in cargo holds are not unusual or extreme. Each test condition in Table 1 represents a different combination of low pressure and vibration that packages may be exposed to while in, or pre- or post-air transport:

TABLE 1.—RANKING OF CONDITIONS

| Conditions | Percentage of failure of packages tested |
|---|---|
| No vibration, 14,000 ft, 30 min | 0 |
| Truck and air vibration, 0 ft, 30 min | 14 |
| Truck only vibration, 8,000 ft, 180 min | 21 |
| Truck and air vibration, 8,000 ft, 180 min | 29 |
| Truck and air vibration (typical sequence for air transportation), 14,000 ft, 30 min | 50 |

MSU procured 32 design samples of UN standard liquid hazardous material combination packagings from three leading hazmat packaging suppliers. See *United Nations Recommendations on the Transport of Dangerous Goods Model Regulations,* Volume II, Part 6. The test combination packagings were certified to meet current UN, ICAO, and applicable HMR requirements. The testing was designed to replicate actual transportation conditions. A copy of this report is available for review in the public docket. Several key conclusions can be drawn from the analysis:

- UN standard liquid hazardous material combination packagings leaked under a combined vacuum and vibration test which simulated the characteristics of air transportation and high altitude.
- One study concluded laboratory testing for pressure differential capability without exposure to vibration may not be a realistic replication of the air transportation environment. When both forces are applied to a package simultaneously, the failure rate increases to 50%.
- Altitude is more important than the length of time in flight; higher altitude is more severe than lower altitude.
- Results of combined truck and air vibration are more severe than truck vibration alone.
- Vibration periodically reduces the sealing force on a liner or gasket and may produce intermittent gaps that open and close at concentrated pressure points.
- The study was based on the conditions normally encountered by a package in truck and air transport.

*D. Michigan State University Study for PHMSA (PHMSA/MSU Study)*

In 2003, PHMSA also initiated a study with MSU to compare the HMR requirements and the testing used in the FAA/MSU Study discussed previously. To provide for a more thorough evaluation of the performance of liquid hazardous materials combination packagings, this phase of testing was conducted on a smaller number of packaging designs; however, a much greater number of packagings of each design were tested in this study. In the 2002 FAA/MSU study, two packagings of each design were tested; for this study, PHMSA tested thirty packagings from each of eleven designs. With the exception of three packaging designs, all of the packagings tested during this phase had been tested for the 2002 FAA/MSU study. See Table 2 below. A copy of this report is available for review in the public docket.

TABLE 2.—RANKING OF CONDITIONS

| Conditions | Percentage of failures of packages tested |
|---|---|
| Random vibration and vacuum, vertical orientation (conforming to HMR), 14,000 ft, one hour | 12 |
| Random vibration and vacuum, horizontal orientation, 14,000 ft, one hour | 18 |
| Vacuum only, 95 kPa for 30 min, inverted orientation | 13 |
| Random vibration, one hour | 11 |
| Average failure rate | 13 |

The conclusions from this testing supported MSU's previous testing conducted for FAA:

- Packages performed unsatisfactorily when tested in the orientation required by the HMR; when the packages were oriented improperly, the leakage rate was even greater.
- Proper package orientation is a critical factor in reducing leaks from packages.

• UN standard combination packagings did not pass the combined pressure differential and random vibration while in the HMR required orientation. Of the 99 bottles subjected to this test, 87 successfully passed the test.

• Laboratory package failure rate is greater than 10% and would be considered unacceptable based on industry standards with a lower safety risk (*i.e.*, non-hazmat packagings). Acceptable failure rates for consumer products is less than 5%; electronics is less than 1%; food/pharmaceutical less than 3–5%; the average failure rate of this controlled study was 13%.

• Packages that utilized a secondary means of closure had a lower rate of failure.

• Testing in a horizontal orientation that simulated air transport combining random vibration and a pressure differential (vacuum) of 59.5 kPa (14,000 ft), for one hour, resulted in an 18% failure rate.

### *E. PHMSA Review of Incident Data*

During the first half of 2007, PHMSA conducted a comprehensive assessment of hazardous materials transportation incidents occurring in air transportation from 1997 through 2006. This study and its corresponding data may be accessed in the public docket for this rulemaking. The study concluded that there has been no appreciable reduction in package failures over the past 10 years. It is estimated that 191,429 tons of liquid hazardous materials are transported by aircraft annually contained in 7,657,152 combination packaging shipments. Of that total, our analysis concluded that out of approximately 483 failures (.00006%) in air transportation involving combination packagings containing liquids each year, 20 are reported as ''serious.'' An incident is considered serious if it involves one or more of the following: (1) A fatality or major injury caused by the release of a hazardous material; (2) the evacuation of 25 or more persons as a result of release of a hazardous material or exposure to fire; (3) a release or exposure to fire which results in the closure of a major transportation artery; (4) the alteration of an aircraft flight plan or operation; (5) the release of radioactive materials from Type B packaging; (6) the release of over 45 liters (11.9 gallons) or 40 kilograms (88.2 pounds) of a severe marine pollutant; and (7) the release of a bulk quantity (over 450 liters (119 gallons) or 400 kilograms (882 pounds)) of a hazardous material. We want to emphasize that any incident, such as a package failure, involving hazardous materials in air transportation is unacceptable. In air transportation, any incident could quickly escalate and result in irreversible, possibly catastrophic, consequences.

Accounting for approximately 80 percent of all packages transported by air, combination packagings containing liquids are involved in 44 percent (483) of all package failures annually. Inner packaging closure failures within a combination outer packaging are the primary cause of incidents involving combination packagings in air transportation. Such failures could be the result of pressure differential (packages closed at sea level subjected to lower pressure on planes), ''backing off'' of the closure (closures that appear tight but loosen during transportation), improper closures, or some other cause. Our analysis also suggests that most incidents involve combination packagings that contain flammable liquids (*e.g.*, paint and paint related material) of varying degrees of hazard. Some additional statistical data from the 2007 incident review include:

• Incident trends are similar to earlier FAA studies.

• Laboratory research validates the conclusion that inner receptacles (*e.g.*, bottles and caps) leak as indicated in the incident data.

• Leaking (failing) closures and inner receptacles are not the leading cause of incidents in air transportation; however, over 40% of combination packages containing liquids that fail in air transportation do involve closures and inner receptacles.

• Flammable liquids are the most common liquid hazardous materials released from failed packages in air transportation. Such materials or its vapor would seek and could find an ignition source resulting in fire or explosion.

• In years 2005–2006, 18 of 953 incidents involving combination packagings containing liquids, or 2%, occurred on passenger-carrying aircraft. Although low when compared to incidents occurring on cargo-carrying aircraft, this percentage of package failure continues to be a troubling statistic.

• Combination packages containing liquids that fail in air transportation release on average 0.5 gallons of liquid hazardous materials.

PHMSA presented the results of this review at a June 21, 2007 meeting with stakeholders to discuss air packaging issues. The 44 participants included cargo and passenger air carriers, packaging manufacturers and testing laboratories, FAA and PHMSA personnel, and representatives of industry trade associations. The shippers, air carriers, and enforcement personnel present generally agreed that the current capability requirements for air packagings are difficult to comply with and suggested that specific test methods designed to demonstrate that packagings will withstand the air transportation environment should be specified in the HMR.

Stakeholders at the meeting also suggested that increased outreach through industry partnership and targeted enforcement for habitual offenders would significantly enhance achievement of PHMSA and FAA safety goals without additional regulation.

## IV. Purpose of This ANPRM

As previously noted, to enhance aviation safety, PHMSA and FAA are seeking to identify cost-effective solutions that can be implemented to reduce incident rates and potentially detrimental consequences without placing unnecessary burdens on the regulated community. We are soliciting comments on how to accomplish these goals, including measures to: (1) Enhance the effectiveness of performance testing for packagings used to transport hazardous materials on aircraft; (2) more clearly indicate the responsibilities of shippers that offer packages for air transport in the HMR; and (3) authorize alternatives for enhancing package integrity. Based on PHMSA and FAA analyses, it appears that some combination packaging designs used to transport hazardous materials by aircraft may not meet the pressure differential and vibration capability standards mandated under the HMR. Indeed, the testing suggests that the capability standards themselves may not be sufficiently rigorous to ensure that packagings maintain their integrity under conditions normally incident to air transportation. Because aircraft accidents caused by leaking or breached hazardous materials packages can have significant consequences, the air transport of hazardous materials requires exceptional care and attention to detail. Therefore, we are considering measures to reduce the incidence of package failures and to minimize the consequences of failures should they occur.

The fact that specific test methods are not specified in the HMR or the ICAO Technical Instructions leads to inconsistencies in package integrity and results in varying levels of compliance among shippers. For example, we understand that, because the pressure differential and vibration capability standards for combination packagings are not required to be verified by a test protocol, some shippers (self-certifiers) or manufacturers have used historical shipping data, computer modeling, analogies to tested packagings, engineering studies, or similar methods to determine that their packagings meet pressure differential and vibration capability standards. Further, some less experienced shippers or manufacturers may not understand that their packagings must withstand pressure differential and vibration requirements. In addition, some shippers or manufacturers may not realize that both UN Standard packaging *and* packagings that are not required to be certified as meeting a specification or standard are subject to the pressure differential capability requirement. This would include packagings for products, such as limited quantities and consumer commodities, where non-specification packagings are authorized. A significant percentage of aircraft incidents involving hazardous materials appear to result from failures of non-specification packagings.

As indicated above, a non-specification packaging is not required to meet specific performance requirements. Rather, a non-specification packaging must meet general packaging requirements and, for air transportation, must be *capable* of withstanding pressures encountered at altitude. We invite comments on how to enforce this ''capability'' standard for non-specification packagings and ask whether a test of some sort should be required to verify packaging integrity.

A complicating factor that appears to be contributing to packaging failures and non-compliance is that assembly of packages in some cases is not consistent with the design type that was originally tested. In some cases, manufacturers change components without informing the shipper; in other cases, shippers specify or change components without appropriate verification and testing to determine compliance with the applicable performance standard. The numerous variables that exist in the interaction of closures, liners, and container neck finishes preclude the use and validity of general assumptions about equivalent pressure performance capabilities of similar containers.

As an alternative to regulation, the FAA implemented an aggressive public outreach program over the past seven years targeted at specific stakeholder audiences, including thousands of shippers, packaging laboratories, industry research and training institutes, airline operators, and chemical manufacturers. In addition, several voluntary industry standards (test protocols) were either created or revised as a result of the public (independent) and private funding of the studies detailed in the previous sections above. A copy of the report listing the specific public outreach efforts conducted by FAA on this issue can be found in the docket for this rulemaking.

Some regulatory solutions under consideration in this rulemaking process are explained in more detail in the following sections.

*A. Design Qualification and Periodic Retesting*

(1) *Pressure differential test.* Currently in the HMR, all packagings containing liquids and intended for transport by air must be *capable* of withstanding, without leakage, an internal gauge pressure of at least 75 kPa for liquids in Packing Group III of Class 3 or 6.1 or 95 kPa for all other liquids, or a pressure related to the vapor pressure of the liquid to be conveyed, whichever is greater (see 49 CFR 173.27(c)). This requirement is also applicable to liquids excepted from specification or UN Standard packaging, such as those authorized for limited quantities and consumer commodities. This would include eligible liquids of Classes 3 (flammable) and 8 (corrosive), and Divisions 5.1 (oxidizer), 5.2 (organic peroxide), and 6.1 (poisonous). Liquids contained in inner receptacles that do not meet the minimum pressure requirements in the current § 173.27(c) may be overpacked into receptacles that do meet the pressure requirements.

In this ANPRM, we are soliciting comments on whether we should require mandatory pressure differential testing for all *specification* or UN Standard combination packaging designs containing liquids transported or intended for transportation aboard aircraft. In addition, because many incidents are attributed to *non-specification* package failures, we are soliciting comments on potential solutions to this problem that may or may not include the mandatory pressure differential testing of inner receptacles intended to contain liquids. One approach would be to incorporate by reference a number of acceptable test methods and to simplify the regulations by removing the requirement for calculating the test pressure in § 173.27(c). Shippers (offerors) would be responsible for using inner receptacles that have been certified as passing one of the following test methods:

| Test | Equipment | Time under pressure | Pressure differential |
|---|---|---|---|
| (a) 49 CFR 178.605 | Pressure fitting, pump | 5 minutes for metal and composite (including glass, porcelain, or stoneware); 30 minutes for plastic. | 60 kPa differential. |
| (b) ASTM D6653–01 | Vacuum chamber and associated gages and pumps. | 60 minutes | 14,000 ft (41.8 kPa differential) [1] or 16,000 ft (46.4 kPa differential).[2] |
| (c) ASTM D4991–94 | Transparent vessel capable of withstanding 1½ atmospheres, inlet tube and vacuum pump, moisture trap, solution of ethylene glycol in water. | 30 minutes for plastic, 10 minutes for everything else. | 60 kPa pressure differential. |
| (d) ASTM F1140 or Part 178 Appendix D for flexible packaging. | Inlet tube | 30 minutes | 60 kPa pressure differential. |

[1] If it is not possible to use the atmospheric and temperature pre-conditioning specified.
[2] For test specimens where the atmospheric and temperature pre-conditioning is followed.

(a) 49 CFR 178.605—*Low Pressure Hydrostatic Pressure Test Method Suitable for Air Inner Packages.* This test is currently required for all single and composite packagings intended to contain liquid, but it is not currently required for inner packagings of combination packaging. This test, which uses the hydrostatic test method, pumps high-pressure water into a packaging to create a pressure differential. Failure is determined if there is leakage of liquid from the package during the test. This could be observed as a stream of liquid exiting the package or rupture of the package.

(b) ASTM D6653–01—*Standard Test Methods for Determining the Effects of High Altitude on Packaging Systems by Vacuum Method.* This method uses a vacuum chamber to determine the effects of pressure differential on packages. Upon completion of the test, the package is removed and checked for damage in the form of package failure, closure failure, material failure, internal packaging failure, product failure, or combinations thereof. If these are all free of damage, then the packaging should be reassembled for testing in accordance with an industry accepted packaged product performance test, such as Practice D 4169. This will help determine if the pressure differential conditioning had an effect on the performance of the packaging system.

(c) ASTM D4991–94 (Re-approved 1999) *Standard Test Method for Leakage Testing of Empty Rigid Containers by Vacuum Method.* This test is applied to empty packagings to check for resistance to leakage under differential pressure conditions, such as those that can occur during air transport. Instead of pumping high-pressure air into the packaging, the air pressure on the exterior of the packaging is reduced using a vacuum. The package is considered to fail if it leaks a continuous stream or recurring succession of bubbles or if fluid is found within the test specimen after the test.

(d) ASTM F 1140—*Standard Test Methods for Internal Pressurization Failure Resistance of Unrestrained Packages for Medical Applications.* This test applies to flexible packaging (*e.g.*, bags).

(2) *Vibration testing.* When packages travel through the transportation and distribution environment, they are subject to vibration by automated sorting systems and during transit aboard aircraft, railcars, or trucks. As packages move on conveyor systems during automated sorting, they experience a low level of vibration at a constant frequency. Aircraft-induced vibration typically is very high frequency and low amplitude for 30 minutes to 12 hours on domestic shipments, depending on origin, destination, and the carrier's network. Vibration on trucks occurs at lower frequencies, but at much higher amplitudes than on aircraft. This duration can last anywhere from 5 minutes to several days depending upon the route and the distance from origin to destination. Vibrations from these various sources can result in damage, including scuffing, abrasion, loosening of fasteners and closures, and package fatigue. There are two main types of vibration testing used for packages: Fixed frequency vibration and random vibration. Random vibration provides the most realistic representation of actual transport conditions, but requires equipment that is more expensive.

The HMR require non-bulk packagings to be capable of withstanding, without rupture or leakage, the vibration test in 49 CFR 178.608. In this ANPRM, we are soliciting comments concerning whether the HMR should be revised to require all specification or UN Standard combination packaging design types containing liquids transported or intended to be transported aboard aircraft to be vibration tested and whether alternative vibration test methods should be authorized for non-bulk packagings. We invite comments on whether the random vibration encountered during the ''sorting'' process and multiple flight segments of today's expedited shipping environment contributes to package failure and whether more representative vibration test methods should be specified in the HMR.

Alternative test methods for determining package vibration capability are described in the following table:

| Test | Title | Equipment | Frequency | Time |
|---|---|---|---|---|
| *Vertical Linear Test at Fixed Frequency* | | | | |
| ASTM D999–01 Method A1. | Repetitive Shock Test (Vertical Motion). | Vibration test machine with horizontal surface and mechanism for vertical sinusoidal input; fences, barricades or other restraints. | Start vibration at 2 Hz and steadily increase until the test specimen repeatedly leaves the test surface. | Predetermined time, as stated in applicable specification, or until predetermined amount of damage is detected. |
| ASTM D999–01 Method A2. | Repetitive Shock Test (Rotary Motion). | Vibration test machine with horizontal surface and mechanism for rotational input with a vertical component approximately sinusoidal; fences, barricades or other restraints. | Start vibration at 2 Hz and steadily increase until the test specimen repeatedly leaves the test surface. | Predetermined time, as stated in applicable specification, or until predetermined amount of damage is detected. |
| ASTM 4169–04a Paragraph 13.1 (Schedule F). | Loose Load Vibration (Repetitive Shocks). | Use Test Method ASTM D999, Method A1 or A2. | Use Test Method ASTM D999, Method A1 or A2. | Assurance Level I: 60 min dwell time; Assurance Level II: 40 min dwell time; Assurance Level III: 30 min dwell time. |
| 49 CFR 178.608 ................ | Repetitive Shock Test (Vertical or Rotary Motion). | Vibration platform that has a vertical or rotary double-amplitude (peak-to-peak displacement) of one inch. | 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 thickness can be passed between the bottom of any package and the platform. | 60 minutes. |

| Test | Title | Equipment | Frequency | Time |
|---|---|---|---|---|
| *Vertical Linear Test at Variable Frequency* | | | | |
| ASTM D999–01 Methods B & C. | Resonance Tests ............. | Vibration test machine with horizontal surface and mechanism for vertical sinusoidal input; suitable fixtures and attachment points to rigidly attach the test packaging to the platform; instrumentation. | Find the resonant frequency of the package using either the sine sweep method or the random vibration input method. The minimum frequency range should be from 3 to 100 Hz. | Dwell for specified length of time at each resonant frequency determined earlier or until damage to the packaging is noted. If no dwell time is specified, 15 minutes is recommended. |
| *Random Vibration Test* | | | | |
| ASTM 4728–01 ................. | Random Vibration Testing | Vibration table supported by a mechanism capable of producing single axis vibration; inputs at controlled levels of continuously variable amplitude throughout the desired range of frequencies; suitable fixtures to restrict undesired movement; closed loop controller or data storage media open loop control systems; instrumentation. | Frequency is determined by power spectral density (PSD) profile. | Predetermined time, as stated in applicable specification, or until predetermined amount of damage is detected. |
| ASTM 4169–04a Paragraph 12.4 (Schedule D and E). | Random Test Option ......... | See Test Method ASTM 4728 Method A or B. | Frequency is determined by power spectral density (PSD) profile. Frequency ranging from 2–300 Hz for air mode. | For Distribution Cycles 12 and 13, a 60-minute truck test followed by a 120-minute air test. |

(a) ASTM D999–01: *Standard Test Methods for Vibration Testing of Shipping Containers*

(b) ASTM D4169 04a Paragraph 12.4 or Paragraph 13.1: *Standard Practice for Performance Testing of Shipping Containers and Systems*

(c) ASTM D4728–01: *Standard Test Method for Random Vibration Testing of Shipping Containers*

(3) *''Combination'' Pressure Differential and Vibration Tests.* In this ANPRM, we are soliciting comments concerning whether sequential pressure and vibration testing are sufficient to ensure packaging integrity, *i.e.*, a ''combination'' of both pressure and vibration testing. The vibration testing would be followed by pressure testing, which is considered less severe than simultaneous testing, which subjects a packaging to vibration and pressure at the same time. Simultaneous testing under the combination test standards involves rather sophisticated, extensive, and expensive equipment, and relatively skilled operators. In this ANPRM we are soliciting comment on whether these methods should be authorized, given our understanding that a number of companies are already voluntarily applying these tests. We invite commenters to address successful completion of these tests as an alternative means of compliance with existing pressure differential and vibration capability requirements.

The following three combination tests are voluntary industry standards that we may consider as alternatives for conducting vibration testing and pressure differential testing on the same inner packaging:

| | | | |
|---|---|---|---|
| (a) ISTA 3A ................................... | Individual packaged products weighing 150 lbs. or less; air or ground transportation. | • Atmospheric Preconditioning ....<br>• Shock (drop).<br>• Vibration (random with and without top load).<br>• Vibration (random under vacuum).<br>• Shock (drop). | The section for random vibration under pressure is optional. When conducted, the pressure and vibration are simultaneous. A pressure approximately equal to an altitude of 10,000 ft. is used for 60 minutes. |
| (b) ASTM 4169 Distribution Cycle 12. | Air (intercity) and motor freight (local), over 100 lb., unitized. | • Handling ...................................<br>• Stacked Vibration.<br>• Low-Pressure.<br>• Vehicle Vibration and Handling. | Low-pressure section instructs packages to be tested at pressure of expected altitudes. If not known, refer to ASTM D6653, which specifies 14,000 ft. for 60 minutes. See ASTM 4169 for vibration details. |

| | | | |
|---|---|---|---|
| (c) ASTM 4169 Distribution Cycle 13. | Air (intercity) and motor freight (local), single package up to 100 lb. | • Handling ...................................<br>• Vehicle Stacking.<br>• Loose-Load Vibration.<br>• Low-Pressure.<br>• Vehicle Vibration and Handling. | Low-pressure section instructs packages to be tested at pressure of expected altitudes. If not known, refer to ASTM D6653, which specifies 14,000 ft. for 60 minutes. See ASTM 4169 for vibration details. |

(a) *ISTA 3A*—This is part of a series of general simulation tests that are meant to recreate the hazards of a distribution environment. It is similar to ASTM 4169 because it requires rather sophisticated, extensive, and expensive equipment (such as a random vibration table with appropriate instrumentation) and relatively skilled operators. Unlike D4169, however, there are a number of specific procedures, covering a number of packaged products and distribution systems, so much less interpretation is required. This procedure includes shock and vibration testing with an option to include simultaneous pressure testing during one of the random vibration phases.

(b) *ASTM 4169 Distribution Cycle 12*—This is the only ASTM standard devoted to packaged product performance in distribution. It is a pre-shipment general simulation test covering a range of packaging types and distribution scenarios. For example, it lists 18 distribution cycles that each represents a different mode or environment. There is a prescribed sequence of performance tests for each of these distribution cycles. Air transportation is covered in Distribution Cycles 12 and 13. These cycles include several types of vibration and pressure testing. However, these are performed sequentially, unlike ISTA 3A, which has the option to perform vibration and pressure testing simultaneously. Distribution Cycle 12 tests are for unitized freight that weighs over 100 lbs. More details on the sequence of testing can be found in the previous table.

(c) *ASTM 4169 Distribution Cycle 13*—Distribution Cycle 13 tests are for loose-load freight weighing under 100 lbs. The prescribed tests specify an additional vibration test to simulate the more aggressive shipping environment. More details on the sequence of testing can be found in the previous table.

(4) *Elimination of Selective Testing Variations.* The HMR currently provide selective testing variations—that is, inner packagings that differ in only minor respects from a tested inner packaging design type may be used without further testing under the conditions specified in 49 CFR 178.601(g) (selective testing variation 1). In this ANPRM, we invite commenters to address whether this variation should be revised, restricted or eliminated for packagings intended for air transportation. In addition, we are concerned that the use of different components (*e.g.*, bottle, cap, liner) than what were originally tested may result in less than effective closure systems and may result in packagings that are not representative of the originally tested design type. The numerous variables that exist in the interaction of closures, liners and container neck finishes are complex and the use and validity of general assumptions about equivalent pressure performance capabilities of similar containers is not straightforward. On the basis of compliance reviews and incident investigations, we believe that this selective testing provision may result in the use of packaging systems that are not capable of withstanding conditions encountered in air transport and at high altitude. Changes in quality control measures and materials may also adversely affect packaging performance. For example, changing the type of resin used in plastic bottle manufacturing can significantly contribute to the ability of the packaging system to perform as intended. Packaging manufacturers may not readily recognize the complexity and importance of controlling component and manufacturing variations. We invite comments on how best to address this issue and whether certain changes in packaging components or variations in materials of construction should be reevaluated or tested and retested as a new design.

*B. Other Requirements*

(1) *Liners and Absorbent Material.* Packages containing liquid hazardous materials must include a method for containing the liquid, whether it is a leak-proof liner, plastic bag, absorbent material or other equally effective means. Liners are currently required in the following circumstances:

- Packages containing certain types of hazardous materials liquids (*e.g.*, Class 3, 4, or 8, or Division 5.1, 5.2, or 6.1) when absorbent materials are required and the outer packagings are not liquid-tight and transported by aircraft (49 CFR 173.27(e)).
- Either the inner or outer packagings when mercury is transported by aircraft (49 CFR 173.164).

It is our understanding, based on discussions with shippers, that many shippers already use protective liners with liquid hazardous materials packages. These shippers suggest that liners are included only if the packages are intended for transportation by air. However, many of these shippers do not have automated processes for assembling combination packagings and, therefore, manually insert liners when needed.

As an alternative to testing, we are considering requiring the use of a liner for packagings that are not liquid-tight (*e.g.*, fiberboard), whether absorbent material is required or not (for all liquid hazardous materials, regardless of hazard class). We are soliciting comments on whether the use of liners with or without absorbent material would be an effective means of preventing leaks from packages. In addition, we invite commenters to provide data and information concerning the costs that may be associated with the use of liners for various hazardous materials packaging configurations.

(2) *Secondary Means of Closure.* Currently, the HMR require a secondary means of closure only when inner packagings are closed with stoppers, corks or other such friction-type closures. This secondary means of closure must be held securely, tightly and effectively in place by positive means. We are soliciting comment on the types of secondary closures currently being used and their relative effectiveness in preventing leaks. We are interested in whether requiring a secondary means of closure for certain packaging configurations has merit. We are also aware the ICAO Technical Instructions, beginning in January 2011, will require a secondary means of closure on all inner packagings containing liquids in a combination packaging design. As an alternative to this requirement, the ICAO Technical Instructions will allow a leakproof liner in its place. Commenters are invited to provide data and information concerning the costs that may be associated with a requirement to apply a secondary means of closure for inner

packagings containing liquids intended for transportation by aircraft.

## IV. Questions for Public Comment

We invite comments, data, and information that will help PHMSA and FAA determine the degree to which the packaging problems outlined in this ANRPM pose a transportation safety risk and the parameters of that risk. Commenters are also invited to suggest strategies that would help enhance the safe transportation of hazardous materials, particularly by air, including regulatory amendments, systems risk analysis, enhanced outreach and training efforts, aggressive enforcement, and combinations of these measures. In reviewing the public comments on these measures, PHMSA and FAA will consult with the Transportation Security Administration on security-related hazardous materials transportation requirements to ensure that any proposed amendments would be consistent with the overall security policy goals and objectives established by the Department of Homeland Security and would not confront the regulated community with inconsistent security guidance or requirements promulgated by multiple agencies. In addition, we ask commenters to address the following questions:

### *General*

1. The air transportation environment has changed considerably since the current packaging requirements were adopted. For example, overnight and second day parcel delivery has become a common shipping method. Do the current transportation conditions (*e.g.*, multiple flight segments) need to be reevaluated and regulations updated accordingly to accommodate the current conditions experienced during normal transportation?

2. Does a combination packaging design problem exist unique to air transportation? Are inner packagings of combination packaging designs used to transport hazardous materials in air transportation adequate? Are the requirements clearly understood, and if not, how could this be improved?

3. Are current ''capability'' requirements in the HMR sufficient to prevent or mitigate combination package failures in air transportation?

4. Should we strengthen the structure and wording of the regulations to more clearly specify the applicability of the general packaging requirements in 49 CFR 173.22, 173.24, 173.24a, and 173.27 to both specification and non-specification packagings?

5. Would incorporation of the more explicit language that is used in ICAO TI clarify some of the relevant test methods and responsible parties? Should the respective responsibilities of packaging manufacturers and shippers be clarified?

### *Pressure Differential Testing*

1. Should a standardized test regimen be adopted in the HMR for combination packaging intended for air transport in addition to what is already required?

2. Should new test methods be considered for vibration and pressure differential as part of the design qualification test sequence? Are there alternative cost-effective test methods for ensuring combination packaging integrity in air transportation?

3. Are the 95 kPa and 75 kPa pressure requirements sufficient or should the vapor pressure calculation specified in 49 CFR 173.27(c) continue to be required? Would simplifying the requirements enhance compliance?

### *Alternatives to Testing*

1. Would a liner or similar approach be an acceptable alternative to required testing for pressure differential or vibration capability?

2. Would approaches such as new test methods, secondary closure methods, and cap/bottle design be possible solutions for reducing package leaks?

3. Should the 49 CFR 178.601(g)(1) Selective Testing Variation 1 be eliminated or restricted for combination packagings containing liquids and offered for transportation by air? If not, how could uniform compliance and an appropriate level of safety be addressed while continuing to allow this variation?

4. Should a secondary means of closure be mandated for all inner packagings or specific types of inner packagings containing liquids in combination packagings intended for transportation by aircraft?

5. Should current package marking requirements be expanded to include a shipper verification and certification that a packaging conforms to applicable air packaging requirements?

6. Should inner receptacles that are proven to meet pressure differential requirements be required to bear an indicative mark?

### *Risk-Based Actions*

1. Should changes to test protocols in the HMR apply to packagings used for the air transportation of all liquids including those in non-specification packagings (*e.g.*, paint, adhesives, and consumer commodities)?

2. Should high-risk/high-consequence liquid hazardous materials be restricted even further than currently required? Is there a better risk-based approach not yet developed?

3. Is there a way to reduce risk by focusing on the interrelation between packaging components and evaluating the relationship between the packaging design and preparation of the package from a systems perspective?

4. Would a combination of regulatory solutions, including a systems-wide risk analysis based on package design, package volume and transportation methods, be an effective approach as a means of reducing package leaks?

5. Are there opportunities to reduce risk through government-private industry partnership?

### *Closure Systems*

1. What can be done to reduce the number of package failures due to human factors such as over-tightening or under-tightening of closures? Closures loosened during long shelf storage due to both liner set and finish or closure relaxation may be a cause of a significant number of leaking bottles. Should a method be developed for a distributor to open a sealed specification package, check and re-torque closures then re-close the package for shipment in a manner that is consistent with the regulations? This would also allow inspection for other degradation caused by storage.

2. Are production tolerances of bottle caps and neck finishes suitable to ensure packages will not leak when the tolerances are at the opposite extremes, *i.e.,* a large bottle cap on a small bottle?

3. Are the common bottles and caps currently used for the transportation of hazardous materials manufactured with sufficient quality control to ensure that all components meet the requirements for effective sealing?

4. Should the bottle threads, caps and cap liners be considered a system and, as such, a single component of the design type? Should testing be required if the system is changed? If not, what component or components of a closure system should be allowed to be changed without testing and under what conditions?

5. If actual testing is needed, what standard or standards should be adopted or allowed?

6. Should ''capability'' be clearly defined in the HMR to improve compliance and reduce package failures?

### *Outreach/Enforcement*

1. Would additional outreach or training be helpful in reducing the number of package failures? Should specific outreach brochures be developed?

2. What is the best way to reach those hazmat employees that have the greatest need for this information?

3. Are there other enforcement strategies that could be used to ensure compliance with ''capability'' requirements in order to reduce package failures?

*Miscellaneous*

1. Are packages containing liquid hazardous materials being loaded in unit load devices according to their orientation markings? If not, should this practice be considered a condition normally incident to transportation? Is better enforcement of this requirement necessary?

2. Should an article (*e.g.*, electric storage battery containing acid or alkali) be required to be successfully tested for pressure differential capability? What articles, if any, should be excepted from such a requirement?

3. To what extent are there similar issues in international air commerce related to the package failures discussed in this notice? What steps have been taken to eliminate or reduce such failures?

4. How many small business entities would be impacted by a regulation that requires actual vibration and pressure differential testing rather than the current capability standard in the HMR? How many small business entities would be impacted by a regulation that requires actual testing to verify pressure differential capability only?

5. What costs to small business entities would be associated with required testing for vibration and pressure differential capability? What costs to small business entities would be associated with required testing for pressure differential capability only?

6. What alternatives, regulatory or otherwise, should PHMSA consider with regard to impact on small business entities while meeting its goal to reduce or eliminate incidents involving combination packagings in air transportation?

PHMSA and FAA will base any proposed changes on both suggestions and comments provided by interested persons in response to this ANRPM as well as the initiative of the agencies. These include the analyses required under the following statutes and executive orders in the event we determine that rulemaking is appropriate:

A. *Executive Order 12866: Regulatory Planning and Review*. E.O. 12866, as amended by E.O. 13258, requires agencies to identify the specific market failure (such as externalities, market power, lack of information) that warrant new agency action, as well as assess the significance of that problem, to enable assessment of whether any new regulation is warranted. When an agency determines that a regulation is the best available method of achieving the regulatory objective, E.O. 12866 also directs agencies to regulate in the ''most cost-effective manner,'' to make a ''reasoned determination that the benefits of the intended regulation justify its costs,'' and to develop regulations that ''impose the least burden on society.'' We therefore request comments, including specific data if possible, concerning the costs and benefits that may be associated with revisions to the HMR on air packaging integrity. A rule that is considered significant under E.O. 12866 must be reviewed and cleared by the Office of Management and Budget before it can be issued.

The number of affected combination package design types requiring certification under any required testing regimen is estimated as a function of the number of package manufacturers producing pre-certified designs, the number of shippers using self-certified designs, and the number of designs certified by each group. PHMSA estimates that 75 to 85 percent of air shippers exclusively purchase and use pre-certified combination packaging designs, that is, combination packaging designs that have been tested to existing regulatory standards. The remaining 15 to 25 percent of air shippers have sufficient shipment volumes to make it economical for them to use combination packaging designs that they have certified themselves. Combination packaging designs that are pre-certified for air transportation should already reflect any costs associated with testing performed on them to verify integrity. For self-certifiers who choose not to invest in equipment to verify combination packaging design integrity and outsource that function, the cost is approximately $300 for a standard vibration test and $200 for a standard pressure differential test. Multiple designs may be certified from a single test. There may be as many as 21,000–36,000 different UN specification combination packaging designs for liquids that would require testing if PHMSA adopts new or enhanced testing requirements for combination packagings. Total costs for testing could amount to $10.5M–$18.0M if both tests are required. Benefits under any rulemaking action would be assessed based on incident avoidance and the consideration of consequences involving a high-consequence/low probability accident. We invite commenters to address the potential costs of new or enhanced testing requirements, including the number of designs that would be affected and the total costs associated with such testing.

Additional regulatory options under consideration include requiring a secondary means of closure applied to inner packagings or receptacles containing liquid hazardous materials within a combination package or the required use of a liner in all combination packages containing liquid hazardous materials intended for air transportation when the outer packagings are not liquid tight. For the liner alternative, the economic impacts of this requirement would stem from the cost of inclusion of a liner for all combination packagings containing liquids. Shippers would absorb the costs of including a liner; however, many shippers already include a liner in these types of packagings. Informal industry surveys indicate that shippers use a protective liner with an estimated 70 to 90 percent of all liquid hazardous materials combination packages; prices for a standard 1 mm or thinner Poly Bag line range from $0.06 to $0.08 per liner. Because of the uncertainty regarding the potential designs for secondary means of closure and the costs associated with them, we invite comments on the efficacy of such an alternative and whether it should be considered in addition to, or as an alternative to, the required use of a liner.

B. *Executive Order 13132: Federalism*. E.O. 13132 requires agencies to assure meaningful and timely input by state and local officials in the development of regulatory policies that may have a substantial, direct effect on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. We invite state and local governments with an interest in this rulemaking to comment on any effect that revisions to the HMR relative to air packaging will cause.

C. *Executive Order 13175: Consultation and Coordination With Indian Tribal Governments*. E.O. 13175 requires agencies to assure meaningful and timely input from Indian tribal government representatives in the development of rules that ''significantly or uniquely affect'' Indian communities and that impose ''substantial and direct compliance costs'' on such communities. While we do not anticipate an impact on Indian tribal governments if we move forward with a regulatory action, we invite Indian tribal governments to provide comments if they believe there will be an impact.

D. *Regulatory Flexibility Act*. Under the Regulatory Flexibility Act of 1980 (5 U.S.C. 601 *et seq.*), we must consider whether a proposed rule would have a significant economic impact on a substantial number of small entities. ''Small entities'' include small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations under 50,000. If you believe that revisions to the HMR relative to air packaging integrity could have a significant economic impact on small entities, please provide information on such impacts.

E. *Paperwork Reduction Act*

It is possible that a rulemaking action could impose new or revised information collection requirements.

**V. Regulatory Notices**

*A. Executive Order 12866 and DOT Regulatory Policies and Procedures*

This ANPRM is considered a significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, was reviewed by the Office of Management and Budget. This ANPRM is considered significant under the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034).

*B. 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 can be used to cross-reference this action with the Unified Agenda.

Issued in Washington, DC on July 1, 2008 under authority delegated in 49 CFR part 106.

**Edward T. Mazzullo,**

*Acting Associate Administrator for Hazardous Materials Safety.*

[FR Doc. E8–15372 Filed 7–3–08; 8:45 am]

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**DEPARTMENT OF TRANSPORTATION**

**National Highway Traffic Safety Administration**

**49 CFR Part 571**

**[Docket No. NHTSA–2008–0124]**

**RIN 2127–AK13**

## Federal Motor Vehicle Safety Standards; Windshield Zone Intrusion

**AGENCY:** National Highway Traffic Safety Administration (NHTSA), Department of Transportation.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** This document proposes to rescind Federal Motor Vehicle Safety Standard (FMVSS) No. 219, ''Windshield zone intrusion.'' This proposed action results from NHTSA's periodic review of its regulations to determine whether a continuing safety need exists for the standard under review. NHTSA tentatively concludes that the windshield zone intrusion standard is no longer necessary because other FMVSSs are now in place to meet the safety need that the standard had addressed.

**DATES:** You should submit your comments early enough to ensure that the Docket receives them not later than September 5, 2008.

**ADDRESSES:** You may submit comments to the docket identified in the heading of this document by any of the following methods:

- *Federal eRulemaking Portal:* go to *http://www.regulations.gov.* Follow the online instructions for submitting comments.
- *Mail:* DOT Docket Management Facility, M–30, U.S. Department of Transportation, West Building, Ground Floor, Rm. W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590.
- *Hand Delivery or Courier:* West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., between 9 a.m. and 5 p.m. Eastern time, Monday through Friday, except Federal holidays.
- *Fax:* (202) 493–2551.

Regardless of how you submit your comments, you should use the docket number of this document.

You may call the Docket Management Facility at 202–366–9826.

*Privacy Act:* Please see the Privacy Act heading under Rulemaking Analyses and Notices.

*Instructions:* For detailed instructions on submitting comments and additional information on the rulemaking process, see the Public Participation heading of the SUPPLEMENTARY INFORMATION section of this document. Note that all comments received will be posted without change to: *http://www.regulations.gov,* including any personal information provided.

**FOR FURTHER INFORMATION CONTACT:** For non-legal issues, you may call Mr. David Sutula, Office of Crashworthiness Standards, Light Duty Vehicle Division at (202) 366–3273. His fax number is (202) 493–2739.

For legal issues, you may call Ms. Dorothy Nakama, Office of the Chief Counsel at (202) 366–2992. Her Fax number is (202) 366–3820.

You may send mail to both of these officials at the following address: National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590.

**SUPPLEMENTARY INFORMATION:**

### Periodic Review of Federal Regulations

NHTSA has long recognized the importance of regularly reviewing its existing regulations to determine whether they need to be revised or revoked. NHTSA undertakes reviews of its regulations under, *inter alia,* the Department's 1979 Regulatory Policies and Procedures, under Executive Order 12866 ''Regulatory Planning and Review,'' and under section 610 of the Regulatory Flexibility Act (5 U.S.C. section 501 *et seq.*). In addition, NHTSA conducts reviews pursuant to internal operating procedures. During a periodic review of its regulations, NHTSA has identified FMVSS No. 219, *Windshield Zone Intrusion,* as a regulation that could possibly be removed as unnecessary.

### Background of FMVSS No. 219

The purpose of FMVSS No. 219 is to reduce crash injuries and fatalities that result from occupants contacting vehicle components displaced near or through the windshield. The standard applies to passenger cars, multipurpose passenger vehicles, trucks, and buses with a gross vehicle weight rating of 4,536 kilograms (kg) (10,000 pounds) or less, except for forward control vehicles, walk-in van-type vehicles or to open-body-type vehicles with fold-down or removable windshields. The final rule establishing FMVSS No. 219 was published on June 16, 1975 (40 FR 25462), and took effect on September 1, 1976.

FMVSS No. 219 specifies limits on the displacement of vehicle parts from outside the occupant compartment into the windshield area during a 48 kilometer per hour (km/h) (30 mile per hour (mph)) frontal barrier crash test. The standard establishes a protected zone at the daylight opening (DLO)