Flooding source(s)	Location of referenced elevation	* Elevation in feet (NGVD) + Elevation in feet (NAVD) # Depth in feet above ground ∧ Elevation in meters (MSL)		Communities affected
		Effective	Modified	
Unincorporated Areas of Palo Pinto County				
Maps are available for inspection at the Palo Pinto County Courthouse, 520 Oak Street, Palo Pinto, TX 76484.				

(Catalog of Federal Domestic Assistance No. 97.022, "Flood Insurance.")

Dated: September 13, 2010.

Sandra K. Knight,

Deputy Federal Insurance and Mitigation Administrator, Mitigation, Department of Homeland Security, Federal Emergency Management Agency.

[FR Doc. 2010–24869 Filed 10–4–10; 8:45 am]

BILLING CODE 9110–12–P

DEPARTMENT OF TRANSPORTATION

Federal Railroad Administration

49 CFR Part 227

[Docket No. FRA–2009–0044, Notice No. 1]

RIN 2130–AC14

Emergency Escape Breathing Apparatus Standards

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

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: FRA is proposing to amend its regulations related to occupational safety and health in locomotive cabs in three ways. First and foremost, pursuant to a 2008 Congressional mandate, FRA is proposing to include requirements that railroads provide an appropriate atmosphere-supplying emergency escape breathing apparatus (EEBA) to the members of the train crew and certain other employees while they are occupying the locomotive cab of a freight train transporting a hazardous material that would pose an inhalation hazard in the event of release during an accident. Second, FRA is proposing to reflect the additional subject matter by changing the name of the part from "Occupational Noise Exposure" to "Occupational Safety and Health in the Locomotive Cab" and by making other conforming amendments. Third, FRA is proposing to remove the provision on the preemptive effect of the requirements as unnecessary.

DATES: Written comments must be received by December 6, 2010. Comments received after that date will be considered to the extent possible without incurring additional delay or expense.

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 December 6, 2010, 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: You may submit comments related to Docket No. FRA–2009–0044, Notice No. 1, by any one of the following methods:

- *Fax:* 1–202–493–2251;
- *Mail:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590;
- *Hand Delivery:* U.S. Department of Transportation, Docket Operations, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays; or
- Electronically through the Federal eRulemaking Portal, *http://www.regulations.gov.* Follow the online instructions for submitting comments.

Instructions: All submissions must include the agency name, docket name, and docket number or Regulatory Identification Number (RIN) for this rulemaking. Note that all comments received will be posted without change to *http://www.regulations.gov,* including any personal information provided. Please see the Privacy Act section of this document.

Docket: For access to the docket to read background documents or comments received, go to *http://www.regulations.gov* at any time or to the U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Alan Misiaszek, Certified Industrial Hygienist, Staff Director, Industrial Hygiene Division, Office of Safety Assurance and Compliance, Office of Railroad Safety, FRA, 1200 New Jersey Avenue, SE., Mail Stop 25, Washington, DC 20590 (*telephone:* (202) 493–6002), *alan.misiaszek@dot.gov* or Stephen N. Gordon, Trial Attorney, Office of Chief Counsel, FRA, 1200 New Jersey Avenue, SE., Mail Stop 10, Washington, DC 20590 (telephone: (202) 493–6001), *stephen.n.gordon@dot.gov.*

SUPPLEMENTARY INFORMATION:

Abbreviations and Terms Used in This Document

AAR—Association of American Railroads
BNSF—BNSF Railway Company
BLET—Brotherhood of Locomotive Engineers and Trainmen
CFR—Code of Federal Regulations
DOT—U.S. Department of Transportation
EEBA—emergency escape breathing apparatus
FRA—Federal Railroad Administration
FRSA—the former Federal Railroad Safety Act of 1970, repealed and reenacted as positive law at 49 U.S.C 20106
IDLH—immediate danger to life or health or immediately dangerous to life or health
ISO—International Organization for Standardization
LBIA—the former Locomotive (Boiler) Inspection Act, repealed and reenacted as positive law in 49 U.S.C. 20701–20703
NIOSH—National Institute for Occupational Safety and Health
NPRM—notice of proposed rulemaking
NS—Norfolk Southern Railway Company
NTSB—National Transportation Safety Board
OSHA—Occupational Safety and Health Administration
PHMSA—Pipeline and Hazardous Materials Safety Administration
PIH material—poison inhalation hazard material
ppm—parts per million
RCO—remote control operator
RSIA—Rail Safety Improvement Act of 2008, Public Law 110–432, Division A
SCBA—self-contained breathing apparatus
SBA—Small Business Administration
T&E employees—train and engine service employees

UP—Union Pacific Railroad Company
UTU—United Transportation Union

Table of Contents for Supplementary Information

I. Statutory Background and More Detailed Summary of Proposed Regulation
II. Regulatory Background
III. Accident History
IV. FRA-Sponsored Study
V. Selection of the Appropriate EEBA by Railroads
VI. Provision of EEBAs to Covered Employees
VII. Information and Recommendations Provided by the Railroad Industry and Railroad Labor Organizations After the Study
VIII. Section-by-Section Analysis
IX. Regulatory Impact
A. Executive Order 12866 and DOT Regulatory Policies and Procedures
B. Regulatory Flexibility Determination
C. Federalism
D. International Trade Impact Assessment
E. Paperwork Reduction Act
F. Compliance With the Unfunded Mandates Reform Act of 1995
G. Environmental Assessment
H. Energy Impact
I. Privacy Act

I. Statutory Background and More Detailed Summary of Proposed Regulation

The proposed regulation governing the provision of EEBAs is being promulgated primarily to satisfy the requirements of section 413 of the RSIA, Public Law 110–432, Div. A, 122 Stat. 4848, October 16, 2008 (49 U.S.C. 20166). The RSIA mandates that the Secretary of Transportation (Secretary) adopt regulations requiring railroads to provide EEBAs for the train crews in the locomotive cabs of any freight train transporting a hazardous material in commerce that would present an inhalation hazard in the event of a release. Specifically, the statute instructs the Secretary to prescribe regulations requiring railroads to—(1) Ensure that EEBAs affording suitable "head and neck coverage with respiratory protection" are provided "for all crewmembers" in a locomotive cab on a freight train transporting "hazardous materials that would pose an inhalation hazard in the event of a release"; (2) provide a place for convenient storage of EEBAs in the locomotive that will allow "crewmembers to access such apparatus quickly"; (3) maintain EEBAs "in proper working condition"; and (4) provide crewmembers with appropriate instruction in the use of EEBAs. The Secretary has delegated the responsibility to carry out his responsibilities under this section of the RSIA to the Administrator of FRA. 74 FR 26981, 26982, June 5, 2009, 49 CFR 1.49(oo). In addition, this proposed regulation is issued under the authority of 49 U.S.C. 20103 and 49 U.S.C. 20701–20703, as delegated to the Administrator of FRA pursuant to 49 CFR 1.49(c) and (m).

If adopted, proposed new subpart C of 49 CFR part 227 would require any railroad transporting a hazardous material that would pose an inhalation hazard if released during an accident to provide an appropriate atmosphere-supplying EEBA to train employees, direct supervisors of those train employees, deadheading employees, and, at the discretion of the railroad, other employees designated by the railroad in writing. FRA's concern in proposing the requirement for the provision of EEBAs is focused on inhalation hazards that can occur by one of two ways: either by displacement of oxygen in the atmosphere or by poisoning. Termed "asphyxiants and PIH materials" in the proposed regulation, the covered materials are flammable gases; non-flammable, nonpoisonous compressed gases; gases poisonous by inhalation; and certain other materials classified as poisonous by inhalation within the meaning of the PHMSA's Hazardous Materials Regulations. *See* 49 CFR parts 171–180. The EEBAs are intended to protect these employees from the risk of exposure to such hazardous materials during the period while the employees are located in the locomotive cab or escaping from the locomotive cab.

The proposed regulation governing EEBAs would also require railroads that transport an asphyxiant or a PIH material on the general railroad system of transportation to establish and carry out a series of programs for the following purposes: Selection, procurement, and provision of the devices; inspection, maintenance, and replacement of the devices; and instruction of employees in the use of the devices. Railroads would be required to identify individual employees or positions to be placed in their general EEBA programs so that a sufficient number of EEBAs are available and to ensure that the identified employees or incumbents of the identified positions know how to use the devices. The proposed regulation would require that convenient storage be provided for EEBAs in the locomotive to enable employees to access the apparatus quickly in the event of a release of a hazardous material that poses an inhalation hazard.

Because the new proposed regulation would be placed in 49 CFR part 227, FRA also proposes to make conforming changes, minor corrections, and updates to the existing provisions of part 227. Finally, FRA proposes to remove the provision at 49 CFR 227.7 on the preemptive effect of that part. After considering revising the section to reflect the preemptive effect of 49 U.S.C. 20701–20703, FRA has decided to eliminate the section as duplicative of statutory law and case law.

II. Regulatory Background

Hazardous materials that pose an inhalation hazard (termed "asphyxiants and PIH materials" in the proposed regulation) fall into two, sometimes overlapping categories defined in the Hazardous Materials Regulations. In particular, asphyxiants and PIH materials are (1) the gases classified by 49 CFR 173.115 as "Class 2, Division 2.1 (Flammable gas)"; Class 2, "Division 2.2 (non-flammable, nonpoisonous compressed gas—including compressed gas, liquefied gas, pressurized cryogenic gas, compressed gas in solution, asphyxiant gas and oxidizing gas)"; or Class 2, "Division 2.3 (Gas poisonous by inhalation)" and (2) the gases, liquids, and other materials defined as a "material poisonous by inhalation" by PHMSA's Hazardous Materials Regulations at 49 CFR 171.8. Under 49 CFR 171.8—

> "[m]aterial poisonous by inhalation" means—
>
> (1) A gas meeting the defining criteria in § 173.115(c) of this subchapter [*i.e.,* Division 2.3 (Gas poisonous by inhalation)] and assigned to Hazard Zone A, B, C, or D in accordance with § 173.116(a) of this subchapter;
>
> (2) A liquid (other than as a mist) meeting the defining criteria in § 173.132(a)(1)(iii) of this subchapter [regarding inhalation toxicity] and assigned to Hazard Zone A or B in accordance with § 173.133(a) of this subchapter; or
>
> (3) Any material identified as an inhalation hazard by a special provision in column 7 of the § 172.101 table.

Asphyxiants and PIH materials that are regularly carried by railroads include, for example, carbon dioxide, chlorine gas, and anhydrous ammonia. Such commodities should be easily identifiable for train crews, because a "rail car transporting any quantity of a hazardous material (including either a load or the residue [1] of one of these covered materials) must be placarded on each side and each end" pursuant to the requirements of 49 CFR 172.504 with

[1] "*Residue* means the hazardous material remaining in a packaging, including a tank car, after its contents have been unloaded to the maximum extent practicable and before the packaging is either refilled or cleaned of hazardous material and purged to remove any hazardous vapors." 49 CFR 171.8.

certain specified placards. A car containing a Class 2, Division 2.1 material must have "FLAMMABLE GAS" placards. *See* 49 CFR 172.532. Class 2, Division 2.2 materials must have "NON–FLAMMABLE GAS" placards. *See* 49 CFR 172.528. A car transporting a Class 2, Division 2.3 material, must have "POISON GAS" placards. *See* 49 CFR 172.540. Meanwhile, a car carrying any of the subset of Class 6, Division 6.1 materials that is a "material poisonous by inhalation" must have "POISON INHALATION HAZARD" placards, except that "[f]or domestic transportation, a POISON INHALATION HAZARD placard is not required on a transport vehicle [including a rail car] or freight container that is already placarded with the POISON GAS placard." [2] *See* 49 CFR 172.555 and 49 CFR 172.504(f)(8). In summary, when a train crewmember observes a car placarded FLAMMABLE GAS, NON–FLAMMABLE GAS, POISON GAS, or POISON INHALATION HAZARD while the car is part of his or her train, the crewmember will know that EEBAs must be provided in the locomotive cab prior to the train beginning its movements.

III. Accident History

The historical data suggest that crew injuries and fatalities related to the catastrophic release of a rail shipment (*i.e.,* release of all or nearly all of a rail shipment, usually a loaded rail tank car or a placarded empty rail tank car, which contains a residue of the original shipment) of an asphyxiant or a PIH material are rare; however, such incidents have the potential to be deadly. For example, in the 42 years between 1965 (the year for which the earliest data are available) and 2006, there were approximately 2.2 million tank car shipments of chlorine. Out of these 2.2 million tank car shipments, there were only 788 accidents (0.00036 of all tank car chlorine shipments), 11 instances where there was catastrophic loss (*i.e.,* a loss of all or nearly all) of the chlorine lading (0.000005 of all tank car chlorine shipments), and 4 of these incidents resulted in fatalities (0.0000018 of all tank car chlorine shipments). *See* Written Statement of Joseph H. Boardman, Administrator, FRA, before the Committee on Transportation and Infrastructure, United States House of Representatives, June 13, 2006. Of the four incidents with fatalities, two resulted in the fatalities of crewmembers. One occurred in Macdona, Texas in June of 2004, and the other in Graniteville, South Carolina in January of 2005. These two fatalities involving crewmembers will be discussed below.

While even one death due to inhalation of an asphyxiant or a PIH material is too many, it is important to recognize that there have been dramatic improvements in the safety performance of rail operations since 1970. Accidents and casualty rates declined significantly during the 1970s, 1980s, and 1990s, with the past decade experiencing a leveling off of safety performance. These improvements in rail safety have resulted in the safer transportation of hazardous materials. The AAR has found a significant decrease in hazardous material incidents since 1980. According to AAR, hazardous material incident release rates are down 71 percent from 1980 and 56 percent from 1990, while hazardous material accident rates are down 90 percent from 1980 and 49 percent from 1990.[3] Not surprisingly, there also has been a corresponding reduction in the number of accidents with a hazardous material release. Such incidents have fallen 76 percent since 1980 and 17 percent since 1990. *See* Robert Fronczak, "U.S. Railroad Safety Statistics and Trends," AAR, May 2005.

FRA has analyzed the casualty data in its possession for on-duty employees in train and engine service (T&E) for the 10-year period from 1997 to 2006. During this time frame, a total of 25,941 non-passenger T&E on-duty casualties were reported, with 25,904 injuries and 37 fatalities. Table 1, below, examines those casualties resulting from collisions, derailments, and inhalation.

TABLE 1—NON-PASSENGER T&E EMPLOYEES—ON-DUTY CASUALTIES

[Source: FRA Safety Database—4.02 Casualty Data Reports]

Reporting year	Total casualties	Collision casualties	Collision fatalities	Derailment casualties	Derailment fatalities	Inhalation casualties	Inhalation fatalities
1997	2,834	96	8	38	0	58	0
1998	3,004	86	1	37	0	86	0
1999	3,211	76	7	54	1	73	0
2000	3,169	82	2	44	0	63	0
2001	2,872	86	4	50	0	68	0
2002	2,405	84	2	46	1	50	0
2003	2,281	75	2	44	1	63	0
2004	2,211	73	5	55	0	70	1
2005	2,102	84	0	27	0	69	1
2006	1,852	60	1	28	0	64	0
10-year Average per Year	2,594.1	80.2	3.2	42.3	0.3	66.4	0.2

The table includes casualties from derailments and collisions because derailments and collisions represent the most likely events leading to a catastrophic hazardous material release with T&E personnel present. Similarly, these events also have the most potential for property damage or injury or death to members of the general public caused by the release of a hazardous material that renders an unprotected crew ineffective. As can be seen from the table, the overwhelming majority of injuries to T&E personnel are not attributable to the causes of inhalation, collision, or derailment. The 10-year average of about 193 T&E casualties (injured and killed) per year

[2] Class 6, Division 6.1 materials other than material poisonous by inhalation must be placarded "POISON." *See* 49 CFR 172.504, Table 2, and section on placard design at 49 CFR 172.554.

[3] AAR data are used here because they permit longer term historical comparison of the numbers and rates of hazardous materials accidents and hazardous material incidents involving rail transportation of hazardous material than do the analogous data currently available from FRA's sister agency, PHMSA. PHMSA changed the definitions of what must be reported to that agency on those matters after the year 1998. As a result, PHMSA's data on hazardous materials accidents and incidents are not necessarily homogenous in nature and do not permit ready comparisons over as long a period of time.

due to inhalation, collision or derailment [80.2 + 3.2 + 42.3 + 0.3 + 66.4 + 0.2] represents just 7.4 percent of the average number of 2,594 T&E on-duty casualties per year during the same period. When just inhalation casualties are considered [66.4 + 0.2], the number falls to 2.6 percent. Moreover, based on a review of the inhalation casualty data available to FRA, it appears that a large majority of the inhalation casualties identified involve (a) employees that were not performing train operations or (b) environments that fall outside the congressional mandate.

Moreover, the information compiled in Table 1 suggests that collisions are the most life-threatening event experienced by T&E employees. Of the 37 T&E fatalities identified in the table, 86.4 percent (32 out of 37) involved a collision. This compares to 8.1 percent (3 out of 37) involving a derailment. Only 5.4 percent (2 out of 37) of T&E employee fatalities resulted from inhalation.

To get a better understanding about the relative danger of inhalation fatalities, the number of deaths resulting from inhalation of a hazardous material can also be compared to the average yearly train-miles and number of hazardous material shipments. For the period 1997–2006, the average for annual train-miles was 734.6 million. The 2 on-duty T&E employee deaths resulting from the inhalation of hazardous material therefore can be expressed as a rate of 1 death per 3.67 billion train-miles. Over the same period, this equates to 1 fatality per 5.7 million shipments of the top 125 hazardous materials. *See* "Annual Report of Hazardous Materials Transported by Rail, Calendar Year 2006," AAR, Bureau of Explosives, Report BOE 06–1, October 2007. The two inhalation fatalities in Table 1 represent the only known T&E employee deaths resulting from a hazardous material release. These inhalation casualties, both involving the release of chlorine, arose out of two separate incidents. The first occurred in 2004 near Macdona, Texas. The second occurred in 2005 in Graniteville, South Carolina. Each is discussed in turn.

The incident near Macdona, Texas occurred on June 28, 2004. "A westbound Union Pacific Railroad (UP) freight train traveling on the same main line track as an eastbound BNSF Railway Company (BNSF) freight train struck the midpoint of the 123-car BNSF train as the eastbound train was leaving the main line to enter a parallel siding. The accident occurred at the west end of the rail siding at Macdona, Texas, on the UP's San Antonio Service Unit. The collision derailed the 4 locomotive units and the first 19 cars of the UP train as well as 17 cars of the BNSF train. As a result of the derailment and pileup of railcars, the 16th car of the UP train, a pressure tank car loaded with liquefied chlorine, was punctured. Chlorine escaping from the punctured car immediately vaporized into a cloud of chlorine gas that engulfed the accident area to a radius of at least 700 feet before drifting away from the site. Three persons, including the conductor of the UP train and two local residents, died as a result of chlorine gas inhalation." *See* NTSB's report on the accident, "Collision of Union Pacific Railroad Train MHOTU–23 With BNSF Railway Company Train MEAP–TUL–126–D With Subsequent Derailment and Hazardous Materials Release, Macdona, Texas, June 28, 2004," Railroad Accident Report NTSB/RAR–06/03, Washington, DC.

The Graniteville, South Carolina incident occurred on January 6, 2005, when a NS freight train encountered a switch that had been improperly lined. The improperly lined switch diverted the train from the main line onto an industry track. Once on the industry track, the train struck an unoccupied, parked train. The collision resulted in the derailment of two locomotives and 16 freight cars on the diverted train, as well as the locomotive and one of the two cars of the parked train. There were three tank cars containing chlorine among the derailed cars on the diverted train. One of the cars containing chlorine was breached causing a release of chlorine gas. As a result, "the train engineer and eight other people died as a result of chlorine gas inhalation." *See* NTSB's report on the accident, "Collision of Norfolk Southern Freight Train 192 With Standing Norfolk Southern Local Train P22 With Subsequent Hazardous Materials Release at Graniteville, South Carolina, January 6, 2005," Railroad Accident Report NTSB RAR–05/04, Washington, DC.

Following the Macdona and Graniteville fatalities, the NTSB issued a recommendation that FRA—

> [d]etermine the most effective methods of providing emergency escape breathing apparatus for all crewmembers on freight trains carrying hazardous materials that would pose an inhalation hazard in the event of unintentional release, and then require railroads to provide these breathing apparatus to their crewmembers along with appropriate training.

(R–05–17). FRA responded to the NTSB recommendation by initiating a study of potential emergency escape breathing devices for use by crewmembers on freight trains transporting hazardous material that would pose an inhalation hazard if released.

IV. FRA–Sponsored Study

Commissioned by FRA and in cooperation with the railroad industry and railroad labor, the study of EEBAs compiled factual information, performed technical, risk, and economic analyses, and made recommendations on "the use of [EEBAs] by train crews who may have exposure to hazardous materials [that] would pose an inhalation hazard in the event of unintentional release." *See* "Emergency Escape Breathing Apparatus," FRA Office of Research and Development, Final Report, May 2009, which is posted at *http://www.fra.dot.gov/downloads/Research/ord0911.pdf* and included in the docket of this rulemaking. Part of this preamble to the NPRM draws from the study; however, on further consideration of the issues involved and on further consultation with representatives of the railroad industry and railroad labor (as discussed under "Section V," below), FRA has come to different conclusions on a number of matters. These matters include the minimum breathing time that EEBAs should provide, the analysis of different methods of distribution of the devices, and the costs and benefits of various EEBA alternatives.

V. Selection of the Appropriate EEBA by Railroads

As previously discussed, section 413 of the RSIA requires the Secretary to promulgate regulations requiring railroad carriers—

> to provide emergency escape breathing apparatus suitable to provide head and neck coverage with respiratory protection for all crewmembers in locomotive cabs on freight trains carrying hazardous materials that would pose an inhalation hazard in the event of release. * * *

49 U.S.C. 20166.

EEBAs fall within the broad category of "respirators." FRA has examined EEBA technologies to determine the type of EEBA best suited to satisfy this rulemaking mandate of the RSIA. Respirators generally fall into two categories: Air-purifying respirators and atmosphere-supplying respirators. Air-purifying respirators remove specific air contaminants by passing ambient air through an air-purifying element, such as an air-purifying filter, cartridge, or canister. Atmosphere-supplying respirators supply breathing air from a source independent from the ambient atmosphere. Types of atmosphere-supplying respirators include airline supplied-air respirators and SCBA units.

Based on the factors presented, FRA proposes requiring an atmosphere-supplying respirator that provides adequate head and neck protection as well as giving sufficient time for its user to escape an IDLH atmosphere.

Two main organizations have promulgated performance standards governing the use and maintenance of respirators. NIOSH, located within the Centers for Disease Control and Prevention of the U.S. Department of Health and Human Services, has worked with government and industry partners to develop certification standards for respirators. The NIOSH regulations codified at 42 CFR part 84 establish the requirements for NIOSH-certification of respirator equipment.[4] NIOSH also has developed information on safe levels of exposure to toxic materials and harmful physical agents and issued recommendations for respirator use.

A second entity that has established performance standards for respirator maintenance and use is the ISO. The ISO is a network of national standards institutes in 162 countries, including the United States through the American National Standards Institute. ISO develops international standards to assist in ensuring the safe performance of a wide range of EEBAs. While the ISO is not a government organization, it works to establish performance standards that have scientific and technological bases while ensuring that products falling within its purview are safe and reliable for consumers. The organization has promulgated ISO 23269–1:2008(E), "Ships and marine technology—Breathing apparatus for ships—Part 1: Emergency escape breathing devices (EEBD) for shipboard use." While ISO 23269–1 is directed towards EEBAs on ships and marine technology, FRA anticipates that this ISO standard can be reasonably transferred to the railroad environment. ISO 23269–1 establishes performance specifications for EEBAs that are intended to provide air or oxygen to a user to facilitate escape from accommodation and machinery spaces, similar to a locomotive cab, with a hazardous atmosphere. However, FRA believes that the minimum breathing capacity allowed by ISO 23269–1, which is 10 minutes, is insufficient for the anticipated use in a railroad environment. As a result, this NPRM proposes a minimum breathing capacity of 15 minutes, which would be equally applicable to EEBAs certified under the requirements of NIOSH. *See* 42 CFR part 84, or ISO 23269–1.

Additionally, OSHA, located within the U.S. Department of Labor, is responsible for developing and enforcing general workplace safety and health regulations related to respiratory protection. In furtherance of this responsibility, OSHA has promulgated extensive regulations governing the use of respirators of all types, including emergency escape devices. *See* 29 CFR 1910.134. In drafting this NPRM, FRA has considered the requirements of both Federal agencies as well as ISO to assist in determining the possible types of EEBAs that may be used by railroad employees whom FRA proposes to cover under this rule.

A comprehensive selection process for respirators has been developed by NIOSH. *See http://www.cdc.gov/niosh/docs/2005-100/pdfs/05-100.pdf.* For purposes of EEBAs deployed in the railroad environment, the two major NIOSH factors to consider in selecting a respirator are to determine whether the respirator is intended for (1) use in an oxygen-deficient atmosphere (*i.e.,* less than 19.5 percent oxygen (O_2)) and (2) use in entry into, or escape from, unknown or IDLH atmospheres (*e.g.,* an emergency situation).

FRA's investigation into the Graniteville accident found that the concentration of the toxic chlorine cloud over the accident site area was estimated to be approximately 2,000 ppm. *See* R. L. Buckley, Detailed Numerical Simulation of the Graniteville Train Collision, Savannah River National Laboratory, Report WSRC–MS–2005–00635 October 2005. OSHA classifies chlorine as having an IDLH level of 10 ppm. FRA roughly estimated the distance between the final resting spot of the breached chlorine tank car in relation to the train crew, as well as the wind speed and size of breach, to determine that the chlorine plume reached the crew within two minutes. The coroner's report on the eight civilian fatalities in the Graniteville incident indicated that the primary cause of death was asphyxia, or lack of oxygen. The coroner listed the engineer's primary cause of death as lactic acidosis. Exposure to chlorine gas was attributed as the secondary cause of all deaths in the incident. Under the circumstances presented, it appears that both NIOSH selection criteria were met. There may have been an oxygen-deficient atmosphere, and there certainly was toxic-gas concentration exceeding IDLH levels.

The Graniteville accident demonstrated that railroad hazardous material incidents (meaning collision, derailment, or other train accident) involving the catastrophic loss of certain asphyxiants and PIH materials have the potential to release IDLH concentrations and/or displace oxygen very quickly without the crew's knowledge. In such circumstances, the crew may need to respond to an incident by donning their EEBAs even before assessing the damage caused by an accident. Considering the variables associated with the transportation of hazardous materials via rail and the potential hazards that exist, FRA proposes, based on the NIOSH selection criteria, to require railroad to provide an escape-type respirator.

The single function of escape-type EEBAs is to allow sufficient time for an individual working in a normally safe environment to escape from suddenly occurring respiratory hazards. Given this function, the selection of the device does not rely on assigned protection factors designated by OSHA.[5] Instead, these escape-type respirators are selected based on a consideration of the time needed to escape in the event of IDLH or oxygen-deficient conditions.

Pursuant to statutory requirements, FRA's proposed regulation would require the provision of a device with head and neck coverage. Escape-type SCBA devices are commonly used with full-face pieces or hoods. Such devices are usually rated from 3- to 60-minute units depending on the supply of air.

The following two types of atmosphere-supplying SCBA would satisfy the protection requirements of this proposed regulation:

- Open Circuit SCBA. These are typically classified as positive pressure, open circuit systems whereby the user receives (inhales) clean air with 21 percent O_2 from a compressed air cylinder worn with a harness on the back. The user's exhaled breath contains significant amounts (15 percent) of unused oxygen that is vented to atmosphere. Because much of the user's exhaled breath vents to atmosphere, the size of open circuit systems is larger than closed circuit systems. Open

[4] As of the date of publication for this NPRM, NIOSH is in the process of amending its regulations in 42 CFR part 84—subpart H, which are applicable to closed circuit respirators. *See* 73 FR 75207, December 10, 2008, re Docket No. HHS–OS–2009–0025 at *http://www.regulations.gov.* The proposed NIOSH regulations would be applicable to mine workers, but NIOSH provides that once the final rule is published it would be used to certify respirators in other work environments where escape respirators are supplied. *See also* 74 FR 23815, May 21, 2009, which reopened the comment period until October 9, 2009.

[5] "Assigned protection factor" means the level of safety that a respirator or a class of respirators is expected to provide to employees. Assigned protection factors were developed by OSHA to designate to employers the proper type of device that is required in selecting a respirator. According to OSHA, assigned protection factors are not applicable to respirators used solely for escape.

circuit SCBA systems may employ full face masks or hoods and typically require an airtight seal against the head, face, or aural/nasal area.

• Rebreathers. These can be positive-pressure or negative-pressure systems. Classified as closed circuit O_2 systems, re-breathers perform as their name implies. The user re-breathes his or her breath. A chemical scrubber removes the carbon dioxide (CO_2) from the user's breath and makes up metabolized O_2 from a small bottle of compressed 100-percent O_2. Because the user is re-breathing his or her exhaled air containing 15 percent oxygen, a re-breather is four times more efficient than an open circuit system. As a result, such systems are capable of either lasting much longer than open circuit systems (if size were comparable) or providing the same breathing duration as an open circuit system but in a smaller package. Re-breathers may be employed with full-face masks or hoods. Negative pressure re-breathers do not require a tight seal.

First responders (such as firefighters) commonly use open circuit positive pressure SCBA systems for entering the scene of an emergency event. However, such devices may not be best situated to the railroad environment. In addition to being heavy and cumbersome from incorporating a large compressed air cylinder mounted to a harness, they also commonly incorporate use of a full-face piece. Depending on the program developed by each railroad, the incorporation of a full-face piece may be a logistically and economically difficult undertaking. To be effective, a full-face piece requires an airtight seal around the user's face, which means that each user must be personally fitted for the device. It also means the user must be cleanly shaven or otherwise free of excessive facial hair. The enforcement of such a requirement would be difficult at best.

FRA believes that hoods provide a useful alternative to full-face masks while protecting the face and neck. Hoods are universal fitting devices and can be used with open and closed circuit SCBAs. Because they are universal fitting, hoods do not require personally fitting the user, and hoods operate efficiently regardless of most eyewear, facial features, or hair. Significantly, hoods also allow the wearer to communicate while using the SCBA.

Experience has shown that a plume of hazardous material can travel quickly. As a result, it is vitally important that the train crew has adequate breathing time available to allow each member to move a significant distance from the site while protected from the ambient atmosphere. Because such incidents will often result from a collision, as was the case in Macdona and Graniteville, consideration should be given to those situations where additional time may be used to assist or extricate fellow crewmembers that may be hurt or trapped. For example, if it takes 10 minutes to assist a fellow crewmember and each is wearing a 15-minute open circuit respirator, each crewmember is left with 5 minutes to escape from any plume that may be present. Moreover, often individuals will have a tendency to over-breathe in stressful situations, which will shorten the breathing time available in a respirator. In selecting an EEBA with sufficient breathing time, each railroad should take into consideration these factors and others that contribute to the "Murphy's Law" effects of accidents such as an incident occurring at night or in tight terrain. As a result, FRA proposes a 15-minute minimum breathing capacity for an EEBA provided to a covered employee. Further, FRA encourages railroads to consider EEBAs with a longer breathing capacity, to provide an extra margin for escape under stressful circumstances.

VI. Provision of EEBAs to Covered Employees

The proposed regulation does not specify a particular method by which a railroad is to provide EEBAs to the employees that Congress intended to cover. *See* discussion of covered employees at Section-by-Section Analysis of proposed §§ 227.201 and 227.211, below. FRA recognizes that there are differing methods for effectively distributing suitable EEBAs among a railroad's covered employees or its locomotive fleet or both. Each of these options has advantages and disadvantages. Given these factors, FRA believes that it is best to allow each railroad to choose the method of distribution that works for it as long as—(1) covered employees are provided with a suitable device while they are in the locomotive cab of a freight train transporting an asphyxiant or a PIH material and (2) transportation of a covered hazardous material is not unduly delayed, particularly where the covered train (or a locomotive intended to be used to haul a covered train) is interchanged from one railroad to another. *See V. Information and Recommendations Provided by the Railroad Industry and Railroad Labor Organizations after the Study,* for relevant remarks.

Under the proposed regulation, EEBAs may be treated as part of an employee's permanently issued items, similar to eye protection, radios, and lanterns. This would allow railroads to permanently issue an EEBA to each potentially covered employee (*e.g.,* for a freight railroad that regularly hauls one or more asphyxiants or PIH materials, possibly all of its train employees). The device would be in the user's control at all times, and each individual would be responsible for having the device in his or her possession. The carrier would still be responsible to ensure the state of the equipment through an inspection program; however, the company would be relieved of most of the responsibilities for EEBA management. Theoretically, this option would tend to result in better cared for equipment and lower replacement costs. Moreover, personal assignment allows for customization of the EEBA. Negative aspects of treating EEBAs as a permanently issued item include difficulty in monitoring the EEBA status and ensuring that the EEBA is with the user at all times that it is required to be available. Additionally, permanently issuing the EEBA would add to an already lengthy list of items expected to be carried by train employees.

Alternatively, EEBAs may also be permanently assigned to an individual as a dedicated personal item that would be issued at the start of each shift and recovered at the end of each shift as part of the clock-in/clock-out process. This method allows for customization and allows the EEBA to be with the user at all times that the user is on duty, while supporting centralized inspection and maintenance. However, the railroad may experience greater costs due to the increased size of its EEBA inventory since all train employees that have the potential to work in the locomotive cab of a freight train transporting an asphyxiant or a PIH material would require stocked EEBAs. This alternative may also create difficulties in the provision of EEBAs if the train employees who must have access to the EEBAs have more than one on-duty location.

The third option is to treat EEBAs as "pool" items not assigned to a specific individual that are issued randomly at the start of each shift and recovered at the end of each shift as part of the clock-in/clock-out process. This option supports centralized inspection and maintenance while minimizing number of EEBAs required. Likewise, the EEBA would be with the user throughout his or her entire shift. However, this system may have hidden costs. The railroad will likely lose the benefits of "ownership" if EEBAs are treated as common property. This system also limits the railroad to use of generic, one-

size-fits-all EEBAs and increases the management burden for tracking and recovery of EEBAs.

A fourth option would be to have EEBAs permanently mounted in each locomotive cab in the railroad's fleet. This method would ensure that consists transported by the railroad that include an asphyxiant or a PIH material are always adequately equipped, while supporting centralized inspection and maintenance. The negative aspects of permanently mounting the EEBA selected by the railroad in the cabs of the railroad's locomotive fleet include the increased size of the railroad's EEBA inventory if non-covered consists would transport the EEBAs, increased management burden for tracking/recovery, increased management burden for item inspection and maintenance, potential lack of flexibility as EEBAs must be provided for worst-case crewing (including possible supernumerary personnel such as deadheading employees), and unavailability of customized EEBAs.

As will be discussed in *V. Information and Recommendations Provided by the Railroad Industry and Railroad Labor Organizations After the Study,* AAR has proposed that Class I railroads interchanging locomotives with each other provide the same type of EEBA using the method of equipping the locomotive, which would expedite interchange between two Class I railroads. However, the option of permanently mounting within each locomotive an EEBA selected by that railroad for its program could create delays at interchange if locomotives from nonparticipating railroads are offered in interchange to Class I railroads to haul covered trains. The delay could occur if the nonparticipating railroad delivers a locomotive in interchange that either lacks an EEBA of any kind or that has an EEBA that does not conform to the type specified under the Class I railroad's general EEBA program under proposed § 227.211.

EEBAs also could be temporarily mounted in the locomotive cab as the train containing a shipment of asphyxiant or PIH material is made up. This option would help to minimize the number of EEBAs required, while ensuring that each consist containing an asphyxiant or a PIH material is appropriately equipped. It would also allow the railroad to cater efficiently to differing crew sizes. Problems with this method include increased management burden for the initial issue of EEBAs to the consist, increased management burden for tracking/recovery, increased management burden for item inspection and maintenance, and unavailability of customized EEBAs.

FRA recognizes that these are but a few of the numerous options for the provision of EEBAs, each having its own costs and benefits. Any of these options (or combination of these options), including options that have not been discussed above, would be acceptable under the proposed regulation as long as a suitable EEBA is provided by the railroad to each covered employee while he or she is in the locomotive cab of a covered train without unduly delaying the transportation of covered hazardous materials via rail.

VII. Information and Recommendations Provided by the Railroad Industry and Railroad Labor Organizations After the Study

As previously mentioned, representatives of both the railroad industry and railroad labor cooperated with the FRA-sponsored study on the feasibility of providing EEBAs to train crews, the report of which was published in May 2009. More recently, the AAR, the UTU, and the BLET have exchanged information and ideas with FRA on issues related to this rulemaking.

In July 2009, representatives of the AAR briefed FRA with information on the AAR's exploration of alternative ways by which the rulemaking mandate under section 413 of the RSIA might be carried out. The AAR has also offered recommendations to FRA on issues related to this rulemaking, including the type of EEBA and the mode of providing it that FRA should accept as satisfying the statutory mandate.

Subsequently, in a letter to FRA dated January 13, 2010, which has been attached as Appendix A to this NPRM, an AAR representative said that—

> the railroads' Industrial Hygienists have finalized a specification for a device that meets the objective of the RSIA which is to provide for escape from the area where a release of hazardous materials has occurred that may pose an inhalation hazard. One of the important features of this specification is the provision for the device to have a 15 minute functional rating. Investigations and studies by the railroads' Industrial Hygienists have found that the area of destruction following a release is such that 15 minutes is a more than adequate time period to escape the area. Requiring a device with a greater capacity would result in one that is larger and heavier than called for in this specification. Real estate in the locomotive cab is already at a premium. It is problematic for the railroads to install brackets or holders for the [emergency escape breathing device] called for in this specification. Requiring a larger device in the regulation would complicate this issue by taking more space. Similarly, requiring a device with a greater functional rating would necessitate crew members to manage a device easily twice the size and weight of the six (6) pound unit preferred by the Industrial Hygienists.

Further, the letter said that the specification referenced earlier, "M–1005, is presently being worked through the approval process for AAR Standards. It is this specification that we recommend FRA include by reference in the forthcoming regulation." A copy of the January 20, 2010, draft of that specification as provided by the AAR is at Appendix B to this NPRM.

The draft specification would establish guidelines for vendors of EEBAs that would be used by Class I railroads. It requires that the EEBA provided by the vendor be certified by NIOSH as a "Self-Contained Breathing Apparatus (SCBA)—Escape Only," or comply with some other "National/International standard such as ISO 23269–1:2007(E): Emergency Escape Breathing Device (EEBD)." [6] AAR's draft specification allows for EEBAs that are either Closed Circuit Escape Respirators or Open Circuit Escape Respirators. Each EEBA must have at least a 15-minute approval rating, meaning that the device must function for at least 15 minutes during 3-mph treadmill tests and 30 minutes for stationary tests.[7] The materials used in each EEBA must be resistant to IDLH levels of gaseous chlorine, anhydrous ammonia, and other toxic inhalation hazard (TIH) substances. Additionally, each EEBA shall provide respiratory, head, and neck protection when tested at challenge concentrations of 10,000 ppm anhydrous ammonia and chlorine gas with a hood that is sufficient in size to cover head and neck of larger than average head size. To facilitate transferability, under the proposed specification, the "escape system must interchange with all Class [I] railroads." *Id.*

AAR's draft specification also establishes requirements for mounting EEBAs on locomotives. The EEBAs and the mounting devices must be sufficiently small (5" deep by 8" wide by 10" high) and light (6 lbs. or less), so that they can be easily mounted in a locomotive cab and be easily accessible

[6] FRA believes that AAR's reference to ISO 23269–1:2007(E) is a typographical error made either by AAR or the publisher. FRA has been informed that the first edition of ISO 23269–1 was published in 2008, and that there is no 2007 version of this standard.

[7] AAR's draft specification provides an option for compliance by following ISO 23269–1. Yet, it also requires that the escape device "function for at least 15 minutes." FRA recommends that AAR clarify the apparent inconsistency in its draft specification to indicate that the provision of ISO 23269–1 that calls for a 10-minute minimum does not apply.

in an emergency situation. Each wall mount case must be bright safety orange and contain a photoluminescent label marked with the text stating "Emergency Escape Breathing Device." The draft specification further requires that the mount device contain a clear window that allows a train employee to easily view the oxygen gauge. For security purposes, the draft specification provides that the mount device shall contain a time-stamped seal and plastic tamper tie that is easily identifiable when broken. Additionally, each EEBA must have a small radio frequency indicator (RFID) tag that is attached to the EEBA and faces outward while in the mount device, which facilitates the use of an RFID handheld reader during inspections. Moreover, AAR's draft specification requires that the EEBA provided by a vendor to any Class I railroad must have undergone accelerated random vibration test using a typical locomotive cab profile and there must be evidence of impact and vibration resistance resulting from such testing. Assuming a 50-percent duty life cycle, the device must have a 15-year service life based on escape device performance and mounting device structural integrity tests. Finally, the proposed specification requires that each EEBA be attachable to a train employee's belt and that the EEBA not be activated solely by its removal from wall mount case.

Lastly, AAR's draft specification requires training support. The training shall include a video of various locomotive models and video portions including each Class I railroad. Subjects that must be covered during instruction include discussion about the proper techniques for donning the EEBA, requirements for maintenance, requirements for inspections, typical scenarios where an EEBA will be used, and requirements for training. The draft specification further requires seminars that allow train service trainers to be involved in hands-on and face-to-face "train-the-trainer" situations.

Additionally, FRA representatives also met with UTU and BLET representatives on March 31, 2010 to brief FRA on issues related to the provision of EEBAs. AAR was also in attendance at this meeting. Prior to the meeting, UTU provided a discussion document, which is Appendix C to this NPRM, outlining some of its concerns about the provision of EEBAs on locomotives. UTU felt that EEBAs should be "placed on all occupied locomotives which operate over a corridor where freight trains carry hazardous materials that pose an inhalation hazard in the event of a release." Under UTU's recommendation, each occupied locomotive would be required to have working EEBAs—even if the occupied locomotive is not part of a train carrying asphyxiants or PIH materials—as long the locomotive is operating over a rail line that carries such materials.

During the March 31st meeting, UTU indicated that it opposed issuing EEBAs as personal items. UTU felt that adding an additional item to each train employee's required personal equipment would unnecessarily burden crewmembers. UTU was concerned with not only the added weight, but also the extra responsibility for care and maintenance that would fall to train employees in the event that EEBAs are provided as personal equipment. It contended that railroads are in a better position than the employees to maintain the devices and stated that treating EEBAs as personal equipment would not satisfy the intent of Congress in passing the legislation.

Finally, UTU stressed that there must be sufficient training of train employees in the use of EEBAs. Such training would ensure that train employees would know how to use EEBAs if presented with a situation in the field where their use was required. UTU expressed a strong desire for regular, hands-on training with devices selected by the railroads to achieve these ends.

FRA seeks comment on AAR's draft specification as well as UTU's discussion document. Specifically, FRA welcomes comments about whether it would be appropriate to incorporate a specification of the type that AAR has drafted into the final rule and whether it would be advisable for FRA to alter its proposed regulation based on either the AAR specification or the UTU discussion document.

VIII. Section-by-Section Analysis

Part 227—Occupational Safety and Health in the Locomotive Cab

FRA proposes to change the name of the part from "OCCUPATIONAL NOISE EXPOSURE" to "OCCUPATIONAL SAFETY AND HEALTH IN THE LOCOMOTIVE CAB" in order to reflect the broader subject matter of the part. Previously, part 227 contained regulations related only to dangers from occupational noise exposure. FRA concluded that part 227 was the most natural place to put the proposed regulations related to the provision of EEBAs because the occupational noise regulations and the proposed EEBA regulations both concern dangers to the occupational safety and health of locomotive cab occupants. However, the inclusion of the proposed EEBA regulations requires broader language to accurately capture the subject matter that would be covered in part 227.

Subpart A—General

Section 227.1 Purpose and Scope

FRA proposes to amend this section to reflect the expanded purpose and scope of this part.

Section 227.3 Applicability

FRA proposes amending this section so that paragraphs (a) and (b) apply to subpart B only and that the title mentioned, "Associate Administrator for Safety," is updated to reflect the current title, "Associate Administrator for Railroad Safety/Chief Safety Officer." New paragraphs (c) and (d) define the types of railroad operations to be covered by proposed subpart C. In particular, proposed subpart C applies to a railroad that transports an in-service freight train that carries an asphyxiant or a PIH material, including a residue of such asphyxiant or PIH material, on track that is part of the general railroad system of transportation. *See* 49 CFR part 209, appendix A. If a railroad does not haul such a material on the general system, it is not subject to this subpart. It should be noted that, with some exceptions, common carriers by railroad have a "common carrier" obligation to accept for rail transportation an asphyxiant or a PIH material if it is properly prepared for transportation. If a railroad accepts and transports a tank car containing a load or residue of an asphyxiant or a PIH material in an in-service freight train, even if the railroad has never done so before, the railroad would become subject to this rule. FRA realizes that triggering the applicability of this rule upon the company's first transporting of an asphyxiant or a PIH material in a freight train could delay the transportation of such material if the company did not voluntarily take the steps required by the rule (*e.g.,* preparation of general EEBA program, procurement and distribution of EEBAs, and instruction of employees in the program) in advance. Further, a delay related to compliance with this proposed rule could conflict with the railroad's duty to expedite the transportation of hazardous material, pursuant to the Hazardous Materials Regulations at 49 CFR 174.14. Accordingly, FRA seeks comment on this aspect of the proposal.

Section 227.5 Definitions

The proposed rulemaking would amend this section to add definitions for key terms used in subpart C. The terms

defined are set forth alphabetically. FRA intends these definitions to clarify the meaning of the terms for purposes of this part. Many of these definitions have been taken from the regulations issued by OSHA and NIOSH and are widely used by safety and health professionals, such as the definition of "immediately dangerous to life or health (IDLH)." Additionally, FRA defines "asphyxiant or PIH material" to clarify the universe of materials carried by freight trains for which EEBAs must be provided.

Section 227.7 Preemptive Effect

FRA proposes deleting this section and reserving it for use for two reasons. First, the section is unnecessary because it is duplicative of statutory law at 49 U.S.C. 20106 and case law. Second, the section is incomplete because it omits reference to the preemptive effect of the former LBIA, repealed and recodified at 49 U.S.C. 20701–20703, *see* Public Law 103–272 (July 5, 1994), which has been held to preempt the entire field of locomotive safety. *See Napier* v. *Atlantic Coast Line R.R.,* 272 U.S. 605, 613; 47 S.Ct. 207, 210 (1926). *See* "Federalism," below.

Section 227.15 Information Collection

FRA proposes to amend this section to note the provisions of this part, including subpart C, that have been reviewed and approved by the Office of Management and Budget (OMB) for compliance with the Paperwork Reduction Act of 1995. *See* 44 U.S.C. 3501 *et seq.*

Subpart B—Occupational Noise Exposure for Railroad Operating Employees

FRA proposes a set of minor corrections to this subpart. The term "Class 1" is removed wherever it appears and replaced with the corrected term "Class I". The incorrect term appears in, for example, § 227.103(a)(1).

Subpart C—Emergency Escape Breathing Apparatus Standards

Section 227.201 Criteria for Requiring Availability of EEBAs in the Locomotive Cab

Proposed § 227.201(a)(1) requires that an EEBA be provided by a railroad to each of its train employees, direct supervisors of train employees, deadheading employees, and other employees designated by the railroad in writing and at the discretion of the railroad who are required to work in or occupy the cab of the locomotive of one of its covered trains (*i.e.,* an in-service freight train that is transporting an asphyxiant or a PIH material). The EEBA provided must have been selected in accordance with the criteria in § 227.203. Moreover, the EEBA provided shall have been inspected and determined to be in proper working condition under § 227.207.

Paragraph (a)(2) proposed in this section prohibits utilizing a locomotive to transport an asphyxiant or a PIH material in an in-service freight train unless each of the employees identified in paragraph (a)(1) in the cab of the locomotive has access to an EEBA that was selected in accordance with § 227.203 and that has been inspected and is in proper working order pursuant to § 227.207. Paragraph (a)(2) makes clear that it is not enough for a railroad to merely issue an EEBA to an employee, *e.g.,* as a uniform item; the EEBA must be physically available to the employee in the cab of the covered train. For instance, it is not a defense to a violation of § 227.201(a)(2) that the railroad provided the EEBA to the employee and instructed the employee to have it while in the cab, but the employee lost or forgot it.

This proposed section also includes exceptions to its general requirements in paragraph (b). FRA has considered whether EEBAs should be required on intermodal trains that transport small quantities of asphyxiants and PIH materials. FRA proposes excluding intermodal trains from the requirements in this section. Railroads generally do not accept asphyxiants or PIH materials in intermodal shipments, and the risk of poisonous inhalation in the event of a release from an intermodal shipment is relatively low based on the quantities and packaging of materials carried by such trains. Therefore, there is not a substantial risk that the release of all or most of a shipment of an asphyxiant or a PIH material on an intermodal train would endanger the crew.

FRA is also aware that certain activities involving low-speed, intra-yard movements involve little potential exposure to the kinds of circumstances that this rule is intended to protect against. Employees who are involved in those activities, such as moving a locomotive coupled to a car or group of cars containing an asphyxiant or a PIH material within a locomotive maintenance facility, or who make incidental movements for the purpose of inspection or maintenance, are also exempted from coverage.

FRA considered exempting remote control operators (RCOs) who are not in the cab of a locomotive during the movement of an in-service freight train transporting an asphyxiant or a PIH material. FRA's concern was that an RCO who is on the ground and some distance away from the locomotive while the train is being moved normally would not be in a position to readily access the locomotive to don an EEBA in the event of a release. In such a circumstance, FRA would not want to encourage the RCO to move toward the locomotive cab to retrieve an EEBA that was provided according to a regulatory mandate when the best course of action is to immediately retreat to a safe distance away from the PIH material or asphyxiant. The AAR's January 13, 2010, letter also expresses this concern. However, FRA ultimately decided that it was unnecessary to provide a separate exclusion for RCO's conducting movements from the ground. An RCO is primarily on the ground when performing switching operations. These types of activities are not considered freight train movements under this part. Therefore, there would not be a requirement to provide EEBAs in the locomotive cab in such a circumstance. Alternatively, once switching operations have ceased and the crew is ready to leave the yard with an in-service freight train, FRA would expect the RCO to occupy the cab and ride in the locomotive from point A to point B. Once the RCO has entered the locomotive cab for this type of movement, the rationale for excluding RCOs ceases to exist, and FRA would expect the RCO to be provided an EEBA as a train employee who is occupying the locomotive cab if the movement of the in-service freight train includes transporting an asphyxiant or a PIH material.

It should be noted that the AAR's January 13, 2010 letter to FRA asserts that "there may not be a justified need for an [EEBA] in traditional operations involving Yard and Local Freight trains as well." The letter reasons that, like an RCO—

> a crewman may feel the need to walk through a product mist to the locomotive to obtain and apply the device rather than escaping to a nearby yard office without one. Therefore, Yard and Local Freight assignments should also be exempt from a requirement for [EEBAs].

The letter does not define "Yard and Local Freight trains." The proposed rule applies only to freight trains, which are defined as excluding "switching service," which is in turn defined as the classification of cars according to commodity or destination, assembling cars for train movements, changing the position of cars in order to load, unload, or weigh them, placing cars for repair or storage, and moving rail equipment in connection with work service does not constitute a train movement. FRA notes that yard limits sometimes cover a large

area and that a large amount of anhydrous ammonia is transported in freight trains by local crews. Accordingly, FRA has not proposed to exclude "Yard and Local Freight trains." FRA requests comment on these issues.

Finally, proposed paragraph (c) establishes that, notwithstanding the exceptions identified in § 227.201, any employee who is found to have willfully tampered with or vandalized an EEBA will be subject to subpart C for enforcement purposes. As a result, an employee to whom the railroad is not required to provide an EEBA may become subject to this subpart by vandalizing or willfully tampering with an EEBA. By proposing this paragraph, FRA intends to foreclose a loophole that otherwise would preclude FRA from pursuing enforcement actions against mechanical employees and other employees who may have access to EEBAs, but for whom the railroads are not required to provide a device by these regulations.

Section 227.203 Criteria for Selecting EEBAs

This proposed section provides the basis for selecting an EEBA. *See* general discussion at *III. Selecting an Appropriate EEBA,* above. The requirements for selection of EEBAs are based on the nature and extent of the potential hazard to be faced. To ensure that the EEBAs have met a standard set of testing criteria, NIOSH-certified (42 CFR part 84) or ISO-certified (ISO 23269–1:2008(E)) EEBAs, with 15-minute minimum breathing capacity are mandated. Among these EEBAs, the necessity to choose specific types of EEBAs that address the different asphyxiants and PIH materials carried by the railroad (or by locomotives interchanged by the railroad to another railroad), including their varying modes of toxicity and physical state, forces the selection of EEBA types that supply a breathable atmosphere to the wearer rather than types that simply filter out the toxic material.

Filtering EEBAs, even those as advanced as military-style gas masks, cannot provide protection from a simple asphyxiant gas such as carbon dioxide or liquefied petroleum gas since the presence of this type of gas in sufficient concentration displaces the oxygen in the atmosphere. Filtering EEBAs approved for protection against specific materials usually are not approved for others of different chemical characteristics. For example, chlorine-filtering EEBAs do not also protect against ammonia. Filtering EEBAs also generally have an upper concentration limit to their protective capabilities. None are approved for use in IDLH environments. The IDLH limit for chlorine is 10 ppm, while the IDLH limit for ammonia is 300 ppm. In a situation such as the accident at Graniteville, SC, the concentration of chlorine was estimated to be several hundred times higher.

Once the choice is forced to an atmosphere-supplying EEBA, the issues of useful life (how long a user under stress can breathe before consuming the limited air supply) and usability (*e.g.,* the ease of donning and the ability to function wearing the EEBA) are critical. Over-breathing is a phenomenon that occurs when a person under stress breathes at a rate that exceeds the supply capability of the EEBA. This has two major consequences. First, any leaks around the sealing surface of the respirator will allow the toxic materials in the atmosphere to enter the breathing space. This may result in anything from simple irritation to incapacitation. Second, the increased breathing rate consumes the limited supply of air more quickly than anticipated. To ensure that the EEBA provides adequate oxygen to allow train employees to extricate themselves from an IDLH atmosphere, FRA proposes that the EEBA have a minimum breathing capacity of 15 minutes. While this minimum may differ from that provided for by NIOSH and ISO, FRA considers a 15-minute minimum necessary to allow an opportunity to escape from an asphyxiant or a PIH material in the railroad environment. Specifically, FRA is concerned that the 10-minute minimum provided for in ISO 23269–1 would not be sufficient to safely escape from an asphyxiant or a PIH material that has been released, given the potential for rough terrain for a comparatively long distance, uncertainty concerning the location of the release, and the possibility that other employees may be incapacitated.

A related issue is that of user competence in donning such an EEBA properly before leaving the locomotive cab under accident conditions. Competence in this sense is meant to address whether, under severe stress and possibly suffering from injury, train employees will remember even to don the EEBA as well as how to do so properly. Anecdotal evidence from military experience in recent conflicts suggests that even soldiers who have trained repeatedly with chemical protective gear and EEBAs have difficulty under stressful conditions properly donning the EEBAs and other gear.

The remaining issues involve face and neck protection, particularly preventing the possibly highly irritating materials from reaching the eyes. The EEBA selected must provide a means of protecting a user's eyes to facilitate the ability of the user to escape. This issue relates to the function of the respirator sealing surface to keep contaminants out of the breathing space. Some respirators use an elastomeric surface to seal the respirator to the face of the user, covering from the forehead to the chin. Others use a hood with a clear window, or with the hood made out of completely clear plastic, and having a flexible seal around the user's neck to provide this protection. Either of these designs is capable of accommodating users who wear eyeglasses. Respirators with the elastomeric face seal encounter more difficulty in accommodating those users who have very large or very small or oddly shaped facial features, facial deformities, or beards. It is anticipated that the EEBAs selected will accommodate these issues by either custom fitting of individuals or using EEBAs with hoods as the face piece.

Section 227.205 Storage Facilities for EEBAs

This proposed section addresses the mandate in the RSIA that the rule require railroads to "provide convenient storage in each freight train locomotive to enable crewmembers to access such apparatus quickly." FRA has adapted the storage requirements promulgated by OSHA at 29 CFR 1910.134(h)(2) to this NPRM. The storage requirements enumerated should assist railroads in maintaining viable EEBAs while providing the railroads with flexibility in meeting the statutory mandate. However, there may be a necessity for variation from those requirements to permit the storage of an EEBA assigned to an employee in the employee's luggage if the locomotive already has a separate locomotive-mounted EEBA. This change would be based on the shortage of free space in the locomotive cab. FRA requests comments on this possible revision and how it would square with the stated requirements.

Section 227.207 Railroad's Program for Inspection, Maintenance, and Replacement of EEBAs; Requirements for Procedures

This proposed section requires each railroad to establish and carry out procedures intended to ensure that EEBAs required to be present in the locomotive cabs are fully functional. This section is adapted from OSHA's inspection documentation requirements. *See* 29 CFR 1910.134(h)(3)(iv). Since the

EEBAs selected may have differing requirements for inspection, maintenance, and replacement, this section is, for the most part, written as a general performance standard. However, minimum repair and adjustment requirements also have been adapted from OSHA's regulations. *See* 29 CFR 1910.134(h)(4).

Paragraph (b) of the section proposes a requirement that railroads create and maintain pre-trip and periodic inspection records, and retain these records for one year. Paragraph (d) requires railroads to create and maintain an accurate record of all turn-ins, maintenance, repair, and replacement of EEBAs required by paragraph (c) of this section, including EEBAs that are used; and retain these records for three years.

Section 227.209 Railroad's Program of Instruction on EEBAs

This proposed section identifies the elements of the instructional program that the railroad must establish and carry out for train employees and other employees who are part of the railroad's general EEBA program under § 227.211 and will be provided with EEBAs. The elements outlined in this section are partly adapted from OSHA's regulations. *See* 29 CFR 1910.134(k). The program proposed in this section should be considered the minimum, and the railroads are encouraged to provide additional relevant information depending on the types of EEBAs selected.

Proposed paragraph (b)(2) would require that any railroad transporting an asphyxiant or PIH material must provide sufficient training to its subject employees. Such employees must be able to demonstrate knowledge concerning why an EEBA is necessary; how improper fit, usage, or maintenance can compromise the protective effect of an EEBA; the limitations and capabilities of the type of EEBA that has been provided by the railroad, including the limited time for use; how to deal with emergency situations involving the use of EEBAs or if an EEBA malfunctions; how to inspect, put on, remove, and use an EEBA, including the inspection of seals; procedures for maintenance and storage of EEBAs; the selection criteria for EEBAs under § 227.203, employee responsibilities under subpart C; employee rights concerning access to records; and identification of hazardous materials that are classified as asphyxiants and PIH materials. FRA is particularly concerned that the employees know the limitations of the EEBAs provided so that the employees can avoid circumstances that would lead to reliance on the EEBAs for conditions or time frames beyond EEBA capabilities.

This program may be integrated with the railroad's program of instruction on the railroad's operating rules required by 49 CFR 217.11 or its program of instruction for hazmat employees under 49 CFR 172.704. Under 49 CFR 172.704(a)(3)(ii), for example, hazmat employees (which includes crews of freight trains transporting hazardous material), must receive "safety training" on means "to protect the employee from the hazards associated with hazardous materials to which they may be exposed in the work place, including special measures the hazmat employer has implemented to protect employees from exposure."

Proposed paragraph (c) establishes the timing of the initial and refresher training. Initial instruction must occur no later than 30 days prior to the date of compliance for the subject railroad. New employees must receive initial instruction prior to being assigned to jobs where EEBAs are required to be provided on a locomotive. The initial instruction must be supplemented with periodic instruction at least once every three years.

Proposed § 227.209(d) requires railroads to create and maintain an accurate record of employees instructed in compliance with § 227.209; and retain these records for three years.

Section 227.211 Requirement To Implement a General EEBA Program; Criteria for Placing Employees in the General EEBA Program

In this proposed section FRA requires railroads subject to subpart C to adopt and comply with a general EEBA program to ensure that the selection and distribution of the EEBAs is done in a technically appropriate, sustainable manner and supported by a comprehensive set of policies and procedures. These issues have already been discussed in detail at *III. Selection of the Appropriate EEBA* and *IV. Provision of EEBAs to Covered Employees,* above. Many of the procedures will likely be used as a basis for aspects of the required instructional program.

Proposed § 227.211(b)(4) requires the following to be placed in the railroad's general EEBA program: (1) Employees of railroads subject to this subpart who perform service subject to the provisions of the hours of service law governing "train employees," *see* 49 U.S.C. 21103, in the locomotive cabs of freight trains that carry an asphyxiant or a PIH material; (2) the direct supervisors of these train employees; and (3) any employees who deadhead in the locomotive cabs of such trains. The term "train employee" refers to employees who are engaged in functions traditionally associated with train, engine, and yard service; for example, engineers, conductors, brakemen, switchmen, and firemen. *See* 49 U.S.C. 21101(5); 49 CFR part 228, appendix A; and 74 FR 30665, June 26, 2009. In general, these employees may reasonably be expected to encounter the kinds of exposures anticipated by this proposed rule while in the locomotive cab. Therefore, FRA intends to have their needs for protection addressed by explicitly identifying them here.

A railroad may also identify other employees and designate them in writing to be included in its general EEBA program. In making this assessment, the railroad should consider an employee's work over the period of a year. In doing so, the railroads must think about how they use their workforces, *i.e.,* review the work that their employees perform, determine which employees will occupy the cab of the locomotive of an in-service freight train and therefore experience the risk of the release of an inhalation-material from the consist, and then place those employees in the general EEBA program.

Given the nature of the railroad industry, FRA is aware that some of these employees may not always work in the cab. Due to longstanding labor practices in the railroad industry concerning seniority privileges and concerning the ability of railroad employees to bid for different work assignments, these railroad employees are likely to change jobs frequently and to work for extended periods of time on assignments that involve duties outside the cab. For example, an employee might start the year in a job that involves mostly outside-the-cab work, spend three months working primarily inside the cab, and then return to outside-the-cab work for the rest of the year. In this type of situation, these proposed regulations would govern the exposure of this employee throughout the year despite the fact that the employee only spent three months inside the cab. This employee would be covered by this part, because he spent time, no matter how little, in a locomotive cab where the use of an EEBA may be required. As a result, the railroad must ensure that the employee is properly instructed in how to inspect and use an EEBA and provide an EEBA for those time periods in which the employee is serving as a train employee, as a direct supervisor of a train employee, or in a capacity that the railroad has determined, in its

discretion and designated in writing, should be provided an EEBA while any of these individuals is working in the cab of the locomotive of an in-service freight train transporting an asphyxiant or a PIH material.

Note that placement of an employee in the railroad's general EEBA program means different things depending on the nature of the program that the railroad chooses to adopt. For example, if the railroad's program states that the railroad will equip its fleet of locomotives with sets of EEBAs sufficient to accommodate the train crew and possible deadheading train employees, the railroad would provide the EEBA to the employee in that way, in the locomotive cab. On the other hand, if the railroad's program states that the railroad will provide the EEBA to the employee as part of his or her personal equipment, the railroad would have to provide the EEBA in that manner. If the employee for whatever reason did not have the EEBA with him or her while in the locomotive cab, the railroad would be prohibited from using the locomotive by proposed § 227.201(a)(2), which bars using a locomotive to transport a covered train if a covered employee occupying the cab of the locomotive does not access to a working EEBA. One constant would be that all railroads subject to this part would be required to instruct employees placed in their general EEBA program in how to use EEBAs; the provision on instruction at proposed § 227.209 requires that all employees identified in proposed § 227.211 be provided instruction on EEBAs.

Finally, proposed § 227.211(c) requires railroads to maintain records concerning the persons and positions designated to be placed in its EEBA program and retain these records for the duration of the designation and for one year after the designation has ended.

Section 227.213 Employee's Responsibilities

Since employees who must be provided the EEBAs are not always directly supervised by managers who can ensure the identified tasks are done at the appropriate time and frequency, this proposed section establishes certain responsibilities on the part of employees. Some of these tasks may involve making records of such tasks as pre-trip inspections that must be done to ensure the EEBAs are ready for use. Additionally, FRA proposes prohibiting employees from willfully tampering with or vandalizing an EEBA in an attempt to disable or damage the device. *See* 49 CFR part 209, appendix A for definition and discussion of "willfully."

The AAR's second January 13, 2010, letter requests that FRA treat an EEBA as a "safety device" within the meaning of 49 CFR part 218, Railroad Operating Practices, subpart D, Prohibition Against Tampering With Safety Devices, in order to discourage tampering or vandalism by railroad employees. FRA has decided that categorizing EEBAs as "safety devices" for purposes of the part 218, subpart D, would not be appropriate. The purpose of that subpart "is to prevent accidents and casualties that can result from the operation of trains when safety devices intended to improve the safety of their movement have been disabled." Part 218 defines "safety device" as—

> locomotive-mounted equipment that is used either to assure that the locomotive operator is alert, not physically incapacitated, aware of and complying with the indications of a signal system or other operational control system or to record data concerning the operation of that locomotive or the train it is powering.

FRA does not view the specific definition of "safety device" in part 218 as being so broad that it encompasses an EEBA provided under this proposed rule. While an EEBA may be locomotive-mounted equipment and is used to ensure the alertness and physical capacity of the engineer, it does not "assure" that the engineer is "complying with the indications of a signal system or other operational control system" because an EEBA will not take over the operation of the locomotive or the train and, indeed, is primarily intended to facilitate a train employee's ability to escape from the locomotive, not to enable the engineer to operate the locomotive. Nor is an EEBA used to record data on the operation of the locomotive or the train. FRA's published interpretation reads the term "safety device" narrowly as including such items as event recorders, deadman pedals, alerters, automatic cab signals, cab signal whistles, automatic train stop equipment, and automatic train control equipment. *See* 49 CFR part 218, appendix C. Not classifying an EEBA as a safety device is consistent with that interpretation. Instead, FRA proposes to include a prohibition on willfully tampering with or vandalizing EEBAs as paragraph (b) of proposed § 227.213.

Section 227.215 Recordkeeping in General

Proposed § 227.215 sets out some general recordkeeping provisions. The Secretary is granted authority to inspect relevant records by 49 U.S.C. 20107. Pursuant to that authority, delegated from the Secretary under 49 CFR 1.49 and from the Administrator through internal delegations, FRA inspectors must act within certain parameters when inspecting records. FRA inspectors who enter upon railroad property and inspect records must do so at a reasonable time and in a reasonable manner, must provide proper credentials upon request, and must limit their request to records that are relevant to FRA's investigation.

Section 227.215(a) addresses the availability of required records. Section 227.215(a) provides that records required under this part, except for records of pre-trip inspections, be kept at system and division headquarters. It requires that a railroad make all records available for inspection and copying or photocopying by representatives of FRA upon request. The railroad must also make an employee's records available for inspection and copying or photocopying by that employee or such person's representative upon written authorization by such employee.

Section 227.215(b) permits required records to be kept in electronic form. These requirements are almost identical to the electronic recordkeeping requirements found in FRA's existing Track Safety Standards, 49 CFR 213.241(e). Section 227.215(b) allows each railroad to design its own electronic system as long as the system meets the specified criteria in § 227.215(b)(1) through (5), which are intended to safeguard the integrity and authenticity of each record.

Section 227.217 Compliance Dates

The specific dates by which certain groups of railroads will be required to comply will be set upon publication of the final rule. FRA recognizes that it will take time to procure EEBAs, instruct employees on their use, and outfit locomotives with the appropriate equipment to carry the devices. FRA envisions staggering the compliance dates based on the size of the railroad, with larger railroads having to comply earlier. The AAR's January 13, 2010, letter referenced earlier requests "that FRA allow at least two years from the effective date of the final rule for the railroad to be compliant with the regulation." Under the proposed rule, FRA requires Class I railroads to be compliant within 24 months of publication of the final rule, with required compliance following for Class II railroads at 30 months and Class III and other railroads at 36 months. FRA seeks comment on whether a staggered compliance schedule with an initial two-year delay between the effective date and the compliance date for Class

I railroads is reasonable under the circumstances.

Appendix G—Schedule Of Civil Penalties

Finally, FRA proposes to correct a heading within the civil penalty schedule by replacing "Subpart B—General Requirements" with "Subpart B—Occupational Noise Exposure for Railroad Operating Employees".

IX. Regulatory Impact

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

This rulemaking proposes regulations that would require railroads to provide effective EEBAs for crewmembers in locomotive cabs on freight trains transporting asphyxiants or PIH materials and provide training in their use. The proposed rule has been evaluated in accordance with existing policies and procedures. It is not considered a significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, was not reviewed by the Office of Management and Budget. This rule is not significant under the DOT Regulatory Policies and Procedures. 44 FR 11034. A Regulatory Evaluation addressing the economic impact of this proposed rule has been prepared and placed in the docket.

FRA estimates that the present value of the total ten-year costs, which is expected to incur to comply with this proposed rule is either $73.9 million for the open loop/circuit EEBAs or $81.9 million for the closed loop/circuit EEBAs.

The benefits associated with preventing the casualties identified by FRA as potentially preventable through the use of EEBAs would total close to $13.5 million. The EEBAs would have to be used properly and quickly for them to be fully effective. Based on historical experience, the discounted costs of implementing the proposed rule would likely exceed the expected benefits, even assuming 100 percent effectiveness of the EEBAs, not discounting the value of the benefits, or including indirect benefits. The number of fatalities or injury equivalents that would have to be prevented for the benefits to cover the costs would be many times greater than the railroad employee fatalities that actually occurred.

Although the costs associated with implementation of the proposed rule would likely exceed the benefits, FRA is constrained by the requirements of RSIA, which specifically mandates that the Secretary require railroads to: (1) Ensure that EEBAs affording suitable "head and neck coverage with respiratory protection" are provided "for all crewmembers" in a locomotive cab on a freight train "carrying hazardous materials that would pose an inhalation hazard in the event of release"; (2) provide a place for convenient storage of EEBAs in the locomotive that will allow "crewmembers to access such apparatus quickly"; (3) maintain EEBAs "in proper working condition"; and (4) provide crewmembers with appropriate instruction in the use of EEBAs. Nevertheless, FRA has taken several steps to provide railroads with flexibility in this proposed rule. For instance, FRA is not proposing a particular method of deployment of EEBAs, but rather leaving that to the railroad discretion. In addition, railroads will be able to elect the type of apparatus to use in their program (closed-loop or open-loop). This allows railroads to deploy EEBAs in the manner best suited to their operation.

B. Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (5 U.S.C. 601 *et seq.*) and Executive Order 13272 (67 FR 53461, August 16, 2002) require agency review of proposed and final rules to assess their impact on small entities. Pursuant to the Regulatory Flexibility Act of 1980, 5 U.S.C. 605(b), FRA has prepared and placed in the docket a Certification Statement that assesses the small entity impact of this proposed rule, and certifies that this proposed rule is not expected to have a significant economic impact on a substantial number of small entities.

Document inspection and copying facilities are available at the DOT Central Docket Management Facility located in Room W12–140 on the Ground level of the West Building, 1200 New Jersey Avenue, SE., Washington, DC 20590. Docket material is also available for inspection electronically through the Federal eRulemaking Portal at *http://www.regulations.gov.* Photocopies may also be obtained by submitting a written request to the FRA Docket Clerk at the Office of the Chief Counsel, RCC–10, Mail Stop 10, Federal Railroad Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590; please refer to Docket No. FRA–2009–0044.

The U.S. Small Business Administration (SBA) stipulates in its "Size Standards" that the largest a railroad business firm that is "for-profit" may be, and still be classified as a "small entity," is 1,500 employees for "Line-Haul Operating Railroads," and 500 employees for "Switching and Terminal Establishments." "Small entity" is defined in the Act as a small business that is independently owned and operated, and is not dominant in its field of operation. SBA's "Size Standards" may be altered by Federal agencies after consultation with SBA and in conjunction with public comment. Pursuant to that authority, FRA has published a final policy that formally establishes "small entities" as railroads that meet the line haulage revenue requirements of a Class III railroad. The revenue requirements are currently $20 million or less in annual operating revenue, based on 1991 dollars. The $20-million limit (which is adjusted by applying the railroad revenue deflator adjustment) is based on the Surface Transportation Board's threshold for a Class III railroad carrier. FRA uses the same revenue dollar limit to determine whether a railroad or shipper or contractor is a small entity. Additionally, section 601(5) defines as "small entities" governments of cities, counties, towns, townships, villages, school districts, or special districts with populations less than 50,000.

There are 567 freight railroads. Information available to FRA indicates that approximately 110 railroads that meet the definition of "small entity" would be impacted. However, FRA does not anticipate that the proposed rule would impose a significant impact on these small entities because they would be able to manage their EEBA programs in such a way as to minimize costs. Given their smaller size and limited territory in which they operate, they can develop a management system that allows them to optimally allocate EEBAs without necessarily having to purchase one for each locomotive or train and engine crewmember. In addition, many of these small railroads are subsidiaries of large short line holding companies with the expertise and resources comparable to larger railroads. The number of EEBAs a small railroad would have to install would vary in proportion to the number of locomotives used for transporting PIH materials or asphyxiants.

FRA invites comments from all interested parties on this Certification. FRA particularly encourages small entities that could potentially be impacted by the proposed amendments to participate in the public comment process by submitting comments on this assessment or this rulemaking to the official DOT docket. A draft of the proposed rule has not been submitted to the SBA for formal review. However, FRA will consider any comments submitted by the SBA in developing the final rule.

C. Federalism

Executive Order 13132, "Federalism" (64 FR 43255, Aug. 10, 1999), requires FRA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" are defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government." Under Executive Order 13132, the agency may not issue a regulation with federalism implications that imposes substantial direct compliance costs and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, the agency consults with State and local governments, or the agency consults with State and local government officials early in the process of developing the regulation. Where a regulation has federalism implications and preempts State law, the agency seeks to consult with State and local officials in the process of developing the regulation.

This NPRM has been analyzed in accordance with the principles and criteria contained in Executive Order 13132. FRA has determined that, if adopted, the proposed rule would not have substantial direct effects on the States, on the relationship between the national government and the States, nor on the distribution of power and responsibilities among the various levels of government. In addition, FRA has determined that this proposed rule will not impose substantial direct compliance costs on State and local governments. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

However, this proposed rule could have preemptive effect by operation of law under certain provisions of the Federal railroad safety statutes, specifically the former FRSA, repealed and recodified at 49 U.S.C 20106, and the former LBIA, repealed and recodified at 49 U.S.C. 20701–20703. *See* Public Law 103–272 (July 5, 1994). The former FRSA provides that States may not adopt or continue in effect any law, regulation, or order related to railroad safety or security that covers the subject matter of a regulation prescribed or order issued by the Secretary of Transportation (with respect to railroad safety matters) or the Secretary of Homeland Security (with respect to railroad security matters), except when the State law, regulation, or order qualifies under the "local safety or security hazard" exception to section 20106. Moreover, the former LBIA has been interpreted by the Supreme Court as preempting the entire field of locomotive safety. *See Napier* v. *Atlantic Coast R.R.,* 272 U.S. 605, 611; 47 S.Ct. 207, 209 (1926).

In sum, FRA has analyzed this proposed rule in accordance with the principles and criteria contained in Executive Order 13132. As explained above, FRA has determined that this proposed rule has no federalism implications, other than the possible preemption of State laws under the former FRSA and the former LBIA. Accordingly, FRA has determined that preparation of a federalism summary impact statement for this proposed rule is not required.

D. International Trade Impact Assessment

The Trade Agreement Act of 1979 prohibits Federal agencies from engaging in any standards or related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international standards and where appropriate, that they be the basis for U.S. standards. This rulemaking is purely domestic in nature and is not expected to affect trade opportunities for U.S. firms doing business overseas or for foreign firms doing business in the United States.

E. Paperwork Reduction Act

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

CFR section	Respondent universe	Total annual responses	Average time per response	Total annual burden hours
227.13—Waivers	200 Railroads	13 waiver requests	16 hours	208
227.201—Designations	200 Railroads	700 designations	3 minutes	35
227.203—EEBA Selection Criteria—EEBA Adequacy Justification documents.	200 Railroads	67 written justifications	2 hours	134
227.205—Copies of EEBA Instructions	200 Railroads	26,250 instr. copies	3 minutes	1,313
227.207—Pre-trip and Periodic EEBA Inspections/Records.	200 Railroads	73,000 insp./records	1 minute	1,217
—Records of EEBA Returns, Maintenance, Repairs/Replacements.	200 Railroads	233 records	5 minutes	19
227.209—Employee Instruction on EEBA—Initial Training.	200 Railroads	70,000 tr. employees	2 hours	140,000
—Periodic/Refresher Training	200 Railroads	23,333 tr. employees	15 minutes	5,833
—Records of Initial Training	200 Railroads	70,000 records	5 minutes	5,833
—Records of Periodic Training	200 Railroads	23,333 records	2 minutes	778
227.211—General EEBA Implementation Program.	200 Railroads	67 programs	80 hours	5,360
227.213—Notification to Railroad of EEBA Failure/Use Incidents.	200 Railroads	100 notifications	1 minute	2
227.215—Electronic Recordkeeping—Railroad Modification of Electronic Recordkeeping System to Meet FRA Requirements.	18 Railroads	18 modified Systems	120 hours	2,160

All estimates include the time for reviewing instructions; searching existing data sources; gathering or maintaining the needed data; and reviewing the information. Pursuant to 44 U.S.C. 3506(c)(2)(B), FRA solicits comments concerning: Whether these information collection requirements are necessary for the proper performance of the functions of FRA, including whether the information has practical utility; the accuracy of FRA's estimates of the burden of the information collection requirements; the quality, utility, and clarity of the information to be collected; and whether the burden of collection of information on those who are to respond, including through the use of automated collection techniques or other forms of information technology, may be minimized. For information or a copy of the paperwork package submitted to OMB, contact Mr. Robert Brogan, Information Clearance Officer, at 202–493–6292, or Ms. Kimberly Toone at 202–493–6132.

Organizations and individuals desiring to submit comments on the collection of information requirements should direct them to Mr. Robert Brogan or Ms. Kimberly Toone, Federal Railroad Administration, 1200 New Jersey Avenue, SE., 3rd Floor, Washington, DC 20590. Comments may also be submitted via e-mail to Mr. Brogan or Ms. Toone at the following address: *Robert.Brogan@dot.gov; Kimberly.Toone@dot.gov*.

OMB is required to make a decision concerning the collection of information requirements contained in this proposed rule 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 the final rule. The OMB control number, when assigned, will be announced by separate notice in the **Federal Register**.

F. Compliance With the 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 $140,800,000] 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 $140,800,000 or more in any one year, and thus preparation of such a statement is not required.

G. Environmental Assessment

FRA has evaluated this proposed rule 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 rule 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. (*See* 64 FR 28547, May 26, 1999). Section 4(c)(20) reads as follows:

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

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

H. 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 NPRM is not a "significant energy action" within the meaning of Executive Order 13211.

I. 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 (65 FR 19477–78) or you may visit *http://www.regulations.gov/search/footer/privacyanduse.jsp.*

List of Subjects in 49 CFR Part 227

Hazardous materials transportation, Incorporation by reference, Locomotive noise control, Occupational safety and health, Penalties, Railroad employees, Railroad safety, Reporting and recordkeeping requirements.

The Proposal

In consideration of the foregoing, FRA proposes to amend part 227 of chapter II, subtitle B of title 49 of the Code of

Federal Regulations is amended as follows:

PART 227—OCCUPATIONAL SAFETY AND HEALTH IN THE LOCOMOTIVE CAB

1. The authority citation for part 227 is amended to read as follows:

Authority: 49 U.S.C. 103, 20103, 20103, note, 20166, 20701–20703, 21301, 21302, 21304; 28 U.S.C. 2461, note; 49 CFR 1.49.

2. The heading for part 227 is amended to read as set forth above.

3. Section 227.1 is revised to read as follows:

§ 227.1 Purpose and scope.

(a) *General.* The purpose of this part is to protect the occupational safety and health of certain employees who are exposed to occupational dangers while in the cab of the locomotive. This part prescribes minimum Federal safety and health standards for certain locomotive cab occupants. This part does not restrict a railroad or railroad contractor from adopting and enforcing additional or more stringent requirements.

(b) *Subpart B.* The purpose of subpart B is to protect the occupational safety and health of employees whose predominant noise exposure occurs in the locomotive cab. This subpart prescribes minimum Federal safety and health noise standards for locomotive cab occupants.

(c) *Subpart C.* The purpose of subpart C is to protect the occupational safety and health of train employees and certain other employees in the cab of the locomotive of a freight train that is transporting an asphxiant or a PIH material that, if released due to a railroad accident/incident, would pose an inhalation hazard to the occupants. In particular, subpart C is intended to protect these employees from the risk of exposure to the material while they are located in, or during escape from, the locomotive cab.

4. Section 227.3 is amended as follows:

a. In paragraph (a) remove the phrase "this part" and add "subpart B" in its place.

b. In the introductory text of paragraph (b) remove the phrase "This part" and add "Subpart B" in its place.

c. In paragraph (b)(5)—

i. Remove the phrase "Associate Administrator for Safety" and add "Associate Administrator for Railroad Safety/Chief Safety Officer"; and

ii. Remove the phrase "this part" and add "subpart B" in its place.

d. Add paragraphs (c) and (d) to read as follows:

§ 227.3 Applicability.

* * * * *

(c) Except as provided in paragraph (d) of this section, subpart C applies to any railroad that operates a freight train that transports an asphyxiant or a PIH material, including a residue of such an asphyxiant or PIH material, on standard gage track that is part of the general railroad system of transportation.

(d) Subpart C does not apply to a railroad that operates only on track inside an installation that is not part of the general railroad system of transportation.

5. Section 227.5 is amended by adding the following definitions to read as follows:

§ 227.5 Definitions.

* * * * *

Accident/incident has the meaning that is assigned to that term by § 225.5 of this chapter.

* * * * *

Asphyxiant or PIH material means—

(1) Any of the hazardous materials defined in § 173.115 of this title as—

(i) Class 2, Division 2.1 (Flammable gas);

(ii) Class 2, Division 2.2 (non-flammable, non-poisonous compressed gas—including compressed gas, liquefied gas, pressurized cryogenic gas, compressed gas in solution, asphyxiant gas and oxidizing gas); or

(iii) Class 2, Division 2.3 (Gas poisonous by inhalation);

(2) Any of the hazardous materials that is a gas, liquid, or other material defined as a "material poisonous by inhalation" by § 171.8 of this title.

The term "asphyxiant or PIH material" includes only the foregoing material that is in "commerce" as defined by § 171.8 of this title. The term does not, for example, include personal care items and toiletries possessed by an occupant of a locomotive, such as aerosols containing chemicals that would be classified in Division 2.2 if they were in commerce (*e.g.,* shaving cream and hair spray).

Associate Administrator for Railroad Safety/Chief Safety Officer means the Associate Administrator for Railroad Safety/Chief Safety Officer, Federal Railroad Administration, 200 New Jersey Avenue, SE., Washington, DC 20590.

Atmosphere immediately dangerous to life or health (IDLH) means an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.

Atmosphere-supplying device means a respirator that supplies the respirator user with breathing air from a source that is independent of the ambient atmosphere. Such devices include supplied-air respirators and self-contained breathing apparatus units.

* * * * *

Deadheading means the physical relocation of a train employee from one point to another as a result of a railroad-issued oral or written directive.

Division headquarters means the location designated by the railroad where a high-level operating manager (*e.g.,* a superintendent, division manager, or equivalent), who has jurisdiction over a portion of the railroad, has an office.

Emergency escape breathing apparatus or *EEBA* means an atmosphere-supplying respirator device that is designed for use only during escape from a hazardous atmosphere.

* * * * *

Freight car means a vehicle designed to transport freight, or railroad personnel, by rail and includes a—

(1) Box car;
(2) Refrigerator car;
(3) Ventilator car;
(4) Stock car;
(5) Gondola car;
(6) Hopper car;
(7) Flat car;
(8) Special car;
(9) Caboose;
(10) Tank car; and
(11) Yard car.

Freight train means one or more locomotives coupled with one or more freight cars, except during switching service.

Hazardous material has the meaning assigned to that term by § 171.8 of this title.

Hazmat employee has the meaning assigned to that term by § 171.8 of this title.

* * * * *

In service or in-service when used in connection with a freight train, means each freight train subject to this part unless the train—

(1) Is in a repair shop or on a repair track;

(2) Is on a storage track and its cars are empty; or

(3) Has been delivered in interchange but has not been accepted by the receiving carrier.

Intermodal container means a freight container designed and constructed to permit it to be used interchangeably in two or more modes of transportation.

ISO means the International Organization for Standardization, a network of national standards institutes in 162 countries, including the United States through the American National

Standards Institute, that develops international standards to assist in ensuring the safe performance of a wide range of devices, including EEBAs.

* * * * *

NIOSH means the National Institute for Occupational Safety and Health, a Federal agency responsible for conducting research and making recommendations for the prevention of work-related injury and illness, which is part of the Centers for Disease Control and Prevention in the U.S. Department of Health and Human Services and certifies industrial-type respirators in accordance with the NIOSH respiratory regulations (42 CFR part 84 (June 8, 1995)).

* * * * *

PIH material means poison inhalation hazard material. See definition of *asphyxiant or PIH material,* above.

* * * * *

Residue has the meaning assigned to the term by § 171.8 of this title.

* * * * *

Switching service means the classification of freight cars according to commodity or destination; assembling of cars for train movements; changing the position of cars for purposes of loading, unloading, or weighing; placing of locomotives and cars for repair or storage; or moving of rail equipment in connection with work service that does not constitute a train movement.

System headquarters means the location designated by the railroad as the general office for the railroad system.

* * * * *

Train employee means an individual who is engaged in or connected with the movement of a train, including a hostler, as defined in 49 U.S.C. 21101.

§ 227.7 [REMOVED AND RESERVED]

6. Remove and reserve § 227.7.

7. Section § 227.15 is amended by revising paragraph (b) to read as follows:

§ 227.15 Information collection.

* * * * *

(b) The information collection requirements are found in the following sections: §§ 227.13, 227.103, 227.107, 227.109, 227.111, 227.117, 227.119, 227.121, 227.201, 227.207, 227.209, 227.211, 227.213, and 227.215.

§ 227.103 [AMENDED]

8. Section 227.103 is amended as follows:

a. In paragraph (a)(1) remove the phrase "Class 1" and add "Class I" in its place.

b. In paragraph (a)(2) remove the phrase "Class 1" and add "Class I" in its place.

§ 227.109 [AMENDED]

9. Section 227.109, paragraph (e)(2)(i) is amended by removing the phrase "Class 1" and adding "Class I" in its place.

§ 227.119 [AMENDED]

10. Section 227.119, paragraph (b)(2) is amended by removing the phrase "Class 1" and adding "Class I" in its place.

11. Add new subpart C to part 227 to read as follows:

Subpart C—Emergency Escape Breathing Apparatus Standards

Sec.

227.201 Criteria for requiring availability of EEBAs in the locomotive cab.
227.203 Criteria for selecting EEBAs.
227.205 Storage facilities for EEBAs.
227.207 Railroad's program for inspection, maintenance, and replacement of EEBAs; requirements for procedures.
227.209 Railroad's program of instruction on EEBAs.
227.211 Requirement to implement a general EEBA program; criteria for placing employees in the general EEBA program.
227.213 Employee's responsibilities.
227.215 Recordkeeping in general.
227.217 Compliance dates.

Subpart C—Emergency Escape Breathing Apparatus Standards

§ 227.201 Criteria for requiring availability of EEBAs in the locomotive cab.

(a) *In general.* (1)(i) Except as specified in paragraph (b) of this section, a railroad is required to provide an EEBA to each of the following of its employees while the employee is located in the cab of a locomotive of an in-service freight train transporting an asphyxiant or a PIH material, including a residue of an asphyxiant or a PIH material:

(A) Any train employee;

(B) Any direct supervisor of the train employee;

(C) Any employee who is deadheading; and

(D) Any other employee designated by the railroad in writing and at the discretion of the railroad.

(ii) Each EEBA provided to an employee identified in paragraph (a)(1)(i) of this section must meet the EEBA-selection criteria of § 227.203 and must have been inspected and be in working order pursuant to the requirements of § 227.207 at the time that the EEBA is provided to the employee.

(2) Except as specified in paragraph (b) of this section, a railroad shall not use a locomotive to transport an asphyxiant or a PIH material, including a residue of an asphyxiant or a PIH material, in an in-service freight train unless each of the employees identified in paragraph (a)(1)(i) of this section while in the cab of the locomotive of the train has access to an EEBA that satisfies the EEBA-selection criteria in § 227.203 and that has been inspected and is in working order pursuant to the requirements in § 227.207.

(b) *Exceptions.* (1) A railroad is not required to provide an EEBA, or make accessible an EEBA, to an employee while in the locomotive cab of an in-service freight train transporting an asphyxiant or a PIH material if all of the asphyxiants or PIH materials in the train, including a residue of an asphyxiant or a PIH material, are being hauled in one or more intermodal containers.

(2) This subpart does not apply to any of the following:

(i) Employees who are moving a locomotive or group of locomotives coupled to a car or group of cars transporting an asphyxiant or PIH material, including a residue of an asphyxiant or a PIH material, only within the confines of a locomotive repair or servicing area.

(ii) Employees who are moving a locomotive or group of locomotives coupled to a car or group of cars transporting an asphyxiant or PIH material, including a residue of an asphyxiant or a PIH material for distances of less than 100 feet for inspection or maintenance purposes.

(c) Notwithstanding any exceptions identified in this subpart, any employee who willfully tampers with or vandalizes an EEBA shall be subject to this subpart for purposes of enforcement relating to § 227.213 (Employee responsibilities).

§ 227.203 Criteria for selecting EEBAs.

In selecting the appropriate EEBA to provide to an employee, the railroad shall do the following:

(a) Select an atmosphere-supplying EEBA that protects against all asphyxiants or PIH materials (including their residue) that are being transported by the freight train while in service.

(b) Ensure that the type of respirator selected has been certified for an escape only purpose by the National Institute for Occupational Safety and Health pursuant to 49 CFR part 84 or by the International Organization for Standardization pursuant to ISO 23269–1:2008(E).

(c) Document the adequacy of protection for all potential hazardous atmospheres reasonably expected to be encountered and provide such documentation for inspection by FRA upon request.

(d) Document, and provide such documentation for inspection by FRA upon request, the rationale for the final selection of an EEBA by addressing each of the following concerns:

(1) *Breathing time.* Each EEBA must be fully charged and contain a minimum breathing capacity of 15 minutes at the time of the pre-trip inspection required under § 227.207(a)(1).

(2) *Face and neck protection.* The EEBA selected must provide a means of protecting the individual's face and neck to facilitate escape.

(3) *Accommodation for eyeglasses and a range of facial features.* The EEBA selected must provide a means of protecting each employee who is required to be provided with the EEBA, including those who wear glasses, and allow for the reasonable accommodation of each such employee's facial features, including facial hair.

§ 227.205 Storage facilities for EEBAs.

(a) A railroad may not use a locomotive if it is part of an in-service freight train transporting an asphyxiant or a PIH material, including a residue of an asphyxiant or a PIH material, and the locomotive cab is occupied by an employee identified in § 227.201(a)(1)(i)(A)–(D) (subject employee), unless the locomotive cab has appropriate storage facilities to hold the number of EEBAs required to be provided.

(b) The storage facility for each required EEBA must—

(1) Prevent deformation of the face piece and exhalation valve, where applicable;

(2) Protect the EEBA from incidental damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals;

(3) Provide each subject employee located in the locomotive cab with ready access to the EEBA during an emergency; and

(4) Provide a means for each subject employee to locate the EEBA under adverse conditions such as darkness or disorientation.

(c) A railroad must comply with the applicable manufacturer's instructions for storage of each required EEBA and must keep a copy of the instructions at its system headquarters for FRA inspection.

§ 227.207 Railroad's program for inspection, maintenance, and replacement of EEBAs; requirements for procedures.

(a) *General.* Each railroad shall establish and comply with a written program for inspection, maintenance, and replacement of EEBAs that are required under this subpart. The program for inspection, maintenance, and replacement of EEBAs shall be maintained at the railroad's system headquarters and shall be amended, as necessary, to reflect any significant changes. This program shall include the following procedures:

(1) Procedures for performing and recording a pre-trip inspection of each EEBA that is required to be provided on a locomotive being used to transport an asphyxiant or a PIH material and procedures for cleaning, replacing, or repairing each required EEBA, if necessary, prior to its being provided under § 227.201(a);

(2) Procedures for performing and recording periodic inspections and maintenance of each required EEBA in a manner and on a schedule in accordance with the manufacturer's recommendations; and

(3) Procedures for turning in and obtaining a replacement for a defective, failed, or used EEBA and for recording those transactions.

(b) *Inspection procedures and records.* (1) A railroad's procedures for pre-trip and periodic inspections of EEBAs shall require that the following information about each pre-trip and periodic inspection be accurately recorded on a tag or label that is attached to the storage facility for the EEBA or kept with the EEBA or in inspection reports stored as paper or electronic files:

(i) The name of the railroad performing the inspection;

(ii) The date that the inspection was performed;

(iii) The name and signature of the individual who made the inspection;

(iv) The findings of the inspection;

(v) The required remedial action; and

(vi) A serial number or other means of identifying the inspected EEBA.

(2) A railroad shall maintain an accurate record of each pre-trip and periodic inspection required by this section and retain each of these records for one year.

(c) *Procedures applicable if EEBA fails an inspection or is used.* An EEBA that fails an inspection required by this section, is otherwise found to be defective, or is used, shall be removed from service and be discarded, repaired, adjusted, or cleaned in accordance with the following procedures:

(1) Repair, adjustment, and cleaning of EEBAs shall be done only by persons who are appropriately trained to perform such work and who shall use only the EEBA manufacturer's approved parts designed to maintain the EEBA in NIOSH-certified (49 CFR part 84) or ISO-certified (ISO 23269–1:2008(E)) condition.

(2) Repairs shall be made according to the manufacturer's recommendations and specifications for the type and extent of repairs to be performed.

(3) Where applicable, reducing and admission valves, regulators, and alarms shall be adjusted or repaired only by the manufacturer or a technician trained by the manufacturer.

(d) *Records of returns, maintenance, repair, and replacement.* A railroad shall—

(1) Maintain an accurate record of return, maintenance, repair, or replacement for each EEBA required by this subpart; and

(2) Retain each of these records for three years.

§ 227.209 Railroad's program of instruction on EEBAs.

(a) *General.* (1) A railroad shall adopt and comply with its written program of instruction on EEBAs for all of its employees in its general EEBA program under § 227.211 (subject employees). The program of instruction shall be maintained at the railroad's system headquarters and shall be amended, as necessary, to reflect any significant changes.

(2) This program may be integrated with the railroad's program of instruction on operating rules under § 217.11 of this chapter or its program of instruction for hazmat employees under § 172.704 of this title. If the program is not integrated with either of these programs, it must be written in a separate document that is available for inspection by FRA.

(b) *Subject matter.* The railroad's program of instruction shall require that the subject employees demonstrate knowledge of at least the following:

(1) Why the EEBA is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the EEBA.

(2) The capabilities and limitations of the EEBA, particularly the limited time for use.

(3) How to use the EEBA effectively in emergency situations, including situations in which the EEBA malfunctions.

(4) How to inspect, put on, remove, and use the EEBA, and how to check the seals of the EEBA.

(5) Procedures for maintenance and storage of the EEBA that must be followed.

(6) The EEBA-selection criteria in § 227.203.

(7) The requirements of this subpart related to the responsibilities of employees and the rights of employees to have access to records.

(8) The hazardous materials classified as asphyxiants and PIH materials.

(c) *Dates of initial instruction and intervals for periodic instruction.* (1) The instruction shall be provided for current subject employees on an initial basis no later than 30 days prior to the date of compliance identified in § 227.217 or for new subject employees, before assignment to jobs where the deployment of EEBAs on a locomotive is required.

(2) Initial instruction shall be supplemented with periodic instruction at least once every three years.

(d) *Records of instruction.* A railroad shall maintain a record of employees provided instruction in compliance with this section and retain these records for three years.

§ 227.211 Requirement to implement a general EEBA program; criteria for placing employees in the general EEBA program.

(a) *In general.* A railroad shall adopt and comply with a comprehensive, written, general program to implement this subpart that shall be maintained at the railroad's system headquarters. Each railroad shall amend its general EEBA program, as necessary, to reflect any significant changes.

(b) *Elements of the general EEBA program and criteria for placing employees in program.* A railroad's general EEBA program shall—

(1) Identify the individual that implements and manages the railroad's general EEBA program by name, title, and contact information. The individual must have suitable training and sufficient knowledge, experience, skill, and authority to enable him or her to manage properly a program for provision of EEBAs. If the individual is not directly employed by the railroad, the written program must identify the business relationship of the railroad to the individual fulfilling this role.

(2) Describe the administrative and technical process for selection of EEBAs appropriate to the hazards that may be reasonably expected.

(3) Describe the process used to procure and provide EEBAs in a manner to ensure the continuous and ready availability of an EEBA to each of the railroad's employees identified in § 227.201(a)(1)(i)(A)–(D) (while actually occupying the locomotive cab of a freight train in service transporting an asphyxiant or a PIH material). This description shall include—

(i) A description of the method used for provision of EEBAs, including whether the EEBAs are individually assigned to employees, installed on locomotives as required equipment, or provided by other means. If EEBAs are installed on locomotives as required equipment, the means of securement shall be designated.

(ii) The decision criteria used by the railroad to identify trains in which provision of EEBAs is not required.

(iii) A description of what procedures will govern the railroad at interchange to ensure that the locomotive cab in each in-service freight train transporting an asphyxiant or a PIH material has an EEBA accessible to each of the employees identified in § 227.201(a)(1)(i)(A)–(D) while in the cab of the locomotive, including what procedures are in place to ensure that the EEBAs provided satisfy the EEBA-selection criteria in § 227.203, satisfy the EEBA-storage criteria in § 227.205, and have been inspected and are in working order pursuant to the requirements in § 227.207.

(4) Ensure that each of the following employees, except those excluded by § 227.201(b), whose duties require regular work in the locomotive cabs of in-service freight trains transporting an asphyxiant or a PIH material, including a residue of an asphyxiant or a PIH material, has the required EEBA available when he or she does occupy the cab of such a train and knows how to use the EEBA:

(i) Employees who perform service subject to 49 U.S.C. 21103 (train employees) on such trains;

(ii) Direct supervisors of train employees on such trains;

(iii) Deadheading employees on such trains; and

(iv) Any other employees designated by the railroad in writing and at the discretion of the railroad.

(c) *Records of positions or individuals or both in the railroad's general EEBA program.* A railroad shall maintain a record of all positions or individuals, or both, who are designated by the railroad to be placed in its general EEBA program pursuant to § 227.211(b)(4). The railroad shall retain these records for the duration of the designation and for one year thereafter.

(d) *Consolidated programs.* A group of two or more commonly controlled railroads subject to this subpart may request in writing that the Associate Administrator for Railroad Safety/Chief Safety Officer (Associate Administrator) treat them as a single railroad for purposes of adopting and complying with the general EEBA program required by this section. The request must list the parent corporation that controls the group of railroads and demonstrate that the railroads operate in the United States as a single, integrated rail system. The Associate Administrator will notify the railroads of his or her decision in writing.

§ 227.213 Employee's responsibilities.

(a) An employee to whom the railroad provides an EEBA shall—

(1) Participate in training under § 227.209;

(2) Follow railroad procedures to ensure that the railroad's EEBAs—

(i) Are maintained in a secure and accessible manner;

(ii) Are inspected as required by this subpart and the railroad's program of inspection; and

(iii) If found to be unserviceable upon inspection, are turned in to the appropriate railroad facility for repair, periodic maintenance, or replacement; and

(3) Notify the railroad of EEBA failures and of use incidents in a timely manner.

(b) No employee shall willfully tamper with or vandalize an EEBA that is provided pursuant to § 227.201(a) in an attempt to disable or damage the EEBA.

§ 227.215 Recordkeeping in general.

(a) *Availability of records.* (1) A railroad shall make all records required by this subpart available for inspection and copying or photocopying to representatives of FRA, upon request.

(2) Except for records of pre-trip inspections of EEBAs under § 227.207, records required to be retained under this subpart must be kept at the system headquarters and at each division headquarters where the tests and inspections are conducted.

(b) *Electronic records.* All records required by this subpart may be kept in electronic form by the railroad. A railroad may maintain and transfer records through electronic transmission, storage, and retrieval provided that all of the following conditions are met:

(1) The electronic system is designed so that the integrity of each record is maintained through appropriate levels of security such as recognition of an electronic signature, or other means, which uniquely identify the initiating person as the author of that record. No two persons have the same electronic identity.

(2) The electronic system ensures that each record cannot be modified in any way, or replaced, once the record is transmitted and stored.

(3) Any amendment to a record is electronically stored apart from the record that it amends. Each amendment to a record is uniquely identified as to the individual making the amendment.

(4) The electronic system provides for the maintenance of records as originally

submitted without corruption or loss of data.

(5) Paper copies of electronic records and amendments to those records that may be necessary to document compliance with this subpart are made available for inspection and copying or photocopying by representatives of FRA.

§ 227.217 Compliance dates.

(a) Class I railroads subject to this subpart are required to comply with this subpart beginning no later than 24 months from the effective date of the final rule.

(b) Class II railroads subject to this subpart are required to comply with this subpart beginning no later than 30 months from the effective date of the final rule.

(c) Class III railroads subject to this subpart and any other railroads subject to this subpart are required to comply with this subpart beginning no later than 36 months from the effective date of the final rule.

Appendix G to Part 227—Schedule of Civil Penalties [AMENDED]

10. In appendix G, remove "Subpart B—General Requirements" and add in its place "Subpart B—Occupational Noise Exposure for Railroad Operating Employees".

Issued in Washington, DC, on September 28, 2010.

Karen J. Rae,

Deputy Administrator, Federal Railroad Administration.

Note: The following appendices will not appear in the Code of Federal Regulations.

BILLING CODE 4910–06–P

Appendix A: AAR's first letter to FRA on emergency escape breathing devices, dated January 13, 2010

ASSOCIATION OF AMERICAN RAILROADS

James P. Grady
Assistant Vice President, Technical Services
Safety and Operations

January 13, 2010

Mr. Grady C. Cothen
Deputy Associate Administrator
Federal Railroad Administration
Safety Standards & Program Development
1200 New Jersey Avenue, SE
Third Floor West
Washington, DC 20590

Dear Mr. Cothen:

The Association of American Railroads, on behalf of its member roads, is offering the recommendations shown below regarding Emergency Escape Breathing Devices (EEBD) that will be required by the Rail Safety Improvement Act of 2008 (RSIA).

As was discussed in previous meetings, the railroads' Industrial Hygienists have finalized a specification for a device that meets the objective of the RSIA which is to provide for escape from the area where a release of hazardous materials has occurred that may pose an inhalation hazard. One of the important features of this specification is the provision for the device to have a 15 minute functional rating. Investigations and studies by the railroads' Industrial Hygienists have found that the area of destruction following a release is such that 15 minutes is a more than adequate time period to escape the area. Requiring a device with a greater capacity would result in one that is larger and heavier than called for in this specification. Real estate in the locomotive cab is already at a premium. It is problematic for the railroads to install brackets or holders for the EEBD called for in this specification. Requiring a larger device in the regulation would complicate this issue by taking more space. Similarly, requiring a device with a greater functional rating would necessitate crew members to manage a device easily twice the size and weight of the six (6) pound unit preferred by the Industrial Hygienists.

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Specification, M-1005, is presently being worked through the approval process for AAR Standards. It is this specification that we recommend FRA include by reference in the forthcoming regulation.

Another issue that AAR wishes to be considered relates to the scope of assignments for which EEBD will be required. AAR recommends that applications be limited solely to road freight trains, as we feel is the intent of the RSIA. Remote Control Locomotive operations should be exempt from a requirement for EEBD. Concern has been expressed by our members that should a release occur in an operation where a Remote Control Locomotive is employed and that locomotive were known to be equipped with EEBD, an employee, working on the ground, may feel compelled to make his way through a chemical cloud to the locomotive to acquire and don the device rather than taking a safer course and possibly shorter route away from the release. Similarly, there may not be a justified need for an EEBD in traditional operations involving Yard and Local Freight trains as well. Like the Remote Control scenario described above, a crewman may feel the need to walk through a product mist to the locomotive to obtain and apply the device rather than escaping to a nearby yard office without one. Therefore, Yard and Local Freight assignments should also be exempt from a requirement for Emergency Escape Breathing Devices.

It is recommended that FRA carefully consider the materials for which EEBD will be required on freight trains carrying those products. As you know, our member railroads have a very strong and ongoing commitment to the safety of their employees. While the railroads will certainly meet the requirements of the forthcoming regulation, there is concern that there would be an expansion of the scope of this protection beyond the intent of the Act.

Finally, we ask that FRA allow at least two years from the effective date of the final rule for the railroads to be compliant with the regulation.

Very truly yours,

James P. Grady
Assistant Vice President, Technical Services

cc:	Alan Misiaszek	FRA
	Robert C. VanderClute	AAR
	Michael Rush	AAR
	Jeffrey F. Moller	AAR
	Thomas Streicher	ASLRRA

Appendix B: AAR's "Emergency Escape Breathing Device (EEBD) Specification M-1005 R1, January 20, 2010 Draft"

Emergency Escape Breathing Device (EEBD)
Specification
M-1005 R1
January 20, 2010 Draft

The following specifications for an emergency escape breathing apparatus approved by the National Institute of Occupational Safety and Health (NIOSH) or other National/International standards must be met in order for vendors to submit bids to Class 1 railroads. The intent of these specifications is to comply with the 2008 Rail Safety Improvement Act (RSIA), Section 413, including Class 1 railroad criteria.

Specifications

- NIOSH certification: Self-Contained Breathing Apparatus (SCBA) – Escape Only, or other National/International standard such as ISO 23269-1:2007(E): Emergency Escape Breathing Device (EEBD).
- Closed Circuit Escape Respirator (CCER) or Open Circuit Escape Respirator (OCER).
- At least 15-minute Approval Rating. Escape device must function for at least 15 minutes during 3 mph treadmill tests and 30 minutes for stationary tests.
- All materials used in the product must be resistant to IDLH levels of gaseous chlorine, anhydrous ammonia, and other toxic inhalation hazard (TIH) substances. Evidence of at least preliminary materials testing results must be submitted with bids.
- EEBD shall provide respiratory, head, and neck protection when tested at challenge concentrations of 10,000 ppm anhydrous ammonia and chlorine gas. Test results must be submitted with bid.
- Hood must be of sufficient size to cover head and neck of larger than average head size.
- EEBD and mount device design must be sufficiently small (depth*width*height, 5"*8"*10") and light enough (6 lbs. or less) to allow easy mounting inside locomotive cabs and easy access during an emergency. The wall mount case shall be bright safety orange and marked with a photo luminescent label with the text "Emergency Escape Breathing Device". Mounting specifications, CAD drawings and non-working full size product mock-ups must be submitted with bids.
- The mount device window must be clear and allow easy oxygen gauge visibility.
- Time-Stamped seal for security on device and plastic tamper tie on mount device that can be easily identified when broken.
- THE EEBD must have a small RFID tag attached to the EEBD facing outward in the mount device to facilitate an RFID handheld reader
- EEBD must provide evidence of impact and vibration resistance using an accelerated random vibration test using a typical locomotive cab profile. Escape device performance and mounting device structural integrity tests must represent a 15 year service life assuming a 50% duty cycle. Vibration test results must be submitted with bid.
- EEBD shall be belt wearable, without activating the EEBD after removal from wall mount case.
- Training support is required and will include a video of various locomotive models and video portions including each Class 1 railroad. This escape system must interchange with all Class 1 railroads. Training must include:
    - Proper Donning Techniques
    - Maintenance Requirements
    - Inspection Requirements
    - Typical Scenarios for Use
    - Training Requirements
    - Hands-on and face-to-face train-the-trainer seminars for railroad Train Service trainers at convenient dates and locations to be determined.

Appendix C: "UTU DISCUSSION DOCUMENT"

UTU DISCUSSION DOCUMENT

ALL TRAINS OPERATING IN RAIL CORRIDORS WHERE FREIGHT TRAINS CARRY HAZARDOUS MATERIALS THAT POSE AN INHALATION HAZARD IN THE EVENT OF A RELEASE SHALL BE EQUIPPED WITH EMERGENCY ESCAPE BREATHING DEVICES.

Emergency escape breathing apparatus ("EEBA") needs to be placed on all occupied locomotives which operate over a corridor where freight trains carry hazardous materials that pose an inhalation hazard in the event of a release. This would necessarily include heavily travelled rail corridors, as well as heavily populated areas. The nation's railroads transport many kinds of hazardous materials across the U.S., and can be part of almost any freight train. Therefore, the interests of safety mandate that every train in those areas be equipped with a sufficient number of EEBAs. The heavily travelled rail corridors are a particular concern. While the Graniteville, SC accident in 2008 prompted the congressional mandate, the potential for even more serious consequences exist where there are numerous train operations. It should not matter that a particular train does not at the moment contain haz mat cars that pose an inhalation hazard if released. It is likely that the train will encounter a train that does, and may need assistance from that crew. One needs to keep in mind that the exposure from such a release can extend many miles. Certainly, a train crew on a train in the vicinity of such a release is at risk.

The possibility that a train to train collision could occur with one train not containing hazmat and not equipped with the necessary EEBAs is the major concern. In corridors that operate many freight trains each day containing hazmat, the risk for all crew members working in that corridor are about the same, for crew members on the train that contain the hazmat, and the crew members on other trains that might not contain hazmat but meet and pass trains that do.

Also, it will become a logistics nightmare to keep moving the EEBAs from one train to another. For example, assume train A contains chlorine gas and requires EEBAs. When the haz mat cars are removed from the train, what is to become of the EEBAs? Should they stay with the locomotive, or are they to be removed? If the locomotive travels to another terminal or industry and again picks up other haz mat cars, does the railroad need to keep ferrying EEBAs from one locomotive to another? The answer is that makes no practical sense, and it likely would lead to many instances where the train is required to leave the terminal or industry without the protections.

The above should be evaluated with similar considerations as contained in FRA's rulemaking in Docket FRA-2007-28573, which covered routing of hazardous materials, primarily including PIH materials. Under the regulation, a railroad is required to analyze 27 factors that may affect the possibility of a catastrophic release. Both of the factors mentioned above are among the factors to be considered. It is noted also that the FRA stated: "The primary safety and security concern related to the transportation of hazardous materials by rail is preventing a potentially lethal spill or release from occurring in close proximity to heavily populated areas, events or venues with large numbers of people in attendance, iconic buildings and landmarks or environmentally sensitive areas." The focus of that rulemaking was not the protection of employees, but rather the protection of the public. The present rulemaking mandated by Congress requires employee safety. Both of these regulations should be considered together.

Rail corridors and branch lines that are not used for transporting hazmat shipments would not require EEBAs on occupied locomotives.

Therefore, in order to assure the employees are protected, each occupied locomotive operating over a corridor in which trains transporting haz mat cars containing gasses that would pose an inhalation hazard should be required to be equipped with the EEBAs at all times.

SEC. 413. EMERGENCY ESCAPE BREATHING APPARATUS.

(a) Amendment.--Subchapter II of chapter 201, as amended by section 409 of this division, is further amended by adding at the end the following new section:

``Sec. 20166. Emergency escape breathing apparatus

``Not <<NOTE: Deadline. Regulations.>> later than 18 months after the date of enactment of the Rail Safety Improvement Act of 2008, the Secretary of Transportation shall prescribe regulations that require railroad carriers--

``(1) to provide emergency escape breathing apparatus suitable to provide head and neck coverage with respiratory protection for all crewmembers in locomotive cabs on freight trains carrying hazardous materials that would pose an inhalation hazard in the event of release;

``(2) to provide convenient storage in each freight train locomotive to enable crewmembers to access such apparatus quickly;

``(3) to maintain such equipment in proper working condition; and

``(4) to provide their crewmembers with appropriate training for using the breathing apparatus.''.

(b) Conforming Amendment.--The chapter analysis for chapter 201, as amended by section 409 of this division, is amended by inserting after the item relating to section 20165 the following:

``20166. Emergency escape breathing apparatus.''.

[FR Doc. 2010–24732 Filed 10–4–10; 8:45 am]

BILLING CODE 4910–06–C