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Part VI

Department of Transportation

Federal Railroad Administration

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49 CFR Parts 223 and 238

Passenger Train Emergency Systems; Proposed Rule

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DEPARTMENT OF TRANSPORTATION

Federal Railroad Administration

49 CFR Parts 223 and 238

[Docket No. FRA-2006-25273, Notice No. 1]
RIN 2130-AB72

Passenger Train Emergency Systems

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

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This NPRM is intended to further the safety of passenger train occupants through both enhancements and additions to FRA's existing requirements for emergency systems on passenger trains. In this NPRM, FRA proposes to enhance existing requirements for emergency window exits and to establish requirements for rescue access windows to evacuate passenger train occupants. FRA also proposes to enhance passenger train emergency system requirements by expanding the application of requirements that are currently applicable only to passenger trains operating at speeds in excess of 125 mph (Tier II passenger trains) to passenger trains operating at speeds at or below 125 mph (Tier I passenger trains); these proposed enhancements would require that Tier I passenger trains be equipped with public address and intercom systems for emergency communication and that passenger cars provide emergency roof access for use by emergency responders. FRA is proposing to apply certain of the requirements to both existing and new passenger equipment, while other requirements would apply to new passenger equipment only.

DATES: (1) Written comments must be received by October 23, 2006. Comments received after that date will be considered to the extent possible without incurring additional expense or delay.

(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 September 25, 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-2006-25273 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.

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: Brenda J. Moscoso, Office of Safety, Operations Research Analyst, RRS-23, Mail Stop 25, Federal Railroad Administration, 1120 Vermont Avenue, NW., Washington, DC 20590 (telephone 202-493-6282); Daniel L. Alpert, Trial Attorney, Office of Chief Counsel, Mail Stop 10, Federal Railroad Administration, 1120 Vermont Avenue, NW., Washington, DC 20590 (telephone 202-493-6026); or Anna Nassif Winkle, Trial Attorney, Office of Chief Counsel, Mail Stop 10, Federal Railroad Administration, 1120 Vermont Avenue, NW., Washington, DC 20590 (telephone 202-493-6166).

SUPPLEMENTARY INFORMATION:

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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 5-year period. In November of 1994, Congress adopted the Secretary's schedule for implementing rail passenger equipment safety regulations and included it in the Federal Railroad Safety Authorization Act of 1994 (the Act), Public Law No. 103-440, 108 Stat. 4619, 4623-4624 (November 2, 1994). Congress also authorized the Secretary to consult with various organizations involved in passenger train operations for purposes of prescribing and amending these regulations, as well as issuing orders pursuant to them. Section 215 of the Act is codified at 49 U.S.C. 20133.

II. Proceedings to Date

The Secretary of Transportation delegated these rulemaking responsibilities to the Federal Railroad Administrator, see 49 CFR 1.49(m), and FRA formed the Passenger Equipment Safety Standards Working Group to provide FRA advice in developing the regulations. On June 17, 1996, FRA published an advance notice of proposed rulemaking (ANPRM) concerning the establishment of

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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 Safety Standards Working Group, FRA published an 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 comprehensive 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 certain requirements contained in the rule. These petitions generally related to the following subject areas: structural design; fire safety; training; inspection, testing, and maintenance; and movement of defective equipment. To address the petitions, FRA grouped issues together and published in the Federal Register three sets of amendments to the final rule. Each set of amendments summarized the petition requests at issue, explained what action, if any, FRA decided to take in response to the

issues raised, and described FRA's justifications for its decisions and any action taken. Specifically, 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 provisions related to mechanical issues contained in the final rule. See 65 FR 41284. On April 23, 2002, FRA responded to all remaining issues raised in the petitions for reconsideration, with the exception of those relating to fire safety. See 67 FR 19970. Finally, on June 25, 2002, FRA completed its response to the petitions for reconsideration by publishing a response to the petitions for reconsideration concerning the fire safety portion of the rule. See 67 FR 42892. (For more detailed information on the petitions for reconsideration and FRA's response to them, please see these three rulemaking documents.) The product of this rulemaking was codified primarily at 49 CFR part 238 and secondarily at 49 CFR parts 216, 223, 229, 231, and 232.

Meanwhile, another rulemaking on passenger train emergency preparedness produced a final rule codified at 49 CFR part 239. See 63 FR 24629; May 4, 1998. The rule addresses passenger train emergencies of various kinds, including security situations, and requires the preparation, adoption, and implementation of emergency preparedness plans by railroads connected with the operation of passenger trains. The emergency preparedness plans must include elements such as communication, employee training and qualification, joint operations, tunnel safety, liaison with emergency responders, on-board emergency equipment, and passenger safety information. The rule requires each affected railroad to instruct its employees on the applicable provisions of its plan, and the plan adopted by each railroad is subject to formal review and approval by FRA. The rule also requires each railroad operating passenger train service to conduct emergency simulations to determine its capability to execute the emergency preparedness plan under the variety of emergency scenarios that could reasonably be expected to occur. In addition, among the rule's other requirements, the rule provides that (i) all emergency window exits and all windows intended for rescue access by emergency responders be marked and that instructions be provided for their use (see 49 CFR 223.9(d)); and (ii) all door exits intended for egress be lighted or marked, all door exits intended for rescue access by emergency responders be marked, and that instructions be provided for the use of both (see 49 CFR 239.107(a)).

Although FRA had completed these rulemakings, FRA had identified various issues for possible future rulemaking, including those to be addressed following the completion of additional research, the gathering of additional operating experience, or the development of industry standards, or all three. One such issue concerned expanding the application of emergency system requirements applicable to Tier II passenger equipment to Tier I passenger equipment as well. FRA and interested industry members also began identifying other issues related to the new passenger equipment safety standards and the passenger train emergency preparedness regulations. FRA decided to address these issues with the assistance of FRA's Railroad Safety Advisory Committee.

A. Railroad Safety Advisory Committee (RSAC) Overview

In March 1996, FRA established RSAC, which provides a forum for developing consensus recommendations to FRA's Administrator 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 Employees 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 Comunicaciones 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); and

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United Transportation Union (UTU).

*Indicates associate, non-voting membership.

When appropriate, FRA assigns a task to RSAC, and after consideration and debate, RSAC may accept or reject the task. If the task is accepted, 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 full RSAC for a vote. If the proposal is accepted by a simple majority of RSAC, the proposal is formally recommended to FRA. FRA then determines what action to take on the recommendation. Because FRA staff play 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 or final rule. Any such variations would be noted and explained in the rulemaking document issued by FRA. If the working group or RSAC is unable to reach consensus on recommendations for action, FRA moves ahead to resolve the issue through traditional rulemaking proceedings.

B. Establishment of the Passenger Safety Working Group

On May 20, 2003, FRA presented, and RSAC accepted, the task of reviewing existing passenger equipment safety needs and programs and recommending consideration of specific actions that could be useful in advancing the safety of rail passenger service. The RSAC established the Passenger Safety Working Group (Working Group) to handle this task and develop recommendations for the full RSAC to consider. Members of the Working Group, in addition to FRA, include the following:

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

Staff from DOT's John A. Volpe National Transportation Systems Center (Volpe Center) attended all of the meetings and contributed to the technical discussions. In addition, staff from the NTSB met with the Working Group when possible. The Working Group met on the following dates at the following locations:

September 9-10, 2003, in Washington, DC;
November 6, 2003, in Philadelphia, PA;
May 11, 2004, in Schaumburg, IL;
October 26-27, 2004 in Linthicum/Baltimore, MD;
March 9-10, 2005, in Ft. Lauderdale, FL; and
September 7, 2005 in Chicago, IL.

At the meetings in Ft. Lauderdale and Chicago, FRA met with representatives of Tri-County Commuter Rail and Metra, respectively, and toured their passenger equipment. The visits, which included demonstrations of emergency system features, were open to all members of the Working Group, and FRA believes they have added to the collective understanding of the Group in identifying and addressing passenger train emergency system issues.

C. Establishment of the Emergency Preparedness Task Force

Due to the variety of issues involved, at its November 2003 meeting the Working Group established four smaller task forces, with specific expertise, to develop recommendations on those issues within each group's particular area of expertise. Members of the task forces include various representatives from the respective organizations that were part of the larger Working Group. One of these task forces 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, and helped to develop an NPRM on these topics that was published on December 8, 2005. See 70 FR 73069. Another of these task forces, the Emergency Preparedness Task Force (Task Force), was established to identify issues and develop recommendations related to emergency systems, procedures, and equipment. Specifically, the Task Force was charged with evaluating APTA's standards for emergency systems for their incorporation by reference as Federal standards and requirements. These APTA standards are aimed at promoting the ability of passenger car occupants to reach, identify, and operate emergency exits under various conditions. The Task Force was also given the responsibility of addressing a number of other emergency system issues and to recommend any research necessary to facilitate their resolution. Members of the Task Force, in addition to FRA, include the following:

Amtrak;
APTA, including members from Bombardier, Ellcon National, Interfleet, Jacobs Civil Engineering, Jessup Manufacturing Company, Kawasaki Rail Car, Inc., LDK Engineering, LIRR, LTK, Luminator, Maryland Transit Administration, Massachusetts Bay Commuter Rail Corporation (MBCR), Metrolink, MNR, Northern Indiana Commuter Transit District (NICTD), SEPTA, San Diego Northern Commuter Railroad (Coaster), Permalight, PO's Ability USA, Inc, Prolink, Transit Design Group (TDG), Transit Safety Management (TSM), Translite, and STV Inc.;

BLET;
California Department of Transportation (Caltrans);
NARP;
RSI, including Globe Transportation Graphics; and
UTU.

While not voting members of the Task Force, representatives from the NTSB and from the Transportation Security Administration (TSA) of the U.S. Department of Homeland Security (DHS) attended certain of the meetings and contributed to the discussions of the Task Force. In addition, staff from the Volpe Center attended all of the

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meetings and contributed to the technical discussions through their comments and presentations and by setting up various lighting, marking, and signage demonstrations.

The Task Force met on the following dates at the following locations:

February 25-26, 2004, in Los Angeles, CA;
April 14-15, 2004, in Cambridge, MA;
July 7-8, 2004, in Washington, DC;
September 13-14, 2004, in New York, NY;
December 1-2, 2004, in San Diego, CA;
February 16-17, 2005, in Philadelphia, PA;
April 19-20, 2005, in Cambridge, MA;
August 2-3, 2005, in Cambridge, MA; and
December 13-14, 2005, in Baltimore, MD.

At the meetings in Los Angeles, Cambridge, Washington, New York, San Diego, and Philadelphia, FRA met with representatives of Metrolink, MBCR, Amtrak, LIRR, Coaster, and SEPTA, respectively, and toured their passenger equipment. The visits were open to all members of the Task Force and included demonstration of emergency system features. As in the case of the Working Group visits, FRA believes they have added to the collective understanding of the Task Force in identifying and addressing passenger train emergency system issues.

D. Development of the NPRM

This NPRM was developed to address a number of the concerns raised and issues discussed during the various Task Force and Working Group meetings. Minutes of each of these meetings have been made part of the docket in this proceeding and are available for public inspection. The Working Group reached full consensus on all the regulatory provisions contained in this proposal at its meetings in March and September 2005. After the March 2005 meeting, the Working Group presented its recommendations to the full RSAC for concurrence at its meeting in May 2005. All of the members of the full RSAC in attendance at its May 2005 meeting accepted the regulatory recommendations submitted by the Working Group. Thus, the Working Group's recommendations became the full RSAC's recommendations to FRA in this matter. In October 2005, the full RSAC also recommended that FRA adopt a further recommendation from the Working Group at its September 2005 meeting: That FRA grant additional time for compliance with the proposal on rescue access

windows. After reviewing the full RSAC's recommendations, FRA agreed that the recommendations provided a sound basis for a proposed rule and adopted the recommendations with generally minor changes for purposes of clarity and formatting in the Federal Register.

This NPRM is the product of FRA's review, consideration, and acceptance of the recommendations of the Task Force, Working Group, and full RSAC. Throughout the preamble discussion of this proposal, FRA refers to comments, views, suggestions, or recommendations made by members of the Task Force, Working Group, and full RSAC, as they are identified or contained in the minutes of their meetings. FRA does so to show the origin of certain issues and the nature of discussions concerning those issues at the Task Force, Working Group, and full RSAC level. FRA believes this serves to illuminate factors it has weighed in making its regulatory decisions, as well as 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. However, as noted above, 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.

III. Technical Background

Trends in new passenger car orders, recent experience with train accidents, concern about emergency communication, and technological advances in emergency systems provided the main impetus for these proposed enhancements and additions to FRA's standards for passenger train emergency systems, as highlighted below.

A. Change in Passenger Car Fleet Composition

While FRA was developing regulations on Passenger Equipment Safety Standards and Passenger Train Emergency Preparedness in the 1990s, the operation of multi-level passenger cars having two seating levels for passengers (i.e., bi-level cars) was common. However, the operation of multi-level passengers cars having three seating levels for passengers (i.e., cars with intermediate (or mezzanine) seating levels) was not as prevalent in the U.S. as it is today. As a result, in those rulemakings there was less focus on the need for applying emergency system safety standards to intermediate seating levels of multi-level passenger cars.

Since that time, the composition of the Nation's commuter rail fleet has changed. Multi-level passenger cars with passenger seating in intermediate levels have become more prevalent and now account for over 15 percent of all passenger cars. The intermediate seating levels in these multi-level passenger cars are normally located at the far ends of the cars and are connected to the upper and lower seating levels by stairs. Exterior side doors are also normally located toward the ends of these cars to facilitate boarding and de-boarding. Given the constraint posed by station platform lengths and the desire to minimize station dwell time, railroads have turned to multi-level passenger cars with intermediate seating levels to meet much of the increased demand for service, to the extent vertical clearances permit their operation.

In light of the growing use of multi-level passenger cars with intermediate seating levels, this NPRM addresses the need to provide more explicit emergency system safety standards for these passenger cars.

B. NTSB Safety Recommendation on Windows

On April 23, 2002, a BNSF freight train collided head on with a standing Metrolink passenger train near Placentia, CA, resulting in two fatalities and numerous injuries on the Metrolink train. Though not a contributing factor to the fatalities or injuries, the force of the collision blocked the rear end door and also blocked the rear stairway linking the upper and lower seating levels to the seating area on the intermediate level at the rear of the Metrolink cab car. Although passengers in that intermediate level seating area did exit through an emergency window, no windows on the intermediate level had been designated for rescue access, and consequently no instructions for emergency responders to gain access to the intermediate level through a window had been posted. Concerned with the extent of Federal requirements relating to rescuing passengers from the intermediate level of a multi-level passenger car, the NTSB issued Safety Recommendation R-03-21 to FRA on November 6, 2003. Safety Recommendation R-03-21 provides in full as follows:

Revise the language of 49 Code of Federal Regulations 238.113(a)(1) to reflect that appropriate exterior instructional signage describing the emergency removal procedure

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be required at emergency windows on all levels of a multiple-level passenger railcar.

In a February 20, 2004 letter to the NTSB, FRA noted that its existing regulations do require that windows intended for emergency responder access on every level of a multi-level passenger car be clearly marked and that clear and understandable instructions for their removal be posted at or near the windows on the car's exterior. See 49 CFR 223.9(d)(2). FRA also sent a letter to passenger railroads to make this clear in the event there was any confusion about these requirements. Nevertheless, the NTSB's recommendation highlighted the fact that several related concerns were not specifically addressed in FRA's regulations. One of these concerns was specifying minimum numbers and locations of windows intended for emergency responder access to passenger cars, as 49 CFR 223.9(d)(2) addresses only marking and instruction requirements and does not provide any express requirement that any such rescue access windows exist. A second prominent issue concerned specifying minimum numbers and locations of emergency window exits on any level of a multi-level passenger car--not just main levels, as provided in 49 CFR 238.113(a)(1).

FRA informed the NTSB that it was reviewing and considering the necessity of making amendments to its safety standards for passenger trains through the RSAC process and that these and other passenger safety issues would be presented to the Working Group and the Task

Force for their consideration. Therefore, FRA asked that the NTSB classify Safety Recommendation R-03-21 as ``Open--Acceptable Response,'' pending the results of this effort. (The NTSB classification ``Open--Acceptable Response'' means a ``[r]esponse by recipient indicates a planned action that would comply with the safety recommendation when completed.'') By letter dated June 2, 2004, the NTSB formally classified the recommendation as FRA requested.

The Task Force reviewed the NTSB's recommendation and the related issues FRA presented to it and agreed to address emergency window exits and rescue access windows on a broad basis, with the goal that windows for emergency egress and rescue access would be available on every level of a passenger car in the event that a stairway or interior door is compromised and access to the primary means of exit (doors) is blocked. To this end, the Task Force agreed to develop requirements for emergency window exits on non-main levels of multi-level passenger cars, and rescue access windows on all levels of these cars, thus addressing requirements for every seating level of a passenger car.

C. Need for Emergency Communication Systems

Traditionally, conductors and assistant conductors have been relied upon to relay information to passengers in both normal and emergency situations through face-to-face communication or by use of the PA system. However, with smaller crew sizes, passengers may not be able to communicate to the crew a medical emergency, report a fire on board the train, or provide notification of other safety issues as quickly as may be necessary. For instance, a passenger in the last car of a train needing to report an emergency situation could potentially have to walk the entire length of the train to communicate with the conductor (assuming the crew is composed of an engineer and only one conductor). Further, if the conductor became incapacitated, passengers would need to communicate directly with the engineer.

FRA also notes that the NTSB accident investigation report of the February 9, 1996 collision near Secaucus, NJ, that involved two New Jersey Transit Rail Operations (NJTR) trains and resulted in three fatalities and numerous injuries, touches on the importance of emergency communications to prevent panic and further injuries. According to the NTSB report of the accident investigation,

[a]lthough the train crews said that they went from car to car instructing passengers to remain seated, passengers said that they were not told about the severity of the situation and were concerned about a possible fire or being struck by an oncoming train. They therefore left the train and wandered around the tracks waiting for guidance, potentially posing a greater hazard because of the leaking fuel from train 1107.

No crewmember used the public address system to communicate with passengers. By using the public address system, all passengers would have received the same message in less time than it would have taken the NJT employees to walk from car to car.

The report also stated that

[i]nformation about the possibility of a fire or a collision

with an oncoming train could have been provided to passengers over the public address system to address their concerns and prevent them from leaving the train. The Safety Board concludes that the lack of public announcements addressing the passengers' concerns caused them to act independently, evacuate the train, and wander along the tracks, thus potentially contributing to the dangerous conditions at the collision site. NTSB/RAR-97/01, at p. 27.

In 1998, APTA recognized the importance of emergency communications when it issued APTA SS-PS-001-98, ``Standard for Passenger Railroad Emergency Communications,'' noting that the establishment and execution of communications among train crews, operations control personnel and train passengers are of the utmost importance under normal circumstances. According to the APTA standard, during emergency situations such communications take on added importance in the task of assuring the safety of all involved.

While the Passenger Equipment Safety Standards issued in 1999 by FRA contain requirements for two-way emergency communication systems for Tier II passenger equipment (trains operating at speeds exceeding 125 mph, but not exceeding 150 mph), there are no requirements that Tier I passenger cars be equipped with any emergency communication system. In that rulemaking, concern had been raised about the practicality of applying such requirements to Tier I passenger equipment because of the interoperability of such equipment and the possible incompatibility of communications equipment in a Tier I passenger train. See 64 FR 25540, 25641; May 12, 1999. Nevertheless, today most existing passenger cars are equipped with PA systems, and intercom systems are common in new passenger cars.

FRA notes that, while there are many possible ways for an emergency situation to arise on a passenger train, an emergency system may be useful in many situations, regardless of the origin of the emergency. In this regard, emergency communication systems provide the added benefit of conveying information about security threats and handling security concerns. According to TSA, terrorists have considered attacks on subways and trains in the U.S., and TSA has found that passenger railroads and subways in the U.S. are particularly high-consequence targets in terms of potential loss of life and economic disruption. DHS, including TSA, as well as DOT's FRA and FTA have been actively engaged in responding to the threat of terrorism to our Nation's rail system, and the initiatives that have been undertaken to do so are too numerous to detail in this NPRM. Consistent with this response, the ability of passengers to timely report suspicious items and suspicious activity onboard passenger trains to appropriate personnel increases the likelihood of

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detecting a terrorist attack and thwarting it, or at least disrupting it and minimizing its consequences. This would also be facilitated by the ability of the train crew to timely communicate emergency information and instructions to passengers in response to a security threat.

FRA also notes that emergency system requirements for such features

as emergency window exits and emergency lighting, which were not specifically developed to address security threats, may play a critical role in minimizing the consequences of a terrorist attack on board a passenger train. The safety and security functions that passenger train emergency systems may serve make them vital, and further enhancements and additions to emergency systems should be explored both to minimize the risk of a terrorist attack to passenger trains, to reduce the death, injuries, and other consequences of such an attack if it occurs, and to promote passenger train safety overall.

D. Window Technology

A ``zip-strip'' is a strip of rubber gasketing that holds a window panel in place and is capable of being pulled, or pried and then pulled, like a zipper from the panel it holds. Use of zip-strips for window removal has been around for some time. Yet, the introduction of windows using zips-strips on both faces of the same window has allowed railroads to designate for rescue access those windows that are best suited for that purpose without impacting the selection of emergency window exits, or compromising compliance with safety glazing requirements. Before this technology was available, railroads that used zip-strips for window removal had to decide which windows would be designated for emergency egress and which would be designated for rescue access, as there was only one zip-strip available to open. Equipping cars with more rescue access windows with zip-strips meant having fewer emergency window exits, all things being equal, even though it would be preferable to have more emergency window exits than rescue access windows as occupants should normally begin to self-evacuate via emergency window exits before emergency responders arrive to assist. Whereas railroads could generally designate any window for rescue access by providing instructions for removal using tools normally available to emergency responders to pop out a window, such as a sledge hammer or a fire axe, some railroads prefer to equip windows with exterior zips-strips for rescue access because they allow for window removal with less effort.

Although FRA is not proposing to require the use of zip-strips for rescue access windows, FRA is proposing to recognize ``dual-function windows,'' which serve as both emergency exit and rescue access windows, through the use of zip-strips on both faces of the window. This recognition would afford railroads more flexibility in the location of their windows, as it would not require railroads to find locations for emergency window exits distinct from the locations specified for rescue access windows, and vice versa.

E. APTA's Standard for Emergency Evacuation Units

As FRA noted in the preamble to the final rule promulgating the Passenger Equipment Safety Standards, FRA has had under consideration a performance standard for emergency evacuation similar to that used in commercial aviation where a sufficient number of emergency exits must be provided to evacuate the maximum passenger load in a specified time for various types of emergency situations. See 64 FR 25550. FRA further noted that it would evaluate whether an APTA performance standard for

emergency egress, then under development in APTA's PRESS Task Force, should be incorporated into FRA's standards. 64 FR 25551. FRA's intent is that such a performance standard would serve to supplement, as necessary, FRA's minimum requirements for emergency window exits and door exits.

In 1999, APTA issued APTA SS-PS-003-98, ``Standard for Emergency Evacuation Units for Rail Passenger Cars.'' This standard assigns to doors and window exits a numerical value, referred to as an ``emergency evacuation unit'' (EEU), that is intended to correlate to the speed and ease of passenger egress. Each emergency window exit is assigned an EEU of 1, and each door leaf an EEU of 2. It defines the ``usable exit path'' (UXP) as the number of emergency window and door exits that can be used by passengers after an incident that requires emergency egress from the vehicle, and requires that it be calculated as ``the sum of EEUs for one side of the car less 50% of car end doors.'' The APTA standard requires railroads to assign to each new passenger car a ``capacity exit factor'' (CXF), which is a value equal to the seating capacity of the car divided by 17 and rounded up to the next whole number, and to designate a sufficient number of exits to achieve a total EEU value equal to the larger of the CXF or the UXP.

Although the basic approach to establishing egress requirements based on car configuration and occupant capacity was widely accepted, during development of the APTA standard several organizations raised issues regarding the methodology for assigning EEU values to exits. For instance, Volpe Center staff suggested that point values for windows be reduced to numbers that are approximately in proportion to estimated passenger flow rates as compared with low-platform doors without steps, and that upper-level windows receive no credit toward the minimum EEU criterion but still be required to provide exit paths for certain rare accident scenarios. It was also questioned whether egress rates through windows could be half as great as through single-leaf doors, as implied by the standard.

The Emergency Preparedness Task Force reviewed the APTA standard and recommended the continuation of evacuation tests and research to establish relative exit flow rates using different types of exits at distinct locations in the car, prior to considering adoption of the APTA standard into FRA's standards. To this end, the Volpe Center is conducting a series of evacuations tests. FRA does note that the emergency evacuation approach underlying the proposals in this NPRM is consistent with the basic approach taken in developing APTA's standard, as FRA proposals do take into consideration car configuration and occupant capacity.

IV. General Overview of Proposed Requirements

A. Emergency Window Exits and Rescue Access Windows

Among the most prominent issues identified for consideration by the Working Group were those involving emergency window exits and rescue access windows and how these windows relate to the emergency systems requirements overall. Emergency window exits are intended to supplement door exits, which serve as the preferred means of egress in an emergency situation, and provide an alternative means of emergency

egress in life-threatening situations, should doors be rendered inaccessible or inoperable. Existing regulations require that each single-level car and each main level of a multi-level passenger car have a minimum of four emergency window exits, either in a staggered configuration where practical or with one exit located in each side of each end, on each level. These windows must be designed to permit rapid and easy removal during

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an emergency without the use of a tool or other implement. Conspicuous photo-luminescent marking of the windows, as well as instructions for their use, are also required. Windows intended for rescue access must be marked with retroreflective material, and instructions for their use must also be provided. However, FRA's regulations currently do not require any minimum number of rescue access windows for passenger cars.

One of the basic principles underlying the proposed requirements for both emergency window exits and rescue access windows has been to locate these windows in such a manner that passengers would be able to exit from, and emergency responders would be able to gain direct access to, each passenger compartment without requiring that they first go to another level of a car or through an interior door. Optimally, there would be a sufficient number of windows for passengers to exit from, and for emergency responders to get access to, the following: (i) Every level with passenger seating of a multiple-level passenger railcar; (ii) both sides of the car, in the event of a derailment where the exits on one side are compromised; and (iii) each end (half) of the car, in the event that one end is crushed or the exits on that end are otherwise rendered inaccessible or inoperable. A constraint for both new and existing intermediate levels of multi-level passenger car designs is that there is limited space for side windows due to the presence of bathrooms, equipment closets, and side door exits. Thus, the Task Force agreed to make the proposed requirements flexible and consistent with existing car designs and, in certain cases, provide for exceptions. The exceptions for new equipment are limited to situations that arise from the need to provide accessible accommodations under the Americans with Disabilities Act of 1990 in compartments where there are no more than four seats and a suitable alternative is provided. The Task Force recommended greater flexibility for existing equipment to avoid costly window installations where none had previously existed (e.g., relocating an electrical closet so that a space large enough to accommodate a new window could be cut into the side of the car).

During Task Force discussions, it became apparent that the phrase ``rapid and easy'' in the emergency window exit regulation was being interpreted in different ways by commuter railroads and car manufacturers. Some believed that only the removal of the gasket had to be rapid and easy; however, FRA clarified that while FRA may have cited examples of gaskets that were becoming stuck and were therefore not removable in a rapid and easy fashion, the central goal of this provision was to create an opening that could be used for egress, which necessarily includes removal of the window panel as well. If the removal of the gasket is rapid and easy, but the removal of the window panel is not, the opening becomes less useful in an emergency

situation, or in some cases, effectively non-existent. Several members of the Task Force also expressed their concern that the phrase ``rapid and easy'' was too subjective and not quantifiable. They requested that FRA adopt a more measurable performance-based standard instead. Yet, various proposals to do so based on a specific allotment of time to open the window were not adopted, as consensus was not reached on how that time would be determined. Variables such as height, weight, strength, and awareness of emergency exit operation and procedures all could affect the ease of opening a window. For example, a railroad maintenance employee who installs emergency window exits or is otherwise trained on their use should be able to open a window more quickly than many passengers would be able to do. While there was general agreement that a time-performance standard should be based on the time taken by a representative sample of people to open the window, the Task Force was not in a position to specify that sample.

Although unsuccessful at reaching consensus on an actual measure of ``rapid and easy,'' the Task Force was able to agree that promoting ``rapid and easy'' removal of emergency windows is desirable. A combination of fixtures, such as headrests and luggage racks, as well as larger and heavier windows, can create a situation where the most effective and efficient method for removing a window is not immediately apparent. As a step towards promoting rapid and easy removal of the window and to address the situation of particular concern, the Task Force recommended requiring that instructions specifically take into account potential hindrances. The instructions may be in written or pictorial format, since including pictorials depicting the window removal method as part of the instructions can be extremely helpful.

As for rescue access windows, the Task Force generally recommended requiring two windows on each level of a passenger car for rescue access (versus four as is required for emergency exit). The principal reason for requiring only two windows for rescue access is that rescue access windows are the third means of egress in the overall emergency evacuation approach, in which door exits serve as the first (preferred) means of egress and emergency window exits serve as the second. Rescue access windows have this tertiary role because they would be used as a means of last resort when passengers cannot evacuate themselves and require aid from emergency responders. The design of window gaskets also affects how many rescue access windows can be placed in a car, especially on levels where there is limited space for windows. For instance, on certain types of cars, zip-strips installed to facilitate rapid and easy removal of a window can be installed either on the interior or the exterior of the car, but not on both. In this case, if FRA were to require four rescue access windows, then a railroad that has cars with additional emergency window exits (i.e., beyond the minimum of four per main level) would likely just replace some of its emergency window exits with rescue access windows, resulting in fewer emergency window exits, and thereby limiting the more preferred means of egress. For the above reasons, as well as for the cost of retrofitting existing equipment, flexibility for locating rescue access windows in side doors was added for existing equipment.

FRA is not proposing changes to existing requirements for emergency window exits in sleeping compartments or similar private compartments. Yet, FRA is proposing rescue access window requirements for such

compartments. Although this proposal would establish new requirements, the proposal reflects current practice.

B. Emergency Communication Systems--Public Address and Intercom Systems

As discussed above, while the Passenger Equipment Safety Standards issued in 1999 by FRA contain requirements for two-way emergency communication systems for Tier II passenger equipment, there are currently no requirements that Tier I passenger cars be equipped with any emergency communication system. Nevertheless, today most existing passenger cars are equipped with PA systems, and after discussing the benefits of PA systems in light of the challenge and expense of retrofitting older, existing passenger equipment with limited service life, the Task Force agreed that all passenger cars should, at a minimum, have functioning PA systems. The PA system would allow the train crew to keep their passengers informed in an emergency situation and provide guidance to all passengers in a

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timely manner, thereby reducing the likelihood that passengers would take an action that could place them in any greater danger.

The Task Force also agreed that emergency communication systems in all new passenger cars should include intercom systems that would enable passengers to quickly communicate in emergency situations with the train crew. During the discussions concerning whether to require intercom systems on Tier I passenger equipment, some Task Force members expressed concern that if intercom systems were added at each end of a car, were conspicuously marked, and had instructions provided for their use, passengers may use them in non-emergency situations. Amtrak and various commuter railroads that operate cars with intercom systems indicated that they have successfully implemented measures to deter misuse, however, such as by placing the intercom transmission button under a protective covering (which also prevents accidental operation by a passenger leaning against it) and by marking it ``FOR EMERGENCY USE ONLY.''

The recommended emergency communication system requirements developed by the Task Force generally reflect current practice for Tier I passenger equipment operating with intercom systems and existing requirements for Tier II passenger equipment. FRA understands that those Tier I passenger cars that currently do not have PA systems are scheduled to be retired from service before the proposed requirement to have PA systems on existing Tier I passenger equipment would become effective.

C. Emergency Roof Access Locations

Emergency roof access locations (roof hatches or structural weak points) can be especially useful in emergency situations where passenger cars have rolled onto their sides following certain collision and derailment scenarios. In such situations, doors, which are the preferred means of egress and access under normal circumstances, may be rendered inoperable due to structural damage to the door or the door pocket, or extremely difficult to use because the car is no longer

upright. Moreover, although emergency responders may be able to enter a car that is on its side via a rescue access window, the removal of an injured occupant through a side window in such circumstances would likewise be difficult or complicated, especially depending upon the condition of the occupant.

Existing FRA regulations require emergency roof access locations for Tier II passenger equipment, but not for Tier I passenger equipment. The Task Force examined these requirements and APTA PRESS recommended practice RP-C&S-001-98, ``Recommended Practice for Passenger Equipment Roof Emergency Access,'' in recommending that emergency roof access requirements be applied to Tier I passenger equipment. FRA adopted the Task Force's recommendation and, in general, is proposing that each new passenger car (both Tier I and Tier II) have a minimum of two emergency roof access locations. Existing Tier I passenger cars would not be subject to the proposed requirements, while existing Tier II passenger cars would continue to be subject to existing requirements. For further discussion and explanation of the proposed requirements, please see the Section-by-Section Analysis of this preamble at Section V.

D. Inspection, Testing, and Maintenance

FRA is proposing to modify Sec. Sec. 238.17, 238.303, and 238.305 (which contain standards for movement of passenger equipment with other than power brake defects, for inspection of passenger equipment, and for repair of passenger equipment) to include requirements for the inspection, testing, maintenance and repair of emergency communication systems, emergency roof access points, and rescue access markings. To allow railroads sufficient time to repair the equipment with minimal disruption to normal operations, flexibility would be provided for operating equipment in passenger service with certain non-compliant conditions. In affording this flexibility, the rule would require the railroad to adhere to specified procedures for the safe operation of the equipment.

V. Section-by-Section Analysis

Proposed Amendments to 49 CFR Part 223, Safety Glazing Standards--Locomotives, Passenger Cars and Cabooses

Subpart A--General

Section 223.5 Definitions

This section, which contains a set of definitions relevant to the regulations contained in part 223, would be modified to clarify a definition, and to delete two definitions that would no longer be relevant due to proposed modifications of this part, specifically, the deletion of Sec. 223.9(d)(2).

The definition of ``emergency window'' would be revised to clarify that the purpose of an emergency window is for egress, and thus needs to be removable only from the inside of a passenger car. Accordingly, FRA proposes to revise the definition of ``emergency window'' to mean that segment of a side-facing glazing panel which has been designed to permit rapid and easy removal from inside a passenger car in an

emergency situation. FRA is also proposing that the terms ``emergency responder'' and ``passenger train service'' be deleted in accordance with the proposal to delete Sec. 223.9(d)(2), the only section in part 223 that references these terms. The term ``emergency responder'' would be moved to part 238.

Subpart B--Specific Requirements

Section 223.9 Requirements for new or rebuilt equipment

In the discussion of Sec. 223.5, FRA noted that the definition of ``emergency window'' would be amended to clarify that the purpose of the windows is for egress, and thus would need to be removable only from the inside of a passenger car. Section 223.9(c) currently requires ``at least four emergency opening windows.'' As the term ``emergency opening window'' is not specifically defined--but has been understood to mean ``emergency window''--FRA believed that it would be best to modify the rule text in Sec. 223.9(c) to require ``at least four emergency windows'' in order to provide more clarity.

FRA is proposing to delete the requirements in Sec. 223.9(d) and merge them into Sec. Sec. 238.113 and 238.114 of part 238. The requirements in Sec. 223.9(d) were added by FRA's May 4, 1998 final rule on Passenger Train Emergency Preparedness. See 63 FR 24629, 24643. The Passenger Train Emergency Preparedness final rule required the marking of both emergency window exits and windows intended for rescue access, and also required that instructions be provided their use. However, the requirements applied only to ``each railroad providing passenger train service,'' a class of train service purposefully narrower than the general application section in part 223. See Sec. 223.3. Because FRA is proposing to address marking and instruction requirements for such windows in this train service in part 238, and because the requirements of Sec. 223.9(d) do not apply to other equipment covered by part 223, they may be removed from part 223, along with the corresponding definition of ``emergency responder'' and ``passenger train service.'' Further, deletion of Sec. 223.9(d) would avoid creating any confusion due to duplication of the marking and instruction requirements in two different parts of the CFR, especially

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since the proposed marking requirements in part 238 that were adopted by the full RSAC vary somewhat from the ones currently found in Sec. 223.9(d). Nevertheless, Sec. 223.8 will continue to alert the reader to additional requirements for emergency window exits for ``passenger equipment'' in part 238, as defined in that part.

However, because the general application section of part 223 is broader than that in part 238, FRA has been mindful not to alter the application of those requirements unaffected by the May 4, 1998 amendments. Part 238 does not apply to ``tourist, scenic, historic, or excursion operations, whether on or off the general railroad system of transportation,'' see Sec. 238.3(c)(3); whereas, part 223 does not apply to ``locomotives, passenger cars and cabooses that are historical or antiquated equipment'' and are also ``used only for excursion, educational, recreational purposes or private transportation

purposes,'' see Sec. 223.3(b)(3). As a result, to the extent tourist equipment is covered by part 223 because the equipment is not historical or antiquated and is required to be equipped with certified glazing in all windows pursuant to Sec. Sec. 223.9(c) or 223.15(c), such equipment would still be required to have four emergency windows (emergency window exits), despite its exclusion from the part 238 requirements.

Appendix B to Part 223--Schedule of Civil Penalties

This appendix contains a schedule of civil penalties to be used in connection with this part. Because such penalty schedules are statements of agency policy, notice and comment are not required prior to their issuance. See 5 U.S.C. 553(b)(3)(A). Nevertheless, as discussed above, FRA is proposing that the requirements of Sec. 223.9(d) be merged into Sec. Sec. 238.113 and 238.114 of part 238. Thus, FRA is proposing that the schedule of civil penalties in appendix B to part 223 be modified accordingly, by deleting the entries for paragraphs (d)(1)(i), (d)(1)(ii), (d)(2)(i), and (d)(2)(ii) and the associated penalties.

Proposed Amendments to 49 CFR Part 238, Passenger Equipment Safety Standards

Subpart A--General

Section 238.5 Definitions

This section, which contains a set of definitions relevant to the regulations contained in part 238, would be modified to include new definitions relevant to the proposed modifications to part 238.

FRA proposes to add the definition of ``dual-function window'' to mean a window that is intended to serve as both an emergency window exit and a rescue access window. This term generally refers to a window that has a zip-strip, which is a strip in a window gasket that can be pulled from end to end to unlock the gasket and thus release the glazing, on both faces so that it can be opened from both the inside of the car and the outside. (This definition would also cover other methods of opening the same window from both the inside of the car and the outside.) The term is being added because it is referenced in Sec. 238.114(a)(5) as an exception to the requirements on the location of rescue access windows set forth in Sec. 238.114. Dual-function windows installed to meet the minimum requirements proposed in Sec. 238.113 would not be required to meet the Sec. 238.114 location requirements, in order to recognize that a railroad that installs four compliant emergency window exits that are the dual-function type has also installed twice the number of rescue access windows that would be required.

FRA proposes to revise the definition of ``emergency window'' to clarify that the purpose of an emergency window is for egress, and thus only needs to be removable from the inside of a passenger car. Accordingly, FRA proposes to revise the definition to mean that segment of a side-facing glazing panel which has been designed to permit rapid and easy removal from inside a passenger car in an emergency situation. FRA is also proposing to revise the definition of this term in Sec.

223.5 for consistency and clarity.

FRA proposes to add the definition of ``intercom'' to mean a device through which voice communication can be transmitted and received. A transmission unit normally has a button, which has to be depressed to begin transmission or notify the crew on the receiving end of the intention to communicate using the system. An intercom may be a telephone apparatus. FRA is also proposing to add the definition of ``intercom system'' (or ``intercommunication system'') to mean a two-way, voice communication system. This system allows a passenger to communicate with a crew member, typically by depressing a button, or lifting a telephone handset, or both.

FRA proposes to add the definition of ``intermediate level'' to mean a level of a multi-level passenger car that is used for passenger seating and is normally located between two main levels. An intermediate level normally contains two, separate seating areas, one at each end of the car, and is normally connected to each main level by stairs. The term ``intermediate level'' is intended to distinguish a level used for passenger seating of a multi-level passenger car from a ``main level'' of such as car, as FRA is proposing to apply different requirements to the different passenger seating levels. Please see the discussion of ``main level.''

Currently, the regulatory text of part 238 does not define the term ``main level,'' as used in Sec. 238.113. However, in the preamble to the April 23, 2002 final rule, FRA explained that the term ``main level'' was intended to exclude a level of a car that is ``principally used for passage between the door exits and passenger seating areas, or between seating areas,'' and noted that such an area is not ``principally used for seating'' and includes a stairwell landing. See 67 FR 19973. This distinction raised some concerns with respect to intermediate levels because their designation as main levels would hinge upon an interpretation of ``principally used'' for passenger seating. Some Task Force members believed that these levels were principally used for passenger seating because passengers who are seated there are spending more time on that level than the passengers who simply use that level to reach the upper level (or lower level). Others believed that the intermediate level was principally used for passage between levels because there was a greater volume of passengers passing through that level to reach the upper level (or passing through to reach the lower level, or both) than there were passengers seated on that level. In light of the concern raised, FRA is proposing to define ``intermediate level,'' as discussed above, and is also proposing to define ``main level'' as a level of a passenger car that contains a passenger compartment whose length is equal to or greater than half the length of the car. This definition would establish a more direct relationship between the number of occupants on a level of a car and the number of emergency window exits required on that level. The longer a level is, the more seats and exterior side windows it is able to accommodate. Since passenger cars are normally about 85 to 90 feet in length, a main level in such a car would be a level that contains a passenger compartment whose length is approximately 42.5 feet or more. Accordingly, there should be sufficient space for the required number of emergency window exits on a main level of a passenger car, whether or not there is a bathroom, kitchen, or

equipment closet located on the same level.

FRA proposes to add the definition ``passenger compartment'' to mean an area of a passenger car that consists of a seating area and any vestibule that is connected to the seating area by an open passageway. If a door separates the seating area from the vestibule, the vestibule is not part of the passenger compartment. See Figure 1c to subpart B. This definition was necessary to solidify the concept that passengers should not have to go through an interior door, which could get jammed, or to another level in order to reach an emergency window exit, and likewise, emergency responders should be able to directly access passengers in need of aid in each such compartment.

FRA proposes to add the definition ``PA system'' or ``public address system'' to mean a one-way, voice communication system. Such a system is used by train crew members to make announcements to passengers in both normal and emergency situations. On some railroads, crew members use the PA system to make station announcements. Other railroads limit its use to communicate information regarding unusual occurrences, such as unexpected delays and emergencies. Some PA systems have speakers located on the exterior of cars that are used to make announcements to persons in the vicinity of the train (e.g., passengers on a station platform).

Consistent with the proposed amendments to part 223, discussed above, FRA proposes to define ``rescue access window'' as a side-facing exterior window intended for use by emergency responders to gain access to passengers in an emergency situation. In some passenger cars, all windows may be capable of serving as both emergency window exits and rescue access windows. However, a railroad may choose not to designate one or more of these windows for rescue access for various reasons, including the presence of a third-rail shoe that could pose an electrocution hazard, or a high seat back next to the window that may pose a potential hindrance to window removal for windows that are designed to open by being pushed into the car.

Some rescue access windows are designed with a zip-strip to release the window panel from its frame. In some cars, side-facing glazing systems are designed so that there is a zip-strip on only one side of the window panel. It is common for railroads to install such systems with a zip-strip on the exterior of the car for rescue access use, and also have one in the interior of the car for emergency egress use. However, to the extent that there may be only one zip-strip for a single glazing system, the railroad must decide whether to place the zip-strip on the exterior of the car for use in rescue access, or in the interior of the car for use in emergency egress.

Although use of zip-strips in rescue access windows is common, FRA makes clear that they would not be required. The proposed definition is a performance standard, and a rescue access window may be opened by other means, such as by shattering the window (if glass) or popping the window out by applying force at one corner.

Throughout the discussion of rescue access windows, Task Force members repeatedly emphasized, as the definition reflects, that these windows are intended for use by emergency responders to gain access to

passengers in an emergency situation. In the process of reviewing the definitions in parts 223, 238, and 239 in composing this NPRM, FRA noted that the term ``emergency responder'' is defined in parts 223 and 239, but not in part 238. As the proposed part 238 definition of ``rescue access window'' includes the term ``emergency responder,'' FRA believes it is appropriate to add ``emergency responder'' to part 238. The term would be defined to mean a member of a police or fire department, or other organization involved with public safety charged with providing or coordinating emergency services, who responds to a passenger train emergency.

FRA proposes to add a definition of ``seating area'' to mean an area of a passenger car that normally contains passenger seating. An area with no actual seats but with anchors for securing wheel chairs would be considered a seating area.

FRA notes that the term ``vestibule'' is currently defined in part 238 to mean an area of a passenger car that normally does not contain seating and is used in passing from the seating area to the side exit doors. Although FRA is not revising the definition of ``vestibule,'' FRA makes clear that for purposes of part 238, a vestibule may be located anywhere along a car. The location of a vestibule is not restricted to the far ends of a car but may be elsewhere, such as in the middle of the car. As a result, what some in the passenger rail industry commonly refer to as an entranceway, by virtue of where its located in a car, is considered a vestibule for purposes of this part.

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

This section contains the requirements related to the movement of passenger equipment with a condition not in compliance with part 238, excluding a power brake defect, without civil penalty liability under this part. FRA proposes to modify paragraphs (b) and (c) of this section to include a reference to the specific provisions being added to the exterior, calendar day mechanical inspection in proposed Sec. 238.303(e)(18) regarding rescue-access-related markings, signage, and instructions. Proposed Sec. 238.303(e)(18) would require that all rescue-access-related exterior markings, signage, and instructions required by proposed Sec. 238.114 (rescue access windows) and Sec. 239.107(a)(2) be in place and, as applicable, conspicuous, and/or legible, and that certain conditions be met for continued use of the cars with defective markings, signage, or instructions. As these proposed provisions contain specific requirements related to the continued use in passenger service of passenger cars found with defective rescue access signs, markings, or instructions, recognition of these specific limitations needs to be included in both paragraphs (b) and (c) of this section. The proposed requirements in Sec. 238.303(e)(18) and the proposed conditions for continued use of passenger equipment with non-complying conditions are discussed in detail below.

FRA notes that it is considering moving the emergency exit marking requirements contained in Sec. 239.107(a) into part 238. Since Sec. 239.107(a) contains door exit marking, signage, and operating instruction requirements, the requirements of this section may more logically be situated in the very sections containing requirements for doors in part 238, namely, Sec. Sec. 238.235 and 238.439. If the

requirements in Sec. 239.107(a) are moved into part 238, FRA would make any necessary conforming changes to part 238, and modify this proposed section in publishing the final rule. FRA invites comment whether the requirements of Sec. 239.107(a) should be moved into part 238.

Subpart B--Safety Planning and General Requirements

Section 238.113 Emergency Window Exits

This section currently contains requirements for emergency window exits in single-level passenger cars and main levels of multi-level passenger

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cars. Emergency window exits are intended to supplement door exits, which are normally the preferred means of egress in an emergency situation. Emergency windows provide an alternative means of emergency egress should doors be rendered inoperable or inaccessible. They also provide an additional means of egress in life-threatening situations requiring very rapid exit, such as a fire on board or submergence of the car in a body of water.

To ensure that emergency window exit requirements apply to every level with passenger seating, FRA is proposing to revise this section to expressly include emergency window exit requirements for any level with passenger seating in a multi-level passenger car. FRA is also proposing to revise this section to require that emergency window exit operating instructions specifically address the presence of interior fixtures that may hinder the removal of the window panel, to facilitate its rapid and easy removal.

Paragraph (a), which applies to both new and existing passenger cars, would be modified to specify requirements for the number and location of emergency window exits on any level with passenger seating in a passenger car. The requirements for single-level passenger cars in proposed paragraph (a)(1), and for main levels of multi-level passenger cars in proposed paragraph (a)(2), would effectively remain unchanged. The current requirements for single-level passenger cars require a minimum of four emergency window exits, located ``either in a staggered configuration where practical or with one located in each end of each side of each level.'' FRA is proposing to slightly modify this language by replacing the word ``end'' with ``end (half)'' to clarify that the term ``end'' does not refer to the extreme forward and rear ends of a car, but merely the front half and rear halves of the car. See Figure 1 to subpart B. Additionally, the text would be reorganized to emphasize that a window would be required in each end (half) of each side of the car and that, if practical, the windows would also be in a staggered configuration. This clarification would remove any ambiguity in the current rule text that wrongly suggests that one could choose to simply stagger the windows without regard to having one window in each side of each end. To illustrate the requirements of paragraph (a)(2), FRA is proposing to add Figure 1 to subpart B, as referenced above. FRA invites comment on whether this and other figures proposed in this NPRM for inclusion in part 238 would be helpful in understanding the

requirements of this part, and, if so, whether any additional figures should be included. FRA also notes that the proposed figures, which are not drawn to scale, represent possible ways of complying with the proposed requirements and should not be construed as depicting the only way to comply.

Paragraph (a)(3) would contain the requirements for emergency window exits on non-main levels with seating areas of multi-level passenger cars, including intermediate (or mezzanine) seating levels. The general intent of the proposal is to have at least one emergency window exit that is accessible to passengers in each side of a passenger seating area without requiring the passengers to move to another level of the car or pass through a door. This would help ensure that, if a car rolled onto its side or if there was a hazard on one side of the train, an emergency window exit on the opposite side would be available to passengers and crew members for emergency egress. Nevertheless, as further discussed below, a constraint for intermediate levels of both new and existing multi-level passenger car designs is limited space due to the presence of bathrooms, equipment closets, and side door exits. Accordingly, the requirements proposed for the number and location of emergency window exits in paragraph (a)(3) provide flexibility for, and are consistent with, existing passenger car designs.

FRA notes that in light of the proposed definition of ``main level,'' some passenger cars would no longer have main levels. Such cars would thus be subject to the proposed requirements for other levels with seating areas contained in paragraph (a)(3). For instance, none of the levels in a gallery-style car (a multi-level passenger car with a full-height, enclosed vestibule in the center) would meet the proposed definition of a ``main level.'' Yet, each of the four, separate seating areas in such a car would be subject to the emergency window exit number and location requirements proposed in paragraph (a)(3). Further, the proposed requirements are consistent with the number and location of emergency windows on existing gallery-style passenger cars, would not impact current operations, and would not diminish the effect of FRA's existing requirements.

Paragraph (a)(3)(i) would require that non-main levels that are used for passenger seating have at least two emergency window exits that are accessible to passengers in each seating area without requiring the passengers to move to another level of the car or pass through an interior door. This proposal is intended to address situations in which stairways could become structurally deformed and interior doors could be rendered inoperable as a result of a collision, derailment, or other accident, obstructing access to an emergency window exit or a side door exit on another level or in a vestibule area that is separated from the seating area by an interior door. Similarly, the proposal is intended to address situations in which a passenger car has rolled onto its side as a result of a collision, derailment, or other accident, by providing that at least one of these emergency window exits would be required in each side of the passenger car, except as provided below. See Figures 2, 2a, and 2b to subpart B.

The proposed rule provides flexibility for locating an emergency window exit within an exterior side door in the passenger compartment of a non-main level, if it is not ``practical'' to place the window

exit in the side of the seating area. It should be noted that, by definition, a side door would not be considered located within the ``passenger compartment'' if an interior door separates the seating area from the area where the side doors are located. The provision would require that there be an open passageway between the seating area and the vestibule, in such a circumstance. Use of the word ``practical'' would allow railroads and car builders some discretion regarding the location of an emergency window exit in a non-main level of a car. For instance, this provision could be used to address situations where a window in a door in the same passenger compartment may be better suited for emergency egress than one in the seating area. In some cars, removal of the windows in the seating area may be hindered by seat backs or other fixtures, while windows in the exterior side doors could be more easily and rapidly removed. Since there would still be two accessible side windows in a passenger compartment, one on each side, there would be no limitation on the number of seats that may be in the compartment. Moreover, the door itself is a means of emergency egress that, if operable, would allow more rapid and safe egress than exiting through a window. Nevertheless, because having two emergency exits at the very same location could result in both exits being rendered inoperable (as by car crush) or inaccessible (as by fire), FRA is not proposing to allow the unrestricted

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placement of emergency window exits in side doors. FRA makes clear that, all things being equal, emergency window exits should be placed in a separate location from side door exits. See Figure 2b to subpart B; compare to Figure 2a to subpart B.

In determining the appropriate applicability date for the proposed requirement to have emergency window exits in non-main levels of multi-level passenger cars, it was noted that, while some passenger cars already have windows in each side of an intermediate level seating area, these windows are not necessarily emergency window exits. Consequently, some time would be needed to change out the existing windows with emergency window exits or otherwise retrofit the windows with pull-handles and make any other modification necessary so that the windows would meet the requirements for emergency window exits. The proposal takes this into account, and otherwise would afford railroads sufficient time to come into compliance regardless of the state of the existing windows, by phasing the requirement in over an 18-month period from the date of publication of the final rule.

Paragraph (a)(3)(ii) contains a proposed exception for non-main levels of multi-level passenger cars that would require only one emergency window exit in a seating area in a passenger compartment with no more than four seats, if it would not be practical to place an emergency window exit in a side of the passenger compartment due to the need to provide accessible accommodations under the ADA and a suitable, alternate arrangement for emergency egress is provided. This proposed exception would address concerns involving multi-level passenger cars serving passenger stations with high-platforms, such as on the Northeast Corridor. Because all passengers enter the cars on the intermediate level, and disabled passengers would not be able to access

accommodations on another level of the cars, any accommodations provided to passengers would have to be located on the intermediate level. The proposal recognizes this need, and the proposed exception would apply to both existing and new passenger cars but would be limited to situations that arise from the need to provide accessible accommodations under the ADA and limited to passenger compartments where there are no more than four seats and a suitable alternative for egress is provided. FRA makes clear that use of the word ``practical'' in paragraph (a)(3)(ii) would extend flexibility to car builders to locate an electrical locker or other equipment closet in a side of an intermediate level at one end of a passenger car without being required to place an emergency window exit in the same side at that location, provided the placement of the locker or closet is related to placement of ADA-accessible accommodations in the intermediate level at the other end of the car. The limitation concerning the maximum number of seats in the passenger compartment is consistent with the maximum number of seats in existing designs for cars that are being manufactured with emergency window exits in only one side of each passenger compartment in an intermediate level.

The proposal would also require that a suitable, alternative arrangement for emergency egress be provided. Such an arrangement should not require the use of a tool or implement to operate, and should be comparable to an emergency window exit in terms of being rapid and easy to use. As part of the Task Force's discussion during the development of the proposed rule, Kawasaki presented a car design with a seating area separated from a vestibule by an interior door and an alternative arrangement for emergency egress. The interior door would be designed with a removable window panel (with pull-handles on both sides) to allow passengers access to the vestibule, if the door itself were inoperable. Further, in the vestibule the exterior side door located on the same side as the one in the seating area without the emergency window exit would itself contain an emergency window exit. As a result, a means of exiting the car from that side would be available to passengers. FRA notes that a combination of several factors would render this arrangement a suitable, alternate means of emergency egress. First, the alternate emergency exit location would provide a measure of redundancy, i.e., a safety factor, in that there would both be an exterior side door and an emergency window exit in the same door. The door, if operable, should allow passengers and crew members to exit more expeditiously than through a window. In the event that this door would be rendered inoperable, a window meeting the minimum dimension requirements in proposed paragraph (c) would then be available. To the extent both the door and its window were rendered inoperable, the exterior side door exits in the adjacent car's vestibule would then be next in sequence for use since this car design has no end-frame doors separating adjoining cars. Should the end of the car become uncoupled from the adjacent car, the vestibule would be open at the end, allowing passengers direct access to the outside. Further, the panel in the interior door leading to the vestibule would not be glass but a polycarbonate, which is significantly lighter than glass and thus easier to remove, and the opening in the interior door would be large enough for a person to pass through it relatively quickly.

Paragraph (a)(3)(iii) would require passenger cars ordered both

prior to 14 months after the publication of the final rule and placed in service prior to 38 months after the publication of the final rule to have a minimum of only one emergency window exit in a non-main level seating area in a passenger compartment with no more than eight seats, if it is not ``practicable'' to place a window exit in a side of the passenger compartment (due to the presence of such structures as a bathroom, electrical locker, or kitchen). This exception would be broader than the one in paragraph (a)(3)(ii) as it would apply to non-main levels with more seats and would not be dependent on providing accessible accommodations under the ADA. However, it would not apply to new cars. New car designs should take into consideration the need to provide an emergency window exit in each side of a passenger compartment.

Use of the word ``practicable'' would limit railroad discretion so that a car would be required to have an emergency window exit in a side of a seating area, if a window were already located there. Nevertheless, FRA notes that a railroad would be under no obligation to install a window in a side of a passenger compartment for purposes of providing an emergency window exit, if an emergency window exit were located in either (i) the other side of the same compartment or (ii) an exterior side door located in the same side of the compartment. Cutting through a side panel in an existing passenger car to install an emergency window exit would not be required.

Requirements for cars with sleeping compartments or similar private compartments would be clarified and moved from existing paragraph (a)(2) to proposed paragraph (a)(4). Each level of a passenger car with a sleeping compartment or a similar private compartment intended to be occupied by a passenger or train crew member would continue to be required to have at least one emergency window exit in each such compartment. A private seating area (such as one found on certain European trains or on some antiquated American trains) is a private compartment. FRA notes that, in a passenger car with only sleeping compartments, if all the sleeping

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compartment doors are locked, passengers in a compartment without an egress window would not be able to get into another compartment to use an emergency window exit. The rule would clarify that, for purposes of this paragraph, a kitchen, locomotive cab, or bathroom--whether public or private--is not considered a ``private compartment,'' however. In particular, bathrooms are distinguishable from sleeping compartments because a passenger could leave a private bathroom to access an emergency window exit in the sleeping compartment, and a passenger can leave a public bathroom to access an emergency window exit in the passenger compartment.

As part of the proposed revision and reorganization of this section, paragraph (b) would contain the same requirements for ease of operability of emergency window exits that are currently stated in paragraph (a)(3) of the existing regulation. The only modification would be that the applicability date of November 8, 1999, which is currently stated in the introductory text of paragraph (a), be added directly to this paragraph. FRA notes that the Task Force considered

alternatives to the existing standard for the ease of operating emergency window exits--one that would be capable of more objective quantification. One such alternative that was considered involved specifying a maximum pull-force for removing window gaskets and glazing, but the Task Force found it difficult to specify a uniform standard that would account for varying operating environments and weather conditions. Further discussion relating to the requirements of proposed paragraph (b) is found below in the paragraph discussing proposed requirements for marking emergency window exits.

Consistent with the proposed reorganization and revision of this section, FRA is proposing to move existing requirements for the dimensions of emergency window exits from paragraph (b) to paragraph (c). The applicability date of the dimension requirements is unchanged from current paragraph (b); thus the requirements continue to apply to each passenger car ordered on or after September 8, 2000, or first placed in service on or after September 9, 2002. FRA is proposing a slight modification to the requirements to allow an emergency window exit with an unobstructed opening of at least 24 inches horizontally by 26 inches vertically to be located within an exterior side door, in accordance with the proposed requirements of paragraph (a)(3)(i) of this section. FRA makes clear that, for purposes of determining compliance with the emergency window exit dimension requirements, the dimensions of the unobstructed opening are measured after the emergency window exit has been opened. The transparent area of the window for viewing use by passengers may be several inches smaller than the opening created once the window is removed, and that would be acceptable.

FRA notes that a window exit in a passenger car ordered on or after September 8, 2000, or placed in service for the first time on or after September 9, 2002, that does not create an unobstructed opening meeting the minimum dimension requirements of this paragraph may not be considered an ``emergency window exit'' for purposes of this section and may not be marked as an ``emergency window exit.'' Nevertheless, FRA is not seeking to require that such a window exit be modified or removed, provided the passenger car is otherwise in compliance with all applicable emergency window exit requirements. For example, FRA is aware of window exits that do not create openings of the required dimensions because of the presence of seat backs that do not manually recline, and may therefore obstruct passage through the window of a stretcher or an emergency responder with a self-contained breathing apparatus but not a passenger or crewmember. It is not FRA's intent to discourage a railroad from retaining these additional window exits in its passenger cars, for circumstances such as those present in the derailment of an Amtrak train near Mobile, Alabama in 1993. There, six passenger cars fell into a bayou and submerged, drowning 42 passengers and two crewmembers in those cars, and killing all three crewmembers in the locomotive. In what has been the U.S.'s deadliest passenger train accident in over 50 years, train occupants needed to evacuate the cars as quickly as possible, potentially making the number of window exits more critical than their precise dimensions. (FRA is not suggesting that the cars lacked a sufficient number of exits, or that their dimensions were too small.)

Nevertheless, FRA is inviting comment on window exits in passenger

cars ordered on or after September 8, 2000, or placed in service for the first time on or after September 9, 2002, that have unobstructed openings not meeting the minimum dimension requirements of this paragraph. As FRA has noted, these window exits are not ``emergency window exits,'' and may not be identified as emergency window exits. However, FRA is not seeking to have these window exits removed, and is instead considering that pull-handles on these window exits may state or retain instructional markings such as ``pull to open.'' FRA invites comment on whether these window exits should or should not be removed, and, to the extent that they should not be removed, whether any instructional marking on these windows should be permitted. Since these windows could be used for emergency egress, if they are not removed, FRA also invites comment as to whether they should have to be tested periodically to ensure that they operate properly. Railroads are currently required to test emergency window exits no less frequently than every 180 days using commonly accepted sampling techniques to determine how many windows to test. In general, these principles require that the greater the percentage of window exits that a railroad finds defective, the greater the percentage of windows that the railroad will have to test. Specifically, sampling must be conducted to meet a 95-percent confidence level that no defective units remain and be in accord with either Military Standard MIL-STD-105(D), ``Sampling for Attributes,'' or American National Standards Institute ANSI-ASQC Z1.4-1993, ``Sampling Procedures for Inspections by Attributes.'' Although testing these window exits would appear desirable, a testing requirement may discourage railroads from retaining these windows at all.

As the final part of the proposed reorganization and revision of this section, paragraph (d) would contain the requirements for marking emergency window exits, as well as providing operating instructions for their use. Marking and operating instruction requirements for emergency window exits are currently contained in Sec. 223.9(d)(1) of this chapter, and are currently referenced in paragraph (c) of this section. The requirements in Sec. 223.9(d)(1) would be moved to proposed paragraph (d) of this section and be modified. This paragraph would require that each emergency window exit be conspicuously marked with luminescent material on the inside of each car, and that legible and understandable operating instructions, including instructions for removing the window panel, be posted at or near each such window exit.

Notably, proposed paragraph (d) would specifically require that emergency window exit operating instructions address potential hindrances to removal of the window

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panel due to the presence of fixtures in the car. As discussed above, FRA became aware that the phrase ``rapid and easy'' in the requirement for emergency window exit ease of operability was not being interpreted uniformly. Central to the issue was the actual removal of the window panel in light of the weight of the window panel and the presence of interior fixtures near the window. It is not uncommon for a seatback to be located adjacent to an emergency window exit and for a luggage rack to be located above the exit. Even if the seat back does not affect

compliance with the dimensions required for an unobstructed opening (especially in the case of a large window panel), it could, together with the presence of the luggage rack, hinder removal of the window. This combination of fixtures could create a situation where the most effective and efficient method for operating an emergency window exit would not be immediately apparent to a passenger, especially if the window were large and heavy. As a result, to promote the rapid and easy removal of the window panel, the Task Force recommended requiring that emergency window exit operating instructions specifically take into account such potential hindrances. Accordingly, if window removal may be hindered by the presence of a seatback, headrest, luggage rack, or other fixture, the instructions would be required to state the method for allowing rapid and easy removal of the window panel, taking into account the fixture(s). This particular portion of the instructions would be allowed to be in written or pictorial format to provide railroads the flexibility to convey the appropriate information to passengers, especially since a picture (pictogram) or pictures (pictograms) may potentially convey the information more readily than written instructions.

FRA also notes that Sec. 223.9(d)(1) currently requires that the operating instructions for emergency window exits be ``clear and legible.'' FRA proposes to modify this requirement by replacing the word ``clear'' with the word ``understandable,'' so that railroads would be required to post ``legible and understandable'' operating instructions. Use of the word ``clear'' in Sec. 223.9(d) has created some confusion since it can have more than one meaning, and FRA believes the proposal would eliminate any further confusion.

Finally, FRA notes that existing requirements in parts 223 and 239 for the marking of emergency exits, as well as existing requirements in part 238 for the marking of emergency communications transmission points, specify the use of luminescent materials. (Door exits intended for emergency egress may also be lighted, in accordance with Sec. 239.107(a)(1).) Part 238 defines ``luminescent material'' as material that absorbs light energy when ambient levels of light are high and emits this stored energy when ambient levels of light are low, making the material appear to glow in the dark. See Sec. 238.5. Proposed paragraph (d) would continue to require that luminescent material be used to mark emergency window exits. However, as further discussed below, the Task Force has been considering incorporating an APTA standard that would establish specific criteria for this material, including how bright the material must be and how long the material must stay luminescent.

FRA's requirements to mark emergency window exits and other emergency exits originated with FRA Emergency Order No. 20. See 61 FR 6876, Feb. 22, 1996; and 61 FR 8703, Mar. 5, 1996. Among its provisions, the Emergency Order required that ``no later than April 20, 1996, commuter and intercity passenger railroads ensure that each emergency exit location is marked inside the car for passenger and crew information.'' In an effort to respond to this requirement as effectively as possible within the short timeframe required, affected railroads began to install photo-luminescent emergency exit markings that were available at the time. Many railroads installed signs made of zinc-sulfide, which were capable of providing luminance for a period of

less than 10 minutes only in many cases. Following this, photo-luminescent sign technology evolved, and materials, such as strontium-aluminate, which is capable of providing high levels of luminance for much longer periods, began to be used. Prices for such signage also decreased, making the cost of such ``high-performance, photo-luminescent'' (HPPL) signs comparable to that of the signs installed initially. Thus, in 1999, APTA issued APTA SS-PS-002-98, ``Standard for Emergency Signage for Egress/Access of Passenger Rail Equipment,'' requiring the use of HPPL materials for all newly installed passive emergency exit signs and for the retrofit of existing cars at their remanufacture. According to Revision 2 of this APTA standard, issued in 2003, following a charge of five foot-candles for one hour, photo-luminescent markings that are installed must emit a minimum of not less than 7.5 milli-candela per square meter (7.5 mcd/m\2\) for 90 minutes after removal of the charging source. The duration period of 90 minutes corresponds with the 90-minute duration requirement for emergency lighting contained in Sec. 238.115 for new passenger cars and is based on a reasonable amount of time for passengers and crew members to wait for the arrival of emergency responders to remote accident sites. Depending on the circumstances, it could take more than an hour for crewmembers to evaluate an emergency situation, coordinate with the control center and emergency responders, notify passengers on the appropriate action(s) to take, and if necessary, begin to evacuate the train. It is also possible for a seemingly minor emergency situation to evolve into a more significant one requiring evacuation. In conditions of darkness, a brighter sign is more easily recognizable and facilitates identification of emergency exits. These points have been discussed within the Task Force, and the Task Force has been focusing on revisions to the APTA standard for purposes of incorporating it into FRA's regulations. FRA is considering incorporating elements of this APTA standard into the final rule arising from this NPRM so that emergency exit signs in passenger cars would be required to be made of HPPL material, and FRA invites comment on doing so. FRA will evaluate the comments received in considering what standard should be established in the final rule.

Section 238.114 Rescue Access Windows

FRA is proposing to establish a new section that would contain requirements for rescue access windows for both new and existing passenger cars. As discussed in detail, above, this proposed section was prompted in part by the April 23, 2002 collision involving a Metrolink passenger train near Placentia, CA, and the ensuing NTSB Safety Recommendation (R-03-21) to FRA, which illustrated the potential importance of having rescue access windows on each level of a passenger car. The general intent of the proposal is to provide a means of rescue access by emergency responders through a window directly into every passenger compartment on every level of a passenger car, in the event that a stairway or interior door is compromised and exterior doors are blocked.

Paragraph (a) would contain requirements specifying the minimum number and location of rescue access windows. These requirements would apply on or after the effective date of the final rule to all passenger cars, except

for certain, existing single-level cars. As noted above, FRA's current regulations do not specifically require any minimum number of rescue access windows for passenger cars; however, they do require that windows that are intended for rescue access be marked and that instructions be provided for their operation. See Sec. 223.9(d)(2).

Paragraph (a)(1) would contain the number and location requirements for rescue access windows in single-level passenger cars. FRA is proposing that each single-level passenger car be required to have a minimum of two rescue access windows. At least one rescue access window would have to be located in each side of the car, entirely within 15 feet of the centerline of the car, or entirely within 7\1/2\ feet of the centerline if the car does not exceed 45 feet in length. As discussed above, the Task Force recommended requiring two windows for rescue access (versus four, as is required for emergency exit) mainly because rescue access windows are the third means of egress in the overall emergency systems approach, with doors and emergency windows being the first and second means of emergency exit.

Rescue access windows in a single-level passenger car would be required to be located ``as close to the center of the car as possible,'' unlike emergency window exits which should be in a staggered configuration to the extent practical. See Figure 1a to subpart B; see also Figures 1b and 1c to subpart B. Staggering the location of emergency window exits is intended to: (i) Ensure that a window exit is available for egress in the event of crush at one end of the car by making available window exits throughout the rest of the car; (ii) optimize the rate of egress, as passengers have less distance to walk to reach a window exit; and (iii) avoid congestion that could occur if the window exits were all located adjacent to or directly opposite one another. Since, in general, a minimum of only one rescue access window per side, per level of a single-level passenger car would be required, the best way to ensure that a window would be available for access in the event that one end of a car is crushed would be to locate the window in the center portion of the car, which is generally less vulnerable to crush in the event of a collision. Congestion should likely not be an issue for rescue access window usage as car occupants should have likely begun to self-evacuate through doors and emergency window exits to the extent possible prior to the arrival of emergency responders.

To ensure that railroads have sufficient flexibility to select those window locations best suited for rescue access, a 30-foot section along the center of a typical 85- to 90-foot-long passenger car would be designated for their location. This flexibility would allow railroads to take into consideration the location of external hazards (such as third-rail shoes); potential hindrances created by interior fixtures for those rescue access windows intended to be opened by being pushed inward into the passenger compartment; the location of emergency window exits in passenger cars without dual-function windows; and other factors that a railroad may deem relevant. For passenger cars not longer than 45 feet, approximately half the length of a standard passenger car, railroads would have the flexibility to select a rescue access window from among approximately three windows along a 15-foot

section in the center of the car.

If the seating level is obstructed by an interior door or otherwise partitioned into separate seating areas, the proposal would require that each separate seating area have at least one rescue access window in each side of the seating area, located as near to the center of the car as practical. This proposed requirement is consistent with the general objective of having at least one rescue access window on each side of a passenger seating area or passenger compartment. Nevertheless, FRA is not aware of any such single-level car in current operation in the United States to which this proposed requirement would apply.

FRA notes that on some single level passenger cars, polycarbonate windows are installed in a channel in the window mask, which is itself installed in the car body with the frame compressed over the window to secure it. Removal of the window would require removal of the frame, which would be very difficult in an emergency situation. In addition, it would be costly for these cars to be retrofitted with glass windows (so that they could be shattered) or with zip-strip systems to literally un-zip the window panel from its frame and gasketing. On this type of equipment, the location requirement would be met by having a rescue access window available on each side of each end of the same passenger compartment, including in exterior side doors. An exception was crafted that would permit the location of the rescue access windows in four exterior side doors, and it was approved by the Task Force, Working Group, and the full RSAC. Although the recommended text was silent as to whether the windows were required to be located within 15 feet of the car's centerline, FRA makes clear that no such restriction was intended to apply. As a result, FRA is expressly proposing that these windows could be located farther than 15 feet from the car's centerline, provided that there would be at least one such window in each side of each end (half) of the same passenger compartment--a minimum of four rescue access windows, overall. FRA believes that effectively requiring a minimum of four rescue access windows, instead of two, would be appropriate for granting flexibility for installing rescue access windows on existing equipment in side doors.

Proposed paragraph (a)(1)(ii) would address the number and location requirements for rescue access windows for single-level passenger cars that were ordered prior to September 8, 2000, and placed in service prior to September 9, 2002, if equipped with manual door releases for at least two exterior side doors (or door leaves) in diagonally opposite quadrants of the cars. The manual door release would have to be capable of releasing the door (or door leaf) to permit it to be opened without power from outside the car, be located adjacent to the door (or door leaf) which it controls, and be designed and maintained so that an emergency responder could access the release from outside the car without requiring the use of a tool or other implement. The requirements of proposed paragraph (a)(1)(ii) would become effective 18 months after publication of the final rule. FRA decided to propose to allow this additional time to install rescue access windows at least in part because these passenger cars are equipped with manual releases capable of opening side doors from outside of the car, as provided in Sec. 238.235(b), even though such releases are not required for such older passenger cars by that section.

This proposed paragraph would also address those passenger cars equipped with compressed frame window systems in which rescue access windows would need to be retrofitted in the four side doors by replacing the polycarbonate glazing with glass that could be broken to gain access into the car. The 18-month implementation period would allow for the time necessary to plan and carry out the retrofit without disrupting train service. In the interim, emergency responders would continue to rely on the manual door releases to open the side doors for rescue access purposes should the need arise.

In paragraph (a)(2) FRA is proposing minimum requirements for the number and location of rescue access windows in main levels of multi-level passenger cars. Each main level in a multi-level

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passenger car would be subject to the same, minimum requirements proposed for single-level passenger cars in paragraph (a)(1) of this section.

In paragraph (a)(3) FRA is proposing minimum requirements for the number and location of rescue access windows in non-main levels of multi-level passenger cars with seating areas. These proposed requirements and exceptions for non-main levels with passenger seating would also be the same as those for emergency window exits on non-main levels with passenger seating. Specifically, paragraph (a)(3)(i) would require that any other level used for passenger seating in a multi-level passenger car have at least two rescue access windows in each seating area to permit emergency responders to reach occupants without requiring movement through an interior door or to another level of the car. At least one rescue access window would have to be located in each side of the seating area. A rescue access window could be located within an exterior side door in the passenger compartment if it is not practical to place the rescue access window in the side of the seating area. See Figure 2a to subpart B; compare to Figure 2b to subpart B.

Paragraph (a)(3)(ii) would require only one rescue access window in a seating area in a passenger compartment of a non-main level if it is not practical to place a rescue access window in a side of the passenger compartment due to the need to provide accessible accommodations under the ADA; there are no more than four seats in the seating area; and a suitable, alternate arrangement for rescue access is provided. The rationale for this exception is the same as the one for emergency window exits in non-main levels of multi-level passenger cars in proposed Sec. 238.113(a)(3)(ii), as discussed above.

Proposed paragraph (a)(3)(iii) would provide that passenger cars both ordered prior to 14 months after publication of the final rule and placed in service prior to 38 months after publication of the final rule be required to have only one rescue access window in a seating area in a passenger compartment of a non-main level if it is not practicable to place a rescue access window in a side of the passenger compartment (due to the presence of such structures as a bathroom, electrical locker, or kitchen) and there are no more than eight seats in the seating area. For more background on this proposal, please see the related discussion above for emergency window exits in such seating areas.

In paragraph (a)(4) FRA is proposing minimum requirements for the number and location of rescue access windows for passengers cars with a sleeping compartment or similar private compartment. Each level of a passenger car with a sleeping compartment or a similar private compartment intended to be occupied by passengers or train crewmembers would be required to have a minimum of one rescue access window in each such compartment. For purposes of this paragraph, a bathroom, kitchen, and locomotive cab are not considered a ``compartment.'' These proposed requirements reflect current practice. Amtrak cars with sleeping compartments are already equipped with a window in each such compartment that is capable of being used for both emergency egress and rescue access.

Proposed paragraph (a)(5) would address the use of dual-function windows as rescue access windows. If on any level of a passenger car the emergency window exits installed to meet the minimum requirements of Sec. 238.113 are intended to function as rescue access windows, the requirements of paragraphs (a)(1) through (a)(4) of this section for the number and location of rescue access windows would be met for that level. Under this provision, four rescue access windows would be required for cars with dual-function windows that do not have at least one rescue access window in each side within 15 feet of the centerline of the car.

Proposed paragraph (b) would contain the requirements for the ease of operability of rescue access windows. The requirements would apply on or after the effective date of the final rule, and would require that each rescue access window be capable of being removed without undue delay by an emergency responder using either a provided external mechanism, or tools or implements that are commonly available to the responder in a passenger train emergency, such as a sledge hammer or a pry bar. FRA notes that the proposed performance requirement for removing windows ``without undue delay'' is intended to be less stringent than the performance requirement of ``rapid and easy'' for emergency window exits. For example, using a sledge hammer to shatter a glass window would be considered removal without undue delay. Windows that are not made of glass may also be designed to be removed without undue delay by an emergency responder, through use of an axe, sledge hammer or similar large impact tool to strike the window at an appropriate point so that the window panel will push inward.

Proposed paragraph (c) would contain the requirements for the dimensions of rescue access windows. Each rescue access window in a passenger car, including a sleeping car, ordered on or after 14 months after publication of the final rule, or placed in service for the first time on or after 38 months after publication of the final rule, would be required to have an unobstructed opening with minimum dimensions of 26 inches horizontally by 24 inches vertically. A rescue access window located within an exterior side door, in accordance with the requirements of proposed paragraph (a)(3)(i) of this section, would be permitted to have an unobstructed opening with minimum dimensions of 24 inches horizontally by 26 inches vertically. A seatback would not be considered an obstruction if it could be moved away from the window opening without requiring the use of a tool or other implement. The proposed dimensions for rescue access window unobstructed openings would be the same as those for emergency window exit unobstructed

openings. Accordingly, FRA's reasoning for proposing these minimum dimensions for emergency window exits applies here. These minimum dimensions should allow an emergency responder equipped with a self-contained breathing apparatus to pass through the window, as well as allow a person to be carried through the window on a stretcher of common size.

As discussed above, FRA is proposing that existing rescue access window marking and operating instruction requirements, which are contained in Sec. 223.9(d)(2), be modified and moved to paragraph (d) of Sec. 238.114. Each rescue access window is currently required to be ``marked with a retroreflective, unique, and easily recognizable symbol or other clear'' marking. FRA is proposing to restate these requirements to make clear that rescue access windows must be marked with retroreflective material. Second, FRA is making clear that a unique and easily recognizable symbol, sign, or other conspicuous marking must be used to identify each rescue access window. FRA would replace the word ``clear'' in the existing requirements with the word ``conspicuous'' and add the word ``sign'' as another example of a conspicuous marking. This revision would make clear that use of retroreflective material to mark a rescue access window is a distinct requirement in itself, to enable emergency responders to quickly identify rescue access windows under conditions of darkness by shining a

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flashlight on a car. Second, the revision would make clear that the window must also be marked by a unique and easily recognized symbol, a sign (such as ``RESCUE ACCESS''), or other conspicuous marking (such as delineation of the window by means of a contrasting color). Both requirements could be met by the same marking. Current regulations also require that each railroad post ``clear and understandable'' window access instructions either at each rescue access window or at each end of the car. FRA is proposing that the word ``clear'' be replaced with the word ``legible,'' so that railroads would be required to post ``legible and understandable'' operating instructions. Use of the word ``clear'' in Sec. 223.9(d) has created some confusion since it can have more than one meaning, and FRA believes the proposal would eliminate any further confusion.

As noted above in the discussion of emergency window exits, the Task Force has been focusing on draft revisions to APTA SS-PS-002-98, Rev. 2, ``Standard for Emergency Signage for Egress/Access of Passenger Rail Equipment,'' in order to recommend whether some or all of its contents should be incorporated into FRA's regulations. This APTA Standard also contains detailed criteria for marking rescue access windows, including the use of retroreflective material. FRA invites comment on whether the criteria in the APTA Standard or in draft revisions to this Standard for marking rescue access windows are appropriate for use in the final rule.

FRA is also proposing to modify current requirements so that it would no longer be permissible to have window access instructions solely at the end of the car. Instead, legible and understandable rescue access window instructions, including instructions for removing

the window, would be required to be posted at or near each rescue access window. The Task Force agreed that rescue access efforts could be unduly delayed by posting rescue access window operating instructions at the end of a car, potentially more than 40 feet away from the rescue access window to which the instructions apply.

Section 238.117 Emergency Communications

Currently, Sec. 238.117 contains requirements for ``protection against personal injury,'' e.g., installing guards on moving parts of passenger equipment. FRA is proposing to redesignate this Sec. 238.117 as Sec. 238.121. In its place, FRA is proposing that this section contain the requirements for systems that may be used for passenger and crew communication in the event of an emergency. This would keep the emergency system requirements together in section numbering sequence for benefit of the reader. This proposed section would establish emergency communication requirements for Tier I passenger equipment and replace the current emergency communication's requirements in Sec. 238.437 for Tier II passenger equipment. Overall, the proposed requirements generally reflect current practice for Tier I passenger equipment and existing requirements for Tier II passenger equipment.

Paragraph (a) contains proposed requirements for public address (PA) systems for both existing and new Tier I and Tier II passenger cars. Most passenger cars used in commuter and intercity service are equipped with PA systems that train crews often use to notify passengers of the nature and expected duration of delays. If a person requires immediate medical attention, the crew may also use the PA to request assistance from someone onboard with medical training. Railroad representatives on the Task Force noted that PA systems are particularly beneficial in the immediate aftermath of an accident to provide instructions for appropriate passenger action. In light of a security threat or other emergency situation requiring rapid evacuation of an area, crews may also use the PA system to instruct passengers to deboard as quickly as possible. If there is a hazard on one end of the train or one side of the train, crews may use the PA system to notify passengers of the hazard and direct them to use the appropriate exit route(s) that would avoid or minimize their exposure to the hazard. Of course, all things being equal, the safest place for passengers is to remain onboard the train. Deboarding could aggravate an emergency situation, particularly if passengers step onto the right-of-way. Accordingly, the crew must have the means to provide passengers with appropriate instructions as soon as possible.

Paragraph (a)(1) would require that on or after January 1, 2012, each Tier I passenger car be equipped with a PA system that provides a means for a crewmember to communicate to all train passengers in an emergency situation. FRA understands that existing Tier I passenger cars that currently do not have PA systems are scheduled to be retired before 2012 and thus would be removed from service before the requirement would apply.

FRA notes that APTA's PRESS Task Force is currently evaluating the feasibility of a wireless, two-way communication system that would function independently of the train line, i.e., not rely on the train line for power. The wireless system is intended to provide a means of two-way communication in the event that the train line is broken, as may occur as a result of certain collisions or derailments. However,

FRA makes clear that it is not currently proposing to require in this section that the communication system be wireless; communication through use of a train line would be permitted.

Paragraph (a)(2) contains proposed requirements for new Tier I and all Tier II passenger cars. As is stated for existing Tier I passenger cars in proposed paragraph (a)(1), this paragraph would require that each Tier I passenger car ordered on or after 60 days after publication of the final rule, or placed in service for the first time on or after 26 months after publication of the final rule, and all Tier II passenger cars be equipped with a PA system that provides a means for a crewmember to communicate to all train passengers in an emergency situation. In addition, PA systems in new Tier I and all Tier II passenger cars would be required to provide a means for a crewmember to communicate in an emergency situation to persons in the immediate vicinity of the train (e.g., on the station platform). These proposed requirements include the basic features of PA systems installed in most recently-manufactured Tier I passenger cars and in all existing Tier II passenger trains.

Finally, it should be noted that the PA system may be part of the same system as the intercom system. A shared configuration is quite common on cars equipped with both PA and intercom systems.

Paragraph (b) contains the proposed requirements for intercom systems. Traditionally, conductors and assistant conductors have been relied upon to relay information to passengers in both normal and emergency situations through face-to-face interaction or by use of a PA system. However, with smaller crew sizes, such face-to-face communication may not be possible for passengers to quickly communicate to the crew a medical emergency, safety concern, or security threat requiring immediate attention. For instance, a passenger in the last car of a train who needs to communicate a safety or security threat to a crewmember could potentially have to walk the entire length of the train to do so (assuming the crew is composed of an engineer and one conductor, who in this circumstance would be in the first car at the time). Furthermore, if the

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conductor were incapacitated, passengers would need to communicate with the engineer. The Task Force therefore recommended that emergency communication systems in new passenger cars should include intercom systems to enable passengers to quickly communicate emergency situations to the train crew. These proposed requirements reflect common intercom system configurations for new passenger cars.

Specifically, paragraph (b)(1) contains the proposed intercom system requirements for new Tier I and all Tier II passenger cars. Each Tier I passenger car ordered on or after 60 days after publication of the final rule, or placed in service for the first time on or after 26 months after publication of the final rule, and all Tier II passenger cars would be required to be equipped with an intercom system that provides a means for passengers and crewmembers to communicate with each other in an emergency situation. Passenger cars that are at least 45 feet in length would be required to have a minimum of one intercom in each end (half) of each car that is accessible to passengers without

requiring the use of a tool or other implement. Although some passenger cars currently equipped with intercom systems have one located in each end, others have only one per car. An intercom in each half of a car is proposed so that passengers would have access to an intercom within half a car length, which is normally 42 to 45 feet, and would not have to pass into an adjoining car. As long as intercoms are accessible to passengers, they may be placed anywhere in each end (half) of the car and not necessarily in the far ends.

Proposed paragraph (b)(1) would continue the logic of existing Sec. 238.437 by requiring only one intercom for a passenger car that does not exceed 45 feet in length, such as the Talgo passenger cars operated by Amtrak. As the length of a conventional passenger is typically between 85 and 90 feet, FRA believes it appropriate to require a car not more than half that length to have only one intercom location. This proposed paragraph would also continue to require, as Sec. 238.437 currently does, that a Tier II passenger car ordered prior to May 12, 1999, be equipped with only one intercom. This exception corresponds to the current requirements for Tier II passenger equipment, as discussed in the April 23, 2002, final rule. See 67 FR 19986. The preamble to that rule explained that after FRA had proposed that intercoms be located at each end of a Tier II passenger car, Amtrak indicated that not all passenger cars in its high-speed trainsets had intercom transmission locations at each end of the cars, and further noted that the intercoms would be difficult to install at the non-vestibule ends of the cars. As these trainsets were in development in advance of both the then-proposed and final rules, FRA made an exception for all cars ordered prior to May 12, 1999.

Some Task Force members were concerned that making the intercoms accessible to passengers without requiring the use of a tool or other implement could lead to misuse that could unnecessarily distract the train operator. However, representatives from Amtrak and various commuter railroads that operate cars with intercom systems indicated that they have successfully implemented measures to deter misuse. For instance, on some passenger cars, the intercom transmission device is located in a safety compartment designated and marked for emergency communications only. FRA invites comment on whether passenger misuse of intercom systems has been identified as a problem, and, if so, FRA invites suggestions for measures that could curb such misuse without rendering the systems inaccessible to passengers in an emergency. FRA makes clear that intercoms would need to be accessible to passengers with disabilities to the extent required by the ADA and its implementing regulations.

Paragraph (b)(2) would require that the location of each intercom intended for passenger use be clearly marked with luminescent material and that legible and understandable operating instructions be posted at or near each such intercom to facilitate passenger use. These requirements would apply to each Tier I passenger car on or after 26 months after publication of the final rule, and continue to apply to each Tier II passenger car. Some railroad representatives noted that although instructions are currently posted at the intercom locations on their cars, there are no luminescent markings. Thus, luminescent marking of each intercom location is proposed to ensure that the intercom can be easily identified for use in the event that both normal

and emergency lighting are not functioning. The posted operating instructions, however, would not need to be luminescent under the proposal, as some Task Force members have indicated that the instructions may be easier to read when not luminescent.

As noted in the discussion concerning emergency window exit signage, above, APTA SS-PS-002-98, Rev. 2, ``Standard for Emergency Signage for Egress/Access of Passenger Rail Equipment,'' contains specific criteria for luminescent markings. The Task Force has been focusing on additional revisions to this APTA Standard in order to recommend whether to incorporate some or all of its contents into part 238 by reference and thereby require that luminescent markings for intercoms comply with the Standard as it relates to luminescent markings. APTA PRESS has also indicated that they will revise APTA SS-PS-001-98, ``Standard for Passenger Railroad Emergency Communications,'' to include more specific requirements for marking emergency communication systems. In the meantime, FRA invites comment whether the luminescent material that would be required by this proposed paragraph should be HPPL material. FRA will evaluate any comments received in considering whether a requirement for use of HPPL material should be established in the final rule.

Paragraph (c) would continue to require that PA and intercom systems on Tier II passenger trains have back-up power for a minimum period of 90 minutes. See Sec. 238.437(d). An example of a back-up power source is a passenger car battery. The Task Force approved a recommendation for a back-up power requirement for new Tier I passenger cars, similar to the requirements contained in Sec. 238.115(b)(4) for emergency lighting back-up power systems. That is, the back-up power system would have to be capable of operating in: all equipment orientations within 45 degrees of vertical; after the initial shock of a collision or derailment resulting in individually applied accelerations of 8g longitudinally, 4g laterally, and 4g vertically; and for at least 90 minutes. Yet, this recommendation was not forwarded to the Working Group, due to an oversight. Given that backup power to the PA and intercom systems could be supplied by the same source as that for the emergency lighting system, and that the amount of power required would likely be only a fraction of that required for the emergency lighting system, FRA has no reason to believe that this recommendation would not have received the full support of the Working Group or full RSAC. As a result, FRA is considering inserting in the final rule a back-up power system requirement containing the provisions recommended by the Task Force, and FRA invites comment on doing so. In particular, FRA seeks comment whether the system needs to be capable of providing continuous communication over the 90-minute period, or only intermittent

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communication, which would draw less battery power. Providing the means to communicate continually for a 90-minute period may not be necessary, and FRA invites comment as to how many minutes of intermittent communication would need to be provided.

Section 238.118 Emergency Roof Access

This section, which is being proposed for addition to part 238,

contains emergency roof access requirements for Tier I and Tier II passenger cars ordered on or after 14 months after publication of the final rule, or placed in service for the first time on or after 38 months after publication of the final rule. Requirements for Tier II power cars and existing Tier II passenger cars remain in Sec. 238.441, as discussed below. The emergency roof access requirements for Tier II passenger equipment contained in Sec. 238.441 and APTA PRESS recommended practice RP-C&S-001-98, ``Recommended Practice for Passenger Equipment Roof Emergency Access,'' served as the basis for the proposed requirements in this section.

Emergency roof access locations (roof hatches or structural weak points) can be especially useful in emergency situations where passenger cars have rolled onto their sides following certain collision and derailment scenarios. All things being equal, car rollover or tilt should result in more severe injuries than when a car remains upright, as occupants may be thrown greater distances inside the car. This increases the potential need for rescue access of the car's occupants by correspondingly reducing the likelihood that the occupants can evacuate the car on their own. In such a situation, doors, which are the preferred means of access under normal circumstances, may be rendered inoperable due to structural damage to the door or the door pocket, as a result of the incident. In particular, end doors, which due to the direction they face would normally be better suited for use than side doors when a car has tilted or rolled onto its side, may also be blocked, jammed, or otherwise unavailable for use. Moreover, although emergency responders may be able to enter a car that is on its side via a rescue access window, the removal of an injured occupant through a side window in such circumstances can be difficult or complicated, especially depending upon the condition of the occupant.

Paragraph (a) contains proposed requirements for the number and dimensions of emergency roof access locations. Each passenger car ordered on or after 14 months after publication of the final rule, or placed in service for the first time on or after 38 months after publication of the final rule, must have a minimum of two emergency roof access locations. Although Tier II passenger cars and power cars are currently required to have at least one roof hatch for emergency roof entry or at least one structural weak point for properly equipped emergency personnel to quickly access a car, many new Tier I multi-level passenger cars are currently being manufactured with up to four structural weak points in the roof. In determining the minimum number of access points needed for new Tier I and Tier II passenger cars, the Emergency Preparedness Task Force agreed it would be useful to protect the emergency roof access location against crush at either end of the car. To do so would require placement of the location away from the far ends of the car or, at a minimum, placement not in the same end (half) of the car in the event that the end with the access points becomes crushed. Second, the Task Force thought it prudent to facilitate rescue access by having the access points located within the bottom half of the car's roof, so that the bottom of the opening would be closer (lower) to the ground and thus, presumably, more easily accessible when the car is on its side. This would require having one access point on either side of the roof's longitudinal centerline. To accomplish both goals, the Task Force recommended having two access points located at

diagonally opposite quadrants of the roof. See Figure 3 to subpart B.

Under the proposal, each roof access location would be required to have a minimum opening of 26 inches longitudinally (i.e., parallel to the longitudinal axis of the car) by 24 inches laterally. These dimensions are consistent with the minimum dimension requirements for emergency window exits specified for new passenger cars in the 1999 Passenger Equipment Safety Standards final rule, see 64 FR 25673, and were based on specifying opening requirements necessary to allow passage of an emergency responder equipped with a self-contained breathing apparatus or fire gear, as well as to allow passage of a person being carried on a backboard or basket stretcher, see 64 FR 25595-25596.

In discussing the issue of appropriate dimensions for emergency roof access locations, Task Force members noted that in order to gain access to a car via a structural weak point, a responder would normally have to cut through the roof skin, which is usually steel, and then through the lining. In some cases, a responder may have to cut through additional non-rigid structures. If the outside dimensions are only 26 inches longitudinally by 24 inches laterally, and multiple cuts through car structures are required to gain access to the passenger compartment, this could present a problem for emergency responders, since each subsequent cut made using a saw would potentially result in a smaller opening. Consequently, railroads and car builders would need to take this into account when designing structural weak points and ensure that the dimensions of the final cut in such circumstances would still result in an opening meeting the minimum dimension requirements.

Paragraph (b) would provide that permissible means of emergency roof access include either a hatch, or a clearly marked structural weak point in the roof for access by properly equipped emergency response personnel. Structural weak points, commonly known as ``soft spots,'' are usually created by routing cables, wiring, and piping in the roof of the car around the location designated for roof access. The proposal would afford railroads the flexibility of installing either roof hatches or providing structural weak points in the roof, as each individual railroad would be in the best position to decide which one is preferable taking into consideration such factors as the car's intended use and the safety hazards presented by one versus the other. For example, although roof hatches could provide a means of self-evacuation in addition to a means of access, placing them in the roofs of multiple-unit (MU) locomotives which rely on overhead catenary systems for power could create an electrocution hazard for occupants attempting to self-evacuate in an emergency.

Paragraph (c) would require that emergency roof access points be located, insofar as practical, in such a manner that when a car is on its side: (i) One emergency roof access location is wholly within each half of the roof as divided top from bottom; and (ii) one emergency roof access location is wholly within each half of the roof as divided left from right. See Figure 3 to subpart B. Use of the word ``practical'' would allow railroads and car builders some discretion regarding the location of the access points and would be necessary to accommodate particular equipment types. For instance, some electric MU equipment has pantographs that take up a significant portion of one end of the rooftop, making it difficult to place one emergency access

location wholly within each half of the car's roof.

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Additionally, on some passenger cars that have luggage racks, it may be more practical to place the emergency access location so that it is not wholly within the bottom half of the car's roof (when the car is on its side) if doing so would facilitate rescue access by eliminating the need for emergency responders to cut through or maneuver around the luggage racks to get to passengers.

Paragraph (d) contains proposed requirements related to obstructions and would require that the ceiling space below each emergency roof access location be free from wire, cabling, conduit, and piping. Additionally, paragraph (d) would require that, where practicable, this space also be free of rigid secondary structure(s) (e.g., diffusers and diffuser support, lighting back fixtures, mounted PA equipment, and luggage racks). In determining the placement of the emergency roof access locations, railroads and manufacturers would need to consider the requirements of Sec. 238.118 as a whole. Use of the word ``practical'' in paragraph (c) is intended to allow more discretion than use of the word ``practicable'' in this paragraph (d). For example, in a situation where placement of an emergency roof access location wholly within the bottom half of a car's roof (when the car is on its side) would result in obstruction by a rigid secondary structure, a railroad would be required to place the roof access location elsewhere so as to avoid the obstruction, even though this may result in its placement partially in both sides of the roof, or otherwise not wholly within each half of the roof. In such a situation, the rule would recognize that avoidance of the rigid secondary structure would be more critical than the exact location of the emergency roof access location.

If emergency roof access is provided by means of a hatch, it must be possible to push interior panels or liners out of their retention devices and into the interior of the vehicle after removing the hatch. For example, for car interior aesthetics, it would not be uncommon to cover the area below the hatch with lining and use velcro to secure the lining in place. This type of cover and securement would make it possible for emergency responders to reach the interior of the vehicle by pushing in the lining after removing the hatch. This is just one example, and other types of covers and means of securement would be permissible provided emergency responders would be able to push through them to reach the interior of the vehicle after removing the hatch.

If emergency roof access is provided by means of a structural weak point, the proposal states that it shall be permissible to cut through interior panels, liners, or other non-rigid secondary structures after making the cutout hole in the roof. However, any such additional cutting that would be required must permit a minimum opening of the dimensions specified in paragraph (a) to be maintained. In this regard, having to make additional cuts could affect the size of the markings indicating the structural weak points, as proposed to be required in paragraph (e).

Paragraph (e) contains proposed requirements for providing markings of, and instructions for, emergency roof access locations. Each

emergency roof access location would be required to be clearly marked with retroreflective material of contrasting color. The retroreflective material is intended to enable emergency responders to quickly identify the access locations by shining a light on the roof. FRA notes that APTA is in the process of revising APTA SS-PS-002-98, Rev. 2, ``Standard for Emergency Signage for Egress/Access of Passenger Rail Equipment,'' which contains more specific requirements for retroreflectivity than provided for in this NPRM. The Task Force has been reviewing draft revisions to this standard and intends to make a recommendation concerning its incorporation into part 238, once the standard is revised. As a result, the final rule may incorporate more detailed APTA retroreflectivity criteria for marking emergency roof access locations.

Paragraph (e) also proposes to require that legible and understandable instructions be posted at or near each emergency roof access location. These instructions would not need to be retroreflective for two principal reasons: it can be difficult to read writing on certain grades of retroreflective materials while shining light on them, and light used to identify the emergency rescue access locations would likely be available for reading the instructions as well. This proposal is consistent with the existing and proposed requirements for marking rescue access windows. As an additional requirement, paragraph (e) proposes that if emergency roof access is provided by means of a structural weak point, the line along which the roof skin would be cut would be required to be clearly marked with retroreflective material. The size of the border marking may have to be larger than 24 inches laterally by 26 inches longitudinally to ensure that any cuts in addition to the cut through the roof skin would retain the minimum dimensions required for the opening. Structural weak points would also be required to have a sign plate with a retroreflective border that states as follows:

CAUTION--DO NOT USE FLAME-CUTTING DEVICES.
CAUTION--WARN PASSENGERS BEFORE CUTTING.
CUT ALONG DASHED LINE TO GAIN ACCESS.
ROOF CONSTRUCTION--[STATE RELEVANT DETAILS].

In particular, the proposal would require providing a warning against use of a flame-cutting device during a rescue access attempt to avoid creation of a fire hazard. This is especially important since rescue access is usually a last resort for those who cannot self-evacuate due to being injured or disabled, as well as due to the lack of a viable exit. Emergency responders usually have a variety of tools available to them at the scene of an emergency, including a specialized saw which can be used to cut through steel, and do not have to rely on flame-cutting devices.

Section 238.121 Protection Against Personal Injury

As discussed above, FRA is proposing to redesignate current Sec. 238.117 (``Protection against personal injury'') as Sec. 238.121 with no substantive change to the section's requirements.

Subpart D--Inspection, Testing, and Maintenance Requirements for Tier I Passenger Equipment.

Section 238.303 Exterior Calendar Day Mechanical Inspection of

Passenger Equipment

This section contains the proposed requirements related to the performance of exterior mechanical inspections of passenger cars (e.g., passenger coaches, MU locomotives, and cab cars) and unpowered vehicles used in a passenger train each calendar day that the equipment is used in service. Paragraph (e) of this section identifies the various components that are required to be inspected as part of the exterior calendar day mechanical inspection.

FRA proposes to insert a new paragraph (e)(18) that would require that all rescue-access-related exterior markings, signage, and instructions required by proposed Sec. 238.114 (rescue access windows) and existing Sec. 239.107 (emergency exits) be in place and, as applicable, conspicuous, and/or legible. Proposed paragraph (e)(18)(i) would allow passenger cars with any required rescue-access-related exterior markings, signage, or instructions that are missing, illegible, or inconspicuous, as applicable, to remain in passenger service until the equipment's fourth

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exterior calendar day mechanical inspection or next periodic mechanical inspection required under Sec. 238.307, whichever occurs first, after the non-complying condition is discovered, where it would have to be repaired or removed from service.

The four-day repair flexibility is proposed to allow railroads to schedule repairs at locations where they can be performed safely and in a manner that would avoid disrupting normal operations. Railroad representatives on the Task Force noted that not all yards are properly equipped for personnel to safely, effectively, or efficiently remove and replace signage on the exterior of cars. For example, work on the upper levels of cars can be more safely performed at maintenance facilities that have platform ladders. In addition, various vendors noted that signs and markings must be applied on a dry, clean surface at temperatures of approximately 65 degrees Fahrenheit and must be allowed to set for up to two hours. Graffiti may render a sign, marking, or instruction illegible and thus in need of replacement. Proper removal of a sign can be a long and tedious process because the adhesives used are difficult to remove. This coupled with the conditions necessary for application of a sign may make it an unfeasible task for some railroads to perform during an exterior calendar day mechanical inspection. Furthermore, some long-distance intercity train trips take three or four days to complete and many of the en-route repair locations may not be appropriate places to make the repairs to signage. Removing a car from service for missing rescue access signage before it reaches its final destination could result in stranding passengers on platforms or require that the same number of passengers ride in a fewer number of cars, with fewer emergency exits available to them as a whole. Thus, the safety of both railroad employees and railroad passengers necessitates that some flexibility be provided that would allow equipment to continue to operate in service for a sufficient amount of time to reach a suitable repair location or the train's final destination.

In paragraph (e)(18)(ii), FRA proposes to provide even greater

flexibility for use of passenger cars with required rescue-access-related exterior markings, signage, or instructions that are missing, illegible, or inconspicuous on a side of a level of a car that has more than 50 percent of the windows designated and properly marked for rescue access. Such a car would be permitted to remain in passenger service until no later than the car's next periodic mechanical inspection required under Sec. 238.307, where it would have to be repaired or removed from service. FRA agrees with the Task Force recommendation that this added flexibility for these types of cars recognizes the extra effort that a railroad undertakes by designating and identifying a greater number of rescue-access windows than would be required under proposed Sec. 238.114. A single act of vandalism may destroy multiple signs, markings, and instructions or render them illegible or inconspicuous. Placement or replacement of several signs could take more time than may be scheduled for maintenance of the car prior to the periodic mechanical inspection. FRA believes it would make little sense to require immediate repair of the damaged markings when more than a sufficient number meeting the requirements of proposed Sec. 238.114 are still present on the equipment. Moreover, without such flexibility, railroads would likely be discouraged from designating more rescue-access windows than are proposed to be required by Sec. 238.114.

Similarly, proposed paragraph (e)(18)(iii) would provide flexibility for the continued use of a sleeping car that has more than two consecutive windows with any required rescue-access-related exterior markings, signage, or instructions at or near their locations that are missing, illegible, or inconspicuous. Such a car may be operated in passenger service until the car's next periodic mechanical inspection required under Sec. 238.307, where it would have to be repaired or removed from service. FRA believes this flexibility is necessary because each sleeping compartment intended to be occupied by passengers or train crewmembers would be required to have a minimum of one rescue access window in the compartment under proposed Sec. 238.114 and most sleeping compartments have only one window. If two consecutive windows were missing exterior markings, signage, or instructions, an emergency responder would still be readily able to gain access via the window by relying on the signage, markings, or instructions posted at a nearby window.

Proposed paragraph (e)(18)(iv) requires that a record of any non-complying marking, signage, or instruction described in paragraphs (e)(18)(i) through (iii) be maintained. The record would have to contain the date and time that the defective condition was first discovered and be retained until all necessary repairs were completed. These records are necessary for purposes of tracking when the defect was first discovered and would be utilized in determining when repairs would have to be made on cars that remain in passenger service. Most commuter and intercity railroads already keep these type of records electronically.

Section 238.305 Interior Calendar Day Mechanical Inspection of Passenger Cars

This section contains the requirements related to the performance of interior calendar day mechanical inspections of passenger cars (e.g., passenger coaches, MU locomotives, and cab cars) each calendar

day that the equipment is used in service. Paragraph (c) identifies the various components that are required to be inspected as part of the interior calendar day mechanical inspection. Under the current rule, all en route-defects and all noncomplying conditions under this section must be repaired at the time of the daily interior inspection or the equipment is required to be locked-out and empty in order to be placed or remain in passenger service, with the exception of non-complying conditions related to paragraphs (c)(5) through (c)(10).

FRA is proposing to slightly modify existing paragraph (c)(10) in order to add a condition under which a car with non-compliant end doors and side doors may continue in passenger service pursuant to paragraph (d) of this section. The current conditions for such operation are: If at least one operative and accessible door is available on each side of the car; and a notice is prominently displayed directly on the defective door indicating that the door is defective. In addition to those conditions, FRA proposes to require that the train crew be provided written notification of the non-complying condition. This additional condition would ensure that crewmembers are aware of a door that may not be available for use in an emergency situation that requires the off-loading of passengers. Under the existing regulation, train crews may not realize a door is defective until they actually try to use it. If an emergency requiring the rapid off-loading of passengers should occur before the crew notices that the door is inoperative, then the crew might direct passengers to that door, which could unnecessarily delay the evacuation of the train.

FRA is also proposing to add new paragraph (c)(12) to cover the inspection of PA and intercom systems. Paragraph (c)(12) contains proposed requirements for ensuring that, on passenger cars so equipped, PA and intercom systems are operative and function as intended as part of the interior calendar day mechanical inspection. This paragraph

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also proposes flexibility for handling non-complying equipment, provided the train crew is given written notification of the defect and a record of the time and date the defect was discovered is maintained. Thus, a passenger car with an inoperative or non-functioning PA or intercom system would be permitted to remain in passenger service until no later than the car's fourth interior calendar day mechanical inspection or next periodic mechanical inspection required under Sec. 238.307, whichever occurs first, or for a passenger car used in long-distance intercity train service until the eighth interior calendar day mechanical inspection or next periodic mechanical inspection required under Sec. 238.307, whichever occurs first, after the non-complying condition is discovered. At that time, the PA or intercom system, or both, would have to be repaired, or the car would have to be removed from service.

Railroad representatives on the Task Force noted that PA systems are currently inspected on a daily basis and any necessary repairs are made at the first convenient opportunity. The provision requiring that the train crew be given written notification of any non-compliant PA or intercom is proposed to ensure that the crew is aware of any non-functioning system(s) and will not rely upon any such system for

communication in the event of an emergency situation. Without such notification, the train crew could mistakenly rely on a system that is inoperative, which could potentially hinder resolution of an emergency situation where the crew relies on using the PA or intercom system to communicate instructions or warnings of hazards to passengers.

In proposing to modify paragraph (c), FRA is reserving paragraph (c)(11) for a contemplated requirement that all low-location emergency exit path markings required by Sec. 238.116 be in place and conspicuous as part of the interior calendar day mechanical inspection. Low-location emergency exit path markings provide a visual means for passenger car occupants to locate emergency door exits under conditions of limited visibility due to darkness or the presence of smoke, or both. FRA intends to propose minimum standards for low-location emergency exit path markings by a separate NPRM as new Sec. 238.116, and this document proposes to reserve Sec. 238.116 for inclusion of these minimum standards at a later time.

Finally, FRA notes that it is considering clarifying paragraph (c)(7), the interior calendar day inspection requirement that ``[a]ll safety-related signage is in place and legible.'' FRA is considering including in paragraph (c)(7) express references to signage, as well as markings and instructions, required by parts 238 and 239. FRA invites comment on whether such clarification should be provided in the final rule.

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

This section contains the requirements for performing periodic mechanical inspections on all passenger cars and all unpowered vehicles used in passenger trains. Paragraph (c) identifies the various components that are required to be inspected as part of the periodic mechanical inspection that is required to be conducted no less frequently than every 184 days. FRA proposes to modify paragraph (c)(5), which currently requires that emergency lighting systems be operational, to include other emergency systems such as emergency roof access markings and instructions. Specifically, paragraph (c)(5)(i) would continue to require that emergency lighting systems required under Sec. 238.115 are in place and operational, and paragraph (c)(5)(iii) would require that emergency roof access markings and instructions required under proposed Sec. 238.118(e) are in place and, as applicable, conspicuous, and/or legible. FRA does note that if emergency lighting is found to be defective at any time other than the periodic mechanical inspection, it must be brought into compliance pursuant to the provisions contained in Sec. 238.17 related to non-running-gear defects.

In proposing the modification, FRA is reserving paragraph (c)(5)(ii) for a contemplated requirement that electrical low-location emergency exit path markings required by Sec. 238.116 be in place and operational. As discussed above, FRA intends to propose minimum standards for low-location emergency exit path markings by a separate NPRM as new Sec. 238.116.

Subpart E--Specific Requirements for Tier II Passenger Equipment

Section 238.437 [Reserved]

This section formerly contained the emergency communication requirements for Tier II passenger equipment. These requirements would be moved to new Sec. 238.117 (``Emergency communications'') to be integrated with the new emergency communication requirements for Tier I passenger equipment, as stated above. This is consistent with FRA's desire to prescribe, to the extent possible, the same emergency system requirements for all passenger trains, regardless of train speed. Section 238.437 is therefore being removed and reserved. Please see Sec. 238.117 for a discussion of the emergency communication requirements for Tier II passenger equipment.

Section 238.441 Emergency Roof Access

In issuing the Passenger Equipment Safety Standards, FRA required that Tier II passenger equipment have either a roof hatch or a clearly marked structural weak point in the roof to provide quick access for properly equipped emergency response personnel. See 64 FR 25689. FRA stated that the final rule did not contain such requirements for Tier I passenger equipment and that there was no consensus within the Passenger Equipment Safety Standards Working Group to do so. See 64 FR 25642. Nevertheless, FRA noted that it believed that APTA PRESS Task Force efforts would address requirements for Tier I passenger equipment and that FRA intended to reexamine the requirements of this section in future rulemaking with a view to applying emergency roof access requirements to Tier I passenger equipment. Id.

As discussed above, FRA is proposing in Sec. 238.118 to apply emergency roof access requirements to Tier I passenger equipment and to make the requirements the same for new Tier I and Tier II passenger cars. In doing so, FRA is proposing to revise Sec. 238.441, including the section heading, to reconcile the requirements of these sections and thereby limit the application of these separate requirements in Sec. 238.441 to existing Tier II passenger cars and to any Tier II power car (whether existing or new). At the same time, FRA is proposing to increase the required dimensions of emergency roof access locations for existing Tier II passenger equipment and for any power car, and to provide general marking and instruction requirements for such equipment. FRA believes that existing Tier II passenger equipment would be in compliance with the proposed revisions to this section and that these revisions would more closely approximate the requirements proposed for new passenger equipment.

Specifically, paragraph (a) would be revised to limit its applicability to Tier II passenger cars both ordered prior to 14 months after publication of the final rule and placed in service for the first

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time prior to 38 months after publication of the final rule, and to Tier II power cars. As specified in proposed paragraph (b), new Tier II passenger cars would be required to comply with the standards contained in proposed Sec. 238.118, which were developed exclusively for passenger cars. Paragraph (a) would also be modified to revise the dimensions of the required opening from 18 inches by 24 inches, to 24 inches by 26 inches to be consistent with the proposed requirements for Tier I passenger equipment. In addition, paragraph (a) would be revised to require that each emergency roof access location be conspicuously

marked, and that legible and understandable operating instructions be posted at or near each such location.

The fundamental differences between the requirements proposed in Sec. 238.118 for new passenger cars and those proposed in revised paragraph (a) of Sec. 238.441 for existing Tier I passenger cars and for Tier II power cars are as follows: the number of required emergency roof access locations--two in proposed Sec. 238.118, and one in existing Sec. 238.441--and the specifications for their location--detailed specifications are proposed in Sec. 238.118, while more general requirements would be in Sec. 238.441. These differences reflect the consideration given to existing equipment built in compliance with Sec. 238.441 of the 1999 final rule, and also recognize that a requirement for two emergency roof access locations on a Tier II power car would not be reasonable given that the only normally occupied area in such a car is the cab compartment, in which only one emergency roof access location can be placed.

Paragraph (b) would be revised to make clear that each passenger car ordered on or after 14 months after publication of the final rule, or placed in service for the first time on or after 38 months after publication of the final rule, would be required to comply with the emergency roof access requirements specified in Sec. 238.118. Section 238.118 proposes to subject new Tier I and Tier II passenger cars to the same emergency roof access requirements, and this revision to paragraph (b) is intended to conform with that proposal.

Appendix A to Part 238--Schedule of Civil Penalties

Appendix A to part 238 contains a schedule of civil penalties for use in connection with this part. FRA intends to revise the schedule of civil penalties in issuing the final rule to reflect revisions made to part 238. Because such penalty schedules are statements of agency policy, notice and comment are not required prior to their issuance. See 5 U.S.C. 553(b)(3)(A). Nevertheless, commenters are invited to submit suggestions to FRA describing the types of actions or omissions for each proposed regulatory section that would subject a person to the assessment of a civil penalty. Commenters are also invited to recommend what penalties may be appropriate, based upon the relative seriousness of each type of violation.

VI. Regulatory Impact and Notices

A. 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 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 a regulatory evaluation addressing the economic impact of this proposed rule. Document inspection and copying facilities are available at the DOT 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-2006-25273. FRA invites comments on the regulatory evaluation.

Certain of the proposed requirements reflect current industry practice, or restate existing regulations, or both. As a result, in calculating the costs of this proposed rule, FRA has neither included the costs of those actions that would be performed voluntarily in the absence of a regulation, nor has FRA included the costs of those actions that would be required by an existing regulation.

As presented in the following table, FRA estimates that the present value (PV) of the total 20-year costs which the industry would be expected to incur to comply with the requirements proposed in this rule is $15.4 million:

20-Year PV Costs Incurred

Description	20-year PV total
Costs:	
(238.113) Emergency Window Exits	
--Installation of pull handles/gaskets in two intermediate level windows	$4,050
--Replacement of instructions for window removal to ensure that potential hindrances are addressed	10,880
--Installation of pull handles/gaskets in four intermediate level windows	1,440
(238.114) Rescue Access Windows	
--Installation of two windows per car	163,880
--Marking and instructions	11,640
(238.117) Emergency Communications	
--Addition of second intercom transmission location	213,675
--Addition of outside speaker for public address system	101,526
(238.118) Emergency Roof Access	
--Structural weak points--engineering redesign	80,000
--Structural weak points--additional materials	117,250
(238.303, 238.305, and 238.307) Exterior, Interior, and Periodic Inspection, Testing, and Maintenance	14,717,246
Total Costs	15,421,507

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If over the 20-year period covered by the regulatory evaluation the equivalent of 7.7 lives would be saved as a result of implementing the proposed requirements (from a combination of fatalities prevented, and injuries avoided or minimized), the proposed rule would be cost-justified by the safety benefits alone. FRA believes it is reasonable

to expect that the safety benefits would exceed the costs of the proposed requirements. Although passenger railroads offer the traveling public one of the safest forms of transportation available, the potential for injuries and loss of life in certain situations is very high. Nevertheless, FRA cannot predict with reasonable confidence the actual numbers of lives that would be saved. The number and severity of each future passenger train accident or incident would determine the ultimate effectiveness of the proposed requirements; these cannot be forecasted with a level of precision that would allow us to predict the actual need for the measures proposed in the rule. Yet, FRA believes that the proposed requirements would protect passengers and crew members against known safety concerns in a cost-effective manner. These safety concerns are discussed in detail, above, in the preamble to this proposed rule.

In particular, as discussed in Section III.C., the proposed requirement for an intercom system on Tier I passenger trains is intended to allow passengers to communicate to the crew a medical emergency, report a fire onboard the train, or provide notification of other emergency situations as quickly as may be necessary. In fact, some passenger lives may have already been saved at least in part due to the availability of an intercom system because fellow passengers were able to use the intercom to alert a crew member that a passenger onboard their car was experiencing a medical emergency. This led the crew to call the dispatcher to arrange for prompt medical attention at a nearby station. FRA believes that over the next 20 years the availability of an intercom system to passengers may save the life of one or more passengers experiencing a medical emergency.

The availability of an intercom system to passengers may also save the life of one or more passengers in other emergency situations. For example, on December 7, 1993, a gunman opened fire onboard a LIRR commuter train traveling between New Hyde Park and Garden City, NY, killing 6 people and injuring 19 others before he was overpowered by passengers. No intercom system was available to the passengers, and the train crew was not aware of the situation until the train arrived at the next station where police happened to be present on the platform. The availability of an intercom system to passengers in such a situation could allow passengers to provide notification to the crew in a timely manner so that the crew could contact the appropriate authorities to obtain emergency assistance and take other necessary action. This may include providing a direct warning over the train's public address system both to passengers on the train as well as to passengers in the immediate vicinity of the train on the station platform. FRA is, of course, proposing to require that Tier I passenger trains be equipped with public address systems.

Further, over the past 20 years, other accidents and incidents have occurred where, if they were to recur, the availability of the safety features proposed in this rule may save lives or prevent or minimize injuries. For instance, eleven lives were lost in a February 16, 1996 collision between a Maryland Rail Commuter (MARC) train and an Amtrak passenger train in Silver Spring, Maryland. The collision breached a fuel tank of an Amtrak locomotive, spraying fuel into the lead vehicle of the MARC train, which erupted in fire. The fire and collision trapped a number of people in the lead vehicle. Having rescue access

windows available to emergency responders on the scene of such a situation may facilitate the rescue of one or more passengers.

FRA notes that similar accidents and incidents have unique circumstances which ultimately determine their severity in terms of casualties, and again emphasizes that actual future events cannot be predicted with certainty. Nonetheless, it is possible that over the next 20 years the safety features proposed to be required by this rule would preserve life in a single event in an amount that exceeds the entire estimated costs of the rule.

FRA seeks comments and input from all interested parties regarding the estimates and statements contained in the regulatory evaluation developed in connection with this NPRM.

B. 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 DOT's 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.

The AISE developed in connection with this NPRM concludes that this proposed rule would not have a significant economic impact on a substantial number of small entities. The principal entities impacted by the rule would be governmental jurisdictions or transit authorities-none of which is small for purposes of the United States Small Business Administration (i.e., no entity serves a locality with a population less than 50,000). These entities also receive Federal transportation funds. Although these entities are not small, the level of costs incurred by each entity should generally vary in proportion to either the size of the entity, or the extent to which the entity purchases newly manufactured passenger equipment, or both. Tourist, scenic, excursion, and historic passenger railroad operations would be exempt from the rule, and, therefore, these smaller operations would not incur any costs.

The rule would impact passenger car manufacturers. However, these entities are principally large international corporations that would not be considered small entities. Some manufacturers and suppliers of emergency signage and communication systems may be impacted by the rule, and these may be small entities. Yet, FRA believes that any impact on these entities would neither be significant nor negative, to the extent demand for products and services they provide actually increases.

Having made these determinations, 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.

C. 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

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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--49 CFR	Respondent universe (railroads)	Total annual responses	Average time per response (minutes)	Total annual burden hours	Total annual burden cost
238.113--Emergency Window Exits: Marking and Instructions.	22	482 markings....	60/90/120	694	$27,760
238.114--Rescue Access Windows: Marking and Instructions.	22	964 markings....	45	723	\1\0
238.117--Emergency Communications: Intercom System--Marking and Instructions.	22	116 markings....	5	10	400
238.118--Emergency Roof Access: Marking and Instructions.	22	234 marked locations.	30	117	4,680
238.303--Exterior Calendar Day Mechanical Inspection of Passenger Equipment:					
--Repair/Replacement of Non-complying Rescue Access Window Markings.	22	150 replacement markings.	20	50	2,000
--Records of Non-complying Rescue Access Window Markings.	22	150 records.....	2	5	200
238.305--Interior Calendar Day Mechanical Inspection of					

Passenger Cars: --Non-complying Conditions of End Doors and Side Doors.	22	260 notifications +260 notices.	1	9	360
--Written Notification to Train Crew of Inoperative/ Non-functioning Public Address and Intercom Systems.	22	300 notifications.	1	5	200
238.307--Periodic Mechanical Inspection of Passenger Cars: Replacement of Non-complying Emergency Roof Access Marking and Instructions.	22	260 replacement markings.	20	87	3,480

\1\ Incl. in RIA.

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 the following issues: 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.

D. 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 direct 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.

One of the fundamental federalism principles, as stated in Section 2(a) of Executive Order 13132, is that ``[f]ederalism is rooted in the belief that issues that are not national in scope or significance are most appropriately addressed by the level of government closest to the people.'' Congress expressed its intent that there be national uniformity of regulation concerning railroad safety matters when it issued 49 U.S.C. 20106, which provides that all regulations prescribed by the Secretary relating to railroad safety preempt any State law, regulation, or order covering the same subject matter, except a provision necessary to eliminate or reduce an essentially local safety hazard that is not incompatible with a Federal law, regulation, or order and that does not unreasonably burden interstate commerce. This intent was expressed even more specifically in 49 U.S.C. 20133, which mandated that the Secretary of Transportation prescribe ``regulations establishing minimum standards for the safety of cars used by railroad carriers to transport passengers'' and consider such things as ``emergency response procedures and

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equipment'' before prescribing such regulations. This proposed rule is intended to add to and enhance the regulations issued pursuant to 49 U.S.C. 20133.

FRA notes that the above factors have been considered throughout the development of this NPRM both internally and through consultation within the RSAC forum, as described in Section II of this preamble. The full RSAC, which reached consensus on the proposed rule text before recommending the proposal to FRA, has as permanent voting members two organizations representing State and local interests: AASHTO and ASRSM. As such, these State organizations concurred with the proposed requirements. 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 from any other representative.

For the foregoing reasons, FRA believes that this proposed rule is in accordance with the principles and criteria contained in Executive Order 13132.

E. 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. 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.

F. 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) [currently $120,700,000] 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 $120,700,000 or more in any one year, and thus preparation of such a statement is not required.

G. 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.

H. 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 223

Glazing standards, Penalties, Railroad safety, Reporting and recordkeeping requirements.

49 CFR Part 238

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

The Proposed Rule

For the reasons discussed in the preamble, FRA proposes to amend parts 223 and 238 of chapter II, subtitle B of Title 49, Code of Federal Regulations, as follows:

PART 223--[AMENDED]

1. The authority citation for part 223 is revised to read as follows:

Authority: 49 U.S.C. 20102-03, 20133, 20701-02, 21301-02, 21304; 28 U.S.C. 2461, note; and 49 CFR 1.49.

Subpart A--General

2. Section 223.5 is amended by removing the definitions ``Emergency responder'' and ``Passenger train service''; and by revising the definition ``Emergency window'' to read as follows:

Sec. 223.5 Definitions.

* * * * *

Emergency window means that segment of a side-facing glazing panel which has been designed to permit rapid and easy removal from inside a passenger car in an emergency situation.

* * * * *

Subpart B--Specific Requirements

3. Section 223.9 is amended by removing paragraph (d); and by revising paragraph (c) to read as follows:

Sec. 223.9 Requirements for new or rebuilt equipment.

* * * * *

(c) Passenger cars, including self-propelled passenger cars, built or rebuilt after June 30, 1980, must be equipped with certified glazing in all windows and at least four emergency windows.

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PART 238--[AMENDED]

4. 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.

Subpart A--General

5. Section 238.5 is amended by revising the definition ``Emergency window'' and by adding the definitions ``Emergency responder,'' ``Dual-function window,'' ``Intercom,'' ``Intercom system,'' ``Intermediate level,'' ``Main level,'' ``Passenger compartment,'' ``PA System,'' ``Rescue access window,'' and ``Seating area'' to read as follows:

Sec. 238.5 Definitions.

* * * * *

Dual-function window means a window that is intended to serve as both an emergency window exit and a rescue access window and that meets the applicable requirements set forth in both Sec. Sec. 238.113 and 238.114.

* * * * *

Emergency responder means a member of a police or fire department, or other organization involved with public safety charged with providing or coordinating emergency services, who responds to a passenger train emergency.

Emergency window means that segment of a side-facing glazing panel which has been designed to permit rapid and easy removal from inside a passenger car in an emergency situation.

* * * * *

Intercom means a device through which voice communication is transmitted and received.

Intercom system means a two-way, voice communication system.

* * * * *

Intermediate level means a level of a multi-level passenger car that is used for passenger seating and is normally located between two main levels. An intermediate level normally contains two, separate

seating areas, one at each end of the car, and is normally connected to each main level by stairs.
* * * * *
Main level means a level of a passenger car that contains a passenger compartment whose length is equal to or greater than half the length of the car.
* * * * *
PA system (or public address system) means a one-way, voice communication system.
* * * * *
Passenger compartment means an area of a passenger car that consists of a seating area and any vestibule that is connected to the seating area by an open passageway.
Rescue access window means a side-facing exterior window intended for use by emergency responders to gain access to passengers in an emergency situation.
* * * * *
Seating area means an area of a passenger car that normally contains passenger seating.
* * * * *
6. Section 238.17 is amended by revising the introductory text of paragraphs (b) and (c) to read as follows:

Sec. 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 Sec. Sec. 238.303(e)(15), (e)(17) and (e)(18), 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:
* * * * *
(c) Limitations on movement of passenger equipment that develops defects en route. Except as provided in Sec. Sec. 238.303(e)(15), (e)(17) and (e)(18), 238.305(c), 238.307(c)(1), and 238.503(f), passenger equipment that develops en route to its destination, after its calendar day mechanical inspection is performed and before its next calendar day mechanical inspection is performed, any condition not in compliance with this part, other than a power brake defect, may be moved only if the railroad complies with all of the following requirements or, if applicable, the special requirements in paragraph (e) of this section:
* * * * *

Subpart B--Safety Planning and General Requirements

7. Section 238.113 is revised to read as follows:

Sec. 238.113 Emergency window exits.

(a) Number and location. Except as provided in paragraph (a)(3) of this section, the following requirements apply on or after [DATE 60 DAYS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN FEDERAL REGISTER].

(1) Single-level passenger cars. Each single-level passenger car shall have a minimum of four emergency window exits. At least one emergency window exit shall be located in each side of each end (half) of the car, in a staggered configuration where practical. (See Figure 1 to this subpart; see also Figures 1b and 1c to this subpart.)

(2) Multi-level passenger cars--main levels. Each main level in a multi-level passenger car is subject to the same requirements specified for single-level passenger cars in paragraph (a)(1) of this section.

(3) Multi-level passenger cars--levels with seating areas other than main levels. (i) Except as provided below, on or after [DATE 18 MONTHS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER] any level other than a main level used for passenger seating in a multi-level passenger car, such as an intermediate level, shall have a minimum of two emergency window exits in each seating area. The emergency window exits shall be accessible to passengers in the seating area without requiring movement through an interior door or to another level of the car. At least one emergency window exit shall be located in each side of the seating area. An emergency window exit may be located within an exterior side door in the passenger compartment if it is not practical to place the window exit in the side of the seating area. (See Figures 2 and 2a to this subpart; compare to Figure 2b of this subpart.)

(ii) Only one emergency window exit is required in a seating area in a passenger compartment if:

(A) It is not practical to place an emergency window exit in a side of the passenger compartment due to the need to provide accessible accommodations under the Americans with Disabilities Act of 1990;

(B) There are no more than four seats in the seating area; and

(C) A suitable, alternate arrangement for emergency egress is provided.

(iii) For passenger cars ordered prior to [DATE 14 MONTHS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], and placed in service prior to [DATE 38 MONTHS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], only one emergency window exit is required in a seating area in a passenger compartment if it is not practicable to place a window exit in a side of the passenger compartment (due to the presence of such structures as a bathroom, electrical locker, or kitchen) and there are no more than eight seats in the seating area.

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(4) Cars with a sleeping compartment or similar private compartment. Each level of a passenger car with a sleeping compartment or a similar private compartment intended to be occupied by a passengers or train crewmember shall have at least one emergency window exit in each such compartment. For purposes of this paragraph (a)(4), a bathroom, kitchen, or locomotive cab is not considered a ``compartment.''

(b) Ease of operability. On or after November 8, 1999, each emergency window exit shall be designed to permit rapid and easy removal from the inside of the car during an emergency situation without requiring the use of a tool or other implement.

(c) Dimensions. Each emergency window exit in a passenger car, including a sleeping car, ordered on or after September 8, 2000, or placed in service for the first time on or after September 9, 2002, shall have an unobstructed opening with minimum dimensions of 26 inches horizontally by 24 inches vertically. An emergency window exit located within an exterior side door, in accordance with the requirements of paragraph (a)(3)(i) of this section, may have an unobstructed opening with minimum dimensions of 24 inches horizontally by 26 inches vertically. A seatback is not an obstruction if it can be moved away from the window opening without requiring the use of a tool or other implement.

(d) Marking and instructions. (1) Each emergency window exit shall be conspicuously and legibly marked with luminescent material on the inside of each car to facilitate passenger egress.

(2) Legible and understandable operating instructions, including instructions for removing the window, shall be posted at or near each such window exit. If window removal may be hindered by the presence of a seatback, headrest, luggage rack, or other fixture, the instructions shall state the method for allowing rapid and easy removal of the window, taking into account the fixture(s), and this portion of the instructions may be in written or pictorial format.

8. Section 238.114 is added to read as follows:

Sec. 238.114 Rescue access windows.

(a) Number and location. Except as provided in paragraph (a)(1)(ii) of this section, the following requirements apply on or after [DATE 60 DAYS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER].

(1) Single-level passenger cars. Except as provided in this paragraph (a)(1) and in paragraphs (a)(1)(i), (a)(1)(ii), and (a)(5) of this section, each single-level passenger car shall have a minimum of two rescue access windows. At least one rescue access window shall be located in each side of the car entirely within 15 feet of the car's centerline, or entirely within 7\1/2\ feet of the centerline if the car does not exceed 45 feet in length. (See Figure 1a to this subpart; see also Figures 1b and 1c to this subpart.) If the seating level is obstructed by an interior door or otherwise partitioned into separate seating areas, each separate seating area shall have a minimum of one rescue access window in each side of the seating area, located as near to the center of the car as practical.

(i) For a single-level passenger car ordered prior to [DATE 14 MONTHS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], and placed in service prior to [DATE 38 MONTHS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], rescue access windows may be located farther than the above prescribed distances from the car's centerline, or located within exterior side doors, or both, if at least one rescue access window is located within each side of

each end (half) of the same passenger compartment.

(ii) For a single-level passenger car ordered prior to September 8, 2000, and placed in service prior to September 9, 2002, the requirements of paragraph (a)(1) of this section apply on or after [DATE 18 MONTHS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER] if the car has at least two exterior side doors (or door leaves), each with a manual override device, and such doors (or door leaves) are located one on each side of the car, in opposite ends (halves) of the car (i.e., in diagonally opposite quadrants). The manual override device shall be:

(A) Capable of releasing the door (or door leaf) to permit it to be opened without power from outside the car;

(B) Located adjacent to the door (or door leaf) which it controls; and

(C) Designed and maintained so that a person may access the override device from outside the car without requiring the use of a tool or other implement.

(2) Multi-level passenger cars--main levels. Each main level in a multi-level passenger car is subject to the same requirements specified for single-level passenger cars in paragraph (a)(1) of this section, with the exception of paragraph (a)(1)(ii), which is not applicable.

(3) Multi-level passenger cars--levels with seating areas other than main levels. (i) Except as provided below, any level other than a main level used for passenger seating in a multi-level passenger car, such as an intermediate level, shall have a minimum of two rescue access windows in each seating area. The rescue access windows shall permit emergency responders to gain access to passengers in the seating area without requiring movement through an interior door or to another level of the car. At least one rescue access window shall be located in each side of the seating area. A rescue access window may be located within an exterior side door in the passenger compartment if it is not practical to place the access window in the side of the seating area. (See Figures 2 and 2a of this subpart; compare to Figure 2b of this subpart.)

(ii) Only one rescue access window is required in a seating area in a passenger compartment if:

(A) It is not practical to place a rescue access window in a side of the passenger compartment due to the need to provide accessible accommodations under the Americans with Disabilities Act of 1990;

(B) There are no more than four seats in the seating area; and

(C) A suitable, alternate arrangement for rescue access is provided.

(iii) For passenger cars ordered prior to [DATE 14 MONTHS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], and placed in service prior to [DATE 38 MONTHS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], only one rescue access window is required in a seating area in a passenger compartment if it is not practicable to place an access window in a side of the passenger compartment (due to the presence of such structures as a bathroom, electrical locker, or kitchen) and there are no more than eight seats in the seating area.

(4) Cars with a sleeping compartment or similar private compartment. Each level of a passenger car with a sleeping compartment

or a similar private compartment intended to be occupied by a passenger or train crewmember shall have a minimum of one rescue access window in each such compartment. For purposes of this paragraph, a bathroom, kitchen, or locomotive cab is not considered a ``compartment.''

(5) Dual-function windows. If, on any level of a passenger car, the emergency window exits installed to meet the minimum requirements of Sec. 238.113 of this part are also intended to function as rescue access windows, the minimum requirements for the number and location of rescue access windows in

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paragraphs (a)(1) through (a)(4) of this section are also met for that level.

(b) Ease of operability. On or after [DATE 60 DAYS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], each rescue access window must be capable of being removed without undue delay by an emergency responder using either:

(1) A provided external mechanism; or

(2) Tools or implements that are commonly available to the responder in a passenger train emergency.

(c) Dimensions. Each rescue access window in a passenger car, including a sleeping car, ordered on or after [DATE 14 MONTHS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], or placed in service for the first time on or after [DATE 38 MONTHS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], shall have an unobstructed opening with minimum dimensions of 26 inches horizontally by 24 inches vertically. A rescue access window located within an exterior side door, in accordance with the requirements of paragraph (a)(3)(i) of this section, may have an unobstructed opening with minimum dimensions of 24 inches horizontally by 26 inches vertically. A seatback is not an obstruction if it can be moved away from the window opening without requiring the use of a tool or other implement.

(d) Marking and instructions. Each rescue access window shall be marked with retroreflective material. A unique and easily recognizable symbol, sign, or other conspicuous marking shall also be used to identify each such window. Legible and understandable window-access instructions, including instructions for removing the window, shall be posted at or near each rescue access window.

Sec. 238.117 [Redesignated as Sec. 238.121]

9. Redesignate Sec. 238.117 as Sec. 238.121.

10. Add new Sec. 238.117 to read as follows:

Sec. 238.117 Emergency communications.

(a) PA system (public address system)--(1) Existing Tier I passenger cars. On or after January 1, 2012, each Tier I passenger car shall be equipped with a PA system that provides a means for a crewmember to communicate to all train passengers in an emergency

situation.

(2) New Tier I and all Tier II passenger cars. Each Tier I passenger car ordered on or after [DATE 60 DAYS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], or placed in service for the first time [DATE 26 MONTHS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], and all Tier II passenger cars shall be equipped with a PA system that provides a means for a crewmember to communicate to all train passengers in an emergency situation. The PA system shall also provide a means for a crewmember to communicate in an emergency situation to persons in the immediate vicinity of the train (e.g., on the station platform). The PA system may be part of the same system as the intercom system.

(b) Intercom system.--(1) New Tier I and all Tier II passenger cars. Each Tier I passenger car ordered on or after [DATE 60 DAYS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], or placed in service for the first time on or after [DATE 26 MONTHS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], and all Tier II passenger cars shall be equipped with an intercom system that provides a means for passengers and crewmembers to communicate with each other in an emergency situation. Except as further specified, at least one intercom that is accessible to passengers without requiring the use of a tool or other implement shall be located in each end (half) of each car. If any passenger car does not exceed 45 feet in length, or if a Tier II passenger car was ordered prior to May 12, 1999, only one such intercom is required. The intercom system may be part of the same system as the PA system.

(2) Marking and instructions. The following requirements to apply to each Tier I passenger car on or after [DATE 26 MONTHS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER] and to all Tier II passenger cars:

(i) The location of each intercom intended for passenger use shall be clearly marked with luminescent material; and

(ii) Legible and understandable operating instructions shall be posted at or near each such intercom.

(c) Back-up power. PA and intercom systems on Tier II passenger trains shall have back-up power for a minimum period of 90 minutes.

11. Section 238.118 is added to read as follows:

Sec. 238.118 Emergency roof access.

Except as provided in Sec. 238.441--

(a) Number and dimensions. Each passenger car ordered on or after [DATE 14 MONTHS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], or placed in service for the first time on or after [DATE 38 MONTHS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], shall have a minimum of two emergency roof access locations, each with a minimum opening of 26 inches longitudinally (i.e., parallel to the longitudinal axis of the car) by 24 inches laterally.

(b) Means of access. Emergency roof access shall be provided by means of a hatch, or a clearly marked structural weak point in the roof for access by properly equipped emergency response personnel.

(c) Location. Emergency roof access locations shall be situated as practical so that when a car is on its side:

(1) One emergency access location is wholly within each half of the roof as divided top from bottom; and

(2) One emergency access location is wholly within each half of the roof as divided left from right. (See Figure 3 to this subpart.)

(d) Obstructions. The ceiling space below each emergency roof access location shall be free from wire, cabling, conduit, and piping. This space shall also be free of any rigid secondary structure (e.g., a diffuser or diffuser support, lighting back fixture, mounted PA equipment, luggage rack) where practicable. If emergency roof access is provided by means of a hatch, it shall be possible to push interior panels or liners out of their retention devices and into the interior of the vehicle after removing the hatch. If emergency roof access is provided by means of a structural weak point, it shall be permissible to cut through interior panels, liners, or other non-rigid secondary structures after making the cutout hole in the roof, provided any such additional cutting necessary to access the interior of the vehicle permits a minimum opening of the dimensions specified in paragraph (a) of this section to be maintained.

(e) Marking and instructions. Each emergency roof access location shall be conspicuously marked with retroreflective material of contrasting color. As further specified, legible and understandable instructions shall be posted at or near each such location. If emergency roof access is provided by means of a structural weak point:

(1) The retroreflective material shall conspicuously mark the line along which the roof skin shall be cut; and

(2) A sign plate with a retroreflective border shall also state:

CAUTION--DO NOT USE FLAME CUTTING DEVICES.

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CAUTION--WARN PASSENGERS BEFORE CUTTING.
CUT ALONG DASHED LINE TO GAIN ACCESS.
ROOF CONSTRUCTION--[STATE RELEVANT DETAILS]

Subpart D--Inspection, Testing, and Maintenance Requirements for Tier I Passenger Equipment

12. Section 238.303 is amended by adding paragraph (e)(18) to read as follows:

Sec. 238.303 Exterior calendar day mechanical inspection of passenger equipment.

* * * * *

(e) * * *

(18) All rescue-access-related exterior markings, signage, and instructions required by Sec. 238.114 and Sec. 239.107(a) of this chapter shall be in place and, as applicable, conspicuous, or legible, or both.

(i) Except as provided in paragraphs (e)(18)(ii) and (iii) of this section, passenger equipment that has any required rescue-access-

related exterior marking, signage, or instruction that is missing, illegible, or inconspicuous may remain in passenger service until no later than the equipment's fourth exterior calendar day mechanical inspection or next periodic mechanical inspection required under Sec. 238.307, whichever occurs first, after the non-complying condition is discovered, where it shall be repaired or removed from service.

(ii) A passenger car having more than 50 percent of the windows on a side of a level of the car designated and properly marked for rescue access that has any required rescue-access-related exterior marking, signage, or instruction that is missing, illegible, or inconspicuous on any of the other windows on that side and level of the car may remain in passenger service until no later than the car's next periodic mechanical inspection required under Sec. 238.307, where it shall be repaired or removed from service.

(iii) A passenger car that is a sleeping car that has more than two consecutive windows with any required rescue-access-related exterior marking, signage, or instruction at or near their locations that is missing, illegible, or inconspicuous may remain in passenger service until no later than the car's next periodic mechanical inspection required under Sec. 238.307, where it shall be repaired or removed from service.

(iv) A record shall be maintained of any non-complying marking, signage, or instruction described in paragraphs (e)(18)(i) through (iii) of this section that contains the date and time that the defective condition was first discovered. This record shall be retained until all necessary repairs are completed.

* * * * *

13. Section 238.305 is amended by revising paragraphs (c) introductory text and (c)(10), and adding paragraphs (c)(11) and (c)(12) to read as follows:

Sec. 238.305 Interior calendar day mechanical inspection of passenger cars.

* * * * *

(c) As part of the interior calendar day interior mechanical inspection, the railroad shall verify conformity with the following conditions, and nonconformity with any such condition renders the car defective whenever discovered in service, except as provided in paragraphs (c)(5) through (c)(12), and paragraph (d) of this section.

* * * * *

(10) All end doors and side doors operate safely and as intended. A non-complying car may continue in passenger service pursuant to paragraph (d) of this section if at least one operative and accessible door is available on each side of the car; the train crew is provided written notification of the non-complying condition; and a notice is prominently displayed directly on the defective door indicating that the door is defective.

(11) [Reserved]

(12) On passenger cars so equipped, public address and intercom systems shall be operative and function as intended. A passenger car with an inoperative or non-functioning public address or intercom

system may remain in passenger service until no later than the car's fourth interior calendar day mechanical inspection or next periodic mechanical inspection required under Sec. 238.307, whichever occurs first, or for a passenger car used in long-distance intercity train service until the eighth interior calendar day mechanical inspection or next periodic mechanical inspection required under Sec. 238.307, whichever occurs first, after the non-complying condition is discovered, where it shall be repaired or removed from service; provided, the train crew is given written notification of the non-complying condition, and all of the requirements contained in paragraph (d)(3) of this section are met.

* * * * *

14. Section 238.307 is amended by revising paragraphs (c) introductory text and (c)(5) to read as follows:

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

* * * * *

(c) The periodic mechanical inspection shall specifically include the following interior and exterior mechanical components, which shall be inspected not less frequently than every 184 days. At a minimum, this inspection shall determine that:

* * * * *

(5) With regard to the following emergency systems:

(i) Emergency lighting systems required under Sec. 238.115 are in place and operational; and

(ii) [Reserved]

(iii) Emergency roof access markings and instructions required under Sec. 238.118 (e) are in place and, as applicable, conspicuous, or legible, or both.

* * * * *

Subpart E--Specific Requirements for Tier II Passenger Equipment

Sec. 238.437 [Removed and Reserved]

15. Section 238.437 is removed and reserved.

16. Section 238.441 is revised to read as follows:

Sec. 238.441 Emergency roof access.

(a) Each passenger car ordered prior to [DATE 14 MONTHS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER] and placed in service for the first time prior to [DATE 38 MONTHS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], and each power car shall have a minimum of one roof hatch emergency access location with a minimum opening of 26 inches by 24 inches, or at least one structural weak point in the roof providing a minimum opening of the same dimensions, to provide access for properly equipped emergency response personnel. Each emergency roof access location shall be

conspicuously marked, and legible and understandable operating instructions shall be posted at or near each such location.

(b) Each passenger car ordered on or after [DATE 14 MONTHS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], or placed in service for the first time on or after [DATE 38 MONTHS AFTER DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER,] shall comply with the emergency roof access requirements specified in Sec. 238.118.

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Joseph H. Boardman,

Federal Railroad Administrator.

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[GRAPHIC] [TIFF OMITTED] TP24AU06.015

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