DEPARTMENT OF TRANSPORTATION

Federal Railroad Administration

49 CFR Parts 229 and 238

[Docket No. FRA–2005–23080, Notice No. 1]

RIN 2130–AB67

Passenger Equipment Safety Standards; Miscellaneous Amendments and Attachments of Safety Appliances on Passenger Equipment

AGENCY: Federal Railroad Administration (FRA), Department of Transportation (DOT).

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: FRA is proposing to clarify and amend its existing regulations in an effort to address various mechanical issues relevant to the manufacture, efficient utilization, and safe operation of passenger equipment and trains that have arisen since FRA's original issuance of the Passenger Equipment Safety Standards. FRA proposes miscellaneous amendments to its existing regulations in five areas by: Clarifying the terminology related to piston travel indicators; providing alternative design and additional inspection criteria for new passenger equipment not designed to allow inspection of the application and release of the brakes from outside the equipment; permitting some latitude in the use of passenger equipment with redundant air compressors when a limited number of the compressors become inoperative; recognizing current locomotive manufacturing techniques by permitting an alternative pneumatic pressure test for main reservoirs; and adding provisions to ensure the proper securement of unattended equipment. FRA is also clarifying the existing regulatory requirements related to the attachment of safety appliances and is proposing an identification and inspection protocol to address passenger equipment containing welded safety appliances or welded safety appliance brackets or supports. Finally, FRA is proposing to permit railroads the ability to apply out-of-service credit to certain periodic maintenance requirements.

DATES: (1) Written comments must be received by February 17, 2006. Comments received after that date will be considered to the extent possible without incurring additional expenses or delays.

(2) FRA anticipates being able to resolve this rulemaking without a public, oral hearing. However, if FRA receives a specific request for a public, oral hearing prior to January 17, 2006, one will be scheduled and FRA will publish a supplemental notice in the **Federal Register** to inform interested parties of the date, time, and location of any such hearing.

ADDRESSES: *Comments:* Comments related to Docket No. FRA–2005–23080, may be submitted by any of the following methods:

- *Web site: http://dms.dot.gov.* Follow the instructions for submitting comments on the DOT electronic docket site.
- *Fax:* 202–493–2251.
- *Mail:* Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL–401, Washington, DC 20590–0001.
- *Hand Delivery:* 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.
- *Federal eRulemaking Portal:* Go to *http://www.regulations.gov.* Follow the online instructions for submitting comments.

Instructions: All submissions must include the agency name and docket number or Regulatory Identification Number (RIN) for this rulemaking. Note that all comments received will be posted without change to *http://dms.dot.gov* including any personal information. Please see the Privacy Act heading in the **SUPPLEMENTARY INFORMATION** section of this document for Privacy Act information related to any submitted comments or materials.

Docket: For access to the docket to read background documents or comments received, go to *http://dms.dot.gov* at any time or to 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.

FOR FURTHER INFORMATION CONTACT: George Scerbo, Office of Safety Assurance and Compliance, Motive Power & Equipment Division, RRS–14, Mail Stop 25, Federal Railroad Administration, 1120 Vermont Avenue, NW., Washington, DC 20590 (telephone 202–493–6247), or Thomas J. Herrmann, Trial Attorney, Office of Chief Counsel, Mail Stop 10, Federal Railroad Administration, 1120 Vermont Avenue, NW., Washington, DC 20590 (telephone 202–493–6036).

SUPPLEMENTARY INFORMATION:

I. Statutory Background

In September of 1994, the Secretary of Transportation convened a meeting of representatives from all sectors of the rail industry with the goal of enhancing rail safety. As one of the initiatives arising from this Rail Safety Summit, the Secretary announced that DOT would begin developing safety standards for rail passenger equipment over a five-year period. In November of 1994, Congress adopted the Secretary's schedule for implementing rail passenger equipment regulations and included it in the Federal Railroad Safety Authorization Act of 1994 (the Act), Public Law 103–440, 108 Stat. 4619, 4623–4624 (November 2, 1994). Section 215 of the Act, is now codified at 49 U.S.C. 20133.

The Secretary of Transportation has delegated these rulemaking responsibilities to the Federal Railroad Administrator. *See* 49 CFR 1.49(m).

II. Proceedings to Date

On June 17, 1996, FRA published an advanced notice of proposed rulemaking (ANPRM) concerning the establishment of comprehensive safety standards for railroad passenger equipment. *See* 61 FR 30672. The ANPRM provided background information on the need for such standards, offered preliminary ideas on approaching passenger safety issues, and presented questions on various passenger safety topics. Following consideration of comments received on the ANPRM and advice from FRA's Passenger Equipment Working Group, FRA published a Notice of Proposed Rulemaking (NPRM) on September 23, 1997, to establish comprehensive safety standards for railroad passenger equipment. *See* 62 FR 49728. In addition to requesting written comment on the NPRM, FRA also solicited oral comment at a public hearing held on November 21, 1997. FRA considered the comments received on the NPRM and prepared a final rule establishing safety standards for passenger equipment, which was published on May 12, 1999. *See* 64 FR 25540.

After publication of the final rule, interested parties filed petitions seeking FRA's reconsideration of some of the requirements contained in the final rule. These petitions generally related to the following subject areas: Structural design; fire safety; training; inspection, testing, and maintenance; and movement of defective equipment. On July 3, 2000, FRA issued a response to the petitions for reconsideration relating to the inspection, testing, and maintenance of passenger equipment,

the movement of defective passenger equipment, and other miscellaneous mechanical-related provisions contained in the final rule. *See* 65 FR 41284. On April 23, 2002 and June 25, 2002, FRA published two additional responses to the petitions for reconsideration addressing the remaining issues raised in the petitions. *See* 67 FR 19970, and 67 FR 42892.

Subsequent to the issuance of these responses, FRA and interested industry members began identifying various issues related to the new passenger equipment safety standards with the intent that FRA would address the issues through FRA's Railroad Safety Advisory Committee (RSAC). On May 20, 2003, FRA presented, and the RSAC accepted, the task of reviewing existing passenger equipment safety needs and programs and recommending consideration of specific actions useful to advance the safety of rail passenger service. The RSAC established the Passenger Equipment Working Group (Working Group) to handle this task and develop recommendations for the full RSAC to consider. Due to the variety of issues involved the Working Group established a number of smaller task forces, with specific expertise, to develop recommendations on various subject-specific issues. One of these task forces, the Mechanical Issues Task Force (Task Force), was assigned the job of identifying and developing issues and recommendations specifically related to the inspection, testing, and operation of passenger equipment as well as concerns related to the attachment of safety appliances on passenger equipment.

This proposal is the result of FRA's review and consideration of the recommendations of the Working Group and the full RSAC. With the exception of the proposed provisions related to the attachment of safety appliances on passenger equipment and the proposed provision involving out-of-service credit, FRA has accepted and now proposes the consensus recommendations made by the Working Group and adopted by the full RSAC as its recommendation to FRA. At the October 26–27, 2004, meeting of the full Working Group, FRA withdrew the task related to the consideration of handling the attachment of safety appliances on passenger equipment from the RSAC. FRA determined that consensus on this issue could not be reached in the RSAC process and determined that it would have to proceed with a proposal on its own. Therefore, FRA developed the proposed provisions related to the attachment of safety appliances unilaterally based on its own expertise in the area and based on discussions and information developed by the Working Group and Task Force. FRA also did not seek consensus in the RSAC process for the proposed provision related to out-of service credit. This issue is being addressed on FRA's own accord in response to the American Public Transportation Association's petition for rulemaking dated March 28, 2005. Consequently, FRA did not and will not seek RSAC consensus on these issues nor will it discuss any comments received on these proposed provisions with the Working Group or RSAC when developing a final rule on those matters. In order to conserve agency resources and prevent duplicative production of rulemaking documents, FRA has included its proposed provisions related to safety appliances on passenger equipment and out-of-service credit in this notice.

III. RSAC Overview

In March 1996, FRA established the RSAC, which provides a forum for developing consensus recommendations on rulemakings and other safety program issues. The Committee includes representation from all of the agency's major customer groups, including railroads, labor organizations, suppliers and manufacturers, and other interested parties. A list of member groups follows:

American Association of Private Railroad Car Owners (AARPCO).
American Association of State Highway & Transportation Officials (AASHTO).
American Public Transportation Association (APTA).
American Short Line and Regional Railroad Association (ASLRRA).
American Train Dispatchers Association (ATDA).
Association of American Railroads (AAR).
Association of Railway Museums (ARM).
Association of State Rail Safety Managers (ASRSM).
Brotherhood of Locomotive Engineers and Trainmen (BLET).
Brotherhood of Maintenance of Way Employes Division (BMWED).
Brotherhood of Railroad Signalmen (BRS).
Federal Transit Administration (FTA).*
High Speed Ground Transportation Association (HSGTA).
International Association of Machinists and Aerospace Workers.
International Brotherhood of Electrical Workers (IBEW).
Labor Council for Latin American Advancement (LCLAA).*
League of Railway Industry Women.*
National Association of Railroad Passengers (NARP).
National Association of Railway Business Women.*
National Conference of Firemen & Oilers.
National Railroad Construction and Maintenance Association.
National Railroad Passenger Corporation (Amtrak).
National Transportation Safety Board (NTSB).*
Railway Supply Institute (RSI).
Safe Travel America (STA).
Secretaria de Communicaciones y Transporte.*
Sheet Metal Workers International Association (SMWIA).
Tourist Railway Association Inc.
Transport Canada.*
Transport Workers Union of America (TWU).
Transportation Communications International Union/BRC (TCIU/BRC).
United Transportation Union (UTU).
*Indicates associate membership.

When appropriate, FRA assigns a task to the RSAC, and after consideration and debate, RSAC may accept or reject the task. If accepted, the RSAC establishes a working group that possesses the appropriate expertise and representation of interests to develop recommendations to FRA for action on the task. These recommendations are developed by consensus. A working group may establish one or more task forces to develop facts and options on a particular aspect of a given task. The task force then provides that information to the working group for consideration. If a working group comes to unanimous consensus on recommendations for action, the package is presented to the RSAC for a vote. If the proposal is accepted by a simple majority of the RSAC, the proposal is formally recommended to FRA. FRA then determines what action to take on the recommendation. Because FRA staff has played an active role at the working group level in discussing the issues and options and in drafting the language of the consensus proposal, FRA is often favorably inclined toward the RSAC recommendation. However, FRA is in no way bound to follow the recommendation and the agency exercises its independent judgment on whether the recommended rule achieves the agency's regulatory goal, is soundly supported, and is in accordance with policy and legal requirements. Often, FRA varies in some respects from the RSAC recommendation in developing the actual regulatory proposal. If the working group or the RSAC is unable to

reach consensus on recommendations for action, FRA moves ahead to resolve the issue through traditional rulemaking proceedings.

On May 20, 2003, FRA presented, and the RSAC accepted, the task of reviewing existing passenger equipment safety needs and programs and recommending consideration of specific actions useful to advance the safety of rail passenger service. The Working Group was established to handle this task and develop recommendations for the full RSAC to consider. Members of the Working Group, in addition to FRA, included the following:

- AAR, including members from BNSF Railway Company (BNSF); CSX Transportation, Incorporated (CSX); and Union Pacific Railroad Company (UP);
- APTA, including members from Illinois Commuter Rail Corporation (METRA); Long Island Rail Road (LIRR); Metro-North Railroad (MNR); Southeastern Pennsylvania Transportation Authority (SEPTA); Southern California Regional Rail Authority (SCRRA); Saint Gobian Sully NA; LDK Engineering; and Herzog Transit Services, Incorporated;
- Amtrak; AAPRCO; AASHTO; BLET; BRS; HSGTA; IBEW; NARP; RSI; SMWIA; STA; TCIU/BRC; TWU; and UTU.

The NTSB met with the Working Group and provided staff advisors when possible. In addition, staff from the U.S. DOT Volpe National Transportation Systems Center (Volpe) attended many of the meetings and contributed to the technical discussions. Due to the variety of issues involved, the Working Group established a number of smaller task forces, with specific expertise, to develop recommendations on various subject-specific issues. Members of the task forces included various representatives from various organizations that were part of the larger Working Group. One of these task forces, the Mechanical Issues Task Force (Task Force), was assigned the job of identifying and developing issues and recommendations specifically related to the inspection, testing, and operation of passenger equipment as well as concerns related to the attachment of safety appliances on passenger equipment.

The Working Group and the related Task Force created by the Working Group conducted a number of meetings and discussed each of the matters proposed in this NPRM. Minutes of these meetings have been made part of the docket in this proceeding. As discussed above, FRA withdrew the task related to the consideration of handling the attachment of safety appliances on passenger equipment from the RSAC on October 27, 2004. FRA also did not seek consensus in the RSAC process for the proposed provision related to out-of-service credit. This issue is being addressed on FRA's own motion in this proceeding in response to APTA's petition for rulemaking dated March 28, 2005. Thus, the Working Group did not reach consensus on the proposed provisions related to these issues, and no recommendation was provided to the full RSAC. FRA unilaterally developed the proposed language related to the attachment of safety appliances and safety appliance arrangements on new and existing passenger equipment and did not seek Working Group or full RSAC consensus. The Working Group did reach full consensus on the proposed regulatory provisions addressing the other mechanical issues contained in this proposal on October 26 and 27, 2004, and on September 7, 2005. The Working Group presented its recommendations to the full RSAC for its concurrence on January 26, 2005 and October 11, 2005. All of the members of the full RSAC in attendance at those meetings accepted the regulatory recommendations submitted by the Working Group. Thus, the Working Group's recommendation became the full RSAC's recommendation to FRA in this matter. After reviewing the full RSAC's recommendation, FRA adopted the recommendation with minor changes for purposes of clarity. FRA subsequently completed the development and drafting of this proposal based on the broad regulatory recommendations made by the full RSAC.

Throughout the preamble discussion of this proposal, FRA refers to comments, views, suggestions, or recommendations made by members of the Working Group or related Task Force. When using this terminology, FRA is referring to views, statements, discussions or positions identified or contained in either the minutes of the Working Group and Task Force meetings. These documents have been made part of the docket in this proceeding and are available for public inspection as discussed in the preceding **ADDRESSES** portion of this document. These points are discussed to show the origin of certain issues and the course of discussions on those issues at the task force or working group level. We believe this helps illuminate factors FRA has weighed in making its regulatory decisions, and the logic behind those decisions. The reader should keep in mind, of course, that only the full RSAC makes recommendations to FRA, and it is the consensus recommendation of the full RSAC on which FRA is acting.

IV. Technical Background

A. Redundancy of Air Compressors

One of the issues identified for consideration by the Working Group related to recognition of redundant systems or components on certain types of passenger equipment and providing potential relief when these redundant systems or components become inoperative or ineffective. The LIRR through APTA initially requested a rule change concerning electric multiple unit (MU) locomotives operated in train sets that by design have redundancy of systems or components such as air compressors and auxiliary power inverters. These parties recommended that if one of these types of redundant components or systems was found inoperative or ineffective during a calendar day exterior mechanical inspection, it should be permitted to remain in service until the next calendar day exterior mechanical inspection; provided, the safety and integrity of the train set is not compromised as verified by a qualified mechanical person. The Task Force discussed the issue in detail and determined that the only redundant components that should be provided some leeway when found defective were air compressors on MU passenger locomotives operated in train sets. At the May 11 and 12, 2004, meeting, the Working Group approved the Task Force's substantive approach and agreed to have the Task Force draft a recommendation for its approval. The Task Force developed a proposed recommendation which was approved by the Working Group on October 26, 2004 and by the full RSAC on January 26, 2005. FRA reviewed and agrees with the recommendation and has included it in this proposal.

MU passenger locomotives are generally operated as married pairs, but in some cases they can be operated as single or triple units. In the case of the married pairs, each pair of MU locomotives share a single air compressor. When operated in triple units, the three MU locomotives generally share two air compressors, and single-unit MU locomotives are equipped with their own air compressor. The amount of air required to be produced by the air compressors is based on the size of the brake pipe and the brake cylinder reservoirs, the size of which is based on the calculated number of brake application-and-release cycles the train will encounter. In addition, the compressed air produced by the air compressors is shared within

the consist either by utilizing a main reservoir equalizing pipe or, in single pipe systems, by utilizing the brake pipe which is then diverted to the brake cylinder supply reservoir and other air-operated devices by use of a governor arrangement. Therefore, a passenger train set consisting of numerous MU locomotives will have multiple air compressors providing the train consist with the necessary compressed air. FRA agrees with the determinations of the Task Force that a loss of compressed air from a limited number of air compressors in such a train will not adversely effect the operation of the train's brakes or other air-operated components on the train.

At the Task Force meetings, the railroads and air brake manufacturers provided information demonstrating that the safety of a train set is not compromised when a pre-determined number of inoperative air compressors are allowed to continue to operate in service on a MU train set. On such train sets, the air compressors are applied by technical specification to a certain number of cars such as one per married pair, two per triplet, and so on. The technical specifications for these air compressors generally allow for a duty cycle (percentage of operating capacity) for each air compressor that is something less than 50 percent. In fact, some technical specifications limit the air compressor duty cycle to 33 percent. This means that on MU train sets the available air compressors are required to operate at only 33 to 50 percent of their operational capacity. One of the major reasons for imposing these low duty cycles is to ensure that adequate air pressure is available if one or more of the other air compressors in the train set is not operating properly. Thus, these systems are currently designed to function properly even in the event that a limited number of air compressors become inoperative while the train is in service. Moreover, even in the unlikely event that an MU passenger train set would lose all of its air compressors, then the air brakes would apply and would remain applied until sufficient compressed air is restored to the system. Consequently, FRA does not see any adverse impact on the operational safety of these types of trains if they are permitted to operate for a relatively short period of time with a limited number of air compressors being inoperative or ineffective.

This NPRM proposes to permit the continued operation of MU train sets with a limited number of inoperative or ineffective air compressors to continue to be used in passenger service until the next exterior calendar day mechanical inspection when found at such an inspection. The proposal would require a railroad to determine through data, analysis, or actual testing the number of inoperative or ineffective air compressors that could be in an MU train set without compromising the integrity or safety of the train set based on the size and type of train and the train's operating profile. The railroad would be required to submit the maximum number of air compressors permitted to be inoperative or ineffective on its various trains to FRA before it could begin operation under the proposed provision and would be required to retain and make available to FRA any data or analysis relied on to make those determinations. The proposal would also require a qualified maintenance person (QMP) to verify the safety and integrity of any train operating with inoperative or ineffective air compressors before the equipment continues in passenger service. In addition, the proposal requires notification to the train crew of any inoperative or ineffective air compressors and requires that a record be maintained of the defective condition. FRA believes these proposed provision will ensure the safety of passenger operations while providing the railroads additional flexibility in handling defective or inoperative equipment.

FRA seeks comment from interested parties regarding any safety concerns related to the proposed flexibility for continuing to operate MU train sets with a minimal number of inoperative air compressors for an additional calendar day.

B. Pneumatic Testing of Locomotive Main Reservoirs

The current regulations contained at 49 CFR 229.31(a) relating to main reservoir tests requires that a hydrostatic (water) test of a main reservoir be conducted before it is originally placed in service or before an existing main reservoir is placed back in service after being drilled as provided for in § 229.31(c). At the Working Group and Task Force meetings, the manufacturers of main reservoirs requested the ability to conduct a pneumatic (air) test of the reservoirs in lieu of the currently required hydrostatic test. The request was limited to providing relief only for those tests required before a main reservoir is originally placed in service and after an existing main reservoir is drilled.

The companies that manufacture reservoirs for the rail industry, whether the reservoir is utilized as a main reservoir or reservoir(s) utilized for other purposes, must have an American Society of Mechanical Engineers (ASME) certification. The reservoirs, both main and other, manufactured by these companies are designed and certified to meet the requirements of the ASME Boiler and Pressure Vessel Code. In addition, reservoirs utilized as main reservoirs on locomotives are also manufactured and certified to meet the requirements for such contained in part 229 of the Federal regulations. Currently, all passenger car reservoirs are pneumatically tested after fabrication and before the application of an interior protective coating. This process is utilized so that reservoirs may be repaired if the reservoir does not pass the initial test requirements. If the interior protective coating is applied prior to testing, any weld repairs cannot be performed, as the interior coating would be damaged.

The rationale for originally requiring that the main reservoirs be tested hydrostatically was based on the safety concerns should a main reservoir catastrophically fail during the testing. The likelihood of injury is minimized by having the reservoir filled with a liquid rather than air. However, since the original drafting of the locomotive regulations, manufacturers of reservoirs have implemented and developed both equipment and procedures to ensure that test personnel are adequately shielded when conducting the testing. The manufacturers have been performing pneumatic testing on reservoir for years and FRA is not aware of any injury related to such testing in manufacturer-controlled facilities. Thus, the safety concerns originally attached to pneumatic testing have been minimized, if not eliminated, when conducted at properly equipped manufacturer facilities.

The ASME code currently utilized by all manufacturers of main reservoirs allows for the pneumatic testing of the reservoirs when the introduction of liquid cannot be tolerated. The introduction of water to perform hydrostatic testing on main reservoirs creates a problem because if the liquid is not completely removed and the reservoir interior completely dried, the moisture results in poor adhesion or a lower coating of film than required. This condition has the potential of causing interior corrosion and premature failure of the reservoir. Thus, rather than creating this potential, FRA agrees with the recommendation of the RSAC that it would be both safer and more efficient to permit the manufacturers of main reservoirs to utilize pneumatic testing to meet the requirements contained in 49 CFR 229.31. Consequently, FRA is

proposing to permit pneumatic testing of newly manufactured main reservoirs and reservoirs that are newly drilled and tested at a manufacturer's facility.

It should be noted that FRA is limiting the ability to conduct pneumatic testing of the main reservoirs at only those facilities with appropriate safeguards in place to ensure the safety of the personnel conducting the testing. After a reservoir is installed on a locomotive, FRA believes that hydrostatic testing would be the only testing method that adequately ensures the safety and protection of the personnel that are performing the test or working near the installed reservoir. In order to make this intent clear, FRA has modified the language of the recommendation made by the RSAC. FRA has added language to at the end of proposed paragraph (c) of § 229.31 to make clear that pneumatic testing of a reservoir currently in use and newly drilled may only be conducted by a manufacturer of main reservoirs in a safe environment. In other circumstances, the proposal makes clear a hydrostatic test of the reservoir must be conducted.

FRA seeks comment and information from interested parties regarding the proposal to permit the manufacturers of main reservoirs to pneumatically test the reservoirs to meet the requirements of 49 CFR part 229. Specifically, FRA seeks comment or information on the following:

1. Are there any safety hazards or any known injuries or accidents related to conducting pneumatic testing as proposed in this notice?

2. Are there any additional restrictions or requirements that should be imposed when conducting pneumatic testing of main reservoirs as proposed in this notice?

3. Are the estimated economic costs and benefits associated with proposed flexibility accurate?

C. Design of New Passenger Equipment.

The manufacturers and railroad representative on the Working Group and Task Force sought clarification of the provision contained in 49 CFR 238.231(b). This section requires the brake systems on equipment ordered on or after September 8, 2000, or placed in service on or after September 9, 2002, to be designed so as not to require an inspector to go on, under, or between the equipment to observe the brake actuation or release. At the Task Force meetings, FRA made clear that this requirement is a design standard and was not intended to prohibit or limit the conduct of brake or mechanical inspections required to be conducted in part 238. FRA realizes that in order to perform many of the brake and mechanical inspections required by the regulations an inspector will have to go on, under, or between the equipment. FRA has acknowledged this practice and railroads have effectively conducted these types of inspections in this manner for decades.

The plain language of § 238.231(b) requires new equipment to be designed to allow direct observation of the brake actuation and release without fouling the equipment. The preamble to the final rule discusses alternative design approaches using some type of piston travel indicator or piston cylinder pressure indicator on equipment whose design makes it impossible to meet this requirement. *See* 64 FR 25612 (May 12, 1999). FRA's intent was that this piston travel indicator could be a device similar to the definition of ''actuator'' contained in § 238.5 or some sort of piston cylinder pressure indicator. The rule text and related preamble make clear that the actuation and release of the brake (or a direct indication of such) be able to be observed without an inspector going on, under, or between the equipment. FRA does not believe that truck pressure indicators (which provide no information on piston travel or piston cylinder pressure) meet this requirement. FRA recognized that the envisioned ''indicators'' discussed in the preamble to § 238.231(b) may be ahead of the technological curve for passenger equipment currently being delivered and that which may be delivered in the near future. Thus, FRA noted its willingness to discuss interim inspection protocols in lieu of applying piston travel indicators on such equipment.

The Task Force discussed the issue in detail as a number of railroads were in the process of receiving new equipment, such as bi-level coaches and other low-slung equipment, the design of which does not allow observation of the brake actuation and release of the brake without going on, under, or between the equipment. Several railroads and manufacturers noted that the type of piston travel indicators envisioned by FRA to meet the § 238.231(b) requirement were not currently available and even if they could be developed in the near future, they would likely be a maintenance problem and unreliable. Representatives of rail labor also questioned the viability and need for the type of piston travel indicators discussed in the preamble to the final rule. These participants did not believe that any type of mechanical indicator should take the place of direct visual inspection of the brake system components. Consequently, the members of the Task Force believed that the best approach to the issue was to provide additional inspection protocols for new equipment that are designed in a manner that makes observation of the actuation and release of the brakes impossible from outside the plane of the equipment rather than mandating the use of untested and potentially unreliable piston travel indicators.

FRA and the Task Force believe that the brake system and mechanical components on bi-level and other low-slung passenger equipment can be adequately inspected through the daily brake and mechanical inspections currently required in the Federal regulations; provided, appropriate blue signal protections are established for the personnel required to perform such inspections. These daily inspections permit a visual inspection of a large percentage of the brake and mechanical components and over a period of a few days all portions of the brake system and mechanical components will be visually observed. However, because the necessary design of some new equipment makes the daily inspections of the equipment more difficult, does not permit visual observation of the brake actuation and release from outside the plane of the vehicle, and because no reliable mechanical device is currently available to provide a direct indication of such, FRA and the Task Force believe it is necessary to adopt additional inspection protocols for this type of equipment.

The inspection regimen being proposed in this notice will be applicable to equipment placed in service on or after September 9, 2002, the design of which does not permit actual visual observation of the brake actuation and release. The proposed requirements related to this type of equipment are similar to those contained in a FRA Safety Board letter dated October 19, 2004, granting that portion of the Massachusetts Bay Transportation Authority's (MBTA) waiver petition seeking relief from the requirements of § 238.231(b) for 28 Kawasaki bi-level coaches. *See* Docket Number FRA–2004–18063. The proposed provisions would require such equipment to be equipped with either piston travel indicators or brake indicators as defined in § 238.5. The equipment would also be required to receive a periodic brake inspection by a QMP at intervals not to exceed five in-service days and the proposed inspection would have to be performed while the equipment is over an inspection pit or on a raised track. In addition, the railroad performing the

proposed inspection would be required to maintain a record of the inspection consistent with the existing record requirements related to Class I brake tests. FRA believes that these proposed inspection requirements will ensure the safety and proper operation of the brake system on equipment which does not permit actual visual observation of the brake actuation and release without fouling the vehicle.

D. Safety Appliances

Several issues regarding the attachment of safety appliances on passenger equipment have arisen over the last decade. These issues generally involve the method by which safety appliances on existing passenger equipment are required to be attached, either directly to the car or locomotive body or by use of a bracket or support. It has come to FRA's attention, due to the investigation of these issues, that a significant number of existing passenger cars and locomotives contain some safety appliances that are attached to the equipment by some form of welding, typically the welding of a bracket or plate to which the safety appliance is then mechanically fastened. In the last two decades, manufacturers of certain passenger equipment have used welding on some of the safety appliance arrangements of newly built equipment. Some segments of the passenger industry believe welding of these arrangements is acceptable and have sought a review of FRA's historical prohibition on the welding of safety appliance arrangements. These parties believe that new and improved welding technology, the implementation of new tracking standards, proper quality control, and historical documentation support the use of welding on safety appliance arrangements.

Historically, FRA has required that safety appliances be mechanically fastened to the car structure. FRA has also historically required that any brackets or supports applied to a car structure solely for the purpose of securing a safety appliance must be mechanically fastened to the car body. See MP&E Technical Bulletin 98–14 (June 15, 1998). FRA's prohibition on the weldment of safety appliances and their supports is based on its longstanding administrative interpretation of the regulatory ''manner of application'' provisions contained in 49 CFR part 231 which require that safety appliances be ''securely fastened'' with a specified mechanical fastener. *See e.g.*, 49 CFR §§ 231.12(c)(4); 231.13(b)(4); 231.14(b)(4) and (f)(4)). FRA's prohibition on the welding of safety appliances is based on its belief that welds are not uniform, are subject to failure, and are very difficult to inspect to determine if the weld is broken or cracked. Mechanical fasteners, by contrast, are generally easy to inspect and tend to become noticeably loose prior to failure.

Generally, FRA's longstanding interpretation of the regulation prohibiting the welding of safety appliances has not been seriously questioned or opposed since its inception. Virtually all railcars manufactured for use in the United States have their safety appliances and their safety appliance brackets and supports mechanically fastened to the car body, unless a specific exception has been provided by FRA or the regulations. FRA acknowledges that it has permitted limited welding of certain safety appliances or their brackets and supports on locomotives and tanks cars. *See* MP&E Technical Bulletins 98–48 and 00–06 (June 15, 1998 and August 7, 2000, respectively). These exceptions were provided because there were no other alternative methods available for mechanically fastening these safety appliance arrangements.

Currently, freight railroad equipment complies with the existing regulations and FRA's interpretation of those provisions. Traditionally, FRA has not permitted welding of safety appliance arrangements on freight equipment. In addition, the AAR does not permit the welding of safety appliance arrangements. FRA continues to believe that, except in limited circumstances, the safety appliances on freight equipment should not be attached with welding under any condition. This is primarily due to the extreme differences in use and inspection between passenger and freight equipment. Thus, FRA does not intend to permit welded safety appliances or their attachment in that segment of the industry. Consequently, FRA is limiting any relief being proposed in this proceeding to safety appliance arrangements on passenger equipment.

Although FRA has remained consistent in its prohibition on the weldment of safety appliances and their supports, a significant amount of passenger equipment has been manufactured and used in revenue service for a number of years with safety appliances being attached to the car body using some form of welding. Currently, FRA is aware of approximately 3,000 passenger cars or locomotives that have safety appliances or safety appliance brackets or supports welded to the body of the equipment. Some units of this equipment were introduced into service within the last few years; others have been in service for more than a decade. Some of the 3,000 units noted above have been the subject of formal waiver requests pursuant to the provisions contained in 49 CFR part 211. *See* Docket Numbers FRA–2000–8588 and FRA–2000–8044.

In an effort to fully develop the issues relating to the welding of safety appliances on existing passenger equipment, FRA conducted an informal safety inquiry and subsequently submitted the issue to RSAC in this proceeding. On June 17, 2003, a informal safety inquiry was held in Washington, DC, where all interested parties were permitted to express their concerns relating to FRA's long-standing interpretation prohibiting welded of safety appliance arrangements. Representatives from APTA, AAR, consultants, manufacturers, and union representatives gave presentations or provided comments expressing their points of interests or concerns. FRA also referred the issue to the RSAC process in this proceeding, which in turn assigned the issue to the mechanical Task Force, to aid in developing and determining if there is a practical application where welding may be suitable and to consider methods by which FRA could revise or clarify its position for future guidance and regulatory standards. Although the Task Force engaged in productive discussions and developed considerable information relating to the issue, the Task Force could not reach a consensus on any recommendation. Consequently, on October 27, 2004, FRA withdrew the task related to the consideration of handling the attachment of safety appliances on passenger equipment from the RSAC and decided to proceed with the development of a regulatory proposal unilaterally.

At the safety inquiry and the discussions within the Task Force, ATPA and its primary members all indicated that FRA needs to provide clarity and guidance to the industry relating to passenger car safety appliance arrangements, particularly in the area of attaching brackets and supports. FRA has always believed that the industry knew exactly what was intended by FRA's interpretation of the regulations related to ''mechanical fastening.'' FRA believes that in all instances where it has permitted welding, the allowance was the direct result of not having any another available option for attaching the required safety appliances. Examples, such as tank cars, locomotives, and other situations mentioned above, indicate that FRA has allowed or

permitted the use of welding in certain very limited circumstances.

FRA considered issues ranging from the initial manufacturing stage to the actual expected life cycle of a weld and the environment in which the equipment operates. FRA is cognizant of the fact that the inspection of welds is at best difficult and potentially costly depending on the type of inspection that might be required. Moreover, the failure mode of welds is very difficult to detect visually and the effects of stress and fatigue may cause welded applications to have higher failure rates towards the end of the life cycle of the equipment. FRA acknowledges that freight and passenger operations involve significantly different environments from a safety appliance standpoint, and likely justifies an allowance for welded safety appliance brackets and supports, at least on existing equipment, and in other instances where the design of a vehicle necessitates such use. In most cases, passenger equipment is inspected on a more regular basis, generally used in captive type service, and experiences far less coupling and uncoupling associated with switching moves inherent in freight operations. FRA also recognizes that it would be extremely costly to the passenger industry to require existing equipment to be retrofitted with new safety appliances when the existing welded attachments have not shown a proclivity for failure at this time.

At the informal safety inquiry and during the Task Force meetings, FRA received information and engaged in discussions relating to the following issues:

- The safety implications related to the continued use of existing passenger equipment with welded safety appliances or welded safety appliance brackets or supports;
- Criteria for determining when an existing piece of passenger equipment with a welded appliance or welded bracket or support is defective or unsafe or both;
- Alternative approaches to mandatory modification of existing equipment (*e.g.*, inspection protocols) and the economic implication of any suggested approach;
- Clarification of existing regulatory requirements as they relate to the welding of safety appliances and their brackets or supports;
- The safety implications and standards that should or could be addressed, were FRA to consider some latitude in allowing existing passenger equipment with welded safety appliances or welded safety appliance supports or brackets, such as:
- What part or parts of an appliance should FRA allow to be welded?
- What quality control standards should apply to the welding process (*e.g.*, industry recognized welding standards)?
- What qualifications/training should the individual performing the welding or inspecting a weld need to possess?
- How should field or shop repairs or both be conducted on equipment with welded safety appliances or supports?
- When should a weld be considered defective?
- What visual and non-destructive inspection techniques or industry recognized standards are appropriate for welds?
- At what interval should welds be inspected?
- What records, if any, should be maintained of these inspections?

Based on the information and views provided at both the informal safety inquiry and through the RSAC process, FRA continues to believe that mechanical fastening provides the best method of attaching safety appliance arrangements and ensures that the safety of railroad employees and the public is not compromised. For this reason, FRA will continue to require the mechanical fastening of safety appliance arrangement wherever possible and proposes to provide alternative solutions for use of welding only on existing passenger equipment and in circumstances when mechanically fastening is not practical due to the design of the vehicle. However, FRA does agree that there may have been some misunderstanding within the passenger rail industry with regard to safety appliance application and that some leeway needs to be provided for existing passenger equipment with welded safety appliance brackets or supports in lieu of retrofitting nearly one-third of the fleet. Thus, in this NPRM, FRA is proposing to provide clarification of the requirements related to the attachment of safety appliance under 49 CFR part 231. In addition, FRA is proposing to permit the continued use of existing passenger equipment with welded safety appliance brackets or supports provided such equipment is identified, inspected, and handled in accordance with the proposed requirements. In developing this proposal, FRA weighed and considered many different factors and concerns, as noted above, relating to welding safety appliances and their brackets or supports.

An additional issue raised by APTA and its member railroads relates to the ability of the industry to develop standards relating to the safety appliance arrangements on new cars of special construction. Throughout the Railroad Safety Appliance Standards, currently contained in 49 CFR part 231; specifically, § 231.12—Passenger-train cars with wide vestibules; § 231.13—Passenger-train cars with open-end platforms; § 231.14—Passenger-train cars without end platforms; and § 231.23—Unidirectional passenger-train cars adaptable to van-type semi-trailer use, there may be inconsistencies and/or opportunities for clarification in the construction of newly built passenger equipment. Many times, it is necessary to reference two or more sections of 49 CFR part 231 to determine if a newly constructed passenger vehicle meets the minimum requirements of the Federal regulations. However, criteria for most of today's new types of passenger car construction are found within 49 CFR 231.18—Cars of special construction. This results from the fact that modern technology in construction of car-building often does not lend itself to ready application of the current 49 CFR 231 requirements. Rather, the designer must adapt several different requirements to meet as closely as possible construction of specific safety appliance arrangements in order to obtain compliance.

Most passenger cars today are constructed outside the United States, and this has exacerbated the problem of varying interpretations of regulations and resulting safety appliance arrangements. At times, different requirements are applied to cars of similar design where both could have been constructed in the same manner. Substantial resources are spent on a regular basis by all parties concerned in review sessions to determine if a car is in compliance prior to construction; and even when the cars are delivered, problems have arisen.

In an attempt to limit these problems, FRA is proposing a method by which the industry may request approval of safety appliance arrangements on new equipment considered to be cars of special construction under 49 CFR part 231. The proposal would permit the industry to develop standards to address many of the new types of passenger equipment introduced into service. The proposal would require these standards, and supporting documentation to be submitted to FRA for agency approval pursuant to the special approval process already contained in the regulation. The proposal makes clear that any approved standard would be enforceable against any person who violates or causes the violation of the approved standards and that the penalty schedule contained in Appendix A to 49 CFR part 231 would

be used as guidance in assessing any applicable civil penalty. The goal of this proposal is to develop consistent safety appliance standards for each new type of passenger car not currently identified in the Federal regulations that ensures the construction of suitable safety appliance arrangements in compliance with 49 CFR part 231. FRA believes the proposal will reduce or eliminate reliance upon criteria for cars of special construction, will improve communication of safety appliance requirements to the industry, and will facilitate regulatory compliance where clarification or guidance is necessary.

Portions of the proposal relating to new passenger equipment are already progressing. By letter dated September 2, 2005, FRA requested APTA to determine if it is feasible to form a group to specifically develop potential safety appliance standards for newly manufactured passenger equipment and provide guidance where existing Federal regulations are not specific to the design of a passenger car or locomotive. On October 11, 2005, APTA informed FRA that it is willing to undertake this effort and is tentatively planning its initial meeting in the beginning of 2006. FRA believes this approach provides an excellent avenue to take advantage of the knowledge and expertise possessed by rail operators and equipment manufacturers when considering safety appliance arrangements on new passenger equipment of unique design. Under the provisions proposed in this NPRM, the standards and guidance developed by this group would need to be submitted to and approved by FRA pursuant to the special approval provisions contained at § 238.21.

FRA seeks comments and views from interested parties relating to the proposed handling of safety appliances on both existing and new passenger equipment. Specifically, FRA seeks information and comment on the following:

- Are there other industry recognized standards relating to welding or the qualifications of persons conducting such welding that should be considered by FRA?
- Are the welding standards referenced by FRA accurately identified and are they the most recent version of the standards?
- Can a standard be developed for determining when a safety appliance bracket or support to which a safety appliance is mechanically attached becomes part of the car body?
- Should it be based on the linear amount of weld?
- To what must the support or bracket be welded?
- Is there a particular type of weld that should be used?
- Are there specific qualifications or standards related to performing such welds?
- Are the cost estimates associated with FRA's proposal relating to existing equipment accurate?
- Is there any other relevant information that should be considered by FRA?

E. Securement of Unattended Equipment

At FRA's suggestion, the Task Force considered issues related to the securement of unattended equipment. FRA noted its concern that existing part 238 failed to adequately address either the inspection of hand or parking brakes or the issues related to the securement of unattended equipment. FRA believes that the rationale for addressing these issues on freight operations is equally applicable to passenger operations. The preamble to the final rule related to 49 CFR part 232 contains an in-depth discussion of the need to address these issues. *See* 66 FR 4156–58 (January 17, 2001). The approach proposed in this proceeding is also consistent with the guidance contained in FRA Safety Advisory 97–1. *See* 62 FR 49046 (September 15, 1997). Further, FRA is aware of several incidents on passenger and commuter operation involving the running away or inadvertent movement of unattended equipment.

Using the provisions contained in the freight power brake regulations at 49 CFR part 232 as a guideline, the Task Force developed a recommendation to address these outstanding issues raised by FRA. As passenger train consists are much shorter and do not possess the tonnage associated with freight trains, the Task Force's recommendation modified the provisions contained in 49 CFR part 232 to make them more readily applicable to passenger operations. The recommendations developed by the Task Force and submitted by the full RSAC are consistent with and based directly on current passenger industry practice. Thus, in FRA's view, they will have no economic or operational impact on passenger operations but will ensure that these best practices currently adopted by the industry are followed and complied with by making them part of the Federal regulations.

The Task Force presented its recommendation on these issues to the full Working Group on September 7, 2005. The Working Group reached consensus on the recommendation and presented the recommendation to the full RSAC and received unanimous concurrence from such on October 11, 2005. FRA has reviewed the recommendations of the full RSAC and has adopted them without change in this proposal.

In this NPRM, FRA proposes a set of requirements to address the securement of unattended equipment. The proposed provisions will require that unattended equipment be secured by applying a sufficient number of hand or parking brakes to hold the equipment and will require railroads to develop and implement a process or procedure to verify that the applied hand or parking brakes will hold the equipment. The proposal will also prohibit a practice known as ''bottling the air'' in a standing cut of cars. The practice of ''bottling the air'' occurs when a train crew sets out cars from a train with the air brakes applied and the angle cocks on both ends of the train closed, thus trapping the existing compressed air and conserving the brake pipe pressure in the cut of cars they intend to leave behind. This practice has the potential of causing, first, an unintentional release of the brakes on these cars and, ultimately, a runaway. A full discussion of the hazards related to this practice is contained in the preamble to the final rule related to freight power brakes. *See* 66 FR 4156–57. Virtually all railroads prohibit this practice in their operating rules, thus FRA does not believe any burden is being imposed on the railroads by including it in this proposal.

The NPRM also proposes a minimum number of hand or parking brakes that must be applied on an unattended locomotive consist or train. Due to the relatively short length and low tonnage associated with passenger trains, FRA does not believe that the more stringent provisions contained in § 232.103(n)(3) are necessary in a passenger train context. Thus, the proposal would require that at least one hand or parking brake be applied in these circumstances; however, the number of applied hand or parking brakes will vary depending on the process or procedures developed and implemented by each covered railroad. In addition, this proposal also contains provisions requiring railroads to develop and implement procedures for securing locomotives not equipped with a hand or parking brake and instructions for securing any locomotive left unattended. As noted previously, FRA is not aware of any railroad which does not already have the proposed procedures or processes in place. Thus, FRA believes that these proposed requirements will impose no burden on

passenger operations covered by 49 CFR part 238.

In addition to addressing specific issues relating to securing unattended equipment, this NPRM also incorporates and adopts the industry's best practices related to the inspection and testing of hand and parking brakes. FRA proposes to require that the hand or parking on other than MU locomotives be inspected no less frequently than every 368 days and that a record (either stencil, blue card, or electronic) be maintained and provided to FRA upon request. The proposal would also require the application and release of the hand or parking brake at each periodic mechanical inspection of passenger cars and unpowered vehicles under § 238.307 and would require a complete inspection of these components every 368 days, with a record being maintained of this annual inspection. The inspection and testing intervals as well as the stenciling and record keeping requirements proposed in this document are consistent with the current practices in the industry and will impose no additional burden on the industry.

V. Section-by-Section Analysis

Proposed Amendments to 49 CFR Part 229

Section 229.5 Definitions

FRA is proposing a technical clarification to the definition of ''MU locomotive'' contained in this section. Existing § 229.5 contains a number of definitions to define different types of locomotives covered by the various provisions contained in part 229. These include the general definition of ''locomotive'' as well as various types of locomotives including: ''control cab locomotive,'' ''DMU locomotive,'' and ''MU locomotive.'' At the Task Force meetings representatives of various railroads and equipment manufacturers expressed concern over these definitions, contending that they were confusing and contained some overlap making it difficult to determine which category a particular locomotive fell within. Of particular concern was the current definition of ''MU locomotive.''

The definition of ''MU locomotive'' was recently reissued in its full length when the final rule on Locomotive Event Recorders was published on June 30, 2005. See 70 FR 37939. Subparagraph (2) of the current definition identifies an MU locomotive as ''a multiple unit operated electric locomotive * * * (2) without propelling motors but with one or more control stands.'' This portion of the MU locomotive definition is identical to the definition of ''control cab locomotive.'' In an effort to add clarity and to definitively distinguish an MU locomotive from a control cab locomotive, FRA proposes to add some limiting language to the definition of what constitutes an MU locomotive. Historically, FRA has only considered a locomotive without propelling motors to be an MU locomotive if it has the ability to pick up primary power from a third rail or a pantograph. Consequently, FRA is proposing to add this language to the existing definition of MU locomotive as it is consistent with FRA's historical enforcement and interpretation of the regulation.

Section 229.31 Main Reservoir Tests

FRA is proposing to amend paragraphs (a) and (c) of this section to provide the manufacturers of main reservoirs the option to test main reservoirs pneumatically rather than hydrostatically as currently mandated. The proposed modification would permit a main reservoir to receive a pneumatic test before it is originally placed in service or before an existing main reservoir is placed back in service after being drilled. As discussed in detail in section B of the Technical Background portion of this document, the ASME code currently utilized by all manufacturers of main reservoirs allows for the pneumatic testing of the reservoirs when the introduction of liquid cannot be tolerated. The introduction of water to perform hydrostatic testing on main reservoirs creates a problem because if the liquid is not completely removed and the reservoir interior completely dried, the moisture results in poor adhesion or a lower coating of film than required. This condition has the potential of causing interior corrosion and premature failure of the reservoir.

The rationale for originally requiring that the main reservoirs be tested hydrostatically was based on the safety concerns should a main reservoir catastrophically fail during the testing. The likelihood of injury is minimized by having the reservoir filled with a liquid rather than air. However, since the original drafting of the locomotive regulations, manufacturers of reservoirs have implemented and developed both equipment and procedures to ensure that test personnel are adequately shielded when conducting the testing. The manufacturers have been performing pneumatic testing on reservoirs for years and FRA is not aware of any injury related to such testing in manufacturer-controlled facilities. Thus, the safety concerns originally attached to pneumatic testing have been minimized, if not eliminated, when conducted at properly equipped manufacturer facilities.

In addition to the safety benefits related to pneumatic testing, FRA recognizes that all passenger car main reservoirs are pneumatically tested after fabrication and before the application of an interior protective coating. This process is utilized so that reservoirs may be repaired if the reservoir does not pass the initial test requirements. If the interior protective coating were to be applied prior to testing, any weld repairs could not be performed, as the interior coating would be damaged. Thus, in recognition of current industry practice and in an effort to provide compliance options that are beneficial from a safety perspective, FRA agrees with the recommendation of the RSAC that it would be both safer and more efficient to permit the manufacturers of main reservoirs to utilize pneumatic testing to meet the requirements contained in paragraphs (a) and (c) of this section. Consequently, FRA is proposing to permit pneumatic testing of newly manufactured main reservoirs and reservoirs that are newly drilled and tested at a manufacturer's facility.

It should be noted that FRA is limiting the ability to conduct pneumatic testing of the main reservoirs to only those facilities with appropriate safeguards in place to ensure the safety of the personnel conducting the testing. After a reservoir is installed on a locomotive, FRA believes that hydrostatic testing would be the only testing method that adequately ensures the safety and protection of the personnel that are performing the test or working near the installed reservoir. In order to make this intent clear, FRA has modified the language of the recommendation submitted to FRA from the RSAC. FRA has added language to the end of proposed paragraph (c) to make clear that pneumatic testing of a reservoir currently in use and newly drilled may only be conducted by a manufacturer of main reservoirs in a suitably safe environment. In other circumstances, the proposal makes clear a hydrostatic test of the reservoir must be conducted.

As noted previously, FRA seeks comment and information from interested parties regarding the proposal to permit the manufacturers of main reservoirs to pneumatically test the reservoirs to meet the requirements of 49 CFR part 229. Specifically, FRA seeks comment or information on the following:

1. Are there any safety hazards or any known injuries or accidents related to

conducting pneumatic testing as proposed in this notice?

2. Are there any additional restrictions or requirements that should be imposed when conducting pneumatic testing of main reservoirs as proposed in this notice?

3. Are the estimated economic costs and benefits associated with proposed flexibility accurate?

Section 229.47 Emergency Brake Valve

Section 229.137 Sanitation, General Requirements

FRA is proposing to make a technical clarification to paragraph (b) of § 229.47 and paragraph (b)(1)(iv) of § 229.137 in order to make these sections consistent with the new definition of ''DMU locomotive.'' The recently published final rule on Locomotive Event Recorders added the definition of ''DMU locomotive'' to 49 CFR part 229. *See* 70 FR 37920 (June 30, 2005). This definition was added to part 229 in order to specifically identify diesel-powered multiple unit locomotives. These types of locomotives are just starting to be used by a small number of passenger railroads and FRA wants to be sure that they are adequately addressed by the safety standards contained in part 229. As these types of locomotives are fairly unique, they do not fit cleanly within the regulations as they pertain to traditional locomotives and MU locomotives. In some instances they are treated as traditional locomotives and in others they are treated as MU locomotives. In an effort to clarify the applicability of various provisions contained in part 229, FRA is proposing to amend §§ 229.47 and 229.137 to specifically state that DMU locomotives are covered by these provisions. These proposed clarifications are consistent with FRA's historical application of the regulations to DMU locomotives.

Proposed Amendments to 49 CFR Part 238

Section 238.5 Definitions

FRA is proposing to make two clarifying amendments to the definitions section contained in part 238 by revising the definition of ''actuator'' currently contained in regulation and by adding a new definition for ''piston travel indicator.'' Based on discussions of the Task Force and concerns raised by other parties it appears the term ''actuator'' used by FRA in the Passenger Equipment Safety Standards final rule is a term that many members of the passenger industry associate and use to identify a specific self-contained brake system component that typically consists of a cylinder, piston, and piston rod. FRA was not intending to identify this brake system component when it included the term in § 238.313(g)(3) of the original regulation. FRA notes that the term actuator is used in the definition of ''piston travel'' in this section to refer to the brake system component described above.

In order to prevent and limit any confusion on the part of the regulated community, FRA agrees with the RSAC's recommendation to modify the definition of ''actuator'' to describe the brake system component to which the term has traditionally been attached and which is what the term refers to in the definition of ''piston travel.'' In addition, FRA accepts the RSAC's recommendation to add a new term to part 238 to describe the device originally defined as an ''actuator.'' Therefore, FRA is proposing to add the term ''piston travel indicator'' to describe a device directly activated by the movement of the brake cylinder piston, the disc actuator, or the tread brake unit cylinder piston that provides an indication of piston travel. FRA further proposes for the term ''piston travel indicator'' to replace the term ''actuator'' in § 238.313(g)(3).

Section 238.17 Movement of Passenger Equipment With Other Than Power Brake Defects

FRA is proposing to make a conforming change in paragraph (b) of this section to acknowledge the flexibility being proposed in § 238.303(e)(17) of this NPRM relating to inoperative or ineffective air compressors on MU passenger equipment. As discussed in detail above in the Technical Background portion of the preamble and in the section-by-section discussion related to § 238.303 below, FRA is proposing to permit certain MU passenger equipment to continue to be used in passenger service until the next exterior calendar day mechanical inspection.

Section 238.21 Special Approval Procedures

FRA is proposing conforming changes to paragraphs (a) and (c) of this section to recognize the requirements in the proposed provisions relating to safety appliances on both existing and new passenger equipment contained in §§ 238.229 and 238.230 of this notice. These conforming changes recognize the provisions of those sections that require a railroad to obtain FRA approval of welded safety appliance attachment or of an industry-wide standard relating to safety appliance arrangements on new passenger equipment of unique design.

Section 238.229 Safety Appliances—General

In this section, FRA is proposing incorporation and clarification of its long-standing administrative interpretations regarding the attachment of safety appliances and safety appliance brackets and supports. FRA is also proposing an inspection program for permitting existing passenger equipment to remain in service in lieu of requiring retro-fitting of the equipment to eliminate welded brackets or supports. FRA is proposing these provisions unilaterally and did not seek a recommendation or concurrence from RSAC. These issues were discussed above in the Technical Background section of the preamble to the proposed rule. As FRA sees no benefit in reproducing the entire discussion here, interested parties should refer to that discussion when considering the provisions proposed in this section.

Historically, FRA has required that safety appliances be mechanically fastened to the car structure. FRA has also historically required that any brackets or supports applied to a car structure solely for the purpose of securing a safety appliance must be mechanically fastened to the car body. *See* MP&E Technical Bulletin 98–14 (June 15, 1998). FRA's prohibition on the weldment of safety appliances and their supports is based on its longstanding administrative interpretation of the regulatory ''manner of application'' provisions contained in 49 CFR part 231 which require that safety appliances be ''securely fastened'' with a specified mechanical fastener. *See e.g.*, 49 CFR §§ 231.12(c)(4); 231.13(b)(4); 231.14(b)(4) and (f)(4)). FRA's prohibition on the welding of safety appliances is based on its belief that welds are not uniform, are subject to failure, and are very difficult to inspect to determine if the weld is broken or cracked. Mechanical fasteners, by contrast, are generally easy to inspect and tend to become noticeably loose prior to failure.

Generally, FRA's longstanding interpretation of the regulation prohibiting the welding of safety appliances has not been seriously questioned or opposed since its inception. Virtually all railcars manufactured for use in the United States have their safety appliances and their safety appliance brackets and supports mechanically fastened to the car body, unless a specific exception has been provided by FRA or the regulations. FRA acknowledges that it has permitted limited welding of certain safety appliances or their brackets and

supports on locomotives and tanks cars. *See* MP&E Technical Bulletins 98–48 and 00–06 (June 15, 1998 and August 7, 2000, respectively). These exceptions were provided because there were no other alternative methods available for mechanically fastening these safety appliance arrangements.

Although FRA has remained consistent in its prohibition on the weldment of safety appliances and their supports, a significant amount of passenger equipment has been manufactured and used in revenue service for a number of years with safety appliances being attached to the car body using some form of welding. Currently, FRA is aware of approximately 3,000 passenger cars or locomotives that have safety appliances or safety appliance brackets or supports welded to the body of the equipment. Some units of this equipment were introduced into service within the last few years; others have been in service for more than a decade. Some of the 3,000 units noted above have been the subject of formal waiver requests pursuant to the provisions contained in 49 CFR part 211. *See* Docket Numbers FRA–2000–8588 and FRA–2000–8044.

FRA considered issues ranging from the initial manufacturing stage to the actual expected life cycle of a weld and the environment in which the equipment operates. FRA is cognizant of the fact that the inspection of welds is at best difficult and potentially costly depending on the type of inspection that might be required. Moreover, the failure mode of welds is very difficult to detect visually and the effects of stress and fatigue may cause welded applications to have higher failure rates towards the end of the life cycle of the equipment. FRA acknowledges that freight and passenger operations involve significantly different environments from a safety appliances standpoint, and likely justifies an allowance for welded safety appliance brackets and supports, at least on existing equipment, and in other instances where the design of a vehicle necessitates such use. In most cases, passenger equipment is inspected on a more regular basis, generally used in captive type service, and experiences far less coupling and uncoupling associated with switching moves inherent in freight operations. FRA also recognizes that it would be extremely costly to the passenger industry to require existing equipment to be retrofitted with new safety appliances when the existing welded attachments have not shown a proclivity for failure at this time.

Based on the information and views provided at both the special safety inquiry and through the RSAC process, FRA continues to believe that mechanical fastening provides the best method of attaching safety appliance arrangements and ensures that the safety of railroad employees and the public are not compromised. For this reason, FRA will continue to require the mechanical fastening of safety appliance arrangement wherever possible and proposes to provide alternative solutions for use of welding only on existing passenger equipment and in circumstances when mechanically fastening is not practical due to the design of the vehicle. However, FRA does agree that there may have been some misunderstanding within the passenger rail industry with regard to safety appliance application and that some leeway needs to be provided for existing passenger equipment with welded safety appliance brackets or supports in lieu of the costly option of retrofitting nearly one-third of the fleet. With these thoughts in mind and based on information and discussions provided at the informal safety inquiry and the Task Force meeting, FRA is proposing both clarification of the existing requirements related to safety appliance attachment and is providing a method to safely handle the inspection and continued operation of existing passenger equipment with welded safety appliances or welded safety appliance brackets or supports.

Paragraphs (a) and (b) of this proposed section contain FRA's long-standing administrative interpretations prohibiting the use of welding as a means of attaching either a safety appliance or a safety appliance bracket or support. Proposed paragraph (a) makes clear that all passenger equipment continues to be subject to the statutory provisions contained in 49 U.S.C. chapter 203 as well as the regulatory provisions contained in 49 CFR part 231. Proposed paragraph (b) incorporates FRA's long-standing administrative interpretations regarding the welding of safety appliances and their supports. This paragraph makes clear that safety appliances and their brackets or supports are to be mechanically fastened to the car body and specifically states that welding as a method of attachment is generally prohibited. This proposed paragraph also explains that FRA permits the welding of a brace or stiffener used in connection with mechanically fastened safety appliance and provides a definition of what constitutes a ''brace'' or ''stiffener'' in these arrangements.

Paragraph (c) contains proposed exceptions to FRA's general prohibition related to welding safety appliances. Proposed paragraph (c)(1) provides an exception for passenger equipment placed in service prior to January 1, 2007, equipped with a safety appliance that is mechanically fastened to a bracket or support which is welded to the vehicle. Rather than require the retrofitting of existing equipment that currently contain safety appliance brackets or supports that are attached to the equipment by welding, FRA proposes to permit the equipment to remain in service provided that the equipment is identified, inspected, and handled for repair in accordance with the provisions proposed in paragraphs (e) through (k) of this section. FRA believes the proposed identification and inspection plan will ensure the safe operation of equipment currently in service.

Proposed paragraph (c)(2) acknowledges the fact that in some instances, due to the design of a vehicle, safety appliances are required to be directly attached to a piece of equipment by welding. The proposed requirements in this paragraph would be applicable to both existing equipment (*i.e.* equipment placed in service prior to January 1, 2007) and to newly manufactured equipment. The proposed provisions would require railroads to identify each piece of passenger equipment outfitted with a safety appliance welded directly to the vehicle and would require the railroad to provide a detailed rationale explaining how the design of the vehicle or placement of the safety appliance requires the direct welding of the appliance to the equipment on passenger equipment placed in service for the first time on or after January 1, 2007. This paragraph would require that any such safety appliances be inspected and handled in accordance with the proposed inspection and repair provisions contained in paragraphs (g) through (k). FRA notes that only the specifically identified safety appliances would be required to be so inspected and handled.

Proposed paragraph (d) contains standards to clarify when a weld on a safety appliance is to be considered defective. This proposed section makes clear that a weld will be considered defective if it contains any anomaly, regardless of size, that affects the designed strength of the weld. This section also states that weld will be defective if it contains a crack and defines a crack as a fracture of any visibly discernible length or width. Further, this paragraph would require that any repairs made to a defective or cracked weld would have to be made in accordance with the inspection plans

and remedial action provisions proposed in paragraph (g) and (j) of this section.

Paragraphs (e) and (f) contain the proposed provisions relating to the railroad's identification of all existing passenger equipment that contains a welded safety appliance bracket or support. This listing would be required to be submitted to FRA by no later than December 31, 2006, and permits railroads to update the list if they identify equipment after that date. These paragraphs would permit railroads to exclude certain safety appliances from the proposed inspection provisions provided the railroad fully explains the basis for any such exclusion. FRA envisions such exclusions to be limited to situations where inspection of the weld is impossible or in situations where the size and quality of a weld are such to make inspection unnecessary (*i.e.* where the bracket or support is in essence part of the car body). Paragraph (f) makes clear that FRA reserves the right to disapprove any exclusion proffered by a railroad by providing written notification to the railroad of any such decision.

Paragraphs (g) through (j) contain the proposed inspection and repair criteria for any equipment identified with a welded safety appliance or welded safety appliance bracket or support. These proposed requirements contain provisions concerning when visual inspections of the involved safety appliances would be required to be performed and address the qualifications of the individuals required to perform the inspections as well as the procedures to be utilized when performing the inspections. FRA considered various methods for inspecting the welds on the involved equipment including various types of non-destructive testing on smaller numbers of the involved welds. However, FRA believes that periodic visual inspections of all the identified welds is the most effective and cost-efficient method of ensuring the proper condition of the attachments. FRA seeks comments and views of interested parties relating to any portion of the proposed inspection procedures or to any alternative methods of inspecting the welds on exiting passenger equipment.

Proposed paragraph (h) identifies a number of different types of individuals that could be utilized by a railroad to perform the proposed visual inspections. FRA believes that these inspectors must be properly trained and qualified to identify defective weld conditions. Rather than limit a railroad's ability to utilize a number of its available personnel, FRA attempted to list a number of different types of persons that would have the ability to conduct the required visual inspections based on railroad provided training or due to being certified under an existing industry-recognized welding standard. FRA expects that most railroads will utilize a qualified maintenance person (QMP) to conduct the inspections as they are the individuals recognized to conduct most of the other brake and mechanical inspections required under part 238. FRA notes that a QMP would be required to receive at least four hours of training specific to weld defect identification and weld inspection procedures to be deemed qualified to perform the proposed visual inspections. FRA seeks comments from interested parties regarding the following:

- Are there other types of qualified individuals capable of performing the proposed visual inspections?
- Is the proposed training requirement for QMP's sufficient?
- Are the industry standards cited in this portion of the proposal accurate and readily available?

Paragraph (j) contains proposed remedial actions that are required to be utilized in situations where a welded safety appliance or safety appliance bracket or support is found defective or cracked either during the periodic visual inspections or while otherwise in service. Unless the defect or crack is known to be the result of crash damage, the railroad would be required to conduct a failure and engineering analysis to determine the cause of the defective condition. The proposed remedial action provisions would permit a defective, cracked, or broken welded safety appliance or safety appliance bracket or support to be reattached to a vehicle by either mechanical fastening or welding if the defective condition is due to crash damage or improper construction. Any welded repair would be required to be conducted in accordance with APTA's Standard for Passenger Rail Vehicle Structural Repair, SS–C&S–020–03 (September 2003). In instances where the defective condition is due to inadequate design, such as unanticipated stresses or loads during service, FRA proposes to require that the safety appliance be mechanically attached, if possible, and for railroads to develop a plan for submission to FRA detailing a schedule for mechanically fastening the safety appliances of safety appliance brackets or supports on all cars in that series of cars. FRA proposes these strict provisions because where inadequate design causes failure of the safety appliances it is an indication that there is likely a systemic problem for all cars similarly constructed.

Paragraph (k) contains the proposed requirement related to maintaining records of both the inspections and any repairs made to welded safety appliances or welded safety appliance brackets or supports. These records will not only aid FRA's enforcement of the proposed provisions but will also provide invaluable information regarding the longevity and integrity of weld appliances and brackets or supports. The records proposed in this paragraph may be maintained in any format (written, electronic, etc.) but must be made available to FRA upon request.

Section 238.230 Safety Appliances—New Equipment

This section contains proposed requirements related to passenger equipment placed into service after January 1, 2007. This section reiterates FRA's long-standing prohibition on welding of safety appliance brackets or supports. FRA has carefully considered suggestions that would allow unrestricted use of welding to attach safety appliances on new passenger equipment. FRA appreciates that through proper design, careful quality control of welding practice, and selective verification of welds that it should be possible to achieve safety equivalent to or better than use of mechanical fasteners. However, in the past FRA has encountered poor weld quality on intercity passenger equipment safety appliance attachments, and FRA continues to encounter instances of poor welding in other aspects of rail passenger equipment construction. Since determination of weld quality outside of the manufacturing facility is extremely difficult, since FRA will not have routine access to manufacturing facilities to determine proper welding practice, and since the rail passenger industry does not have in place a rigorous quality control program for its suppliers, FRA has not been able to ascertain the conditions that would provide sufficient assurance of safety for equipment that has no service history. Nevertheless, FRA welcomes comments describing processes that are capable of efficient implementation that would provide the requisite confidence.

In an effort to remain realistic and practical, paragraphs (b) and (c) of this section acknowledge that there may be instances where the design of a vehicle makes it impracticable to mechanically attach a safety appliance bracket or

support and necessitates the need to weld the bracket or support. FRA intends to make clear that the flexibility to utilize welding in these applications will be narrowly construed and will only be permitted in instances where a clear nexus between the equipment design and the need to weld a safety appliance bracket or support exists. FRA proposes that a railroad identify any such equipment prior to placing it in service and that it clearly describe the necessity to weld the bracket or support as well as describe the industry standard followed when making such an attachment. Proposed paragraph (c) makes clear that any new equipment containing welded safety appliance brackets or supports would be required to be inspected and handled in accordance with the provisions proposed in § 238.229(g) through (k).

Paragraph (d) of this section contains proposed requirements which would permit the submission of industry-wide safety appliance arrangement standards to FRA for its approval. As discussed in detail in the section D of the Technical Background portion of the preamble, the Railroad Safety Appliance Standards currently contained in 49 CFR part 231 address a very limited number of different types of passenger equipment. The criteria for most of today's new types of passenger car construction are found within 49 CFR 231.18—Cars of special construction. This results from the fact that modern technology in construction of car-building often does not lend itself to ready application of the existing 49 CFR part 231 requirements. Rather, the designer must adapt several different requirements to meet as closely as possible construction of specific safety appliance arrangements in order to obtain compliance. Most passenger cars today are constructed outside the United States, and this has exacerbated the problem of varying interpretations of regulations and resulting safety appliance arrangements. At times, different requirements are applied to cars of similar design where both could have been constructed in the same manner. Substantial resources are spent on a regular basis by all parties concerned in review sessions to determine if a car is in compliance prior to construction; and even when the cars are delivered, problems have arisen.

In attempt to limit these problems, paragraph (d) proposes a process by which the industry may request approval of safety appliance arrangements on new equipment considered to be cars of special construction under 49 CFR part 231. This paragraph would permit the industry to develop standards to address many of the new types of passenger equipment introduced into service. The proposal would require these standards, and supporting documentation to be submitted to FRA for FRA approval pursuant to the special approval process already contained in § 238.21 of the regulation. The proposal makes clear that any approved standard would be enforceable against any person who violates or causes the violation of the approved standards and that the penalty schedule contained in Appendix A to 49 CFR part 231 would be used as guidance in assessing any applicable civil penalty. The goal of this proposal is to develop consistent safety appliance standards for each new type of passenger car not currently identified in the Federal regulations that ensure the construction of suitable safety appliance arrangements in compliance with 49 CFR part 231. FRA believes the proposal will reduce or eliminate reliance upon criteria for cars of special construction, will improve communication of safety appliance requirements to the industry, and will facilitate regulatory compliance where clarification or guidance is necessary.

Section 238.231 Brake System

Paragraph (b) contains proposed language relating to the design of passenger equipment placed in service for the first time on or after September 9, 2002 and contains additional inspection criteria for such equipment if it is not designed to permit visual observation of the brake actuation and release from outside the plane of the equipment. The plain language of existing paragraph (b) requires new equipment to be designed to allow direct observation of the brake actuation and release without fouling the equipment. The preamble to the final rule discusses alternative design approaches using some type of piston travel indicator or piston cylinder pressure indicator on equipment whose design makes it impossible to meet this requirement. *See* 64 FR 25612 (May 12, 1999). FRA's intent was that this piston travel indicator could be a device similar to the definition of ''actuator'' contained in § 238.5 or some sort of piston cylinder pressure indicator. The rule text and related preamble make clear that the actuation and release of the brake (or a direct indication of such) be able to be observed without an inspector going on, under, or between the equipment. FRA does not believe that truck pressure indicators (which provide no information on piston travel or piston cylinder pressure) meet this requirement.

FRA recognizes that the envisioned ''indicators'' discussed in the preamble of the final rule may be ahead of the technological curve for passenger equipment currently being delivered and that which may be delivered in the near future. Thus, FRA noted its willingness to the RSAC and the Task Force to consider alternatives to requiring piston travel indicators on such equipment. The Task Force discussed the issue in detail as a number of railroads were in the process of receiving new equipment, such as bi-level coaches and other low-slung equipment, the design of which does not allow observation of the brake actuation and release of the brake without going on, under, or between the equipment. Several railroads and manufacturers noted that the type of piston travel indicator envisioned by FRA to meet the § 238.231(b) requirement was not currently available and even if it could be developed in the near future it would likely be a maintenance problem and unreliable. Representatives of rail labor also questioned the viability and need for the type of piston travel indicators discussed in the preamble to the final rule. These participants did not believe that any type of mechanical indicator should take the place of direct visual inspection of the brake system components. Consequently, the members of the Task Force believed that the best approach to the issue was to provide additional inspection protocols for new equipment designed in a manner that makes observation of the actuation and release of the brakes impossible from outside the plane of the equipment in lieu of mandating the use of untested and potentially unreliable piston travel indicators. The Task Force submitted this recommendation to the full RSAC which in turn submitted the recommendation to FRA.

FRA and the Task Force believe that the brake system and mechanical components on bi-level and other low-slung passenger equipment can be adequately inspected through the daily brake and mechanical inspections currently required in the Federal regulations; provided, appropriate blue signal protections are established for the personnel required to perform such inspections. These daily inspections permit a visual inspection of a large percentage of the brake and mechanical components and over a period of a few days all portions of the brake system and mechanical components will be visually observed. However, because the necessary design of some new equipment makes the daily inspections

of the equipment more difficult, does not permit visual observation of the brake actuation and release from outside the plane of the vehicle and because no reliable mechanical device is currently available to provide a direct indication of such, FRA agrees with the Task Force and RSAC recommendation that it is necessary to adopt additional inspection protocols for this type of equipment.

The inspection regiment being proposed in paragraph (b) will be applicable to equipment placed in service on or after September 9, 2002, the design of which does not permit actual visual observation of the brake actuation and release. The proposed requirements related to this type of equipment are similar to those contained in a FRA Safety Board letter dated October 19, 2004, granting that portion of the Massachusetts Bay Transportation Authority's (MBTA) waiver petition seeking relief from the requirements of § 238.231(b) for 28 Kawasaki bi-level coaches. *See* Docket Number FRA–2004–18063. The proposed provisions would require such equipment to be equipped with either piston travel indicators or brake indicators as defined in § 238.5. The equipment would also be required to receive a periodic brake inspection by a QMP at intervals not to exceed five in-service days and the proposed inspection would have to be performed while the equipment is over an inspection pit or on a raised track. In addition, the railroad performing the proposed inspection would be required to maintain a record of the inspection consistent with the existing record requirements related to Class I brake tests. The specific inspection criteria are discussed in more detail in the section-by-section analysis related to § 238.313. FRA believes that these proposed inspection requirements will ensure the safety and proper operation of the brake system on equipment which does not permit actual visual observation of the brake actuation and release without fouling the vehicle.

Paragraph (h) contains proposed provisions related to the inspection of locomotive hand or parking brakes as well as proposed provisions addressing the securement of unattended equipment. FRA proposes to modify paragraph (h)(3) to require that the hand or parking brake on other than MU locomotives be inspected no less frequently that every 368 days and that a record (either stencil, blue card, or electronic) be maintained and provided to FRA upon request. Similar provisions were previously contained in 49 CFR part at § 232.10, prior to part 232's revision in January of 2001. However, FRA inadvertently failed to include hand brake inspection provisions in its original issuance of the Passenger Equipment Safety Standards. Therefore, FRA raised the issue with the RSAC and it recommended that provisions regarding the inspection of hand and parking brakes on passenger equipment be added to part 238. FRA agrees with this recommendation. The inspection and testing intervals as well as the stenciling and record keeping requirements proposed in paragraph (b)(3) are consistent with the current industry practices and will impose no additional burden on the industry.

FRA also proposes the addition of a new paragraph (h)(4) that would contain specific requirements related to the securement of unattended equipment. A detailed discussion regarding the development of this proposal is contained in Section E of the Technical Background portion of the preamble. At FRA's suggestion, the Task Force considered issues related to the securement of unattended equipment. FRA noted its concern that existing part 238 failed to adequately address either the inspection of hand or parking brakes or the issues related to the securement of unattended equipment. FRA believes that the rational for addressing these issues on freight operations is equally applicable to passenger operations. The preamble to the final rule related to 49 CFR part 232 contains an in-depth discussion of the need to address these issues. *See* 66 FR 4156–58 (January 17, 2001). The approach proposed in this proceeding is also consistent with the guidance contained in FRA Safety Advisory 97–1. *See* 62 FR 49046 (September 15, 1997). The requirements proposed in this paragraph are consistent with and based directly on current passenger industry practice. Thus, in FRA's view, the proposed provisions will have no economic or operational impact on passenger operations but will ensure that these best practices currently adopted by the industry are followed and complied with by making them part of the Federal regulations.

Paragraph (h)(4) contains proposed provisions that would require that unattended equipment be secured by applying a sufficient number of hand or parking brakes to hold the equipment and would require railroads to develop and implement a process or procedure to verify that the applied hand or parking brakes will hold the equipment. The proposal would also prohibit a practice known as ''bottling the air'' in a standing cut of cars. A full discussion of the hazards related to this practice is contained in the preamble of the final rule related to freight power brakes. *See* 66 FR 4156–57. Virtually all railroads prohibit this practice in their operating rules, thus FRA does not believe any burden is being imposed on the railroads by including it in this proposal.

Paragraph (h)(4) also contains proposed provisions to require a minimum number of hand or parking brakes that must be applied on an unattended locomotive consist or train. Due to the relatively short length and low tonnage associated with passenger trains, FRA does not believe that the more stringent provisions contained in § 232.103(n)(3) are necessary in a passenger train context. Thus, this paragraph proposes to require that at least one hand or parking brake be fully applied on an unattended passenger locomotive consist or passenger train; however, the number of applied hand or parking brakes will vary depending on the process or procedures developed and implemented by each covered railroad.

Members of the Task Force sought clarification as to the meaning of the term ''fully applied'' as it relates to certain passenger equipment equipped with parking brakes. With the introduction of the spring applied parking brake, the parking brake can be ''conditioned to apply'' but may not be fully applied. Many spring applied parking brake arrangements usually incorporate an anti-compounding feature so the service brake application and parking brake application are not simultaneously applied. This arrangement is utilized to limit the thermal input that may occur if the forces from the service brake application and parking brake application are applied simultaneously. When the train is left unattended, the operator would ''condition'' the parking brake for application through a cab switch push button or by simply deactivating the cab through normal shutdown procedures. The brake equipment is either placed in an emergency brake condition or the brake pipe is vented to zero pressure at a service reduction rate. This brake equipment operation would result in brake cylinder pressure being applied to the brake units. The brake cylinder pressure provides sufficient force to create an equivalent force to that of the parking brake. If the equipment is not left on a source of compressed air, the brake cylinder pressure may be slowly depleted. When the brake cylinder pressure is gradually reduced, the parking brake gradually applies so that below a prescribed brake cylinder pressure, the parking brake is fully applied. In light of the preceding

discussion, FRA intends to make clear that a spring applied parking brake will be considered ''fully applied'' under paragraph (h)(4) if all steps have been take to permit its full application (*i.e.*, ''conditioned to apply'').

In addition, paragraph (h)(4) contains proposed provisions requiring railroads to develop and implement procedures for securing locomotives not equipped with a hand or parking brake and develop, implement, and adopt instructions for securing any locomotive left unattended. As noted previously, FRA is not aware of any railroad which does not already have the proposed procedures or processes in place. Thus, FRA believes that these requirements proposed in paragraph (h)(4) will impose no burden on passenger operations covered by 49 CFR part 238.

Section 238.303 Exterior Calendar Day Mechanical Inspection of Passenger Equipment

Paragraph (e)(17) contains proposed provisions requiring that air compressors, on passenger equipment so equipped, be in effective and operative condition. The proposed provision also provides flexibility to permit certain equipment found with ineffective or inoperative air compressors at its exterior calendar day mechanical inspection to continue in service until its next such inspection if various conditions are met by the railroad. A full discussion regarding the development of these proposed provisions is contained in Section A of the Technical Background portion of the preamble.

MU passenger locomotives are generally operated as married pairs but in some cases they can be operated as single or triple units. In the case of the married pairs, each pair of MU locomotives share a single air compressor. When operated in triple units, the three MU locomotives generally share two air compressors and single-unit MU locomotives are equipped with their own air compressor. The amount of air required to be produced by the air compressors is based on the size of the brake pipe and the brake cylinder reservoirs, the size of which are based on the calculated number of brake application and release cycles the train will encounter. In addition, the compressed air produced by the air compressors is shared within the consist by utilizing a main reservoir equalizing pipe or, in single pipe systems, through the brake pipe which is then diverted to the brake cylinder supply reservoir and other air operated devices by use of a governor arrangement. Therefore, a passenger train set consisting of numerous MU locomotives will have multiple air compressors providing the train consist with the necessary compressed air. FRA agrees with the determinations of the Task Force and the full RSAC that a loss of compressed air from a limited number of air compressors in such a train will not adversely effect the operation of the train's brakes or other air-operated components on the train.

Paragraph (e)(17) proposes to permit the continued operation of MU train sets with a limited number of inoperative or ineffective air compressors to continue to be used in passenger service until the next exterior calendar day mechanical inspection when found at such an inspection. This paragraph would require a railroad to determine through data, analysis, or actual testing the maximum number of inoperative or ineffective air compressors that could be in an MU train set without compromising the integrity or safety of the train set based on the size and type of train and the train's operating profile. The railroad would be required to submit the maximum number of air compressors permitted to be inoperative or ineffective on its various trains to FRA before it could begin operation under the proposed provision and would be required to retain and make available to FRA any data or analysis relied on to make those determinations.

Proposed paragraph (e)(17) would also require a qualified maintenance person (QMP) to verify the safety and integrity of any train operating with inoperative or ineffective air compressors before the equipment continues in passenger service. In addition, the proposal requires notification to the train crew of any inoperative or ineffective air compressors and requires that a record be maintained of the defective condition. FRA notes that the proposal provides FRA with the authority to revoke a railroad's ability to utilize the flexibility proposed in this paragraph if the railroad fails to comply with the maximum limits established for continued operation of inoperative air compressors or the maximum limits are not supported by credible and accurate data. FRA believes that the provisions proposed in this paragraph will ensure the safety of passenger operations while providing the railroads additional flexibility in handling defective or inoperative equipment.

Section 238.307 Periodic Mechanical Inspection of Passenger Cars and Unpowered Vehicles Used in Passenger Trains

Proposed paragraphs (c)(13) and (d) contain requirements related to the periodic inspection of hand or parking brakes on passenger cars and other unpowered vehicles. As noted previously, FRA inadvertently failed to include any hand brake inspection provisions in its original issuance of the Passenger Equipment Safety Standards. Thus, FRA raised the issue with the RSAC and the Task Force and they recommended inclusion of various provisions regarding the inspection of hand and parking brakes on passenger equipment in this proposal. FRA agrees with this recommendation. Paragraph (c)(13) proposes to require that the hand or parking brake on passenger cars and unpowered vehicles used in passenger trains be applied and released at each periodic mechanical inspection. No record of this inspection would need to be prepared or retained. Based on information provided at the Task Force and Working Group meetings, all passenger operations currently conduct the proposed inspection of the hand and parking brakes at each periodic mechanical inspection. Paragraph (d) is modified and proposes to require a complete inspection of the hand or parking brake as well as their parts and connections on passenger cars and unpowered vehicles no less frequently than every 368 days. Paragraph (d) also proposes to require that a record (either stencil, blue card, or electronic) be maintained and provided to FRA upon request. The inspection and testing intervals as well as the stenciling and record keeping requirements proposed in this paragraph are consistent with the current practices in the industry and will impose no additional burden on the industry.

Section 238.313 Class I Brake Tests

Paragraph (g)(3) contains a proposed conforming change to make this paragraph consistent with the definition changes being proposed in § 238.5 relating to the terms ''actuator'' and ''piston travel indicator.'' In order to prevent and limit any confusion on the part of the regulated community, FRA agrees with the RSAC's recommendation to modify the definition of ''actuator'' to describe the brake system component to which the term has traditionally been attached and which is what the term refers to in the definition of ''piston travel.'' In addition, FRA accepts the RSAC's recommendation to add a new term to

part 238 to describe the device originally defined as an ''actuator.'' Therefore, FRA is proposing to add the term ''piston travel indicator'' to describe a device directly activated by the movement of the brake cylinder piston, the disc actuator, or the tread brake unit cylinder piston that provides an indication of piston travel. In paragraph (g)(3) of this section, FRA is replacing the term ''actuator'' with the term ''piston travel indicator'' in order to add clarity to the regulatory provision.

Paragraph (j) contains the proposed requirements related to the periodic inspection of passenger equipment placed in service for the first time on or after September 9, 2002, the design of which does not permit actual visual observation of the brake actuation and release as required in § 238.231(b). A detailed discussion related to the development and need for these proposed provisions is contained in section C of the Technical Background portion of the preamble and in the section-by-section analysis related to paragraph (b) of § 238.231. As previously noted, the periodic inspection requirements proposed in this paragraph are similar to those contained in a FRA Safety Board letter dated October 19, 2004, granting that portion of the Massachusetts Bay Transportation Authority's (MBTA) waiver petition seeking relief from the requirements of § 238.231(b) for 28 Kawasaki bi-level coaches. *See* Docket Number FRA–2004–18063.

Proposed paragraph (j) makes clear that the periodic inspection provisions for the identified types of equipment are in addition to all of the other inspection provisions contained in paragraphs (a) through (i) of this section and must be performed by a QMP. The proposed provisions would require equipment not meeting the design requirements contained in § 238.231(b)(1) to receive a periodic brake inspection at intervals not to exceed five in-service days and the proposed inspection would have to be performed while the equipment is over an inspection pit or on a raised track. Any day or portion of a day that a piece of passenger equipment is actually used in passenger service would constitute an ''in-service day.'' FRA agrees with the recommendations of the RSAC and Task Force that five in-service days is appropriate and would permit the proposed inspection to be performed during weekends or on other days when the equipment is not being used. Thus, the operational and economic impact of the proposed inspection requirement is significantly minimized. The periodic inspection would include all of the items and components identified in paragraphs (g)(1) through (g)(15) of this section. In addition, the railroad performing the proposed inspection would be required to maintain a record of the inspection consistent with the existing record requirements related to Class I brake tests. FRA believes that these proposed inspection requirements will ensure the safety and proper operation of the brake system on equipment which does not permit actual visual observation of the brake actuation and release without fouling the vehicle.

Section 238.321 Out-of-Service Credit

As discussed previously, FRA did not seek consensus in the RSAC process for the proposed provision related to out-of service credit contained in this section. This issue is being addressed on FRA's own motion in this proceeding in response to APTA's petition for rulemaking dated March 28, 2005. Thus, the Working Group did not reach consensus on the proposed provision related to this issue and no recommendation was provided to or comment sought from the full RSAC.

The proposed provision contained in this section is modeled directly on the ''out-of-use credit'' provision contained in the Locomotive Safety Standards at 49 CFR 229.33. The locomotive out-of-use credit has been effectively and safely utilized by the railroad industry for decades. As passenger equipment is generally captive service equipment, is generally less mechanically complex than locomotives, and because the provisions for which the proposed credit will be utilized are time-based, FRA believes it is appropriate to permit passenger and commuter operations to receive credit for extended periods of time when equipment is not being used. The proposed provision will permit railroads to extend the dates for conducting periodic mechanical inspections and periodic brake maintenance required by §§ 238.307 and 238.309 for equipment that is out of service for periods of at least 30 days. The proposal will require railroads to maintain records of any out of service days on the records related to the periodic attention. FRA does not see a safety concern with permitting this flexibility. In fact, the regulation already provides assurances that the brake systems on all passenger cars and unpowered vehicles are in proper condition after being out of service for 30 days or more by requiring that a single car test pursuant to § 238.311 is performed on the vehicle before being placed back in service. See 49 CFR 238.311(e)(1). FRA seeks comment and information from all interested parties regarding any safety or operating concerns related to this proposed provision.

VI. Regulatory Impact and Notices

Executive Order 12866 and DOT Regulatory Policies and Procedures

This proposed rule has been evaluated in accordance with existing policies and procedures, and determined to be non-significant under both Executive Order 12866 and DOT policies and procedures (44 FR 11034; Feb. 26, 1979). FRA has prepared and placed in the docket two regulatory evaluations addressing the economic impact of this proposed rule. Document inspection and copying facilities are available at the Department of Transportation Central Docket Management Facility located in Room PL–401 on the Plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC 20590. Access to the docket may also be obtained electronically through the Web site for the DOT Docket Management System at *http://dms.dot.gov*. Photocopies may also be obtained by submitting a written request to the FRA Docket Clerk at Office of Chief Counsel, Stop 10, Federal Railroad Administration, 1120 Vermont Avenue, NW., Washington, DC 20590; please refer to Docket No. FRA–2005–23080. FRA invites comments on these regulatory evaluations.

FRA conducted two separate regulatory evaluations addressing the economic impact of this proposed rule. One regulatory evaluation addresses the economic impact of the proposed provisions related to the safety appliance arrangements on passenger equipment. The other analysis addresses the economic impact of all of the other proposed provisions contained in this NPRM. As FRA developed the proposed requirements related to safety appliance arrangements on passenger equipment unilaterally, FRA believes it is appropriate to provide a separate regulatory analysis regarding the economic impact of those proposed provisions. As the analyses indicate, this proposed rule provides an overall economic savings to the industry due to the flexibility provided for in many of the proposed provisions and because many of the proposed requirements incorporate existing industry practice or provide an alternative means of compliance to what is presently mandated.

The following table presents the estimated twenty-year monetary impacts associated with the proposed provisions contained in this NPRM. The table

contains the estimated costs and benefits associated with this NPRM and provides the total 20-year value as well as the 20-year net present value (NPV) for each indicated item. The dollar amounts presented in this table have been rounded to the nearest thousand. For exact estimates, interested parties should consult the Regulatory Impact Analysis (RIA) that has been made part of the docket in this proceeding.

Description	20-year total ($)	20-year NPV ($)
Costs:		
Periodic Brake Inspection of Low-Slung Equipment	4,350,000	1,957,000
Periodic Inspection of Welded Safety Appliances	3,831,000	2,335,000
Air Compressor Records	250,000	132,000
Total Costs	8,381,000	4,424,000
Benefits:		
Pneumatic Testing of Main Reservoirs	5,940,000	3,147,000
Avoided Cost of Piston Travel Indicators	2,550,000	1,275,000
Air Compressor—Equipment Utilization	17,000,000	9,005,000
Avoided Cost of Safety Appliance Retrofit	9,000,000	8,370,000
Out-of-Service Credit—Equipment Utilization	1,020,000	542,000
Total Benefits	35,510,000	22,339,000

The economic benefits to the industry related to this proposed rule outweigh the economic costs by a ratio in excess of 4 to 1. FRA did not quantify the safety benefits for most of the provisions contained in this proposal as many of the proposed provisions are based on improved manufacturing techniques, equipment reliability, or are the result of additional regulatory flexibility. However, with regard to the proposed provision related to the attachment of safety appliances on passenger equipment, FRA did consider the potential safety benefits related to the proposal. In addition to the potential avoided cost of retrofitting equipment containing welded safety appliances or welded safety appliance brackets or supports estimated at $9 million, FRA also believes there are potential safety benefits to be derived from the reduced risk of weld failure resulting from the proposed inspection protocols of welded safety appliance attachments. The RIA notes two accidents that were the result of failed safety appliances and although FRA's database did not contain these accidents, there is no reason to believe that safety appliances in passenger operations are immune from failure. The lack of an accident record may be due to low risks involved in passenger operations, but also weld failure accidents are not generally reported in FRA systems that are geared more for accidents that stop rail operations. The FRA believes that reducing the risk of weld failures would benefit passenger operations. FRA notes that if just 2 or 3 critical accidents are avoided over the 20-year period cover by the RIA, the proposal would be cost-justified by the safety benefits alone.

FRA further notes that it did not estimate a cost for the proposed provisions related to the securement of unattended equipment and the inspection of hand or parking brakes. The proposed provisions related to these issues are merely an incorporation of current industry practice. FRA is not aware of any passenger or commuter railroad that does not already conduct the proposed inspections, maintain the proposed records, and have the proposed procedures in place. FRA seeks comments and input from all interested parties regarding the estimates contained in the RIAs developed in connection with this NPRM.

Regulatory Flexibility Act and Executive Order 13272

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) and Executive Order 13272 require a review of proposed and final rules to assess their impact on small entities. FRA has prepared and placed in the docket an Analysis of Impact on Small Entities (AISE) that assesses the small entity impact of this proposal. Document inspection and copying facilities are available at the Department of Transportation Central Docket Management Facility located in Room PL–401 on the Plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC 20590. Docket material is also available for inspection on the Internet at *http://dms.dot.gov.* Photocopies may also be obtained by submitting a written request to the FRA Docket Clerk at Office of Chief Counsel, Stop 10, Federal Railroad Administration, 1120 Vermont Avenue, NW., Washington, DC 20590; please refer to Docket No. FRA–2005–23080.

''Small entity'' is defined in 5 U.S.C. 601 as a small business concern that is independently owned and operated, and is not dominant in its field of operation. The U.S. Small Business Administration (SBA) has authority to regulate issues related to small businesses, and stipulates in its size standards that a ''small entity'' in the railroad industry is a railroad business ''line-haul operation'' that has fewer than 1,500 employees and a ''switching and terminal'' establishment with fewer than 500 employees. SBA's ''size standards'' may be altered by Federal agencies, in consultation with SBA and in conjunction with public comment.

Pursuant to that authority FRA has published a final statement of agency policy that formally establishes ''small entities'' as being railroads that meet the line-haulage revenue requirements of a Class III railroad. *See* 68 FR 24891 (May 9, 2003). Currently, the revenue requirements are $20 million or less in annual operating revenue. The $20 million limit is based on the Surface Transportation Board's threshold of a Class III railroad carrier, which is adjusted by applying the railroad revenue deflator adjustment (49 CFR part 1201). The same dollar limit on revenues is established to determine whether a railroad, shipper, or contractor is a small entity. FRA uses this alternative definition of ''small entity'' for this rulemaking.

The AISE developed in connection with this NPRM concludes that this proposal would not have a significant economic impact on a substantial number of small entities. Thus, FRA certifies that this proposed rule is not expected to have a significant economic impact on a substantial number of small

entities under the Regulatory Flexibility Act or Executive Order 13272.

Paperwork Reduction Act

The information collection requirements in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). The sections that contain the new information collection requirements and the estimated time to fulfill each requirement are as follows:

CFR section	Respondent universe	Total annual responses	Average time per reponse	Total annual burden hours	Total annual burden cost
216.14—Special notice for repairs—passenger equipment.	22 railroads	9 forms	5 minutes	1 hour	$38
229.47—Emergency Brake Valve—Marking Brake Pipe Valve as such.	22 railroads	5 markings	1 minute	.08 hour	3
—DMU, MU, Control Cab Locomotives—Marking Emergency Brake Valve as such.	22 railroads	5 markings	1 minute	.08 hour	3
238.7—Waivers	22 railroads	9 waivers	2 hours/25 hrs	64 hours	2,432
238.15—Movement of passenger equipment with power brake defects, and.	22 railroads	1,000 cards/tags	3 minutes	50 hours	2,350
—Movement of passenger equpment that becomes defective en route.	22 railroads	288 cards/tags	3 minutes	14 hours	658
Conditional requirement—Notifications	22 railroads	144 notices	3 minutes	7 hours	329
238.17—Limitations on movement of passenger equipment containing defects found at calendar day inspection and on movement of passenger equipment that develops defects en route.	22 railroads	200 cards/tags	3 minutes	10 hours	330
—Special requisites for movement of passenger equipment with safety appliance defects.	22 railroads	76 tags	3 minutes	4 hours	132
—Crew member notification	22 railroads	38 notifications	30 seconds	32 hour	11
238.21—Petitions for special approval of alternative standards.	22 railroads	1 petition	16 hours	16 hours	608
—Petitions for special approval of alternative compliance.	22 railroads	1 petition	120 hours	120 hours	4,560
—Petitions for special approval of pre-revenue service acceptance testing plan.	22 railroads	2 petitions	40 hours	80 hours	3,040
—Comments on petitions	Public/RR Industry.	4 comments	1 hour	4 hours	256
238.103—Fire Safety:					
—Procuring new passenger equipment	5 equipment manuf.	4 equip. designs	540 hours	2,160 hours	128,000
—Subsequent orders	5 equipment manuf.	4 equip. designs	60 hours	240 hours	43,200
—Existing equipment—fire safety analysis	5 manuf./22 railroads.	10 analyses	30 hours	300 hours	36,000
—Transferring passenger cars/locomotives	22 railroads/AAR	1 analysis	20 hours	20 hours	2,400
238.107—Inspection/testing/maintenance plans—Review by railroads.	22 railroads	7 reviews	60 hours	420 hours	15,960
238.109—Employee/contractor training	22 railroads	2 notifications	15 minutes	1 hour	38
—Training employees: Mechanical Insp	7,500 employees	2,500 indiv/100 trainers.	1.33 hours	3,458 hours	114,114
238.109—Recordkeeping	22 railroads	2,500 records	3 minutes	125 hours	4,750
238.111—Pre-revenue service acceptance testing plan: Passenger equipment that has previously been used in service in the U.S.	9 equipment manuf.	2 plans	16 hours	32 hours	2,208
—Passenger equipment that has not been previously used in revenue service in the U.S.	9 equipment manuf.	2 plans	192 hours	384 hours	38,400
—Subsequent Order	9 equipment manuf.	2 plans	60 hours	120 hours	9,520
238.229—Safety Appliances (New Rqmnts):					
—Welded safety appliances considered defective: lists.	22 railroads	22 lists	1 hour	22 hours	836
—Inspection plans	22 railroads	22 plans	16 hours	352 hours	17,952
—Remedial action: Defect/crack in weld—record.	22 railroads	1 record	2.25 hours	2 hours	66
—Petitions for special approval of alternative compliance when design of equipment makes it impractical to mechanically fasten safety appliance/safety appliance bracket/support to equipment.	22 railroads	15 petitions	4 hours	60 hours	7,200
—Records of inspection/repair of welded safety appliance brackets/supports.	22 railroads	3,044 records	4.5 hours/12 minutes.	798 hours	27,324
238.230—Safety Appliances—New Equipment (New Requirement):					

CFR section	Respondent universe	Total annual responses	Average time per reponse	Total annual burden hours	Total annual burden cost
—Welded safety appliances: Documentation for equipment impractically designed to mechanically fasten safety appliance support.	22 railroads	15 documents	4 hours	60 hours	2,280
238.231—Brake System (New Requirement):					
—Inspection and repair of hand/parking brake: Records.	22 railroads	2,500 forms	21 minutes	875 hours	28,875
238.237—Automated monitoring:					
—Documentation for alerter/deadman control timing.	22 railroads	3 documents	2 hours	6 hours	228
—Defective alerter/deadman control: Tagging	22 railroads	25 tags	3 minutes	1 hour	47
238.303—Exterior calendar day mechanical inspection of passenger equipment: Notice of previous inspection.	22 railroads	25 notices	1 minute	1 hour	47
—Dynamic brakes not in operating mode: Tag	22 railroads	50 tags/cards	3 minutes	3 hours	141
—Conventional locomotives equipped with inoperative dynamic brakes: Tagging (New Requirements).	22 railroads	50 tags/cards	3 minutes	3 hours	141
—MU passenger equipment found with inoperative/ineffective air compressors at exterior calendar day inspection: Documents.	22 railroads	6 documents	2 hours	12 hours	768
—Written notice to train crew about inoperative/ineffective air compressors.	22 railroads	100 messages or notices.	3 minutes	5 hours	165
—Records of inoperative air compressors	22 railroads	100 records	2 minutes	3 hours	99
—Record of exterior calendar day mechanical inspection (Old Requirement).	22 railroads	2,376,920 records.	10 minutes + 1 minute.	435,769 hours	14,578,452
238.305—Interior calendar day mechanical inspection of passenger cars:					
—Tagging of defective end/side doors	22 railroads	540 tags	1 minute	9 hours	297
—Records of interior calendar day inspection	22 railroads	1,968,980 records.	5 minutes + 1 minute.	196,898 hours	6,661,714
238.307—Periodic mechanical inspection of passenger cars and unpowered vehicles:					
—Alternative inspection intervals: Notice	22 railroads	2 notifications	5 hours	10 hours	380
—Notice of seats/seat attachments broken or loose.	22 railroads	200 notices	2 minutes	7 hours	266
—Records of each periodic mechanical inspection.	22 railroads	19,284 records	200 hrs. + 2 minutes.	3,857,443 hours	71,516
—Detailed documentation of reliability assessments as basis for alternative inspection interval.	22 railroads	5 documents	100 hours	5 hours	19,000
238.311—Single car test:					
—Tagging to indicate need for single car test	22 railroads	25 tags	3 minutes	1 hour	33
238.313—Class I brake test:					
—Record for additional inspection for passenger equipment that does not comply with § 238.231(b)(1) (New Requirement).	22 railroads	15,600 records	30 minutes	7,800 hours	257,400
238.315—Class IA brake test:					
—Notice to train crew that test has been performed.	22 railroads	18,250 verbal notices.	5 seconds	25 hours	825
—Communicating signal: Tested and two-way radio system.	22 railroads	365,000 tests	15 seconds	1,521 hours	57,798
238.317—Class II brake test:					
—Communicating signal: Tested and two-way radio system.	22 railroads	365,000 tests	15 seconds	1,521 hours	57,798
238.321—Out-of-service credit (New Requirement):					
—Passenger Car: Out-of-use notation	22 railroads	1,250 notations	2 minutes	42 hours	1,386
238.445—Automated monitoring:					
—Performance monitoring: Alerters/alarms	1 railroad	10,000 alerts	10 seconds	28 hours	0
—Monitoring system: Self-test feature: Notifications.	1 railroad	21,900 notifications.	20 seconds	122 hours	0
238.503—Inspection, testing, and maintenance requirements:					
238.505—Program approval procedures:					
—Submission of program	1 railroad	1 program	1,200 hours	1,200 hours	76,800
—Comments on programs	Rail Industry	3 comments	3 hours	9 hours	342

All estimates include the time for reviewing instructions; searching existing data sources; gathering or maintaining the needed data; and reviewing the information. Pursuant to 44 U.S.C. 3506(c)(2)(B), FRA solicits comments concerning: Whether these information collection requirements are necessary for the proper performance of

the functions of FRA, including whether the information has practical utility; the accuracy of FRA's estimates of the burden of the information collection requirements; the quality, utility, and clarity of the information to be collected; and whether the burden of collection of information on those who are to respond, including through the use of automated collection techniques or other forms of information technology, may be minimized. For information or a copy of the paperwork package submitted to OMB, contact Mr. Robert Brogan at 202–493–6292.

Organizations and individuals desiring to submit comments on the collection of information requirements should direct them to Mr. Robert Brogan, Federal Railroad Administration, 1120 Vermont Avenue, NW., Mail Stop 17, Washington DC 20590.

OMB is required to make a decision concerning the collection of information requirements contained in this NPRM between 30 and 60 days after publication of this document in the **Federal Register**. Therefore, a comment to OMB is best assured of having its full effect if OMB receives it within 30 days of publication. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

FRA is not authorized to impose a penalty on persons for violating information collection requirements which do not display a current OMB control number, if required. FRA intends to obtain current OMB control numbers for any new information collection requirements resulting from this rulemaking action prior to the effective date of a final rule. The OMB control number, when assigned, will be announced by separate notice in the **Federal Register**.

Federalism Implications

FRA has analyzed this proposed rule in accordance with the principles and criteria contained in Executive Order 13132, issued on August 4, 1999, which directs Federal agencies to exercise great care in establishing policies that have federalism implications. See 64 FR 43255. This proposed rule will not have a substantial effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among various levels of government. This proposed rule will not have federalism implications that impose any direct compliance costs on State and local governments.

FRA notes that the RSAC, which endorsed and recommended the majority of this proposed rule to FRA, has as permanent members two organizations representing State and local interests: AASHTO and the Association of State Rail Safety Managers (ASRSM). Both of these State organizations concurred with the RSAC recommendation endorsing this proposed rule. The RSAC regularly provides recommendations to the FRA Administrator for solutions to regulatory issues that reflect significant input from its State members. To date, FRA has received no indication of concerns about the Federalism implications of this rulemaking from these representatives or of any other representatives of State government. Consequently, FRA concludes that this proposed rule has no federalism implications, other than the preemption of state laws covering the subject matter of this proposed rule, which occurs by operation of law under 49 U.S.C. 20106 whenever FRA issues a rule or order.

Elements of the proposed rule dealing with safety appliances affect an area of safety that has been pervasively regulated at the Federal level for over a century. Accordingly, the proposed amendments will involve no impacts on Federal relationships.

Environmental Impact

FRA has evaluated this proposed regulation in accordance with its ''Procedures for Considering Environmental Impacts'' (FRA's Procedures) (64 FR 28545, May 26, 1999) as required by the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*), other environmental statutes, Executive Orders, and related regulatory requirements. FRA has determined that this proposed regulation is not a major FRA action (requiring the preparation of an environmental impact statement or environmental assessment) because it is categorically excluded from detailed environmental review pursuant to section 4(c)(20) of FRA's Procedures. 64 FR 28547, May 26, 1999. Section 4(c)(20) reads as follows:

> (c) Actions categorically excluded. Certain classes of FRA actions have been determined to be categorically excluded from the requirements of these Procedures as they do not individually or cumulatively have a significant effect on the human environment. * * * The following classes of FRA actions are categorically excluded: * * *
>
> (20) Promulgation of railroad safety rules and policy statements that do not result in significantly increased emissions or air or water pollutants or noise or increased traffic congestion in any mode of transportation.

In accordance with section 4(c) and (e) of FRA's Procedures, the agency has further concluded that no extraordinary circumstances exist with respect to this regulation that might trigger the need for a more detailed environmental review. As a result, FRA finds that this proposed regulation is not a major Federal action significantly affecting the quality of the human environment.

Unfunded Mandates Reform Act of 1995

Pursuant to section 201 of the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4, 2 U.S.C. 1531), each Federal agency ''shall, unless otherwise prohibited by law, assess the effects of Federal regulatory actions on State, local, and tribal governments, and the private sector (other than to the extent that such regulations incorporate requirements specifically set forth in law).'' Section 202 of the Act (2 U.S.C. 1532) further requires that ''before promulgating any general notice of proposed rulemaking that is likely to result in the promulgation of any rule that includes any Federal mandate that may result in expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of $100,000,000 or more (adjusted annually for inflation) in any 1 year, and before promulgating any final rule for which a general notice of proposed rulemaking was published, the agency shall prepare a written statement'' detailing the effect on State, local, and tribal governments and the private sector. The proposed rule would not result in the expenditure, in the aggregate, of $100,000,000 or more in any one year, and thus preparation of such a statement is not required.

Energy Impact

Executive Order 13211 requires Federal agencies to prepare a Statement of Energy Effects for any ''significant energy action.'' 66 FR 28355 (May 22, 2001). Under the Executive Order, a ''significant energy action'' is defined as any action by an agency (normally published in the **Federal Register**) that promulgates or is expected to lead to the promulgation of a final rule or regulation, including notices of inquiry, advance notices of proposed rulemaking, and notices of proposed rulemaking: (1)(i) That is a significant regulatory action under Executive Order 12866 or any successor order, and (ii) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (2) that is designated by the Administrator of the Office of Information and Regulatory Affairs as a significant energy action. FRA has evaluated this NPRM in accordance with Executive Order 13211. FRA has determined that this NPRM is not likely

to have a significant adverse effect on the supply, distribution, or use of energy. Consequently, FRA has determined that this regulatory action is not a ''significant energy action'' within the meaning of Executive Order 13211.

Privacy Act

FRA wishes to inform all potential commenters that anyone is able to search the electronic form of all comments received into any agency docket 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 229

Locomotives, Main reservoirs, Penalties, Railroads, Railroad safety, Reporting and recordkeeping requirements.

49 CFR Part 238

Passenger equipment, Penalties, Railroad safety, Reporting and recordkeeping requirements, Safety appliances.

The Proposed Rule

For the reasons discussed in the preamble, FRA proposes to amend parts 229 and 238 of chapter II, subtitle B of Title 49, Code of Federal Regulations, as follows:

PART 229—[AMENDED]

1. The authority citation for part 229 continues to read as follows:

Authority: 49 U.S.C. 20102–03, 20107, 20133, 20137–38, 20143, 20701–03, 21301–02, 21304; 28 U.S.C. 2401, note; and 49 CFR 1.49(c), (m).

2. Section 229.5 is amended by revising the definition of ''MU locomotive'' to read as follows:

§ 229.5 Definitions.

* * * * *

MU locomotive means a multiple unit operated electric locomotive—

(1) With one or more propelling motors designed to carry freight or passenger traffic or both; or

(2) Without propelling motors but with one or more control stands and a means of picking-up primary power such as a pantograph or third rail.

* * * * *

3. Section 229.31 is amended by revising paragraphs (a) and (c) to read as follows:

§ 229.31 Main reservoir tests.

(a) Before it is placed in service, each main reservoir other than an aluminum reservoir shall be subjected to a pneumatic or hydrostatic pressure of at least 25 percent more than the maximum working pressure fixed by the chief mechanical officer. The test date, place, and pressure shall be recorded on Form FRA F 6180–49A, block eighteen. Except as provided in paragraph (c) of this section, at intervals that do not exceed 736 calendar days, each main reservoir other than an aluminum reservoir shall be subjected to a hydrostatic pressure of at least 25 percent more than the maximum working pressure fixed by the chief mechanical officer. The test date, place, and pressure shall be recorded on Form FRA F 6180–49A, and the person performing the test and that person's supervisor shall sign the form.

* * * * *

(c) Each welded main reservoir originally constructed to withstand at least five times the maximum working pressure fixed by the chief mechanical officer may be drilled over its entire surface with telltale holes that are three-sixteenths of an inch in diameter. The holes shall be spaced not more than 12 inches apart, measured both longitudinally and circumferentially, and drilled from the outer surface to an extreme depth determined by the formula—

$$D = (.6PR/S - 0.6P)$$

Where:

D = Extreme depth of telltale holes in inches but in no case less than one-sixteenth inch;

P = Certified working pressure in pounds per square inch;

S = One-fifth of the minimum specified tensile strength of the material in pounds per square inch; and

R = Inside radius of the reservoir in inches.

One row of holes shall be drilled lengthwise of the reservoir on a line intersecting the drain opening. A reservoir so drilled does not have to meet the requirements of paragraphs (a) and (b) of this section, except the requirement for a pneumatic or hydrostatic test before it is placed in use. Whenever any such telltale hole shall have penetrated the interior of any reservoir, the reservoir shall be permanently withdrawn from service. A reservoir now in use may be drilled in lieu of the tests provided for by paragraphs (a) and (b) of this section, but shall receive a hydrostatic test before it is returned to use or may receive a pneumatic test if conducted by the manufacturer in an appropriately safe environment.

* * * * *

4. Section 229.47 is amended by revising paragraph (b) to read as follows:

§ 229.47 Emergency brake valve.

* * * * *

(b) DMU, MU, and control cab locomotives operated in road service shall be equipped with an emergency brake valve that is accessible to another crew member in the passenger compartment or vestibule. The words ''Emergency Brake Valve'' shall be legibly stenciled or marked near each valve or shall be shown on an adjacent badge plate.

5. Section 229.137 is amended by revising paragraph (b)(1)(vi) to read as follows:

§ 229.137 Sanitation, general requirements.

* * * * *

(b) * * *

(1) * * *

(vi) Except as provided in § 229.14 of this part, DMU, MU, and control cab locomotives designed for passenger occupancy and used in intercity push-pull service that are not equipped with sanitation facilities, where employees have ready access to railroad-provided sanitation in other passenger cars on the train at frequent intervals during the course of their work shift.

* * * * *

PART 238—[AMENDED]

6. The authority citation for part 238 continues to read as follows:

Authority: 49 U.S.C. 20103, 20107, 20133, 20141, 20302–20303, 20306, 20701–20702, 21301–21302, 21304; 28 U.S.C. 2461, note; and 49 CFR 1.49.

7. Section 238.5 is amended by revising the definition of ''actuator'' and adding a definition of ''piston travel indicator'' to read as follows:

§ 238.5 Definitions.

* * * * *

Actuator means a self-contained brake system component that generates the force to apply the brake shoe or brake pad to the wheel or disc. An actuator typically consists of a cylinder, piston, and piston rod.

* * * * *

Piston Travel Indicator means a device directly activated by the movement of the brake cylinder piston, the disc brake actuator, or the tread brake unit cylinder piston that provides an indication of the piston travel.

* * * * *

8. Section 238.17 is amended by revising paragraph (b) introductory text to read as follows:

§ 238.17 Movement of passenger equipment with other than power brake defects.

* * * * *

(b) *Limitations on movement of passenger equipment containing defects found at time of calendar day inspection:* Except as provided in §§ 238.303(e)(15) and (e)(17), 238.305(c) and (d), and 238.307(c)(1), passenger equipment containing a condition not in conformity with this part at the time of its calendar day mechanical inspection may be moved from that location for repair if all of the following conditions are satisfied:

* * * * *

9. Section 238.21 is amended by revising paragraphs (a) and (c)(2) to read as follows:

§ 238.21 Special approval procedures.

(a) *General.* The following procedures govern consideration and action upon requests for special approval of alternative standards under §§ 238.103, 238.223, 238.229, 238.309, 238.311, 238.405, or 238.427; for approval of alternative compliance under §§ 238.201, 238.229, or 238.230; and for special approval of pre-revenue service acceptance testing plans as required by § 238.111. (Requests for approval of programs for the inspection, testing, and maintenance of Tier II passenger equipment are governed by § 238.505.)

* * * * *

(c) * * *

(2) The elements prescribed in §§ 238.201(b), 238.229(j)(2), and 238.230(d); and

* * * * *

10. Section 238.229 is revised to read as follows:

§ 238.229 Safety appliances—general.

(a) Except as provided in this part, all passenger equipment continues to be subject to the safety appliance requirements contained in Federal statute at 49 U.S.C. chapter 203 and in Federal regulations at part 231 of this chapter.

(b) Except as provided in this part, FRA interprets the provisions in part 231 of this chapter that expressly mandate that the manner of application of a safety appliance be a bolt, rivet, or screw to mean that the safety appliance and any related bracket or support used to attach that safety appliance to the equipment shall be so affixed to the equipment. Specifically, FRA prohibits the use of welding as a method of attachment of any such safety appliance or related bracket or support. For purposes of this section and part 231 of this chapter, a ''safety appliance bracket or support'' means a component or part attached to the equipment for the sole purpose of securing or attaching of the safety appliance. FRA does allow the welded attachment of a brace or stiffener used in connection with a mechanically fastened safety appliance. In order to be considered a ''brace'' or ''stiffener,'' the component or part shall not be necessary for the attachment of the safety appliance to the equipment and is used solely to provide extra strength or steadiness to the safety appliance.

(c) *Welded Safety Appliances.* (1) Passenger equipment placed in service prior to January 1, 2007, that is equipped with a safety appliance, required by the ''manner of application'' provisions in part 231 of this chapter to be attached by a mechanical fastener (*i.e.*, bolts, rivets, or screws), and the safety appliance is mechanically fastened to a bracket or support that is attached to the equipment by welding may continue to be used in service provided all of the requirements in paragraphs (e) through (k) of this section are met.

(2) Passenger equipment that is equipped with a safety appliance that is directly attached to the equipment by welding (*i.e.*, no mechanical fastening of any kind) shall be considered defective and immediately handled for repair pursuant to the requirements contained in § 238.17(e) unless the railroad meets the following:

(i) The railroad submits a written list to FRA that identifies each piece of passenger equipment equipped with a welded safety appliance as described in paragraph (c)(2) of this section and provides a description of the specific safety appliance;

(ii) For passenger equipment placed in service for the first time on or after January 1, 2007, the railroad provides a detailed basis as to why the design of the vehicle or placement of the safety appliance requires that the safety appliance be directly welded to the equipment; and

(iii) The involved safety appliance(s) on such equipment are inspected and handled pursuant to the requirements contained in paragraphs (g) through (k) of this section.

(d) *General.* Passenger equipment with a welded safety appliance or a welded safety appliance bracket or support will be considered defective and shall be handled in accordance with § 238.17(e) if any part or portion of the weld is defective or contains a crack. Any repairs made to such equipment shall be in accordance with the inspection plan required in paragraph (g) of this section and the remedial actions identified in paragraph (j) of this section. A defect for the purposes of this section means any anomaly, regardless of size, that affects the designed strength of the weld. A crack for purposes of this section means a fracture of any visibly discernible length or width.

(e) *Identification of equipment.* The railroad shall submit a written list to FRA that identifies each piece of passenger equipment equipped with a welded safety appliance bracket or support by January 1, 2007. Passenger equipment placed in service prior to January 1, 2007, but not discovered until after January 1, 2007, shall be immediately added to the railroad's written list and shall be immediately inspected in accordance with paragraph (g) through (k) of this section. The written list submitted by the railroad shall contain the following:

(1) The equipment number;

(2) The equipment type;

(3) The safety appliance bracket(s) or support(s) affected;

(4) Any equipment and any specific safety appliance bracket(s) or supports(s) on the equipment that will not be subject to the inspection plan required in paragraph (g) of this section;

(5) A detailed explanation for any such exclusion recommended in paragraph (e)(4) of this section;

(f) FRA's Associate Administrator for Safety reserves the right to disapprove any exclusion recommended by the railroad in paragraphs (c)(2)(i) and (d)(4) of this section and will provide written notification to the railroad of any such determination.

(g) *Inspection Plans.* The railroad shall adopt and comply with and submit to FRA a written safety appliance inspection plan. At a minimum, the plan shall include the following:

(1) An initial visual inspection (within 1 year of date of publication) and periodic re-inspections (at intervals not to exceed 6 years) of each welded safety appliance bracket or support identified in paragraph (e) of this section. If significant disassembly of a car is necessary to visually inspect the involved safety appliance bracket or support, the initial visual inspection may be conducted at the equipment's first periodic brake equipment maintenance interval pursuant to § 238.309 occurring after January 1, 2006.

(2) Identify the personnel that will conduct the initial and periodic inspections and any training those individuals are required to receive in

accordance with the criteria contained in paragraph (h) of this section.

(3) Identify the specific procedures and criteria for conducting the initial and periodic safety appliance inspections in accordance with the requirements and criteria contained in paragraph (i) of this section. This may include the adoption and compliance with any date specific industry accepted and developed procedure and criteria.

(4) Identify when and what type of potential repairs or potential remedial action will be required for any defective welded safety appliance bracket or support discovered during the initial or periodic safety appliance inspection in accordance with paragraph (j) of this section.

(5) Identify the records that will be maintained that are related to the initial and periodic safety appliance inspections in accordance with the requirements contained in paragraph (k) of this section.

(h) *Inspection Personnel.* The initial and periodic safety appliance inspections shall be performed by individuals properly trained and qualified to identify defective weld conditions. At a minimum, these personnel include the following:

(1) A qualified maintenance person (QMP) with at least 4 hours of training specific to the identification of weld defects and the railroad's weld inspection procedures;

(2) A current certified welding inspector (CWI) pursuant to American Welding Society Standard—AWS QC–1, Standard for AWS Certification of Welding Inspectors (1996);

(3) A person possessing a current Canadian Welding Bureau (CWB) certification pursuant to the Canadian Standards Association Standard W59 (2003); or

(4) A person possessing a current level II or level III visual inspector certification from the American Society for Non-destructive Testing pursuant to Recommended Practice SNT–TC–1A—Personnel Qualification and Certification in Nondestructive Testing (2001).

(i) *Inspection Procedures.* The initial and periodic safety appliance inspections shall be conducted in accordance with the procedures and criteria established in the railroad's inspection plan. At a minimum these procedures and criteria shall include:

(1) A complete visual inspection of the entire welded surface of any safety appliance bracket or support identified in paragraph (e) of this section.

(2) The visual inspection shall occur after the complete removal of any dirt, grease, rust, or any other foreign matter from the welded portion of the involved safety appliance bracket or support. Removal of paint is not required.

(3) The railroad shall disassemble any equipment necessary to permit full visual inspection of the involved weld.

(4) Any materials necessary to conduct a complete inspection must be made available to the inspection personnel throughout the inspection process. These include but are not limited to such items as mirrors, magnifying glasses, or other location specific inspection aids. Remote viewing aids possessing equivalent sensitivity are permissible for restricted areas.

(5) Any weld found with a potential defect or crack as defined in paragraph (d) of this section during the initial or periodic safety appliance inspection shall be inspected by either a certified weld inspector identified in paragraph (h)(2) and (h)(3) of this section, a certified level II or III inspector identified in paragraph (h)(4) of this section, or a welding or materials engineer possessing a professional engineer's license for a final determination. No car with a potential defect or crack in the weld of a safety appliance or its attachment may continue in use until a final determination as to the existence of a defect or crack is made by the personnel identified in this paragraph.

(6) A weld finally determined to contain a defect or crack shall be handled for repair in accordance with § 238.17(e) and repaired in accordance with the remedial action criteria contained in paragraph (j) of this section.

(j) *Remedial Action.* Unless a defect or crack in a weld is known to have been caused by crash damage, the railroad shall conduct a failure and engineering analysis of any weld identified in paragraph (e) of this section determined to have a break or crack either during the initial or periodic safety appliance inspection or while otherwise in service to determine if the break or crack is the result of crash damage, improper construction, or inadequate design. Based on the results of the analysis, the repair of the involved safety appliance bracket or support shall be handled as follows:

(1) A defect or crack in a weld due to crash damage (*i.e.*, impact of the safety appliance by an outside force during service or an accident) or improper construction (*i.e.*, the weld did not conform to the engineered design) shall be reattached by either mechanically fastening the safety appliance or the safety appliance bracket or support to the equipment, or welding the safety appliance bracket or support to the equipment in a manner that is at least as strong as the original design or at least twice the strength of a bolted mechanical attachment, whichever is greater. If welding is used to repair the damaged appliance, bracket, or support, the following requirements shall be met:

(i) The repair shall be conducted in accordance with the welding procedures contained in APTA Standard SS–C&S–020–03—Standard for Passenger Rail Vehicle Structural Repair (September 2003);

(ii) A qualified individual under paragraph (h) of this section shall inspect the weld to ensure it is free of any cracks prior to the equipment being placed in-service;

(iii) The welded safety appliance bracket or support shall receive a periodic safety appliance inspection pursuant to the requirements contained in paragraphs (g) through (i) of this section; and

(iv) A record of the welded repair pursuant to the requirements of paragraph (k) of this section shall be maintained by the railroad.

(2) A defect or crack in the weld that is due to inadequate design (*i.e.*, unanticipated stresses or loads during service) shall be handled in accordance with the following:

(i) The railroad must immediately notify FRA's Associate Administrator for Safety in writing of its discovery of a cracked or defective weld that is due to inadequate design;

(ii) The involved safety appliance or the safety appliance bracket or support shall be reattached to the equipment by mechanically fastening the safety appliance or the safety appliance bracket or support to the equipment unless such mechanical fastening is impractical due to the design of the equipment;

(iii) The railroad shall develop and comply with a written plan submitted to and approved by FRA's Associate Administrator for Safety detailing a schedule for all passenger equipment in that series of cars with a similar welded safety appliance bracket or support to have the involved safety appliance or the safety appliance bracket or support mechanically fastened to the equipment; and

(iv) If a railroad determines that the design of the equipment makes it impractical to mechanically fasten the safety appliance or the safety appliance bracket or support to the equipment, then the railroad shall submit a request to FRA for special approval of alternative compliance pursuant to § 238.21. Such a request shall explain the necessity for any relief sought and

shall contain appropriate data and analysis supporting its determination that any alternative method of attachment provides at least an equivalent level of safety.

(k) *Records.* Railroads shall maintain written or electronic records of the inspection and repair of the welded safety appliance brackets or supports on any equipment identified in paragraph (e) of this section. The records shall be made available to FRA upon request. At a minimum, these records shall include all of the following:

(1) Training or certification records for any person performing any of the inspections or repairs required in this section.

(2) The date, time, location, and identification of the person performing the initial and periodic safety appliance inspections for each piece of equipment identified in paragraph (e) of this section. This includes the identification of the person making any final determination as to the existence of a defect or crack under paragraph (i)(5) of this section.

(3) A record of all passenger equipment found with a safety appliance weldment that is defective or cracked either during the initial or periodic safety appliance inspection or while the equipment is in-service. This record shall also identify the cause of the crack or break.

(4) The date, time, location, identification of the person making the repair, and the nature of the repair to any welded safety appliance bracket or support identified in paragraph (e) of this section.

11. Section 238.230 is added to read as follows:

§ 238.230 Safety appliances—new equipment.

(a) *Applicability.* This section applies to passenger equipment placed in service on or after January 1, 2007.

(b) *Welded Safety Appliances.* Except as provided in § 238.229(c)(2), all passenger equipment placed into service on or after January 1, 2007, that is equipped with a safety appliance, required by the ''manner of application'' provisions in part 231 of this chapter to be attached by a mechanical fastener (*i.e.*, bolts, rivets, or screws), shall have any bracket or support necessary to attach the safety appliance to the piece of equipment mechanically fastened to the piece of equipment. Safety appliance brackets or supports shall not be welded to the car body unless the design of the equipment makes it impractical to mechanically fasten the safety appliance bracket or support and prior to placing a piece of equipment in service with a safety appliance bracket or support attached by welding, the railroad submits documentation to FRA, for FRA's review and approval, containing all of the following information:

(1) Identification of the equipment by number, type, series, operating railroad, and other pertinent data;

(2) Identification of the safety appliance bracket(s) or support(s) not mechanically fastened to the equipment;

(3) A detailed analysis describing the necessity to attach the safety appliance bracket or support to the equipment by a means other than mechanical fastening; and

(4) A copy and description of the consensus or other appropriate industry standard used to ensure the effectiveness and strength of the attachment;

(c) Any safety appliance bracket or support approved by FRA pursuant to paragraph (b) of this section shall be inspected and handled in accordance with the requirements contained in § 238.229(g) through (k).

(d) *Passenger Cars of Special Construction.* A railroad or a railroad's recognized representative may submit a request for special approval of alternative compliance pursuant to § 238.21 relating to the safety appliance arrangements on any passenger car considered a car of special construction under § 231.18 of this chapter. Any such petition shall be in the form of an industry-wide standard and at a minimum shall:

(1) Identify the type(s) of car to which the standard would be applicable;

(2) As nearly as possible, based upon the design of the equipment, ensure that the standard provides for the same complement of handholds, sill steps, ladders, hand or parking brakes, running boards, and other safety appliances as are required for a piece of equipment of the nearest approximate type already identified in part 231 of this chapter;

(3) Comply with all statutory requirements relating to safety appliances contained at 49 U.S.C. 20301 and 20302;

(4) Specifically address the number, dimension, location, and manner of application of each safety appliance contained in the standard;

(5) Provide specific analysis regarding why and how the standard was developed and specifically discuss the need or benefit of the safety appliance arrangement contained in the standard;

(6) Include drawings, sketches, or other visual aids that provide detailed information relating to the design, location, placement, and attachment of the safety appliances; and

(7) Demonstrate the ergonomic suitability of the proposed arrangements in normal use.

(e) Any industry standard approved pursuant to § 238.21 will be enforced against any person who violates any provision of the approved standard or causes the violation of any such provision. Civil penalties will be assessed under part 231 of this chapter by using the applicable defect code contained in Appendix A to part 231 of this chapter.

12. Section 238.231 is amended by revising paragraph (b) and paragraph (h)(3) and by adding paragraph (h)(4) to read as follows:

§ 238.231 Brake system.

* * * * *

(b) The design of passenger equipment ordered on or after September 8, 2000, or placed in service for the first time on or after September 9, 2002, shall not require an inspector to place himself or herself on, under, or between components of the equipment to observe brake actuation or release. This requirement will be met if the passenger equipment is designed or equipped and handled in accordance with any of the following:

(1) Designed to permit actual visual observation of the brake actuation and release without the inspector going on, under, or between the equipment;

(2) Equipped with piston travel indicators as defined in § 238.5 or devices of similar design and the equipment is inspected pursuant to the requirements contained in § 238.313 (j); or

(3) Equipped with brake indicators as defined in § 238.5, designed so that the pressure sensor is placed in a location so that nothing may interfere with the air flow to brake cylinder and the equipment is inspected pursuant to the requirements contained in § 238.313 (j).

* * * * *

(h) * * *

(3) Except for MU locomotives, on locomotives so equipped, the hand or parking brake as well as its parts and connections shall be inspected, and necessary repairs made, as often as service requires but no less frequently than every 368 days. The date of the last inspection shall be either entered on Form FRA F 6180–49A, suitably stenciled or tagged on the equipment, or maintained electronically provided FRA has access to the record upon request.

(4) A train's air brake shall not be depended upon to hold unattended equipment (including a locomotive, a car, or a train whether or not locomotive

is attached). For purposes of this section, ''unattended equipment'' means equipment left standing and unmanned in such a manner that the brake system of the equipment cannot be readily controlled by a qualified person. Unattended equipment shall be secured in accordance with the following requirements:

(i) A sufficient number of hand or parking brakes shall be applied to hold the equipment. Railroads shall develop and implement a process or procedure to verify that the applied hand or parking brakes will sufficiently hold the equipment with the air brakes released;

(ii) Except for equipment connected to a source of compressed air (*e.g.*, locomotive or ground air source), prior to leaving equipment unattended, the brake pipe shall be reduced to zero at a rate that is no less than a service rate reduction;

(iii) At a minimum, the hand or parking brake shall be fully applied on at least one locomotive or vehicle in an unattended locomotive consist or train;

(iv) A railroad shall develop, adopt, and comply with procedures for securing any unattended locomotive required to have a hand or parking brake applied when the locomotive is not equipped with an operative hand or parking brake;

(v) A railroad shall adopt and comply with instructions to address throttle position, status of the reverser lever, position of the generator field switch, status of the independent brakes, position of the isolation switch, and position of the automatic brake valve, or the functional equivalent of these items, on all unattended locomotives. The procedures and instruction shall take into account weather conditions as they relate to throttle position and reverser handle; and

(vi) Any hand or parking brakes applied to hold unattended equipment shall not be released until it is known that the air brake system is properly charged.

* * * * *

13. Section 238.303 is amended by adding a new paragraph (e)(17) to read as follows:

§ 238.303 Exterior calendar day mechanical inspection of passenger equipment.

* * * * *

(e) * * *

(17) Each air compressor, on passenger equipment so equipped, shall be in effective and operative condition. MU passenger equipment found with an inoperative or ineffective air compressor at the time of its exterior calendar day mechanical inspection may remain in passenger service until the equipment's next exterior calendar day mechanical inspection where it must be repaired or removed from passenger service; provided, all of the following requirements are met:

(i) The equipment has an inherent redundancy of air compressors, due to either the make-up of the train consist or the design of the equipment;

(ii) The railroad demonstrates through verifiable data, analysis, or actual testing that the safety and integrity of a train is not compromised in any manner by the inoperative or ineffective air compressor. The data, analysis, or test shall establish the maximum number of air compressors that may be inoperative based on size of the train consist, the type of passenger equipment in the train, and the number of service and emergency brake applications typically expected in the run profile for the involved train;

(iii) The involved train does not exceed the maximum number of inoperative or ineffective air compressors established in accordance with paragraph (e)(17)(ii) of this section;

(iv) A qualified maintenance person determines and verifies that the inoperative or ineffective air compressor does not compromise the safety or integrity of the train and that it is safe to move the equipment in passenger service;

(v) The train crew is informed in writing of the number of units in the train consist with inoperative or ineffective air compressors at the location where the train crew first takes charge of the train;

(vi) A record is maintained of the inoperative or ineffective air compressor pursuant to the requirements contained in § 238.17(c)(4); and

(vii) Prior to operating equipment under the provisions contained in this paragraph, the railroad shall provide in writing to FRA's Associate Administrator for Safety the maximum number of inoperative or ineffective air compressors identified in accordance with paragraph (e)(17)(ii) of this section.

(viii) The data, analysis, or testing developed and conducted under paragraph (e)(17)(ii) of this section shall be made available to FRA upon request. FRA's Associate Administrator for Safety may revoke a railroad's ability to utilize the flexibility provided in this paragraph if the railroad fails to comply with the maximum limits established under paragraph (e)(17)(ii) or if such maximum limits are not supported by credible data or do not provide adequate safety assurances.

* * * * *

14. Section 238.307 is amended by adding paragraph (c)(13) and by revising paragraph (d) to read as follows:

§ 238.307 Periodic mechanical inspection of passenger cars and unpowered vehicles used in passenger trains.

* * * * *

(c) * * *

(13) The hand or parking brake shall be applied and released to determine that it functions as intended.

(d) At intervals not to exceed 368 days, the periodic mechanical inspection shall specifically include the following:

(1) Inspection of the manual door releases to determine that all manual door releases operate as intended; and

(2) Inspection of the hand or parking brake as well as its parts and connections to determine that they are in proper condition and operate as intended. The date of the last inspection shall be either entered on Form FRA F 6180–49A, suitably stenciled or tagged on the equipment, or maintained electronically provided FRA has access to the record upon request.

* * * * *

15. Section 238.313 is amended by revising the first sentence of paragraph (g)(3) and by adding a new paragraph (j) to read as follows:

§ 238.313 Class I brake test.

* * * * *

(g) * * *

(3) Piston travel is within prescribed limits, either by direct observation, observation of a piston travel indicator, or in the case of tread or disc brakes by determining that the brake shoe or pad provides pressure to the wheel. * * *

* * * * *

(j) In addition to complying with all the Class I brake test requirements performed by a qualified maintenance person as contained in paragraphs (a) through (i) of this section, railroads operating passenger equipment that does not comply with the design requirement of § 238.231(b)(1) shall perform an additional inspection. At a minimum, the additional inspection requirement for equipment so designed shall include all of the following:

(1) An additional inspection by a qualified maintenance person of all items and components contained in paragraphs (g)(1) through (g)(15) of this section;

(2) The additional inspection shall be conducted at an interval not to exceed five (5) in-service days and shall be conducted while the equipment is over an inspection pit or on a raised inspection track; and

(3) A record of the additional inspection shall be maintained pursuant to the requirements contained in paragraph (h) of this section. This record can be combined with the Class I brake test record.

16. Section 238.321 is added to read as follows:

§ 238.321 Out-of-service credit.

When a passenger car is out of service for 30 or more consecutive days or is out of service when it is due for any test or inspection required by § 238.307 or § 238.309 an out of use notation showing the number of out of service days shall be made in the records required under § 238.307(e) and § 238.309(f). If the passenger car is out of service for one or more periods of at least 30 consecutive days, the interval prescribed for any test or inspection required by § 238.307 and § 238.309 may be extended by the number of days in each period the passenger car is out of service since the last test or inspection in question. A movement made in accordance with § 229.9 of this chapter or § 238.17 is not considered service for the purposes of determining the out-of-service credit.

Issued in Washington, DC, on November 30, 2005.

Joseph H. Boardman,

Federal Railroad Administrator.

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