estimate that all of the Fixed Microwave licensees (excluding broadcast auxiliary licensees) would qualify as small entities under the SBA definition.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

54. The *Fifth NPRM* seeks comment on proposals for relocation procedures applicable to BRS licensees in the 2150–2160/62 MHz band FS licensees in the 2160–2175 MHz band, but does not propose service rules. Thus, the item contains no new reporting, recordkeeping, or other compliance requirements.

E. Steps Taken To Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

55. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.[24]

56. The proposals contained in the *Fifth NPRM* are designed to provide spectrum to support the introduction of new advanced mobile and fixed terrestrial wireless services. This action is critical to the continuation of technological advancement, furthers the goals of the Telecommunications Act of 1996, and serves the public interest. We are likewise committed to ensuring that the disruption to incumbent operations and the economic impact of this proceeding on incumbent licensees is minimal. As discussed in Section A, *supra*, we have proposed to establish rules based on our existing *Emerging Technologies* relocation procedures to govern the entry of new licensees into the 2150–2160/62 MHz and 2160–2175 MHz bands. An alternative option would be to offer no relocation process, and instead require incumbent licensees to cease use of the band by a date certain and prohibit new licensees from entering the band until that date. We believe that an *Emerging Technologies*-based relocation procedure is preferable, as it draws on established and well known principles (such as time-based negotiation periods and the requirement of negotiating in good faith), benefits small BRS and FS licensees because the proposals would require new AWS licensees to pay for the costs to relocate their incumbent operations to comparable facilities, and—for small AWS licensees—offers a process by which new services can be brought to the market expeditiously. Moreover, we believe that the provision of additional spectrum that can be used to support AWS will directly benefit small business entities by providing new opportunities for the provision of innovative new fixed and mobile wireless services.

F. Federal Rules That May Duplicate, Overlap, or Conflict With the Proposed Rule

57. None.

Ordering Clauses

58. Pursuant to Sections 1, 4(i), 7(a), 301, 303(f), 303(g), 303(r), 307, 316, and 332 of the Communications Act of 1934, as amended, 47 U.S.C. 151, 154(i), 157(a), 301, 303(f), 303(g), 303(r), 307, 316, and 332, this Fifth NPRM of proposed rule making *is adopted.*

59. Notice *is hereby given* of the proposed regulatory changes described in this Fifth NPRM of proposed rule making, and that comment is sought on these proposals.

60. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, *shall send* a copy of this Eighth Report and Order and Fifth NPRM of proposed rule making, including the Final Regulatory Flexibility Analysis and the Initial Regulatory Flexibility Analysis to the Chief Counsel for Advocacy of the Small Business Administration.

Federal Communications Commission.

Marlene H. Dortch.

Secretary.

[FR Doc. 05–21407 Filed 10–25–05; 8:45 am]

BILLING CODE 6712–01–P

[24] *See* 5 U.S.C. 603(c).

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 173 and 180

[Docket No. PHMSA–03–14405 (HM–220F)]

RIN 2137–AD78

Hazardous Materials Regulations: Aluminum Cylinders Manufactured of Aluminum Alloy 6351–T6 Used in SCUBA, SCBA, Carbon Dioxide, and Oxygen Service—Revised Requalification and Use Criteria

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

ACTION: Supplemental notice of proposed rulemaking.

SUMMARY: On September 10, 2003, the Research and Special Programs Administration—the predecessor agency to the Pipeline and Hazardous Materials Safety Administration published a notice of proposed rulemaking (NPRM) to propose an inspection and testing program for early detection of sustained load cracking in certain cylinders manufactured with aluminum alloy 6351–T6. Based on comments received in response to that NPRM, we are proposing to adopt a maximum service life for cylinders manufactured with aluminum alloy 6351–T6 and to prohibit the use of these cylinders after the expiration of their maximum service life.

DATES: Comments must be received by December 27, 2005.

ADDRESSES: You may submit comments to Docket No. PHMSA–03–14405 (HM–220F) by any of the following methods:

- *Federal eRulemaking Portal:* Go to *http://www.regulations.gov.* Follow the online instructions for submitting comments.
- *DOT Web site: http://dms.dot.gov.* To submit comments on the DOT electronic docket site, click ''Comment/Submissions,'' click ''Continue,'' fill in the requested information, click ''Continue,'' enter your comment, then click ''Submit.''
- *Fax:* 202–493–2251.
- *Mail:* Docket Management System; U. S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL–401, Washington, DC 20590–0001.
- *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: You must include the agency name and docket number PHMSA–03–14405 (HM–220F) or the Regulatory Identification Number (RIN) for this notice at the beginning of your comment. You should submit two copies of your comments if you submit them by mail. If you wish to receive confirmation that we received your comments, you must include a self-addressed stamped post card. 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 section of this document.

FOR FURTHER INFORMATION CONTACT: Mark Toughiry, Office of Hazardous Materials Technology, (202) 366–4545, or Kurt C. Eichenlaub, Office of Hazardous Materials Standards, (202) 366–8553; PHMSA, U.S. Department of Transportation, 400 Seventh Street SW., Washington, DC 20590–0001.

SUPPLEMENTARY INFORMATION:

Contents

I. Background

Cylinders made of aluminum alloy 6351–T6 are known to be susceptible to sustained load cracking (SLC) in the neck and shoulder area of the cylinder. The majority of SLC-related ruptures have occurred in self-contained underwater breathing apparatus (SCUBA), self-contained breathing apparatus (SCBA), and oxygen services. Since 1994, the Pipeline and Hazardous Materials Safety Administration (PHMSA, we) has been notified of thirteen suspected SLC ruptures of cylinders manufactured of aluminum alloy 6351–T6. Five of the thirteen ruptures resulted in serious injuries. Data from manufacturers show there are thousands of cylinders with small, non-leaking cracks, that are regularly detected during a diligent, proper requalification process. Manufacturers of cylinders made from the 6351–T6 aluminum alloy have performed research, testing and analysis to determine whether there is any correlation between SLC and the probability of a cylinder rupture. The data indicated the cylinders would leak but not rupture when operated at marked service pressure. It was also found the probability of cracking increases with an increase in stress levels. We performed additional metallurgical analysis on several ruptured cylinders to verify the cause of failure and failure mode. (See the metallurgical analysis reports at *http://hazmat.dot.gov/pubs/reports/cylinder/3al_cyls_info.htm*). Those metallurgical analyses revealed SLC caused the cylinder ruptures, but the results were inconclusive as to why the cylinders abruptly ruptured instead of developing leaks. United States manufacturers discontinued using aluminum alloy 6351–T6 in the mid-1990s, replacing it with aluminum alloy 6061–T6, which is not susceptible to SLC. Cylinders manufactured of aluminum alloy 6351–T6 prior to July 1990 include seamless aluminum cylinders marked ''DOT 3AL'', including those marked with ''DOT 3AL'' above or near one of the following exemption or special permit numbers: 6498, 7042, 8107, 8364, and 8422. We estimate approximately six million U.S. cylinders manufactured from aluminum alloy 6351–T6 are currently in use in SCUBA, SCBA, Carbon Dioxide (CO_2), and oxygen services.

The primary domestic manufacturers of DOT 3AL cylinders currently in service are Luxfer USA; Walter Kidde Co.; Cliff Impact Division of Parker Hannifin Corporation; and Catalina Cylinders. The majority of the cylinders are being used in six major services: (1) SCUBA, (2) SCBA, (3) CO_2, (4) oxygen, (5) industrial gases, and (6) fire extinguishers.

On August 8, 2002, we published a final rule (Docket HM–220D, 67 FR 51626) amending the requirements of the Hazardous Materials Regulations (HMR; 49 CFR parts 171–180) applicable to the maintenance, requalification, repair, and use of DOT specification cylinders. On May 8, 2003, we issued a subsequent final rule (68 FR 24653) that made further revisions in response to appeals. In the final rule and the response to appeals, we added the following amendments pertaining to DOT specification cylinders made with aluminum alloy 6351–T6:

- Removed the authorization for the manufacture of DOT specification cylinders from aluminum alloy 6351–T6 because cylinders manufactured with this aluminum alloy have a greater risk of failure than other aluminum cylinders.
- Prohibited these cylinders for Hazard Zone A materials effective on October 1, 2002. After that date, cylinders made of aluminum alloy 6351–T6 may not be filled and offered for transportation in toxic inhalation hazard service.
- Prohibited the use of cylinders manufactured of aluminum alloy 6351–T6 for gases having pyrophoric properties.
- Required a visual inspection of DOT specification or exemption cylinders made of aluminum alloy 6351–T6 for evidence of SLC in the neck and shoulder area.

The HMR require DOT 3AL cylinders to be requalified every five years (twelve years for fire extinguishers) in accordance with § 180.205. The requalification performed under § 180.205 includes a visual inspection (internal and external) and a volumetric expansion test. During the visual inspection, cylinders must be inspected for evidence of SLC in the neck and shoulder area. However, we understand that in addition to the visual inspection and volumetric expansion test, many users and requalifiers are currently performing an eddy current examination. Approximately 2,000 eddy current devices have been purchased by various technicians in the dive, fire and cylinder requalification industries to examine aluminum cylinders for SLC. Cylinder manufacturers report that a large number of affected cylinders have been removed from service because of flaws discovered during eddy current examinations.

II. Previously Published NPRM

On September 10, 2003, the Research and Special Programs Administration, the predecessor agency to the PHMSA, published an NPRM proposing to amend HMR requirements on aluminum cylinders manufactured using aluminum alloy 6351–T6. The NPRM proposed a standard for early detection of SLC to reduce the risk of a cylinder rupture.

We evaluated the following three non-destructive examination (NDE) techniques—internal visual examination (VE), eddy current examination (EE), and ultrasonic examination (UE)—to detect a critical-size crack. A cylinder with a critical-size crack would be removed from service. Under the direction of PHMSA, Texas Research Institute (TRI) evaluated these three NDE (VE, EE, UE) methods by performing blind examinations applied

by individuals of varying skill levels (See the Nondestructive Inspection of High Pressure Aluminum Gas Cylinder, Final Report, dated September 2000, at *http://hazmat.dot.gov/enforce/forms/ohmforms.htm*). TRI determined that each NDE method was capable of detecting SLC, but detection using VE was limited by external factors, such as the inspector's eye sight, lighting, position of the crack, and alertness of the examiner. TRI also determined that UE must be applied by a certified technician to produce accurate results in detecting SLC. TRI concluded EE combined with a VE provides the most accurate and practical examination for detecting SLC. Both EE and VE can be conducted by a requalifier with minimal training.

In the NPRM, for cylinders manufactured of aluminum alloy 6351–T6 used in SCUBA (diving), SCBA (firefighting), and oxygen service, we proposed the following amendments:

- Require cylinders to undergo a combined visual and eddy current examination.
- Add a new Appendix C to Part 180, to specify the procedure to conduct the eddy current examination.
- That suitable safeguards be provided to protect personnel and facilities should a cylinder fail during the filling process.
- That only individuals essential to the filling process be allowed in the vicinity of the cylinder during the filling process.

Although we believe the thirteen reported SLC ruptures under-represent the extent of the SLC issue, we did not have sufficient data to determine whether the SLC-related ruptures extend beyond those services discussed above. Therefore, we requested additional information from manufacturers and users who were aware of the rupture of any DOT 3AL cylinder or any other cylinder manufactured from aluminum alloy 6351–T6, whether the incident was domestic or foreign, to submit the information in their comments to this rulemaking. More broadly, we invited commenters to address the issue of whether the new inspection requirements proposed in the NPRM should apply to cylinders manufactured of aluminum alloy 6351–T6 and used in services other than SCUBA, SCBA, or oxygen.

III. Analysis of Comments

We received comments from several individuals and organizations, including cylinder manufacturers, representatives of the SCUBA and compressed gas industries, and eddy current test equipment manufacturers. In this supplemental notice, we discuss comments submitted to the docket, concerns raised by commenters, and our decisions on specific issues.

A. Prohibited Use of 6351–T6 Cylinders

In response to the known susceptibility of cylinders made of aluminum alloy 6351–T6 to SLC, the NPRM discussed three possible options, which were evaluated as part of a cost-benefit analysis to address existing safety concerns: (1) Leaving the cylinder in service without taking any additional measures to reduce the risk, (2) immediately removing all cylinders made of aluminum alloy 6351–T6 from service, or (3) performing a NDE at the time of the cylinder's periodic requalification and requiring additional operational controls (OC) during the cylinder filling process. After careful analysis, we selected the third option.

Several commenters suggest that option (3) does not provide an adequate level of safety. The commenters state that SLC is a manufacturing problem, and no level of testing will prevent future incidents. These commenters assert that the only way to prevent future SLC incidents is to prohibit the use of all aluminum alloy 6351–T6 cylinders. They also assert that the safety benefits outweigh the costs involved in removing these cylinders from service and express concern that the SLC problem will only get worse if the cylinders remain in service.

We agree. However, the original economic evaluation showed immediate removal of these cylinders from service would place an undue economic burden on the affected industries. Although the economic burden of immediate removal is not justified, a gradual phase out of these cylinders over time will address the safety issue, and limit the costs associated with removal of these cylinders. Users of DOT 3AL cylinders generally replace them with a new one after 45–50 years. We revised the economic analysis to examine the costs of implementing option (3) with the addition of a 40-year service life. The economic analysis showed the addition of a 40-year service life to option (3) would provide an effective phase-out of these cylinders over time without imposing significant costs on the affected industries. Since most of these cylinders were manufactured prior to 1990, total removal of these cylinders would be accomplished by the year 2030. In this SNPRM we are proposing the addition of a 40-year service life on existing DOT 3AL cylinders manufactured of aluminum alloy 6351–T6. Under this proposal, cylinders would be prohibited from service when they reach the end of a 40-year service life. We are soliciting comments on whether a 40-year period from the date of manufacture is an appropriate service life for these affected cylinders.

B. Combined Visual and Eddy Current Testing

The NPRM proposed the addition of a combined external visual and eddy current examination at each required 5-year periodic requalification for DOT 3AL cylinders manufactured of aluminum alloy 6351–T6. The EE would be performed in accordance with the procedure outlined in Appendix C to Part 180. The visual examination would be conducted in accordance with CGA Pamphlet C–6.1.

Some commenters express concern over the five-year retest period as not frequent enough to detect SLC. One commenter states that experience has shown SLC gradually becomes noticeable 2–4 years before a catastrophic event. The commenter describes an incident in which a CO_2 cylinder leaked through the threads during filling. The leak was a result of SLC. The cracking was not visible at the previous qualification, but in less than a year's time the crack became large enough to leak product. Another commenter asserts that cylinders filled frequently (*e.g.*, SCUBA) are more susceptible to SLC and should be tested more frequently than once every five years. The commenter cites the dive industry standard of conducting visual inspections on an annual basis and recommends reducing the retest period to 2.5 years.

We disagree. Research has shown SLC is a slow growing crack. A cylinder manufactured of aluminum alloy 6351–T6 properly examined using a combination of an external visual and the eddy current is not likely to develop a critical SLC within a five year period. Further, requiring a more frequent examination would impose an unnecessary burden on the regulated community without significantly increasing safety.

A few commenters express concern about the qualification requirements for inspectors who conduct the EEs. A large number of the dive and fire industry EEs are conducted by trained technicians that have not been specifically approved in accordance with § 107.805 to requalify DOT specification cylinders. Commenters suggest it may be difficult to locate approved requalifiers with the capability to conduct eddy current examinations.

We recognize it may be difficult to locate an inspector qualified to perform

the EE and specifically approved in accordance with § 107.805. In this SNPRM we are proposing to require each cylinder made of aluminum alloy 6351–T6 to be initially examined using the eddy current/visual examinations within 3 years from publication of a final rule in the **Federal Register**. We believe the transition period provides a sufficient amount of time for inspectors to obtain approval to perform eddy current/visual examinations in accordance with § 107.805. We are soliciting comments on the proposed 3 year transition period for initial eddy-current/visual examinations of the affected cylinders.

C. Eddy Current and Visual Examination Method (Part 180, Appendix C)

Several commenters recommend changes to the EE procedures specified in proposed Appendix C to Part 180. Some commenters suggest the procedures provided in Appendix C to Part 180 is outdated. They recommend revising the language to more appropriately reflect the terminology used in the industry today. In addition, some commenters suggest the procedure is too specific. One commenter states, ''by detailing the exact steps to be followed and describing how the probe must be handled, how the defect signal should look, etc., you are in essence stating that only one manufacturer's equipment is acceptable for the test.'' These commenters note the operational procedures for eddy current equipment vary with the manufacturer and test equipment. To avoid confusion and conflicting procedures, these commenters recommend requiring EEs in accordance with the manufacturer's instructions. Some commenters recommend revising Appendix C to Part 180 to list the elements that must be included in the procedure, and the criteria by which cylinders must be condemned, without stating specific procedural methods. They suggest this will avoid limiting the industry to specific procedures that may conflict with current manufacturer recommendations used by industry today. One commenter states it is inappropriate for PHMSA to refer to equipment produced by specific manufacturers when describing the requirements for an appropriate EE and suggest we remove any references to equipment produced by a specific manufacturer.

We agree with the commenters. The procedures proposed in Part 180, Appendix C may be too specific. Further, it is not our intention to require or endorse the use of eddy current equipment supplied by a particular manufacturer. In this SNPRM, we are revising Part 180, Appendix C to provide general eddy current and visual examination procedures, recordkeeping requirements, and personnel qualifications. In addition, we are proposing to require requalifiers to develop, update, and maintain examination procedures applicable to the test equipment they use to perform eddy current examinations.

The NPRM proposed that cylinders found to have a two-thread crack in the neck or shoulder area must be rejected. Some commenters recommend revising the rejection criteria to include any crack in the cylinder, rather than any two-thread crack. These commenters suggest more stringent rejection criteria will provide a higher level of safety.

We disagree. The rejection criteria stated in the NPRM are based on the size of the notch in the standard reference ring used to calibrate the eddy current equipment. Aluminum cylinder manufacturers and eddy current experts have conducted extensive research to determine the SLC rejection criteria. The two-thread length is based on a correlation between SLC depth and growth-rate. The SLC initiates from the crown (shoulder) and proceeds toward the neck of the cylinder. Research has shown existing cracks shorter than two threads are not likely to become critical prior to the next requalification (five years).

The regulations do not currently specify whether the eddy current examination should be conducted before, or after the hydrostatic test. One commenter requested clarification of this issue. To clarify, the eddy current and visual examination may be performed either before or after the hydrostatic examination.

D. Training

The NPRM proposed that in addition to the periodic requalification and marking described in § 180.205, cylinders manufactured of aluminum alloy 6351–T6 used in SCUBA, SCBA, and oxygen services must be subjected to an eddy current and visual examination. The NPRM did not propose additional training requirements for persons performing these examinations.

Some commenters express concern that persons performing the combination visual and eddy current examination may not receive adequate training to perform these tests. These commenters suggest we add a formal function-specific training requirement for persons performing these examinations.

We agree with the commenters. In this SNPRM, we are proposing additional training requirements in Part 180, Appendix C for persons who perform EEs combined with visual examinations of DOT 3AL cylinders manufactured of aluminum alloy 6351–T6. We are soliciting comments on the proposed training requirements.

E. CO_2 Service

The requalification method proposed in the NPRM for aluminum cylinders constructed of 6351–T6 aluminum alloy would have applied only to cylinders used in SCUBA, SCBA, and oxygen service. We did not propose to require cylinders used in CO_2 service to be subjected to the visual and eddy current examination.

One commenter expresses concern that the proposed revision to the requalfication method for aluminum alloy cylinders does not include cylinders used in CO_2 service. The commenter states, ''It is true that CO_2 beverage cylinders are typically filled to lower pressures than those used in SCUBA, SCBA and oxygen services. However, the incidence of SLC is great enough that we believe it compromises safety to exclude any cylinders from the proposed rule.'' Another commenter conducted an in-house survey of condemned cylinders over a three year period (2001–2003). The results of the survey showed a significant number of CO_2 cylinders condemned due to SLC.

We agree with commenters that aluminum cylinders used in CO_2 service are susceptible to SLC. In this SNPRM, we propose to expand the scope of the rulemaking to include CO_2 cylinders. Many users of aluminum alloy cylinders in the beverage service industry are already conducting EEs. We believe including CO_2 cylinders will further enhance transportation safety.

F. Operational Controls for Filling Aluminum Alloy Cylinders

In the NPRM, we proposed to add operational controls during the filling of cylinders constructed of aluminum alloy 6351–T6. The proposed operational controls included a provision requiring the cylinder filler to allow only those individuals essential to the filling process to be in the vicinity of the cylinder during the filling process.

Commenters generally support this requirement. One commenter suggests the term ''vicinity'' is not clearly defined and could lead to wide interpretation. The commenter requests we clarify the area that is intended to be covered by the term ''vicinity.''

We recognize the term vicinity could be widely interpreted. The intent of this requirement is to protect non-essential personnel and innocent bystanders from injury if a cylinder were to rupture during filling. For purposes of this requirement, vicinity means a location near or around the filling operation that would impose an unreasonable risk of injury to an individual if the cylinder were to rupture during the filling process. The actual distance could vary broadly depending upon the type of safety mechanisms in place and the actual square footage of a particular filling location.

IV. Proposals in This SNPRM

In this SNPRM, we are revising certain amendments originally proposed in the NPRM, expanding the scope of the rulemaking, and proposing additional requirements for DOT 3AL cylinders manufactured of aluminum alloy 6351–T6. Proposed amendments include:

- Expanded requalification and use requirements to include DOT 3AL cylinders manufactured of aluminum alloy 6351–T6 used in CO_2 service.
- A 40-year service life for cylinders manufactured of aluminum alloy 6351–T6 and used in SCBA, SCUBA, oxygen and CO_2 service.
- Additional training requirements for persons performing the eddy current examination combined with a visual inspection.
- Modified procedures and recordkeeping requirements for EEs.
- A requirement to perform the initial eddy current examination combined with visual inspection for DOT 3AL cylinders manufactured of aluminum alloy 6351–T6 within three years of publication of a final rule in the **Federal Register**.

V. Section-by-Section Review

Part 173

Section 173.301

We are proposing to revise paragraph (d) and add a new paragraph (o) to impose a 40-year service life on cylinders manufactured of aluminum alloy 6351–T6 and used in SCBA, SCUBA, oxygen and CO_2 service. The 40-year service life will promote safety by phasing out the use of cylinders susceptible to SLC.

Section 173.302

We are proposing to add a new paragraph (e) to require that operational controls must be in place during the filling process for cylinders manufactured of aluminum alloy 6351–T6. The operational controls will reduce the risk of injury and property damage during the filling process.

Part 180

Section 180.205

We are proposing to revise paragraph (f)(4) to provide reference to Part 180, Appendix C for requalification requirements for DOT 3AL cylinders manufactured of aluminum alloy 6351–T6.

Section 180.209

We are proposing to amend paragraph (a), the entry for the DOT 3AL cylinder in the ''Requalification of Cylinders'' table to add a reference to the new paragraph (m). In addition, we propose to add a new paragraph (m) to include a NDE for cylinders manufactured of aluminum alloy 6351–T6. The NDE will be used to detect SLC in the neck and shoulder area of the cylinder. The initial NDE would be required within three years following publication of a final rule in the **Federal Register**, and every five years thereafter.

Section 180.213

We are revising paragraph (d) and adding a new paragraph (f)(8) to specify the requalification marking requirements for aluminum cylinders successfully passing the combined eddy current examination and visual inspection. We are soliciting comments on whether ''VE'' is a suitable marking designation for cylinders passing the examination.

Appendix C to Part 180

We are proposing to amend Appendix C to Part 180 to provide acceptable procedures, training and recordkeeping requirements for performing the eddy current examination and visual inspection of cylinders manufactured of aluminum alloy 6351–T6.

VI. Regulatory Analyses and Notices

A. Statutory/Legal Authority for This Rulemaking

This SNPRM is published under authority of Federal hazardous materials transportation law (Federal hazmat law; 49 U.S.C. 5101 *et seq.*). Section 5103(b) of Federal hazmat law authorizes the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce. To this end, as discussed in detail earlier in this preamble, the SNPRM proposes to revise current HMR requirements applicable to aluminum cylinders manufactured using aluminum alloy 6351–T6. The purpose of the SNPRM is to adopt a standard for early detection of SLC to reduce the risk of a cylinder rupture and to establish a service life for cylinders manufactured of aluminum alloy 6351–T6.

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 reviewed by the Office of Management and Budget. The proposed rule is not considered a significant rule under the Regulatory Policies and Procedures of the Department of Transportation [44 FR 11034].

The compliance costs associated with this rule are minimal. The regulatory analysis indicates the increased cost for imposing a 40-year service life, performing an NDE, and implementing operational controls is small compared to the cost and safety risks of doing nothing; it is significantly less than the cost of immediately removing all cylinders from service. The annual benefits of implementing the proposals in this NPRM total $1,123,969 for avoided injuries and fatalities compared to an annual cost to the industry of $669,130. The economic evaluation data were based on information obtained from cylinder manufacturers, industrial gas companies, cylinder inspectors, and on metallurgical evaluation of the ruptured cylinders. A regulatory analysis is available for review in the docket.

C. Executive Order 13132

This proposed rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 (''Federalism''). This proposed rule would preempt State, local and Indian tribe requirements but does not adopt any regulation with 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. The Federal hazmat law, 49 U.S.C. 5101–5127, contains an express preemption provision (49 U.S.C. 5125(b)) preempting State, local, and Indian tribe requirements on certain covered subjects. Covered subjects are:

(1) The designation, description, and classification of hazardous material;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous material;

(3) The preparation, execution, and use of shipping documents related to

hazardous material and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; and

(5) The design, manufacturing, fabricating, marking, maintenance, reconditioning, repairing, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This proposed rule covers items 2 and 5 and would preempt any State, local, or Indian tribe requirements not meeting the ''substantively the same'' standard.

Pursuant to § 5125(b)(2) of the Federal hazmat law, if the Secretary of Transportation issues a regulation concerning any of the covered subjects, the Secretary must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance. PHMSA has determined the effective date of Federal preemption for these requirements will be one year from the date of publication of a final rule in the **Federal Register**.

D. Executive Order 13175

This proposed rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13175 (''Consultation and Coordination with Indian Tribal Governments''). Because this proposed rule does not have tribal implications, does not impose substantial direct compliance costs, and is not required by statute, the funding and consultation requirements of Executive Order 13175 do not apply.

E. Regulatory Flexibility Act, Executive Order 13272, and DOT Regulatory Polices and Procedures

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities unless the agency determines a rule is not expected to have a significant economic impact on a substantial number of small entities. This rule imposes only minimal new costs of compliance on the regulated industry. Based on the assessment in the regulatory evaluation, I hereby certify that while this rule applies to a substantial number of small entities, there will not be a significant economic impact on those small entities. A detailed Regulatory Flexibility analysis is available for review in the docket.

This proposed rule has been developed in accordance with Executive Order 13272 (''Proper Consideration of Small Entities in Agency Rulemaking'') and DOT's policies and procedures to promote compliance with the Regulatory Flexibility Act to ensure potential impacts of draft rules on small entities are properly considered.

F. Paperwork Reduction Act

PHMSA currently has an approved information collection under OMB Control No. 2137–0022, Testing, Inspection, and Marking Requirements for Cylinders'' with 168,431 burden hours, and an expiration date of August 31, 2008. This supplemental notice of proposed rulemaking may result in a modest increase in annual burden and costs based on a new information collection requirement. These proposals regarding the shipment of aluminum cylinders may result in a new information collection requirement will be submitted to OMB for review and approval.

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 a new information collection request PHMSA will submit to OMB for approval based on the requirements in this supplemental proposed rulemaking.

PHMSA has developed burden estimates to reflect changes in this SNPRM. PHMSA estimates the total information collection and recordkeeping burden as proposed would be as follows:

OMB No. 2137–0022:

Total Annual Number of Responders: 139,352.

Total Annual Responses: 153,287.

Total Annual Burden Hours: 271,461.

Total Annual Burden Cost: $2,615,515.

Total One-Time Start-Up Cost: $964,000.

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

Address written comments to the Dockets Unit as identified in the **ADDRESSES** section of this rulemaking. We must receive your comments prior to the close of comment period identified in the DATES section of this rulemaking. Under the Paperwork Reduction Act of 1995, no person is required to respond to an information collection unless it displays a valid OMB control number. If these proposed requirements are adopted in a final rule, PHMSA will submit the revised information collection and recordkeeping requirements to the Office of Management and Budget for approval.

Requests for a copy of this information collection should be directed to Deborah Boothe or T. Glenn Foster, Office of Hazardous Materials Standards (PHH–11), Pipeline and Hazardous Materials Safety Administration, Room 8430, 400 Seventh Street, SW., Washington, DC 20590–0001, Telephone (202) 366–8553. We will publish a notice advising interested parties of the OMB approval for this information collection request when approved by OMB.

In addition, you may submit comments specifically related to the information collection burden to the PHMSA Desk Officer, OMB, at fax number 202–395–6974. Under the Paperwork Reduction Act of 1995, no person is required to respond to an information collection unless it displays a valid OMB control number.

G. 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.

H. Unfunded Mandates Reform Act

This proposed rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of $120.7 million or more to either State, local or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objective of the rule.

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 proposed rule. PHMSA is amending requirements in the HMR pertaining to DOT 3AL aluminum cylinders. The purpose of this rulemaking initiative is to minimize personal injury during the cylinder

filling process and to adopt a standard for early detection of sustained load cracking in order to reduce the risk of a cylinder rupture. Adopting a standard for early detection of sustained load cracking in order to reduce the risk of a cylinder rupture has no potential for environmental damage or contamination.

J. Privacy Act

Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (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 173

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

49 CFR Part 180

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

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

PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENT AND PACKAGES

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

Authority: 49 U.S.C. 5101–5127, 44701; 49 CFR 1.45, 1.53.

2. In § 173.301, paragraph (d) is revised and a new paragraph (o) is added to read as follows:

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

* * * * *

(d) *Gases capable of combining chemically.* A filled cylinder may not contain any gas or material capable of combining chemically with the cylinder's contents or with the cylinder's material of construction, so as to endanger the cylinder's serviceability.

* * * * *

(o) *DOT 3AL cylinders made of aluminum alloy 6351–T6.* A DOT 3AL cylinder manufactured of aluminum alloy 6351–T6 and used in self-contained underwater breathing apparatus (SCUBA), self-contained breathing apparatus (SCBA), oxygen, or CO^2 services has a 40-year service life from the date of manufacture. No person may fill and offer for transportation or transport a DOT 3AL cylinder made of aluminum alloy 6351–T6 that has been in service longer than forty years. However, a cylinder in transportation or a cylinder filled prior to the expiration of its authorized service life may be transported for reprocessing or disposal of the cylinder's contents. A DOT 3AL cylinder manufactured of aluminum alloy 6351–T6 may not be filled and offered for transportation or transported with pyrophoric gases.

3. In § 173.302, a new paragraph (e) is added to read as follows:

§ 173.302 Filling of cylinders with nonliquefied (permanent) compressed gases.

* * * * *

(e) *DOT 3AL cylinders manufactured of 6351–T6 aluminum alloy.* Suitable safeguards should be provided to protect personnel and facilities should failure occur while filling cylinders manufactured of aluminum alloy 6351–T6 used in self-contained underwater breathing apparatus (SCUBA), self-contained breathing apparatus (SCBA), oxygen and Carbon dioxide services. The cylinder filler should allow only those individuals essential to the filling process to be in the vicinity of the cylinder during the filling process.

PART 180—CONTINUING QUALIFICATION AND MAINTENANCE OF PACKAGINGS

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

Authority: 49 U.S.C. 5101–5127; 49 CFR 1.53.

5. In § 180.205, paragraph (f)(4) is revised to read as follows:

§ 180.205 General requirements for requalification of cylinders.

* * * * *

(f) * * *

(4) In addition to other requirements prescribed in this paragraph (f), a specification cylinder made of aluminum alloy 6351–T6 must be inspected for sustained load cracking in accordance with Appendix C of this part.

* * * * *

6. In § 180.209, in paragraph (a), in the ''Requalification of Cylinders'' table the entry ''DOT 3AL'' is revised, and a new paragraph (m) is added to read as follows:

§ 180.209 Requirements for requalification of specification cylinders.

* * * * *

(a) * * *

TABLE 1.—REQUALIFICATION OF CYLINDERS [1]

Specification under which cylinder was made	Minimum test pressure (psig.) [2]	Requalification period (years)
* * * * *	* * *	* *
DOT 3AL	5/3 times service pressure	5 or 12 (see § 180.209(j) and § 180.209(m) [3]).
* * * * *	* * *	* *

[1] Any cylinder not exceeding 2 inches outside diameter and less than 2 feet in length is excepted from volumetric expansion test.
[2] For cylinders not marked with a service pressure, see § 173.301(e)(1) of this subchapter.
[3] This provision does not apply to aluminum cylinders used in fire extinguisher service.

* * * * *

(m) *DOT–3AL cylinders manufactured of 6351–T6 aluminum alloy.* In addition to the periodic requalification and marking described in § 180.205, each cylinder manufactured of aluminum alloy 6351–T6 used as a self-contained underwater breathing apparatus (SCUBA), a self-contained breathing apparatus (SCBA), or in oxygen or Carbon dioxide service must be requalified and inspected for sustained load cracking in accordance with the non-destructive examination method described in the following table. Each cylinder with sustained load cracking that has expanded into the neck threads must be condemned in accordance with

§ 180.205(i). This provision does not apply to aluminum cylinders used in fire extinguisher service or industrial gases in other than Carbon dioxide service.

REQUALIFICATION AND INSPECTION OF DOT–3AL CYLINDERS MADE OF ALUMINUM ALLOY 6351–T6

Requalification requirement	Examination procedure [1]	Sustained load cracking rejection criteria [2]	Requalification period (years) [3]
Eddy current examination combined with visual inspection.	In accordance with Appendix C of this part. Visual inspection—In accordance with CGA Pamphlet C–6.1 (IBR; see § 171.7 of this subchapter).	Any 2-thread crack in the neck or shoulder area.	5

[1] The requalifier performing eddy current must be familiar with the eddy current equipment and must standardize (calibrate) the system in accordance with the requirements provided in Appendix C to this part.

[2] The eddy current must be applied from the inside of the cylinder's neck to detect any sustained load cracking that has expanded into the neck threads.

[3] Each cylinder must receive an initial inspection using the eddy current examination combined with visual inspection prior to [DATE THREE YEARS FOLLOWING THE PUBLICATION DATE OF THE FINAL RULE IN THE **Federal Register**] and every 5 years thereafter.

7. In § 180.213, paragraph (d) introductory text is revised and a new paragraph (f)(8) is added to read as follows:

§ 180.213 Requalification markings.

* * * * *

(d) *Requalification markings.* Each cylinder that has successfully passed requalification must be marked with the RIN set in a square pattern, between the month and year of the requalification date. The first character of the RIN must appear in the upper left corner of the square pattern; the second in the upper right; the third in the lower right; and the fourth in the lower left. Example: A cylinder requalified in September 1998, and approved by a person who has been issued RIN ''A123'', would be marked plainly and permanently into the metal of the cylinder in accordance with location requirements of the cylinder specification or on a metal plate permanently secured to the cylinder in accordance with paragraph (b) of this section. An example of the markings prescribed in this paragraph (d) is as follows:

A1
9 98 X
32

Where:
''9'' is the month of requalification
''A123'' is the RIN
''98'' is the year of requalification, and
''X'' represents the symbols described in paragraphs (f)(2) through (f)(8) of this section.

* * * * *

(f) * * *

(8) For designation of the eddy current examination combined with a visual inspection, the marking is as illustrated in paragraph (d) of this section, except that the ''X'' is replaced with the letters ''VE.''

8. In Part 180, Appendix C is added to read as follows:

Appendix C to Part 180—Eddy Current Examination With Visual Inspection for DOT–3AL Cylinders Manufactured of Aluminum Alloy 6351–T6

1. *Examination Procedure.* Each facility that performs eddy current examination with visual inspection must develop, update, and maintain a written examination procedure applicable to the test equipment it uses to perform eddy current examinations.

2. *Visual examinations.* Visual examinations of the neck and shoulder area of the cylinder must be conducted before and after the eddy current examination and in accordance with CGA pamphlet C–6.1 (IBR; see § 171.7 of this subchapter).

3. *Eddy Current Equipment.* A reference ring and probe for each DOT–3AL cylinder manufactured of aluminum alloy 6351–T6 to be inspected must be available at the examination facility. Eddy current equipment must be capable of accurately detecting the notches on the standard reference ring.

4. *Eddy Current Reference Ring.* The reference ring must be produced to represent the outer diameter (O.D.) of each cylinder to be tested. The reference ring must include artificial notches that will simulate a neck crack. The size of the artificial notch (depth and length) must have a depth equal to 1/3 of the wall thickness of the neck and a length equal to two threads. The standard reference must have a drawing that includes the diameter of the ring, and depth and length of each notch.

5. *Rejection Criteria.* A cylinder must be rejected if the eddy current examination reveals any crack in the neck of 2 thread lengths or more.

6. *Examination equipment records.*

Records of eddy current inspection shall contain the following information:

(i) Equipment manufacturer, model number and serial number.

(ii) Probe description and unique identification (*e.g.*, serial number, part number, etc.).

7. *Eddy current examination reporting and record retention requirements.* Daily records of eddy current examinations must be maintained by the person who performs the requalification until either the expiration of the requalification period or until the cylinder is again requalified, whichever occurs first. These records must be made available for inspection by a representative of the Department on request. Eddy current examination records shall contain the following information:

(i) Specification of each standard reference ring used to perform the eddy current examination.

(ii) DOT specification or exemption number of the cylinder, manufacturer's name or symbol, owner's name or symbol, and date of manufacture.

(iii) Name of test operator performing the eddy current examination.

(iv) Date of eddy current examination.

(v) Location and type of defect on the cylinder crown or the threaded neck (*e.g.*, 5 threads).

(vi) Acceptance/rejection results (*e.g.* pass or fail).

(vii) Retester identification number.

8. *Personnel Qualification Requirements.* Each person who performs eddy current and visual examinations, and evaluates and certifies retest results must satisfy one of the following qualification requirements:

(i) Is certified to a minimum Level I in accordance with the American Society for Nondestructive Testing (ASNT) Recommended Practice SNT–TC–1A; or

(ii) Has received a certification by the employer or the eddy current equipment manufacturer that he/she has been trained and tested in the eddy current and visual examination procedures.

9. *Training Records.* A record of current training must be maintained for each employee who performs eddy current and visual examinations in accordance with § 172.704(d).

Issued in Washington, DC on October 17, 2005, under authority delegated in 49 CFR parts 1.45 and 1.53.

Robert A. McGuire,

Associate Administration for Hazardous Materials Safety.

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