



Federal Register

**Monday,
July 3, 2000**

Part VI

Department of Transportation

Federal Railroad Administration

**49 CFR Parts 215, 220, and 238
Passenger Equipment Safety Standards;
Final Rule**

DEPARTMENT OF TRANSPORTATION**Federal Railroad Administration****49 CFR Parts 215, 220, and 238**

[FRA Docket No. PCSS-1, Notice No. 6]

RIN 2130-AA95

Passenger Equipment Safety Standards

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

ACTION: Final rule; response to petitions for reconsideration.

SUMMARY: This document specifically responds to the petitions for reconsideration related to the inspection, testing, maintenance, and movement of defective equipment provisions that FRA received in response to its May 12, 1999 final rule establishing comprehensive Federal safety standards for railroad passenger equipment. This document clarifies and amends the final rule as it relates to these provisions.

EFFECTIVE DATE: The amendments to the final rule are effective July 3, 2000.

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SUPPLEMENTARY INFORMATION:**Background**

On May 12, 1999, FRA issued a final rule establishing comprehensive Federal safety standards for railroad passenger equipment. See 64 FR 25540. FRA received petitions for reconsideration of the final rule from nine separate parties. These petitions sought reconsideration of numerous provisions contained in the final rule which generally involved the following major topics: structural design; fire safety; training; inspection, testing, and maintenance; and movement of defective equipment. The purpose of this document is to address the issues raised in the petitions for reconsideration relating to the final rule requirements regarding the inspection, testing, and maintenance of passenger equipment and the movement of such

equipment when it becomes defective as well as other miscellaneous provisions related to those topics. FRA believes that it is necessary to address these issues as quickly as possible in order to allow railroads sufficient time to complete the development of the training protocols required by the final rule and to begin the process of training their employees on the requirements of the final rule. Due to the complexity of some of the structural and fire safety issues raised in the petitions for reconsideration and because FRA's technical staff has concentrated its attention on resolving the issues related to the grandfathering of existing passenger equipment, FRA intends to respond to the issues raised in the petitions for reconsideration that are related to fire safety and the structural design of passenger equipment in a separate notice that will be published in the **Federal Register** in the near future.

In response to the final rule, FRA received petitions for reconsideration from five parties raising various issues relating to the inspection, testing, maintenance, and movement for repair provisions contained in the final rule. These petitioners included:

American Association of Private Railroad Car Owners, Inc. (AAPRCO), American Public Transit Association (APTA), Brotherhood of Railway Carmen Division of the Transportation Communications International Union (BRC), National Railroad Passenger Corporation (Amtrak), and Transportation Workers Union of America (TWU).

The specific issues and recommendations raised by these petitioners, and FRA's response to those petitions are discussed in detail in the "Section-by-Section Analysis" portion of the preamble. The section-by-section analysis also contains a detailed discussion of each provision which is being clarified or amended from the May 12, 1999 final rule. This will enable the regulated community to more readily compare this document with the preamble discussions contained in the final rule and will aid the regulated community in understanding the requirements of the rule. All of the changes being made to the final rule in this response to the petitions for reconsideration are intended to be clarifying or technical amendments or are within the scope of the issues and options discussed, considered, and raised in either the 1997 Notice of Proposed Rulemaking (NPRM) or the final rule.

The following discussion is intended to address the general concerns raised by the BRC regarding FRA's collection

and reliance on the power brake defect ratios contained in FRA's database. The BRC submitted a petition for reconsideration which raised numerous issues regarding power brake defect ratios and their use in this proceeding. In its petition the BRC contends that data developed in joint field inspections (i.e., FRA, BRC, and the carriers) during the Passenger Equipment Safety Standards process have been ignored in favor of traditional FRA safety data. The BRC asserts the data it developed regarding inspections by carmen and train crews were ignored by FRA when developing the NPRM and final rule and that FRA instead relied on data contained in its database. The BRC maintains that the data upon which FRA has relied to justify the new safety regulations are highly suspect, inaccurate, and unreliable.

The BRC contends that its own review of FRA safety data has uncovered instances where the same inspection data have been counted twice, three times, and even six times when calculating power brake defect ratios. BRC further states that it has uncovered numerous incidents in which FRA conducted power brake inspections while equipment is not connected to a source of compressed air, and contends that these types of inspections uncover only the most obvious defects in the power brake system. Thus, they contend that other defects that are less obvious, but no less dangerous, are not detected in these types of inspections. The BRC contends that FRA's inclusion of these types of inspections causes an artificial deflation of power brake defect ratios since the entire brake system is not inspected. The BRC contends that the deflation of these ratios is demonstrated by FRA in the 1998 NPRM proposing modification of the power brake regulations related to freight operations (63 FR 48294; Sept. 9, 1998). The BRC argues that although FRA noted an average freight power brake defect ratio of 3.9 percent in the 1998 NPRM, data collected in joint FRA, BRC and carrier inspections under various Safety Assurance and Compliance (SACP) initiatives reveal actual defect ratios of over 20 to 25 percent. The BRC asserts that FRA considered these data issues to be important enough to hold a public meeting on May 27, 1999 to discuss the issues related to FRA's inspection and reporting practices. Consequently, in a letter dated May 10, 1999, and in its petition, the BRC requested withdrawal of the final rule until more reliable safety data exist or are developed to justify the final rule.

Although the BRC's petition for reconsideration alludes to several

concerns regarding FRA's collection and reporting of power brake defect data, the petition does not allege that the accident/incident data presented by FRA in the final rule were inaccurate. In the May 12, 1999, final rule, FRA noted that its accident/incident data related to intercity passenger and commuter train operations support the general assumption that the current practices of these operations in the area of power brake inspection, testing, and maintenance are for the most part sufficient to ensure the safety of the public. See 64 FR 25556. The final rule noted that between January 1, 1990, and October 31, 1996, there were only five brake-related accidents involving commuter and intercity passenger railroad equipment and that no casualties resulted from any of these accidents. The total damage to railroad equipment reported to FRA totaled approximately \$650,000, or \$96,000 annually.

In the final rule, FRA also noted that between January 1, 1995, and October 31, 1996, FRA inspected approximately 13,000 commuter and intercity passenger rail units for compliance with 49 CFR part 232. FRA noted that the power brake defect ratio for these units during this period was approximately 0.8 percent. Furthermore, during this same period FRA inspected approximately 6,300 locomotives for compliance with 49 CFR part 229. The brake defect ratio for these units was approximately 4.65 percent. See 64 FR 25556-57. Although these defect ratios were presented in the general preamble portion of the final rule and the NPRM, there is nothing in either document or in the specific discussions of the various provisions proposed in the NPRM or retained in the final rule to indicate that these defect ratios were relied upon or used as a basis for developing any of the provisions. They were merely presented for illustrative purposes and were only relied on to the limited extent as discussed below.

The allegations regarding FRA's collection and reporting of power brake defect ratios raised by the BRC in its petition are virtually identical to the issues the organization raised with regard to the 1998 NPRM on freight power brakes or are directly related to those concerns. Therefore, FRA believes it is necessary to provide a general discussion explaining the limitations of using defect data collected by FRA, how defect data are used by FRA when developing a regulation, and how defect data are collected by FRA. As the concerns raised by BRC are applicable to FRA's collection of defect data for both freight and passenger equipment,

the discussion will generally discuss freight defect data and the concerns related to that data raised at a public meeting conducted on May 27, 1999, but are equally applicable to defect data on passenger equipment.

Data on brake defects are collected by FRA inspectors as they do general rail equipment inspections and during special projects conducted under the SACP. FRA has consistently maintained that the power brake defect data it collects are not suitable for use in any statistical analysis of brake defects. In order to perform a statistically valid analysis, either all cars and locomotives must be inspected (prohibitively expensive), or a statistically valid sample must be collected. For the sample to be valid for the purpose of statistical analysis, the sample must be randomly selected so that it will represent the same characteristics as the universe of data. Random samples have several unique characteristics. They are unbiased, meaning that each unit has the same chance of being selected. Random samples are independent, or the selection of one unit has no influence on the selection of other units. Most statistical methods depend on independence and lack of bias. Without a randomized sample design, there can be no dependable statistical analysis, and no way to measure sampling error, no matter how the data are modified. Random sampling "statistically guarantees" the accuracy of the results.

The sampling method used for regular FRA inspections is not random. It is more of a combination between a *judgment* sample and an *opportunity* sample. The opportunity sample basically just takes the first sample population that comes along, while the judgment sample is based on "expert" opinion. The sampling method used for SACP inspections is also a judgment sample, where FRA is focusing its inspections on a specific safety concern. This method is extremely prone to bias, as FRA is typically investigating known problem areas. Furthermore, some SACP inspections are joint inspections with rail labor representatives. Consequently, it is unknown whether the final reports reflect only FRA defects, as many of the joint inspections had both railroad and FRA defects recorded.

Neither the regular FRA inspections nor the SACP inspections were designed for random data collection. Although both are very useful to FRA, they were not designed for this purpose, and the data should be used carefully. FRA believes that data collected during routine inspections are the most likely data to accurately reflect the condition of the fleet. However, both FRA

inspection data and SACP data lack any measuring device; a defect is a defect, and no distinction is made between a critical defect versus a minor defect. Furthermore, the estimated correlation coefficients between defects and accidents were not found to be statistically significant. This does not mean that defects cannot lead to collisions or derailments as the lack of correlation could easily be a result of non-random sampling. Therefore, the data collected both during routine FRA inspections and under SACP cannot be used as a proxy for data collected by means of a random sample for the purpose of statistical analysis. The sample is not random, so no dependable statistical analysis may be performed. Consequently, FRA did not and will not use the data regarding power brake defects for the purpose of conducting a purely statistical analysis.

Power brake defect ratios were not specifically relied on when developing any provision contained in the final rule or in the NPRM which preceded the final rule. Although power brake defect ratios were considered, they were not used as the exclusive or necessary basis for any of the provisions proposed in the NPRM or contained in the final rule. They were generally used to aid FRA in identifying problem areas, which in turn helped FRA identify brake issues and practices that needed to be addressed. For example, the existence of high power brake defect ratios at a particular location or on a particular railroad likely indicated the existence of certain practices or procedures that created or contributed to the high defect levels. As is evident from the discussions of the various requirements contained in both the NPRM and in the final rule, FRA considered a massive amount of information and data when developing the rule.

Although the data regarding defect ratios contained in FRA's database have limited usefulness in the context of developing a regulation, the data are very useful to FRA in other ways. The data are useful in measuring a railroad's general compliance level and aid in identifying problem areas or locations. This information aids FRA in allocating its inspection forces and permits FRA to focus its enforcement on locations or issues which are in the greatest need of such scrutiny. By focusing its enforcement in this manner, FRA is able to make the best use of its limited resources.

Although the preceding discussion details the limitations of using the data collected by FRA regarding power brake defects when developing a regulation, FRA believes that a more detailed

discussion of FRA's collection of power brake defect data is needed in order to address the issues raised or alluded to by the BRC in its petition. As noted above, FRA conducted a public meeting on May 27, 1999, in order to address general concerns raised by various parties regarding the accuracy of the FRA's power brake defect data and to provide interested parties the opportunity to develop the issues they generally raised in oral and written comments regarding the data. Although this public meeting was held in connection with the NPRM regarding power brake regulations related to freight operations, many of the issues are identical to the issues raised by the BRC in its petition in this proceeding. At this May 27, 1999, public meeting, representatives of several labor organizations raised issues regarding the accuracy and use of the power brake defect data compiled by FRA. These commenters generally alleged that the method by which FRA collects power brake defect data results in the underreporting of defects which in turn results in a systematic deflation of power brake defect ratios.

Specific issues raised at this public meeting and in subsequent written comments include: the overreporting of units inspected during FRA inspections; the calculation and deflation of the power brake defect ratio; the inspection procedures used by FRA that tend to exclude certain categories of power brake defects; potential discrepancies in the input data relative to the activity codes from FRA field inspection reports to FRA's database; the performance of power brake inspections by FRA inspectors on cars that are not properly charged or connected to a source of compressed air; FRA's reliance on the railroads for the total number of cars inspected; and the wide variance between FRA inspectors and FRA regions in the number of units inspected, the number of defects reported, and the resulting defect ratios.

In order to understand some of the issues raised, it is necessary to understand how inspection data developed by an FRA inspector are entered into FRA's database. FRA Motive Power & Equipment (MP&E) inspectors conduct inspections of railroad passenger and freight equipment pursuant to various parts of the Federal regulations contained in title 49 of the Code of Federal Regulations. Principally, these include inspections under the following: part 215—Freight Car Safety Standards; part 229—Locomotive Safety Standards; part

231—Safety Appliance Standards; and part 232—Power Brakes and Drawbars. When performing an inspection under each of these parts, an FRA inspector will fill out the appropriate inspection form which indicates the number of units inspected under each part as well as the number of defective conditions found on those units. In the context of performing power brake inspections under part 232, an inspection of a car means a unit count of one. When this type of inspection is conducted, inspectors inspect various brake-related car components such as: Foundation brake rigging, air hoses, angle cocks, brake shoes, and, where possible, piston travel. When an inspector performs an inspection of a brake test required under part 232, the unit count for such a test is the train consist, block of cars, or car being tested. For example, when an inspector observes the performance of an initial terminal brake test, the entire train would constitute one unit count.

The BRC has raised various issues regarding FRA's calculation of power brake defect ratios both at the public meeting and in its petition. Several of these concerns involve the potential overreporting of the number of units inspected which then results in the deflation of power brake defect ratios. One concern addressed the practice of counting a single car or locomotive as a unit count under each of the MP&E regulations that it is inspected under. For example, a freight car, MU locomotive, or passenger car could be considered a unit count under part 215, part 229, part 231, and part 232 respectively if an FRA inspector were to inspect that car or locomotive under each of those provisions. Thus, one vehicle could be represented as three unit counts. It is claimed that this practice inflates the number of units inspected and thus, deflates defect ratios. This concern would be valid if FRA were to attempt to express a defect ratio for combined parts of the CFR. For example, if FRA were to attempt to express an MP&E defect ratio (a combination of parts 215, 229, 231, and 232), then the method by which FRA collects data would result in an inflation of the number of units inspected and the resulting defect ratio would be skewed. For purposes of analysis, FRA's database is constructed so that defect ratios are expressed only in terms of each separate part of the CFR.

A second concern, raised at both the public meeting and in BRC's petition, involves the potential of duplicate inspection reports being submitted by different FRA inspectors when engaged

in team inspections. The BRC alleges that FRA inspectors are significantly inflating the number of power brake units being inspected by submitting duplicate reports for the same inspection activity when groups of FRA inspectors perform inspections at the same location. In an effort to investigate this concern, FRA designed a computer program to search for potentially duplicate inspection reports submitted during the years of 1995 through 1998. Table 1 displays the figures regarding power brake inspections conducted by FRA for the years of 1995 through 1998 that are contained in FRA's database.

TABLE 1.—POWER BRAKE INSPECTIONS AND DEFECT RATIOS: 1995 THROUGH 1998

Calendar year	Power brake units	Power brake defective units	Power brake defect ratios
1995	611,824	24,387	.03986
1996	646,140	28,795	.04456
1997	582,685	26,004	.04463
1998	585,663	26,286	.04488

In order to identify potential duplicate reports, the computer program was designed to identify inspection reports in which two or more FRA inspectors were in the same county, on the same day, on the same railroad, and in which at least one unit-count code matched. Table 2 displays the results of this search, showing the number of potential duplicate reports that were submitted from 1995 through 1998 and showing the potential number of overreported units.

TABLE 2.—POTENTIAL DUPLICATE POWER BRAKE INSPECTIONS: 1995 THROUGH 1998

Calendar year	Inspection reports with More than one matching unit	Total units reported twice	Potential duplicate units (half of total units)
1995	39	1,965	983
1996	154	12,646	6,323
1997	342	19,482	9,741
1998	182	8,692	4,346

Table 3 and Table 4 display the impact of the potential duplicate reports on the calculation of power brake defect ratios. FRA believes that the data contained in Table 3 and Table 4

establish that the impact of potential duplicate reports on the defect ratios presented in the NPRM is insignificant

when considered in the context of nationwide data.

TABLE 3.—REVISED POWER BRAKE DATA CONSIDERING POTENTIAL DUPLICATE REPORTS: 1995 THROUGH 1998

Calendar Year	Power brake units inspected	Potential duplicate units	Units inspected minus potential duplicate units	Defective units	Defect ratios after adjusting for potential duplicate units
1995	611,824	983	610,841	24,387	.03992
1996	646,140	6,323	639,817	28,795	.04501
1997	582,685	9,741	572,944	26,004	.04539
1998	585,663	4,346	581,317	26,286	.04522

TABLE 4.—EFFECT OF POTENTIAL DUPLICATE REPORTS ON POWER BRAKE DEFECT RATIOS: 1995 THROUGH 1998

Calendar year	Defect ratios before adjustment for potential duplicates	Defect ratios after adjustment for potential duplicates	Difference
1995 .....	.03986	.03992	.00006
1996 .....	.04456	.04501	.00045
1997 .....	.04463	.04539	.00076
1998 .....	.04488	.04522	.00034

It should be noted that the numbers presented in Tables 2 through Table 4 overstate the actual impact of potential duplicate inspection reports. For the year 1998, FRA conducted an in-depth analysis of the potential duplicate reports found by the computer program. The computer program identified 393 potential duplicate inspection reports for the year 1998. However, included in this grouping were unique inbound inspection reports, outbound inspection reports and split inspection reports. In addition, there were inspection reports from inspectors who worked in the same county, but at different locations. Each of these reports was removed from the 393 potentially duplicate inspection reports identified by the computer program based on a report-by-report analysis of each of the reports by FRA MP&E specialists. This analysis left 182 potential duplicate reports for 1998, which were used to calculate the figures presented in Tables 2 through 4 for 1998. Although these tables note 182 potential duplicate inspection reports involving 8,692 units (4,346 duplicates), a further analysis of the reports by FRA found that only 54 of the inspection reports were actually found to be duplicative. These 54 duplicate

inspection reports involved the overreporting of just 3,073 units rather than the 4,346 units identified in Table 2. As an in-depth analysis was not performed on the potential duplicate inspection reports identified by the computer program for the years of 1995 through 1997, the figures provided for those years in all likelihood greatly overstate the actual number of duplicate claims submitted in each of those years. Thus, the actual impact of duplicate inspection reports is even less than the small percentages indicated in Table 4 above.

Although the impact of duplicate inspection reports is insignificant, FRA believes that a brief discussion of how these duplicate inspection reports happened is necessary in order to assure interested parties that such occurrences are rare and that FRA has taken steps to avoid these inaccuracies. In 1994, FRA had four inspection forms for the Agency's five inspection disciplines. The Operating Practices and Hazardous Materials disciplines shared the same form. FRA also had a Quality Improvement Plan (QIP) daily activity report form to help the Agency track resource allocations, including the amount of time required to perform certain inspections. When "team inspections" occurred, one inspector completed the inspection report for the entire team. However, each inspector on the team was also required to complete a separate QIP report to receive credit for the inspection. On January 1, 1995, a newly developed single inspection form (FRA 6180.96) for all disciplines became operational. Furthermore, in May of 1995, FRA discontinued the collection of QIP-time data based on FRA's conclusion that it had adequate information from previous QIP reports regarding the time it takes to conduct various inspections. In addition, the new inspection form incorporated many

of the previous QIP codes. In August 1995, FRA converted to a data collection system using personal computers.

After conducting the analysis discussed above, it was determined that 26 FRA MP&E inspectors inadvertently prepared all of the involved duplicate inspection reports. Furthermore, FRA was not aware that the new computer system did not filter out duplicate inspection reports. After becoming aware of these problems based on reports from its field personnel, FRA specifically addressed the issue of inspection reporting at FRA's multi-regional conference conducted in 1998. At this conference, FRA's Office of Safety management provided specific guidance on preparing reports that would eliminate potential duplicate reporting. During this same period, FRA also changed its computer software to give inspectors credit for inspections while at the same time preventing potential duplicate reporting. Furthermore, on March 5, 1999, FRA re-issued reporting procedures designed to prevent duplicate inspection reports when team inspections are conducted. These procedures were issued to all Federal and State inspection personnel and to all FRA Regional Administrators and Deputy Regional Administrators.

Subsequent to the public meeting conducted in May of 1999, FRA made two modifications to the summary data produced by its database in order to clarify the meaning of the data and to avoid misunderstanding by outside parties. The first modification relates to safety appliance inspections conducted under 49 CFR part 231. The summary data previously contained the heading "SA & PB (cars and locomotives)." This heading may have caused some confusion because the heading suggests that it applies to both safety appliance and power brake inspections when in reality the data captured under this heading only concern safety appliance

inspections under part 231. This heading has been modified to read "SA (cars and locomotives)" to more accurately reflect the information contained under this heading. FRA has also modified the summary data by eliminating the calculation of an MP&E defect ratio. As discussed above, FRA believes that the calculation of a composite MP&E defect ratio is inappropriate based on the way FRA collects the information contained in its database and would result in a deflation of MP&E defect ratios. Therefore, defect ratios will only be presented for each separate MP&E CFR part.

In response to the issue raised regarding FRA's practice of conducting brake inspections under part 232 while cars are not connected to a source of compressed air or not completely charged with air, FRA has developed a separate reporting code for brake inspections conducted in this manner. This reporting code will become effective in mid-2000 and will indicate when brake inspections are conducted on cars or trains that are not charged with compressed air. Although FRA agrees that the most thorough brake inspection is performed when a car or train is charged, a large majority of the brake components on a car can be inspected for abnormalities without the actual application of the air brakes. For example, the following defects can all be discovered regardless of whether a car or train is charged with air or not: cut-out air brakes, brake connection pins missing, brake rigging down or dragging, brake shoes worn to the extent that the backing plate comes in contact with the tread of the wheel, angle cocks missing or broken, retainer valves broken or missing, and air brake piping bent or broken. When FRA inspectors conduct train air brake tests, they inspect all of the components noted above as well as the operation of the train air brakes while under the required air pressures. FRA has conducted inspections of brake equipment in this manner for decades and will continue to conduct brake inspections under part 232 on equipment that is both on and off a source of compressed air. Moreover, the issue of inspecting cars for brake defects while not connected to a source of compressed air is a very infrequent occurrence in the passenger equipment context. Virtually all passenger equipment is inspected by FRA while it is connected to a source of compressed air. FRA believes that the addition of a code to identify those inspections conducted while equipment is not connected to a source of compressed air will provide a more

accurate assessment of defective brake system components.

Two other issues raised by various individuals at the May 27, 1999, public meeting concerned FRA's reliance on railroads to determine the number of cars inspected and the wide variation among FRA inspectors and among FRA Office of Safety regions with regard to the number of units inspected and defects reported. FRA acknowledges that FRA inspectors frequently rely on information provided by the railroad regarding car counts when initially conducting an inspection, information that is sometimes higher than the actual number of cars being inspected. However, in most instances FRA inspectors request a copy of the consist prior to finalizing their inspection reports to ensure a proper unit count. FRA has issued guidance to its inspectors to ensure that the unit counts on all inspections are accurate.

Although FRA acknowledges that the number of brake inspections conducted varies somewhat from inspector to inspector and from region to region, FRA contends that these variations are the result of competing priorities and varying workloads within each region. FRA makes every effort to standardize its inspection activities by providing substantial training to each of its inspectors. This training is comprised of both classroom and on-the-job training. In addition to basic and advanced training provided through FRA's field liaison training staff, classroom training is also conducted at least once a year at the regional or multi-regional conferences. Product-specific training is provided by manufacturers, suppliers, and other sources (e.g., General Electric, General Motors-EMD, and Westinghouse Air Brake Company). Many FRA regions also conduct discipline-specific conferences, with training on new regulations and issues provided by various subject matter experts. On-the-job training is provided through FRA Regional Specialists and senior inspectors. These individuals will work one-on-one with the inspectors on the various types of inspections that the inspector is required to conduct. FRA also frequently issues enforcement guidance to its inspectors in the form of technical bulletins in order to ensure consistent enforcement of the regulations.

The BRC's petition also asserts that FRA ignored the data developed by its organization when developing the final rule. However, the final rule discussed in detail the information provided by the BRC, compiled by carmen stationed at Union Station in Washington, DC from January 1996 through February of

1997, describing defective conditions allegedly found on Amtrak trains traveling through Union Station. See 64 FR 25567. The BRC submitted this data in support of its contention that large numbers of defects were being discovered on long-distance passenger trains and that the existing 1,000-mile intermediate brake interval for such trains should not be extended or eliminated. In the discussion, FRA noted that the lack of detail in the information submitted by the BRC, made it impossible to determine whether the vast majority of the alleged defective conditions were contrary to the Federal regulations or whether the conditions were merely contrary to Amtrak's voluntary maintenance standards or operating practices. In addition, based on the description of some of the conditions, they would not be considered defective conditions under current Federal regulations. Furthermore, the vast majority of the conditions alleged in the document were not power brake defects, and thus, under the current regulations, would not have been required to have been inspected at a 1,000-mile inspection; nor did the regulations in effect at the time of BRC's inspections mandate any type of mechanical inspection on passenger equipment, except under 49 CFR parts 223 (glazing), 231 (safety appliances), and 232 (power brakes). Moreover, the vast majority of the alleged conditions were mechanical and wheel defects which would not be addressed in a power brake inspection.

In the final rule, FRA also made clear that the documentation submitted by the BRC regarding defective conditions found on cars at Union Station in Washington, DC did not indicate a safety problem on long-distance intercity passenger trains. Assuming that all of the cars cited in the BRC's submission were in fact defective as alleged, it appears that approximately 750 cars were defective. However, the documentation also reveals that approximately 1,300 trains were inspected; thus, using a conservative estimate of 10 cars per train, approximately 13,000 cars were inspected. Therefore, approximately only six percent of the cars inspected were found to contain either a brake defect or other mechanical defect. Furthermore, of the approximate 750 cars alleged to have been found defective, only approximately 20 percent of those cars contained a defect related to power brakes. Consequently, only about one to two percent of the total cars inspected contained a power-brake-related defect. Moreover, from the

information provided, it appears that none of the trains contained in the BRC submission was involved in any type of accident or incident related to the defective conditions alleged.

Section-by-Section Analysis

Amendments to 49 CFR Part 215

A clarifying amendment is being made to the applicability provisions of this part contained in § 215.3. The modification is being made to clarify that the requirements contained in this part do not apply to express cars and other unpowered vehicles being hauled in a passenger train that is inspected, tested, maintained, and operated pursuant to the Passenger Equipment Safety Standards contained in part 238. FRA believes that this clarification is consistent with FRA's existing general policy not to subject this type of equipment to the requirements of part 215. FRA also believes this clarifying change is necessary to avoid potential misunderstandings of the interrelationship between part 215 and part 238. FRA further believes that the applicability of the inspection, testing, and maintenance requirements contained in part 238 to this type of equipment will adequately ensure the safety and proper operation of this equipment when used in passenger operations. It should be noted that when this type of equipment is used in a freight train the requirements of part 215 will become applicable to its operation. Furthermore, the applicability or non-applicability of part 215 to this equipment is not in any way intended to affect the use or classification of the equipment under other provisions contained in Title 49 of the Code of Federal Regulations.

Amendments to 49 CFR Part 220

A technical amendment to part 220, addressing communications in connection with railroad operations, is made to the definition of "train" contained in § 220.5. The technical amendment merely adds a reference to part 238 in that definition to ensure that trains operated under the testing provisions of part 238 are covered by the railroad communication requirements of part 220.

Amendments to 49 CFR Part 238

Section 238.1 Purpose and Scope

Paragraph (c) has been modified in response to petitions filed by APTA and Amtrak. Both these parties recommended that FRA extend the date by which railroads covered by the final rule must adopt and comply with a training, qualification, and designation

program required by § 238.109. Both of these petitioners contend that the date of compliance required in the final rule (July 12, 2001) provides an insufficient time for railroads to establish and implement the required training programs. In a letter dated September 30, 1999, FRA separately responded to these two petitions. In that letter, FRA agreed to extend the period of time by which railroads must adopt training programs and train their workforces under the final rule to December 31, 2001. Thus, conforming changes have been made in this paragraph to indicate that railroads will not be responsible for compliance with the provisions contained in §§ 238.15, 238.17, 238.19, 238.107, 238.109, and subpart D of this part until January 1, 2002.

As FRA stated in the final rule, FRA recognizes the interrelationship between the proper training of railroad personnel and the implementation of the provisions on inspection, testing, and maintenance and on movement of defective equipment. *See* 64 FR 25575. In order for railroads to comply with the requirements related to the inspection, testing, and maintenance and the requirements regarding the movement of defective equipment, the railroads must first be provided a sufficient amount of time to develop and implement proper training programs. Therefore, as the date by which railroads are to adopt training programs required by this final rule and to train their workforces has been extended until the end of 2001, this paragraph has been modified to indicate that the provisions on inspection, testing, and maintenance and on movement for repair do not become applicable until that time. Of course, the statutory provision at 49 U.S.C. 20303 will continue to apply to movements for repair of cars that are defective under 49 CFR parts 231 or 232.

Section 238.5 Definitions

A new definition of the term "actuator" is added in response to the Transport Workers Union of America (TWU) concerns regarding the final rule's allowance to rely on brake indicators during the performance of Class IA brake tests. The TWU's petition indicates that there may be some misunderstanding of the difference between brake indicators, allowed to be used during Class IA brake tests, and actuators, which are permitted to be relied upon during Class I brake tests. A "brake indicator" is generally a device actuated by brake cylinder pressure that indicates whether the brakes are applied or released. In contrast, an "actuator" is a device directly activated by the movement of the brake cylinder piston

that provides an indication of piston travel. Thus, because an actuator is tied directly to the movement of the brake cylinder piston and because direct observation of the brake cylinder piston is not possible or extremely difficult on some passenger equipment, FRA has allowed and will continue to allow the use of these devices to determine proper piston travel on passenger equipment as part of Class I brake tests. A brake indicator is useful and is appropriate for Class IA and Class II brake tests.

The definition of "effective brake" is also being slightly modified in response to TWU's petition, which generally contended that vehicles with excessive piston travel should be considered to have inoperative or ineffective brakes when calculating the percentage of operative brakes in a train under § 238.15. It appears that part of TWU's concern may be based on a misunderstanding as to what constitutes excessive piston travel sufficient to render a brake ineffective. In order to add clarity to the issue, FRA believes it is necessary to explain that a brake will not be considered ineffective until its piston travel exceeds the maximum prescribed limits for the brake. Although the final rule did not contain specific piston travel limits for various brake systems, the intent of the final rule was to retain the specific piston travel limits contained in the existing regulations. *See* 49 CFR 232.11(c). Thus, this definition is being modified to clarify that on vehicles equipped with nominal 12-inch stroke brake cylinders, the brake will not be considered effective if the piston travel exceeds 10½ inches.

The definition of "primary responsibility" has been slightly modified in response to a petition for reconsideration submitted by APTA. APTA's petition sought clarification of whether the time spent by supervisors of mechanical employees would be considered consistent with the duties that a qualified maintenance person (QMP) would be required to perform when determining a supervisor's primary responsibility. FRA's intent when issuing the final rule was to allow supervisory mechanical personnel to be considered QMP's if they were otherwise properly trained as required by this final rule. Therefore, the definition of "primary responsibility" has been modified in order to clarify that time spent supervising employees engaged in the functions of troubleshooting, inspection, testing, maintenance, or repair of train brake and mechanical components and systems covered by this part shall be considered work that is generally

consistent with the function of troubleshooting of such systems and components. The final rule also made clear that the totality of the circumstances should be considered in those situations where an employee does not spend 50 percent of the day engaged in any one readily identifiable type of activity.

The definition of "qualified person" has also been modified, in response to a petition from the TWU. The definition in the final rule reads as follows:

Qualified person means a person determined by the railroad to have the knowledge and skills necessary to perform one or more functions required under this part. The railroad determines the qualifications and competencies for employees designated to perform various functions in the manner set forth in this part.

See 64 FR 25664. In its petition, the TWU contends that this definition of "qualified person" is so broad that a railroad could lawfully consider just about anyone to be a qualified person. Due to this, the TWU recommends that any task for which the final rule requires to be performed by a qualified person be changed to require that the task be performed by either a carman or a QMP. Although FRA disagrees with the assertion that a "qualified person" should not be permitted to perform the tasks identified in the final rule that the person is able to perform properly, FRA does agree that the definition of "qualified person" contained in the final rule may be overly vague and susceptible to abuse and misunderstanding. Therefore, the definition of a "qualified person" is being modified in order to clarify what is required of a railroad when it designates a person as qualified to perform a particular task.

The modified definition of "qualified person" is intended to clarify that the person is to receive training pursuant to the training, qualification, and designation program required under § 238.109. The definition also makes clear that although a person may be deemed a "qualified person" for the performance of one task, that same person may or may not be considered a "qualified person" for the performance of another task. The final rule permits certain tasks to be performed by a "qualified person." For example, these tasks include the performance of some brake inspections, interior mechanical inspections, and the handling of defective equipment in some circumstances. FRA would expect employees performing these various tasks to have different levels of training. For example, a person receiving appropriate training to be deemed a

"qualified person" for the purpose of performing Class IA brake tests should not be deemed a "qualified person" for the purpose of moving defective equipment or performing interior mechanical inspections, unless specific training is provided that individual which specifically covers those tasks. The modified definition stresses that the individual must have received appropriate training to perform the task for which the railroad is assigning the person responsibility to perform.

The definition of "running gear defect" is also being modified, in response to petitions from APTA and Amtrak. The modified definition eliminates propulsion system components from the definition. As the definition contained in the final rule pertains only to conditions not in compliance with part 238 and because part 238 does not cover propulsion system components for the most part, FRA agrees with the petitioners that the definition of "running gear defect" contained in the final rule creates confusion as to how locomotives with propulsion system defects must be handled. FRA believes that propulsion system defects, which are found on locomotives, are sufficiently covered by part 229 of this chapter, containing locomotive safety standards. Thus, locomotives with conditions that are not in compliance with part 229 should be handled in accordance with the provisions contained in that part regarding the movement of defective equipment. The only potential propulsion system component directly addressed in part 238 is dynamic brakes, and separate handling restrictions have been imposed in the final rule and clarified in this document when this component is found to be inoperative. See 64 FR 25679 and discussion of § 238.305(e)(15) below. Consequently, propulsion system components have been removed from the definition of "running gear defect."

Although the TWU's petition requests modification of the definitions of "bind" and "foul," FRA believes that the definitions of these terms in the final rule are sufficiently clear. See 64 FR 25661–62. The TWU contends that the definitions of these terms fail to address every possible condition that could affect the proper operation of a brake system. FRA believes that the conditions noted by TWU as not being covered by these definitions are sufficiently covered by the definition of "effective brake" contained in the final rule. See 64 FR 25661. Thus, even though a condition may not cause a brake to "bind" or "foul," the condition would cause the brake not to be an

"effective brake" as defined in the final rule. Furthermore, FRA is modifying the language contained in the Class I brake test requirements regarding the operation of the brake rigging to include language that the rigging or system mounted on a car for transmission of the braking force operates as intended and does not bind or foul. Therefore, even though a condition may not cause the brake rigging to "bind" or "foul," the condition could cause the brake not to operate as intended and thus, render the brake ineffective.

TWU's petition also seeks clarification of the definition of "switching service" to further explain what constitutes a "train movement." Although FRA does not believe that the final rule definition of "switching service" needs to be modified, a brief discussion of what constitutes a "train movement" may be useful. FRA's determination of whether the movement of cars is a "train movement," potentially subject to some of the requirements of this part, or a "switching movement" is and will be based on the voluminous case law developed by various courts of the United States. FRA's general rule of thumb as to whether a trip constitutes a "train movement" requires five or more cars (in a passenger context this number would likely be lower) coupled together that are hauled a distance of at least one mile without a stop to set off or pick up a car and not moving for the purpose of assembling or disassembling a train. However, FRA may consider movements of less than one mile "train movements" if various circumstances exist. In determining whether a particular movement constitutes a "train movement," FRA conducts a multi-factor analysis based upon the discussions contained in various court decisions on the subject. See, e.g., *United States v. Seaboard Air Line R.R.*, 361 U.S. 78 (1959); *Louisville & Jeffersonville Bridge Co. v. United States*, 249 U.S. 543 (1919). The following factors are taken into consideration by FRA: the purpose of the movement; the distance traveled without a stop to set out or pick up cars; the number of cars hauled; and the hazards associated with the particular route traveled (e.g., the existence of public or private crossings with or without active crossing warning systems, the steepness of the grade, the existence of curves, any other conditions that minimize the locomotive engineer's sight distance, and any other conditions that may create a greater need for power brakes during the movement). The existence of

any of these hazards would tend to weigh towards the finding of a "train movement," since these are the types of hazards against which the power brake provisions of the Federal rail safety laws were designed to give protection.

Section 238.9 Responsibility for Compliance

Amtrak petitioned FRA for reconsideration of this section to clarify the responsibility of a railroad or other entity that is involved in the operation of passenger trains but does not maintain the equipment used in such trains. Amtrak noted that it is a contract operator of commuter service in at least one urban area where it does not exercise any control over who performs the maintenance of the commuter equipment it operates. In this circumstance, Amtrak reported it has no contractual responsibility for ensuring that the condition of the equipment complies with applicable legal requirements. Amtrak also explained that four commuter operations are conducted on Amtrak's Northeast Corridor (NEC) using equipment that is not maintained by Amtrak. Amtrak believed that the regulation would appear to impose upon an entity, such as itself, that operates passenger trains as a contractor, or that allows commuter authorities to operate passenger trains on its rail lines, responsibility to ensure that equipment maintained by other entities is in full compliance with the regulation. Amtrak noted the expense involved if it were to ensure that equipment maintained by other entities is in full compliance with the regulation, including potential operational delays. Assuming FRA did not intend to require entities like Amtrak to perform independent inspections on equipment maintained by others, Amtrak requested that FRA amend this section by adding the following paragraph: "For purposes of this section, a railroad that hauls, or permits to be hauled on its line, any passenger train or passenger equipment shall not be required to perform independent inspections of equipment maintained by entities that are not selected by the railroad and under control of the railroad in performing the maintenance of equipment services." Amtrak further stated that it does not dispute responsibility for hauling, or permitting to be hauled, equipment if it has actual knowledge of a condition that does not comply with the standards.

As explained in the preamble to the final rule, paragraphs (a)(1) and (a)(2) prohibit a railroad subject to part 238 from committing a series of specified acts with respect to a train or a piece of

passenger equipment while the train or passenger equipment is in service if it has a condition that does not comply with part 238 or if it has not been inspected and tested as required by part 238. In particular, consistent with 49 U.S.C. chapter 203, paragraph (a)(1) imposes a strict liability standard with respect to violations of the safety appliance and power brake provisions of part 238. In addition to the acts prohibited by paragraph (a)(2) (that is, the use, haul, offering in interchange, or accepting in interchange of defective or not properly inspected equipment), paragraph (a)(1) prohibits a railroad from merely permitting the use or haul on its line of such equipment if it does not conform with the safety appliance and power brake provisions. See 49 CFR 238.3(b). By contrast, paragraph (a)(2) imposes a lower standard of liability for using, hauling, delivering in interchange, or accepting in interchange a train or passenger equipment that is defective or not properly inspected, in violation of another provision of this part; a railroad subject to this part is liable only if it knew, had notice, or should have known of the existence of either the defective condition of the equipment or the failure to inspect and test.

As noted, the liability standard contained in paragraph (a)(1) is consistent with longstanding Federal law. FRA did not intend to impose any new standard on railroads through paragraph (a)(1), at least insofar as this paragraph subjects railroads to liability for permitting the use on their lines of equipment with a defective power brake or safety appliance. As a result, even before this final rule, Amtrak has been subject to liability for permitting equipment with a defective power brake or safety appliance to be operated over its NEC trackage. Likewise, the Nation's freight railroads have been—and are—subject to liability for permitting the use on their lines of Amtrak or other passenger equipment with such defective conditions. As paragraph (a)(1) effectively restates otherwise applicable Federal law, FRA has not adopted Amtrak's request for reconsideration as it relates to paragraph (a)(1). FRA notes that the safety appliance and power brake laws do not specifically impose inspection requirements on Amtrak or a freight railroad to inspect passenger equipment merely because the equipment is used on its lines, though these laws would subject Amtrak or a freight railroad to liability for permitting the use on their lines of Amtrak or other passenger equipment with such defective conditions. However, FRA

generally does not intend to hold a freight railroad or Amtrak responsible for passenger equipment not in compliance with part 238 merely because the passenger equipment operates over the freight railroad's or Amtrak's trackage. Further, FRA does not intend to hold Amtrak responsible for passenger equipment not in compliance with part 238 merely because it provides the crews to operate the passenger equipment. FRA would look for more of a connection between the railroad and the defective condition of the equipment than these.

As this discussion indicates, a number of entities may be involved in a single passenger train operation. For example, the following entities (and/or others) may be involved in the operation of a commuter railroad: a local governmental authority may fund and organize the commuter rail operation, and own the passenger equipment; a freight railroad may host the operation by providing the trackage over which the passenger trains operate and dispatching the trains; Amtrak may provide the crews to operate the trains; and another entity may inspect, test, and maintain the equipment. Here, the freight railroad, Amtrak, and the entity maintaining the equipment are all performing services for, or on behalf of, the governmental authority funding and organizing the operation. As a result, the governmental authority holds ultimate responsibility for the condition of the passenger equipment and compliance with these passenger equipment safety standards.

Of course, as provided in paragraph (c), any other person who performs any action on behalf of a railroad or any person who performs any action covered by this part is required to perform that action in the same manner as required of a railroad or be subject to FRA enforcement action. Continuing with the above example, the contractor who inspects, tests, and maintains the passenger equipment on behalf of the governmental authority (the railroad) is thereby subject to liability for failing to perform properly an inspection required by this part, for instance. Whether this contractor is otherwise a railroad in its own right, as Amtrak is, is not necessary for purposes of its assumption of responsibility for compliance with part 238.]

As noted above, paragraph (a)(2) imposes a lower standard of liability for using, hauling, delivering in interchange, or accepting in interchange a train or passenger equipment that is defective or not properly inspected, in violation of a provision of this part other than a power brake or safety appliance

provision. A railroad subject to this part is liable only if it knew, had notice, or should have known of the existence of either the defective condition of the equipment or the failure to inspect and test. (Again, paragraph (a)(1) imposes a strict liability standard with respect to violations of the safety appliance and power brake provisions of part 238.) As written, paragraph (a)(2) effectively embodies Amtrak's reconsideration request. First of all, Amtrak (or a freight or other host railroad) is in no way subject to liability for merely permitting to be hauled or used on its trackage a train or passenger equipment that is defective or not properly inspected in violation of a provision of this part other than a power brake or safety appliance provision. Further, Amtrak is not subject to liability for merely using, hauling, delivering in interchange, or accepting in interchange a train or passenger equipment that is defective or not properly inspected, in violation of a provision of this part other than a power brake or safety appliance provision. As a result, Amtrak is not subject to liability for merely providing the crews to operate the passenger equipment in the commuter railroad example discussed above. FRA notes that, as a general matter, paragraph (a)(2) is not drafted to impose a strict liability standard on railroads for using or hauling passenger equipment that is defective or not properly inspected, in violation of a provision of this part other than a power brake or safety appliance provision. As a result, even if Amtrak were potentially subject to liability for using or hauling passenger equipment under paragraph (a)(2)—as in the case where it uses or hauls its own equipment; or inspects, tests, and maintains passenger equipment on behalf of another railroad—Amtrak would not incur liability in fact unless it knew, had notice, or should have known of the existence of either the defective condition of the equipment or the failure to inspect and test (other than for a power brake or safety appliance provision).

The TWU, in its petition for reconsideration, suggested that paragraph (a)(2) is at best misleading and open to misinterpretation with respect to current statutory requirements, focusing on use of the phrase "other than safety appliance and power brake provisions of this part." However, as discussed above, § 238.9 is specially drafted to retain the specific liability standards of the power brake and safety appliance laws, through inclusion of paragraph (a)(1). Paragraph (a)(2), and its use of the phrase "other

than safety appliance and power brake provisions of this part," cannot be read in isolation of paragraph (a)(1), which specifically addresses power brakes and safety appliances. FRA makes clear that § 238.9 does not exclude safety appliances and power brakes from the compliance requirements.

Though not the subject of a petition for reconsideration, FRA notes for clarification that a violation of paragraph (a)(3) would include failing to keep a record required by this part; failing to submit a test plan required by this part; and failing to perform an analysis required by this part. A railroad is strictly liable for any such violation. Of course, FRA retains enforcement discretion whether to assess a penalty or take other action in these and any other instances of non-compliance with part 238.

Section 238.15 Movement of Passenger Equipment With Power Brake Defects

A conforming change has been made to the introductory text of this section to indicate that the requirements contained in the section do not become effective until January 1, 2002. As noted previously, by letter dated September 30, 1999, FRA extended the period of time by which railroads must adopt training programs and train their workforces under the final rule to December 31, 2001. This letter was issued in response to petitions for reconsideration submitted by APTA and Amtrak. In the letter, FRA noted the interrelationship between the proper training of railroad personnel and the implementation of the provisions on inspection, testing, and maintenance and on movement of defective equipment. Consequently, this modification is consistent with the date by which a railroad is to have completed the training of its employees.

Paragraphs (b) and (c)(2) of this section have been slightly modified in response to petitions submitted by Amtrak and the TWU seeking clarification of the liability standards related to the movement of defective equipment. The provisions regarding a railroad's responsibility for compliance contained in § 238.9, and discussed in detail above, make clear that a strict liability standard will be applied to power brake components not in compliance with the requirements of this part. In order to ensure that there is no misunderstanding regarding this standard of liability, FRA has modified the language contained in paragraphs (b) and (c)(2) to reflect the fact that a railroad must have knowledge of the existence of a defective condition in order to haul a car for the purposes of

repair under the provisions contained in this section. The modifications made to these paragraphs make clear that such knowledge will be established by tagging the defective equipment or entering the existence of the defective condition into an automated tracking system. Consequently, if a railroad lacks knowledge of the existence of a power brake defect and uses the defective equipment, then the railroad may be held liable for civil penalties.

Similarly, paragraph (c) of this section has been slightly modified in order to clarify that passenger equipment which develops ineffective or inoperative brakes while en route may be moved for repair without civil penalty liability only if all of the requirements contained in this section are met. Although this was FRA's intent when including the requirements contained in this paragraph, the specific wording of the paragraph may have caused some parties to misinterpret or misunderstand its meaning. Thus, if FRA were to discover a unit of passenger equipment being used or hauled with inoperative or ineffective brakes without the provisions of paragraph (c) being otherwise met, then a violation may be assessed pursuant to this paragraph for improper movement of an en route power brake defect.

A clarifying change has been made to paragraph (d)(1)(ii) of this section regarding the calculation of operative brakes on trains equipped with tread brake units (TBUs). FRA believes that the wording of the final rule may have created some uncertainty as to how the percentage of operative brakes is to be calculated on trains equipped with a mixture of TBUs and other types of brakes. The change clarifies FRA's intent when issuing the final rule that the calculation of operative brakes based on the number of operative TBUs is for trains equipped solely with TBUs. See 64 FR 25583. For example, if a train utilizes a mixture of TBU and disc brakes, the calculation of the percentage of operative brakes is to be determined by first dividing the number of axles in the train with operative brakes by the total number of axles in the train and then multiplying that fraction (expressed as a decimal fraction) by 100.

FRA received a petition from the TWU requesting elimination of the final rule's list of conditions that do not render power brakes inoperative for purposes of calculating the percentage of operative brakes. FRA disagrees that such an approach is necessary. The purpose of the calculation is to determine the percentage of operative brakes, and the conditions listed in paragraph (d)(1)(iv) of the final rule do

not render the power brakes inoperative. Many of the listed conditions constitute a violation under other provisions contained in the final rule or another regulatory provision for which separate penalties are provided.

A cut-out or ineffective power brake is an inoperative power brake, but the failure or cutting out of a secondary brake system does not result in inoperative power brakes; for example, failure of the dynamic brake does not render the power brake inoperative. Furthermore, inoperative handbrakes or power brakes overdue for maintenance or stenciling do not render the power brakes inoperative on the car and should not be deemed inoperative power brakes for purposes of the calculation. The final rule and other regulations contain separate penalties for operating a car that has an inoperative handbrake, is overdue for maintenance, lacks the proper stenciling, or is not properly inspected and tested. Although FRA disagrees that the list of conditions contained in paragraph (d)(1)(iv) should be eliminated, clarifying language has been added to paragraph (d)(1)(iv) to ensure that the conditions listed are not to be considered inoperative power brakes for purposes of calculating the percentage of operative brakes but are considered power brake defects under other provisions of part 238.

Paragraph (d)(1)(iv)(C) of this section is also being slightly modified in response to the TWU's petition indicating some confusion regarding when a car with excessive piston travel should not be considered to have inoperative brakes for the purpose of calculating the percentage of operative brakes pursuant to paragraph (d). When including the exception contained in this paragraph, it was FRA's intent to recognize that some brake systems are required to have certain piston travel ranges at the time that a Class I brake test is performed that do not necessarily render the brakes ineffective if those piston travel ranges are exceeded while the equipment is en route. Thus, although a car may be found with piston travel that exceeds the Class I brake test limits, such excess travel does not render the brakes inoperative until the piston travel exceeds the outside limits established for that particular type of piston design. However, piston travel that exceeds the applicable Class I brake test limits would be considered a defective condition if the piston travel were not adjusted at the time that a Class I brake test were performed, and would be considered a partial failure to perform a Class I brake test pursuant to § 238.313(g). In order to clarify this

intent, FRA has not only modified the language contained in this paragraph but has also modified the definition of "effective brake" and the Class I brake test requirements to include the existing piston travel limitations that are applicable to vehicles equipped with nominal 12-inch stroke brake cylinders. See 49 CFR 232.11(c) and 232.12(f)(1).

The TWU's petition also raises concerns, many of which were raised in response to the NPRM, regarding the final rule provisions governing the movement of defective equipment and the potential allowance for railroads to utilize an automated tracking system rather than directly tagging defective equipment. After a review of the petition, FRA believes that it is unnecessary to modify any of the provisions contained in the final rule regarding these issues. FRA concedes that the requirements regarding the movement of equipment with defective power brakes allow such equipment to be moved to the nearest forward location where the necessary repairs can be effectuated and in some instances to be moved past a location where the necessary repairs could be conducted. FRA believes that the requirements contained in the final rule are fully consistent with Congress' intent when enacting the statutory provisions regarding the movement of such equipment nearly a century ago. The preamble to the final rule provided a detailed discussion outlining FRA's position on this issue and need not be reiterated here. See 64 FR 25568–72, 25581–85. It should be noted that there are concerns in the context of passenger train operations that do not exist in the freight arena when determining whether a location is one where the necessary repairs can be made. Chief among these concerns is the safety of the passengers on the train with the power brake defect and the safety of passengers on following trains. FRA believes these two overriding concerns provide sufficient justification for permitting passenger train operations greater flexibility in moving defective equipment than is available to a freight operator.

FRA also believes that the definition of "repair point" contained in the final rule is sufficiently clear and does not require modification as requested in the TWU petition. The preamble to the final rule makes clear that the determination of whether a location should be considered a location where necessary repairs can be made is one which must be conducted on a case-by-case basis after consideration of a variety of factors. See 64 FR 25571, 25584–85. FRA continues to believe that it is virtually impossible to develop a

standard establishing what constitutes a location where repairs can be made that would address the variety of operations covered by the final rule and that such determinations are best left to FRA's inspectors in the field. *Id.*

FRA also sees no reason to modify the requirement that operators of long-distance passenger trains designate the locations where repairs can be conducted on the equipment they operate. Although FRA agrees that this provision puts the control of what locations constitute repair locations in the hands of the railroad, FRA believes that the operators of these long-distance intercity trains are in the best position to determine which locations have the necessary expertise to handle the repairs of the somewhat advanced braking systems utilized in passenger trains. Due to the unique technologies used on the brake systems of these operations and the unique operating environments, the facilities and personnel necessary to conduct proper repairs on this equipment are somewhat specialized and limited. Moreover, the final rule contains a broad performance-based requirement that railroads operating this equipment designate a sufficient number of repair locations to ensure the safe and timely repair of the equipment. Contrary to the beliefs of some labor representatives, FRA believes that this performance standard provides FRA sufficient grounds to institute civil penalty enforcement actions or take other enforcement actions if, based on its expertise and experience, FRA believes the railroad is failing to designate an adequate number of repair locations.

FRA also believes that the final rule fully addressed the concerns of various labor representatives regarding the use of automated tracking systems in lieu of direct tagging of defective equipment. See 64 FR 25572, 25582. FRA believes that provisions must be provided to allow railroads to take advantage of existing and developing technologies regarding the electronic maintenance and retention of records. FRA believes that the use of such a medium to track defective equipment can expedite the identification and repair of defective equipment and, thus, reduce the time that defective equipment is operated in passenger service. Furthermore, the final rule contains specific provisions regarding FRA's ability to monitor and review a railroad's automated tracking system and provides FRA the ability to prohibit or revoke a railroad's ability to utilize such a system in lieu of directly tagging defective equipment if FRA finds that the automated tracking system is not properly secure, is inaccessible to

FRA or a railroad's employees, or fails to adequately track and monitor the movement of defective equipment. Moreover, if the automated tracking system developed and implemented by a railroad does not accurately and adequately record the information required by this part, the railroad would be in violation of the movement for repair provisions and subject to civil penalty liability for the subsequent defect for which the unit was being hauled for repair.

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

A conforming change has been made to the introductory text of this section to indicate that the requirements contained in the section do not become applicable until January 1, 2002. As noted previously, by letter dated September 30, 1999, FRA extended the period of time by which railroads must adopt training programs and train their workforces under the final rule to December 31, 2001. Consequently, this modification is consistent with the date by which a railroad is to complete the training of its employees.

Paragraph (b) of this section has been slightly modified to include a reference to the exceptions contained in § 238.305(c) and (d) and § 238.307(c)(1) regarding the continued use in passenger service of passenger cars found with certain interior defects found at the car's interior calendar day mechanical inspection. In response to petitions filed by APTA and Amtrak, FRA has modified the provisions contained in §§ 238.305 and 238.307 to permit passenger cars found with certain types of interior defects at a daily interior inspection to continue in passenger service until its next interior calendar day mechanical inspection. The modifications made in §§ 238.305 and 238.307 contain various operational, mechanical, and inspection requirements related to the continued use of such equipment. The modifications being made to §§ 238.305 and 238.307 are discussed in detail below.

Paragraph (c) of this section has been slightly modified to include a reference to the exception contained in § 238.307(c)(1) regarding the continued use in passenger service of passenger cars found with defective seats while en route. In response to petitions filed by APTA and Amtrak, FRA has modified the provisions contained in § 238.307 to permit passenger cars found with defective seats to continue in passenger service. The modifications made in § 238.307 contain various requirements

related to the continued use of such equipment. The modifications being made to § 238.307 are discussed in detail below.

Paragraph (d) of this section has been modified in response to a petition submitted by APTA requesting modification of the requirements related to the inspection of the roller bearings on passenger equipment involved in a derailment. FRA agrees that the requirements for roller bearing inspections on derailed equipment contained in the final rule were essentially a reiteration of the requirements contained in part 215 of this chapter related to such inspections on freight cars. FRA recognizes that the freight car inspection requirements are not easily applicable to many types of passenger equipment because the wheels on such equipment cannot be spun freely or manually rotated. Therefore, FRA is modifying the provisions contained in paragraph (d)(1) to allow the inspection of the roller bearings on derailed passenger equipment to be in accordance with the railroad's procedures for handling defective equipment. The APTA PRESS Maintenance Committee is currently in the process of developing a standard regarding the inspection, testing, and maintenance of cars that have derailed, to serve as a guide to all passenger railroads. FRA expects railroads to adopt those procedures or incorporate similar procedures for handling derailed equipment and will enforce those procedures that are adopted.

Paragraph (d)(2) has also been slightly modified to incorporate the recommendations proposed by APTA in its petition. This paragraph requires that a roller bearing be disassembled from the axle and inspected internally if any one of the four enumerated conditions exists. The modifications being made to this paragraph clarify that an on-track rolling test of the wheel set will be considered sufficient to meet the requirement that the wheel set be spun freely. As noted above, the wheels on many types of passenger equipment cannot be spun freely; thus, alternate method of inspection is necessary. FRA also adopts APTA's suggestion to require disassembly of the roller bearing if the truck on the equipment was dragged on the ground for more than 100 feet, which is more stringent than the 200-foot threshold contained in the final rule.

FRA finds the concerns raised by the TWU in its petition regarding the inadequacies of the final rule provisions relating to the movement of defective passenger equipment to be based on a general misunderstanding of the

provisions contained both in this part and in 49 CFR part 215. The TWU generally asserts that the movement restrictions of the final rule need to be modified to be at least as restrictive as the requirements contained in part 215 regarding the movement of defective freight cars. The petition also asserts that qualified persons should not be allowed to make any of the determinations required in this section and that on-site personnel should not be permitted to relay information to qualified personnel via radio.

In FRA's view, the provisions contained in the final rule of part 238 regarding the movement of defective equipment are in many ways more stringent than the requirements related to freight cars contained in part 215. For example, a passenger car found with a defect in the running gear (which include virtually all of the components addressed in part 215) may not be moved in passenger service from the point where the car receives a calendar day mechanical inspection and may only be used in passenger service until its next calendar day mechanical inspection if such a condition is found en route and the car is properly tagged. Whereas, a freight car containing a part 215 defect could potentially be used in freight service under part 215 from subsequent mechanical inspections and could remain in use for numerous days and for hundreds of miles, provided the car is properly tagged.

FRA also believes that the TWU's objection to the final rule allowance that a "qualified person" may approve the continued use of a defective passenger vehicle is somewhat misplaced. The final rule only permits a "qualified person" to authorize the continued use of a vehicle with a non-running-gear defect, which is a defective condition that does not affect the mechanical operation of the equipment and is generally a defect in the interior of the vehicle that is specific to a passenger car. The final rule requires that the continued use of a vehicle containing a running gear defect (defects similar to those addressed in part 215) must be authorized by a "qualified maintenance person." Furthermore, the clarifications contained in this document establish that a "qualified person" must receive specific training covering the tasks he or she is deemed qualified to perform.

FRA also believes that the TWU's request for elimination of the final rule provisions permitting on-site personnel to relay information to qualified personnel (QMP or QP) regarding defective equipment ignores the reality of current passenger operations and fails to acknowledge the fact that

mechanical-type personnel are not readily available at every location on a railroad's line of road. Moreover, requiring passenger trains to sit at locations until qualified personnel can physically arrive to inspect the equipment is not prudent in many cases and could endanger the passengers on both the train waiting to be inspected and on trailing trains. Furthermore, when such off-site determinations are made, the final rule allows that the equipment with running gear defects be moved only to the next forward location where the equipment can be inspected by a QMP to verify the description of the defect provided by the on-site personnel.

It should also be noted that prior to the issuance of the final rule there were no Federal requirements addressing the inspection of mechanical components on passenger equipment or limitations on the movement of passenger equipment with defective mechanical components. FRA's general intent when issuing the final rule was to capture the best practices of the industry with regard to the inspection and testing of passenger equipment and attempt to codify current best practices with regard to the movement of defective equipment, which have generally proven to be safe and effective. Thus, FRA did not intend to impose every requirement applicable to the inspection and movement of freight equipment in a rule designed for passenger operations, nor did it view such a requirement as necessary.

Section 238.19 Reporting and Tracking of Repair to Defective Passenger Equipment

A conforming change is being made to paragraph (a) of this section to indicate that the requirements contained in the section do not become applicable until January 1, 2002. As noted previously, by letter dated September 30, 1999, FRA extended the period of time by which railroads must adopt training programs and train their workforces under the final rule to December 31, 2001. Consequently, this modification is consistent with the date by which a railroad is required to complete the training of its employees. The title of this section has also been slightly modified to clarify the purpose of the requirements contained in this section.

Paragraph (a)(2) of this section is being slightly modified in order to clarify the information which must be retained in the reporting and tracking system. The modification clarifies that the date that a defective condition is discovered must be included in the retained information. FRA recognizes

that the final rule requirement to record the date on which the defect occurred would be impossible to determine in many instances and it was not FRA's intent to require the recording of that information. Rather, FRA intended that the date on which the defective condition was discovered by the railroad to be recorded and has modified the final rule language accordingly.

Subpart B—Safety Planning and General Requirements

Section 238.107 Inspection, Testing, and Maintenance Plan

A conforming change is being made to paragraph (a) of this section to indicate that the requirements contained in the section do not become applicable until January 1, 2002. As noted previously, by letter dated September 30, 1999, FRA extended the period of time by which railroads must adopt training programs and train their workforces under the final rule to December 31, 2001. Consequently, this modification is consistent with the date by which a railroad is required to complete the training of its employees.

Section 238.109 Training, Qualification, and Designation Program

Paragraphs (a) and (b) of this section are being amended in accordance with FRA's letter dated September 30, 1999, addressed to representatives of APTA and Amtrak in response to their petitions for reconsideration of the provisions contained in this section. APTA and Amtrak petitioned for reconsideration of this section as providing an insufficient time for railroads to establish and implement training programs. APTA's petition notes that several commuter railroads will be unable to comply because of the large number of employees that must be trained. According to the petition, it will take up to three years to administer the training programs to these railroads' current employees and one year initially to prepare and validate the training courses. The APTA petition specifically references the potential impact on the Long Island Rail Road, and on July 27, 1999, FRA received a letter describing the potential impact on this railroad. The Long Island Rail Road and Amtrak submissions both raise logistical concerns associated with implementing the training programs because of their large workforces.

APTA's petition further states that to efficiently and effectively meet the three-year refresher training requirement in the final rule, railroads need to provide the new training

program to one-third of their workforce every year. The petition notes that if railroads initially train more than that percentage in one year, they must retrain that same percentage of their workforce every third year, resulting in an inefficient training workload now and in the future. For this reason and the others discussed above, the petitions request that FRA allow railroads 48 months from the date of the publication of the final rule to adopt training programs and train their workforces as required by this section.

The final rule recognizes the interrelationship between the proper training of railroad personnel and the implementation of the inspection, testing, and maintenance and movement of defective equipment provisions contained in the final rule. See 64 FR 25575. In order for railroads to comply with the requirements related to the inspection, testing, and maintenance requirements and the requirements regarding the movement of defective equipment, the railroads must first be provided a sufficient amount of time to develop and implement proper training programs. The final rule further states that the process of developing training programs or modifying existing programs to meet the requirements of the final rule should be completed within a year, and that railroads will need several months to a year to rotate their employees through the programs in order not to disrupt the operation of their railroads. Accordingly, the final rule provided railroads with 26 months from the date of publication of the final rule to develop and train their employees as required by the rule.

After carefully considering the submitted petitions, FRA responded to the petitions in a letter dated September 30, 1999. In that letter, FRA agreed to extend the date by which railroads must adopt training programs and train their workforces under the final rule to no later than December 31, 2001. Paragraph (a) of this section has been amended to reflect this extension. In that letter, FRA noted that its principal concern in granting any additional time to railroads is delaying the date by which the final rule's inspection, testing, and maintenance requirements must apply. In particular, there are now generally no Federal inspection, testing, and maintenance requirements for exterior and interior (non-brake) mechanical components of passenger cars, and consequently no immediate regulatory means for FRA to ensure that such components meet minimum levels of safety.

In the September 30, 1999 letter, FRA made clear that the chief objective of the

training requirements contained in this section is to ensure that the appropriate passenger railroad employees and contractors understand the Federal inspection, testing, and maintenance requirements as they relate to their involvement with railroad passenger equipment. FRA believed that the additional two years, requested in the petitions, to implement the training requirements requested was not necessary since the focus of the required training is to be on the Federal inspection, testing, and maintenance requirements, not on voluntary railroad or industry standards. FRA also noted that, with the exception of newly emerging passenger railroads, passenger railroads are not starting from a blank slate to train their workforces. Passenger railroads should already have training programs in place, and these training programs could be adapted to include the training specifically required by this section. Furthermore, both the APTA inspection, testing, and maintenance standards, and those FRA inspection, testing, and maintenance standards required under this part, are based on the current best practices of the passenger railroad industry. Neither arose from a vacuum.

In FRA's response letter, FRA recognized that some of the specific requirements contained in this section could be easily misunderstood to cover inspection, testing, and maintenance tasks not required by part 238—such as those tasks required only under an APTA or Amtrak maintenance standard. This was not FRA's intent when issuing the final rule. Therefore, FRA noted that it would amend the language contained in this section to clarify that the focus of the training required in this section is on the Federal inspection, testing, and maintenance requirements for passenger equipment in this part. Consequently, paragraph (a) and paragraphs (b)(1) through (b)(7) have been slightly modified in order to clarify that the focus of the training required under this section is the Federal requirements related to the inspection, testing, and maintenance of passenger equipment.

The September 30, 1999, letter also responded to the concerns of APTA, Amtrak, and the Long Island Rail Road regarding the issue of refresher training. In the letter, FRA agreed that it would amend the refresher training interval contained in the final rule to alleviate the concern that large portions of a railroad's workforce would be required to undergo refresher training under this section in the same year due to condensing the initial training period to less than three years. FRA noted that the final rule would have permitted

refresher training to be conducted at intervals of less than three years and thus, provide railroads with the ability to accelerate their retaining of some employees to relieve workforce allocation issues. However, FRA believes that it is more important for passenger railroads to initially train their workforces pursuant to the requirements of this section and direct their resources in this regard, rather than be immediately concerned with the need to provide refresher training soon after the initial training is completed. Therefore, FRA stated that it would amend the final rule to allow those individuals trained by no later than December 31, 2001, pursuant to this section, not to undergo their first refresher training until four years after the completion of their original training. Thereafter, such individuals would be required to undergo refresher training at an interval not to exceed three years, as currently provided in the final rule. FRA also made clear, that for individuals trained after December 31, 2001, under this section, (*e.g.*, new hires) the refresher training interval would remain at three years as provided in the final rule. Consequently, paragraph (b)(11) has been amended to include the extension of the first refresher training cycle for employees initially trained prior to January 1, 2002.

One concern raised by APTA in its petition for reconsideration, which was not addressed in FRA's response letter, is the issue of the transferability of an individual's training credentials from one railroad to another either in the context of the individual changing his or her employer or working for multiple railroads while remaining in the employ of only one railroad. Nothing in the final rule prohibits a railroad from utilizing training provided to one of its employees by another railroad in order to qualify that employee. In FRA's view, the previous training would have to cover the tasks and equipment for which the employee will have responsibility on the "successor" railroad and the previous training would have to be adequately documented by the training railroad, such documentation provided to the "successor" railroad, and maintained by the "successor" railroad. Furthermore, the transferring employee's period for refresher training would start to run from the time of the employee's previous training received on the other railroad.

Subpart C—Specific Requirements for Tier I Passenger Equipment

Section 238.231 Brake System

This section contains general brake system performance requirements that apply on or after September 9, 1999, to Tier I passenger equipment except as otherwise provided. APTA, in its petition for reconsideration, states that this section fails to make clear if the requirements in this section apply to new or existing equipment, or both. APTA believes that, while most equipment will meet the performance requirements in this section, applying new design requirements to existing equipment invariably causes problems and may result in a number of waiver requests to FRA. FRA's intent when issuing the final rule was to require the provisions contained in this section to apply to all Tier I passenger equipment, both existing and new, unless otherwise specifically stated to be applicable only to new equipment. Except as discussed below, FRA is not aware of any existing passenger equipment which would not meet the requirements contained in this section nor does APTA's petition provide any indication of equipment that could not meet the requirements. If such equipment exists, FRA would expect necessary modification to be made to the equipment or appropriate waivers to be submitted to FRA for its consideration.

FRA acknowledges that the provisions related to the operation and design of locomotives equipped with blended brakes contained in paragraph (j) should have been applicable only to new locomotives. Although there is no existing documentation or information available to FRA to indicate that existing locomotives would not meet the requirements of paragraph (j)(1)-(j)(3) of this paragraph, verification that existing locomotives meet the requirements could be very expensive and time consuming. Compliance with paragraph (j)(4) may be problematic for some equipment designs and this is an important reason for insisting on appropriate maintenance of dynamic brakes. Furthermore, there are other requirements contained both in this section and in this part which ensure that a train's primary braking system is capable of stopping a train within the existing signal spacing (§ 238.231(a)) and that the dynamic brakes on locomotives are operational within a very short time of being discovered defective (§ 238.303(e)(15)). Consequently, FRA has amended paragraph (j) to clarify that it applies only to new locomotives equipped with blended braking systems. Narrowing the

application of this provision will allow proper testing to be conducted when the equipment is being designed and assembled.

A new paragraph (h)(3) is being added in order to clarify the general requirements related to the use of hand brakes found in paragraphs (h)(1) and (h)(2) of this section. Because the final rule contains specific provisions requiring passenger equipment to be equipped with hand brakes, FRA believes that the addition of the existing general requirements regarding their use constitutes a clarifying amendment to the hand brake requirements. FRA's inclusion of specific provisions requiring passenger equipment to be equipped with hand brakes establishes FRA's intent that those hand brakes are to be used in at least the same manner as required under the existing regulations. The provisions contained in this paragraph merely incorporate the existing general requirements related to the setting and releasing of hand brakes and will impose no additional burden on the railroads. *See* 49 CFR 232.13(f). The language has been slightly modified from that contained in the existing regulations for purposes of clarity.

Paragraph (m) of this section is being modified in response to Amtrak's petition, which asserts that it currently permits trains to operate with up to two cars in the consist being operated in direct release mode while the rest of the train operates in graduated release mode. It is also FRA's understanding that the direct release cars operated by Amtrak in this fashion are hauled at the rear of the train. The reason Amtrak hauls cars in this manner is because some vehicles it operates in its passenger trains are equipped with AB type brake valves which can be operated only in a direct release mode. Thus, under the final rule the hauling of just one of these cars would require the rest of the train to be changed over to a direct release mode. FRA is not aware of any safety issues that have arisen from Amtrak's current method of operation and agrees with Amtrak's assertion that operation in this manner would not affect the stopping distance of a train. Furthermore, FRA's intent when including this provision in the final rule was to incorporate the current best practices of Amtrak and its operation of express equipment. Consequently, paragraph (m) is modified to allow no more than two cars to be operated in direct release mode when the rest of the train is operated in graduated release mode provided those cars are hauled at the rear of the train.

A new paragraph (n) is added to this section to include the existing

procedures for eliminating the presence of compressed air in a vehicle's brake system prior to adjusting piston travel or working on brake rigging. As FRA is clarifying the requirements related to excessive piston travel and to adjusting piston travel while performing Class I brake tests, FRA believes, that for purposes of clarity and to avoid misunderstandings, it is also necessary to include the existing basic procedures that are to be undertaken prior to making such adjustments. These procedures address the safety of employees responsible for making piston travel or brake rigging adjustments by ensuring that the brake system or brake system components on which they will be working are void of all compressed air. The procedures contained in this new paragraph are currently contained in the existing power brake regulations and are currently part of virtually every railroad's operating and inspection practices. *See* 49 CFR 232.12(j). Therefore, no new burden is being created by FRA's retention of these existing provisions.

A new paragraph (o) is added to this section to clarify and alert the operators of passenger trains that they may be required to comply with the provisions requiring the use of a two-way end-of-train device (EOT) contained in part 232 of this chapter. This addition is merely for the purpose of clarity. The provisions regarding two-way EOTs are currently applicable to certain passenger train operations, and the inclusion of this paragraph is not intended to expand the applicability of those provisions but merely to inform passenger train operators of their potential applicability.

Amtrak raised an issue in its petition regarding the requirements contained in paragraph (h)(1) for equipping new locomotives with a hand or parking brake. Amtrak sought clarification as to whether a pneumatically operated parking brake would meet the manual application and release requirements of this paragraph. Amtrak's petition did not provide a specific description or design of the pneumatically operated parking brake for which it sought clarification. A pneumatically operated parking brake would meet the requirements of this section if it were designed to permit the manual application and release of the brake in some fashion. The ability to manually apply or release the brake would not have to be the primary means of applying or releasing the brake, but manual capability must be available if necessary.

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

Section 238.301 Scope

A conforming change is being made to paragraph (b) of this section to indicate that the requirements contained in subpart D do not become applicable until January 1, 2002. As noted previously, by letter dated September 30, 1999, FRA extended the period of time by which railroads must adopt training programs and train their workforces under the final rule to December 31, 2001. Consequently, this modification is consistent with the date for when a railroad is required to complete the training of its employees.

Section 238.303 Exterior Calendar Day Mechanical Inspection of Passenger Equipment

Paragraph (b) of this section regarding the performance of exterior mechanical inspections on cars added to a passenger train is being modified in response to petitions filed by APTA and AAPRCO. Both these parties contend that the requirement to perform an exterior mechanical inspection at the time a passenger car or private car is added to a train is overly burdensome and unnecessary. They contend that at many locations where such cars are added to trains there is not a QMP available to perform such an inspection. They also note that there is currently no requirement to perform such an inspection when cars are added a passenger train and there has been no indication of any safety hazard being caused by this practice. Furthermore, they assert that the final rule already requires that a car added to a train must receive an exterior mechanical inspection sometime on the day on which it is added to the train. APTA also contends that passenger equipment used on commuter operations do not sit for long periods on sidings, no more than a weekend at most, and other cars that are in trains that remain together but not used over a weekend are not required to receive such an inspection before they are used; thus, the rule lacks consistency.

After consideration of the petitions received, FRA believes that there is a significant difference between traditional passenger equipment hauled by most commuter and intercity operations and the express and intermodal equipment being hauled by some passenger trains. FRA agrees that the need to mechanically inspect traditional passenger equipment and private cars immediately upon their being added to a train is not as great as

when express or freight-type cars are added to a train. Currently, when traditional passenger equipment and private cars are added to a passenger train, there is no requirement to conduct a mechanical inspection, and at many locations such inspections are not performed. FRA has found no indication of safety being compromised by these practices and agrees that requiring such an inspection could have significant cost implications to some operations. Furthermore, FRA agrees that traditional passenger equipment is less prone to developing mechanical defects than is freight equipment because the passenger equipment is not switched in and out of trains as often and does not undergo the rigors inherent to the loading and unloading of freight equipment. Moreover, any equipment added to a passenger train that does not receive a mechanical inspection when added will be required to receive an exterior mechanical inspection sometime during that calendar day on which the car is added to the train. Consequently, the final rule has been amended to permit traditional passenger cars and private cars to be added to a train without receiving an exterior mechanical inspection under this section, provided that the vehicle had received an exterior mechanical inspection pursuant to this section on the last day it was used in passenger service and the train crew operating the train to which the vehicle is added is notified of the date, time, and location of that inspection.

However, the current practice within the industry is to conduct thorough mechanical inspections on express cars, intermodal equipment (*e.g.*, RoadRailers[®]), and other freight-type equipment at the time it is added to a passenger train. Furthermore, this type of equipment is relatively new, and its performance history is not as clear as traditional passenger equipment. Moreover, FRA also agrees that this type of equipment carries a greater potential of developing exterior mechanical defects because this equipment is subject to the more frequent switching and the stresses of loading and unloading inherent in its use. Consequently, the final rule requirement that these types of cars must receive an exterior mechanical inspection pursuant to this section at the time they are added to a train unless they received such an inspection within the previous calendar day is retained. In such circumstances, the train crew must be notified of the date, time, and location where the previous exterior mechanical inspection was performed.

As noted above, paragraph (b) of the final rule has also been modified to

clarify that the train crew must be notified of the date, time, and location where the previous exterior mechanical inspection was performed in order to add a car without performing an exterior mechanical inspection at the time it is added to a train. The final rule merely stated that the train crew must be provided "documentation" of the previous mechanical inspection. *See* 64 FR 25617, 25678. However, as APTA correctly asserts in its petition, the final rule does not indicate how or in what form the documentation is to be provided. To clarify the issue, FRA is amending the final rule to indicate that the train crew must be notified of the date, time, and location that the previous exterior mechanical inspection was performed on the vehicle in order to be excepted from the requirement to perform a mechanical inspection at the time the vehicle is added to the train. FRA intends to make clear that this notification may be provided in any format that best suits the railroad's operation. Thus, for example, the notification may be either written, electronic, or by radio.

Paragraph (e)(7)(ii) has been slightly modified in response to APTA's petition which asserts that the final rule requirement that each friction side bearing not run in contact unless designed to carry weight fails to recognize the design of some passenger equipment. APTA claims that this requirement fails to recognize passenger equipment, such as Metra gallery cars, which are designed to operate in contact but to carry no weight. FRA agrees that the final rule fails to cover this type of equipment, which was not FRA's intent when issuing the final rule. When issuing the final rule, FRA did not realize that the side bearings on some passenger equipment are designed to operate in contact but carry no weight. Consequently, FRA is modifying the final rule to require that the friction side bearings do not run in contact unless designed to operate in that manner. FRA believes this amended language permits the use of equipment with friction side bearings designed to operate in contact but carry no weight, while also prohibiting the use of equipment that is not designed to operate with friction side bearings in contact unless the equipment is designed to carry weight.

Paragraph (e)(8)(x) has also been slightly modified to clarify the requirement contained in that paragraph in response to Amtrak's petition. In its petition, Amtrak contends that paragraphs (e)(8)(iii) and (e)(8)(x) of the final rule appear to be in conflict because paragraph (e)(8)(iii) allows some leeway when a break in a rim

exists based on the width of the tread; whereas, (e)(8)(x) would make any break in the rim condemnable. Paragraph (e)(8) of the final rule contains a listing of wheel conditions that would render a wheel defective. The conditions contained in this paragraph are identical to the wheel conditions identified in part 229 related to locomotives. *See* 49 CFR 229.75. FRA agrees with the comments provided by Amtrak, and will modify paragraph (e)(8)(x) to clarify that the language contained in the provision related to cracks or breaks in the rim of a wheel is intended to be limited by the language contained in paragraph (e)(8)(iii) regarding breaks in the rim of a wheel. Paragraph (e)(8)(x) is intended to cover situations where there is a crack in the rim of a wheel which may not constitute a break under subparagraph (iii). This would include thermal and other cracks that do not actually result in the rim being broken.

Paragraph (e)(15) of this section is being amended in response to a petition for reconsideration submitted by APTA requesting that defective dynamic brakes on an MU locomotive not be considered a running gear defect pursuant to the movement of defective equipment provisions contained in § 238.17. APTA contends that the restrictions imposed in the final rule treating dynamic brakes on MU locomotives as running gear defects will create equipment shortages on some passenger operations because equipment found with defective dynamic brakes would not be permitted to continue in service until repaired. APTA asserts that FRA's treatment of these brake systems is inconsistent with FRA's discussions in the final rule regarding blended braking systems and dynamic brakes on conventional locomotives. APTA requests that MU locomotives discovered with defective dynamic brakes be permitted to continue in service to their next exterior calendar day inspection. APTA contends that thermal damage to the wheels on these vehicles will not occur in such a short period of time.

After consideration of APTA's petition, FRA agrees that the final rule requirements related to defective dynamic brakes on MU locomotives may have the potential to create certain operational difficulties on some railroads that were not envisioned by FRA when issuing the final rule. Although FRA continues to believe that extended use of an MU locomotive with defective dynamic brakes significantly increases the potential for causing thermal stress to the wheels of the vehicle, FRA must agree that there is no evidence showing that use of an MU

locomotive with no dynamic brakes for a short period of time (less than 48 hours) will result in thermal stress to the wheels. Consequently, the final rule is being amended specifically to include requirements for the handling of MU locomotives discovered with defective dynamic brakes. The amended provisions are similar to the final rule provisions regarding conventional locomotives in that both sets of provisions require locomotives discovered with defective dynamic brakes to be conspicuously tagged in the cab of the locomotive and require the locomotive engineer to be notified in writing that the dynamic brakes on the locomotive are inoperative. A copy of the required tag will meet the requirement for written notification.

The amendment to the final rule will accept APTA's recommendation and will allow MU locomotives discovered with dynamic brakes to continue in service until the locomotive's next exterior mechanical inspection. Thus, if an MU locomotive's dynamic brakes are discovered defective during the performance of an exterior calendar day inspection mechanical inspection, it may continue to be used in passenger service until the performance of the locomotive's next exterior calendar day mechanical inspection under this part, provided it is properly tagged and the locomotive engineer informed of the defective condition in writing. Similarly, if an MU locomotive is discovered to have inoperative dynamic brakes while en route, it may continue to be used in passenger service only until its next exterior calendar day inspection is required to be performed and the tagging and notification requirements noted above would apply. FRA believes that the flexibility provided by these modifications is consistent with the recommendations of APTA and is sufficient to allow a railroad to arrange for appropriate repairs to be made to the locomotives without interrupting or significantly impacting the service it provides to the public.

A new paragraph (e)(16) has been added in response to petitions submitted by APTA and Amtrak requesting elimination of the 92-day periodic mechanical inspection contained in § 238.307 of the final rule. As discussed in detail below, FRA is granting APTA's and Amtrak's petition and thus, is moving some of the inspection requirements contained in the 92-day periodic mechanical inspection to the exterior and interior calendar day mechanical inspections. APTA's petition suggested that the roller bearing inspection requirements

contained in the 92-day periodic inspection be moved to the exterior calendar day inspection. FRA accepts this suggestion and thus, this new paragraph contains the roller bearing inspection requirements previously contained in § 238.307(c)(6) of the final rule. *See* 64 FR 25681.

A technical change has been made to paragraph (g)(2)(iv) of this section to clarify the nature of the record that must be retained regarding the performance of exterior mechanical inspections. The final rule requires that the signature of the inspector was to be part of the record; however, the final rule specifically allows the record to be maintained electronically. Thus, FRA's intent when issuing the final rule was to allow some type of electronic signature or electronic identification to serve as the inspector's signature. In order to avoid confusion, this paragraph has been modified to clarify that the signature or some type of electronic identification of the inspector must be included in the required record.

The TWU's petition objects to the exterior mechanical inspection provisions contained in the final rule contending that the provisions do not meet or are not as stringent as the requirements contained in 49 CFR part 215 related to the mechanical inspection of freight cars and thus, do not ensure the safety of the traveling public. FRA disagrees with this assessment for several reasons. First, it should be noted that no Federal requirements currently exist regarding the mechanical inspection of passenger equipment. However, most passenger railroad operations conduct mechanical inspections on their equipment and these practices have generally ensured the safety of the equipment. Thus, the rule's intent was to capture and codify the current best industry practices related to the mechanical inspection of passenger equipment.

Secondly, the mechanical inspection provisions contained in the final rule cover many of the same mechanical components addressed in part 215 and further require that an exterior mechanical inspection be performed on passenger equipment by a highly qualified inspector every calendar day that the equipment is in service. Whereas, under part 215, freight equipment is only required to be mechanically inspected when the equipment is added to a train and the inspection may or may not be performed by a highly qualified inspector. *See* 49 CFR 215.13 and Appendix D to part 215. Thus, in the freight context a car may be used for multiple days without receiving any additional mechanical

inspection but the one it received when being added to the train. Therefore, although the mechanical inspection requirements of the final rule are not identical to those contained in part 215, FRA believes they are equally if not more stringent than those contained in part 215 and are more than sufficient to ensure the safety of passenger train operations. Finally, as discussed in detail above, FRA believes that the movement restrictions imposed by the final rule on passenger equipment containing a mechanical defect are comparable to the restrictions placed on freight equipment containing similar defects under part 215.

Section 238.305 Interior Calendar Day Mechanical Inspection of Passenger Cars

Paragraph (c) is being modified and a new paragraph (d) is being added in response to petitions filed by APTA and Amtrak requesting modification of the movement provisions related to certain "minor" interior defects and their request that the 92-day periodic mechanical inspection be eliminated. APTA and Amtrak assert that the interior stenciling, marking, vestibule lighting provisions, and the requirements relating to trap doors and seats should not be treated as stringently as other non-running gear defects under the movement of defective equipment provisions contained in § 238.17 of the final rule. These parties contend that equipment containing conditions not in compliance with the above noted requirements should be permitted to be moved out of an interior calendar day inspection without having the car locked out and empty as the final rule requires. They request that the equipment be permitted to remain in passenger service until the vehicle's next interior mechanical inspection. APTA asserts that requiring equipment with these "minor" defects to be locked out and empty will actually create more safety problems than it solves. According to APTA, the final rule requirement would require passengers to be crowded on to fewer cars and would result in more passengers standing in the aisles and in vestibules, creating environments where more injuries are likely to occur.

FRA tends to agree with the concerns raised by both APTA and Amtrak and is reorganizing paragraph (c) to allow equipment with certain non-complying interior conditions to remain in passenger service if the non-complying conditions are discovered during an interior calendar day mechanical inspection. The non-complying conditions to which FRA is extending

some flexibility include the requirements related to stenciling and marking, trap doors, vestibule illumination, and doors. A new paragraph (d) contains provisions for allowing equipment with these non-complying conditions to remain in passenger service and requires certain determinations to be made by a qualified person or QMP prior to continuing the equipment in service and that a record be maintained of the non-complying condition. Although the intent of the final rule was to generally have mechanical inspections conducted at locations where all necessary repairs could be conducted, FRA recognizes that some interior inspections may be conducted at outlying locations or at a location lacking the necessary parts or components to fix a particular defective condition. However, in order to remain consistent with the general intent of the final rule, paragraph (d) requires a qualified person or QMP to determine that the necessary repairs cannot be made at the time the interior mechanical inspection is performed. FRA believes that if the necessary repairs can be conducted with the equipment and supplies available, and within the time available, the repairs should be made.

In addition to the requirements contained in paragraph (d), paragraph (c) contains specific requirements based on the defective condition involved when continuing certain equipment in passenger service after being found in non-compliance during an interior calendar day mechanical inspection. The additional conditions are intended to ensure the safety of passengers and are attached to the requirements related to the continued use of non-complying trap doors, vestibule lighting, and doors. The additional requirements attached to the continued use of a car with a defective door are the same as those contained in the final rule. FRA intends to make clear that the restrictions and flexibility permitted in paragraphs (c) and (d) are only applicable to equipment found with a non-complying condition discovered at an interior calendar day mechanical inspection. Interior non-complying conditions that are discovered while a piece of equipment is en route, must be handled in accordance with the provisions for such en route defects contained in § 238.17 of the final rule. Although FRA believes some leeway should be provided when certain non-complying conditions are discovered at the time that an interior mechanical inspection is being performed, FRA believes that the railroad should be able to take adequate steps to ensure that equipment found

with non-complying conditions while en route are moved to locations where necessary repairs can be performed either prior to or at the next required interior mechanical inspection.

Paragraph (c) has also been modified to include a provision which was part of the 92-day periodic mechanical inspection contained in § 238.307(c) of the final rule. This modification is being made in response to petitions submitted by APTA and Amtrak requesting elimination of the 92-day periodic mechanical inspection. As discussed in detail below, FRA is granting APTA's and Amtrak's petition and thus, is moving some of the inspection requirements contained in the 92-day periodic mechanical inspection to the exterior and interior calendar day mechanical inspections. APTA's petition suggested that the requirements related to the condition of floors on passenger cars contained in the 92-day periodic inspection be moved to the exterior calendar day inspection. FRA accepts this suggestion and thus, paragraph (c) contains the inspection requirements related to floors previously contained in § 238.307(c)(1) of the final rule. *See* 64 FR 25680.

A technical change has been made to the paragraph redesignated as paragraph (f)(2)(iv) of this section to clarify the nature of the record that must be retained regarding the performance of interior mechanical inspections. The final rule requires that the signature of the inspector was to be part of the record; however, the final rule specifically allows the record to be maintained electronically. Thus, FRA's intent when issuing the final rule was to allow some type of electronic signature or electronic identification to serve as the inspector's signature. In order to avoid confusion, this paragraph has been modified to clarify that the signature or a unique electronic identification of the inspector must be included in the required record.

The TWU again objects to the final rule's provision which allows a qualified person to perform the interior mechanical inspection required by this section. The TWU contends that the determination of who is considered to be a qualified person is left totally to the discretion of the railroad and thus, recommends that a QMP be required to perform these inspections. FRA continues to disagree with the contention raised by the TWU. FRA believes that the clarifications made to the definition of "qualified person," discussed in detail above, address the concerns of TWU and ensure that properly trained individuals perform these inspections. Furthermore, the final

rule made clear that FRA's original position was to require the interior inspections to be performed by qualified maintenance persons. However, after several discussions with members of the Working Group and several other representatives of passenger railroads, FRA determined that the training and experience typical of QMPs is not necessary and often does not apply to inspecting interior safety components of passenger equipment. In addition, the flexibility created by permitting someone less qualified than a qualified maintenance person can reduce the cost of performing the mechanical safety inspection since the most economical way to accomplish the mechanical inspection is to combine the exterior inspection with the Class I brake test, and then have a crewmember inspect on arrival at the final terminal or have a trained coach cleaner combine the interior coach inspection with coach cleaning. Moreover, the type of components being inspected during an interior mechanical inspection do not affect the general operation of the train and do not require the extensive knowledge of the interrelationship between the mechanical components or brake system components that would be necessary when performing an exterior mechanical inspection or Class I brake test.

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

This section has been amended in response to petitions submitted by APTA and Amtrak regarding the final rule requirement to conduct periodic mechanical inspections at a 92-day interval. Both APTA and Amtrak contend that the industry does not currently inspect passenger equipment at this interval. Some railroads periodically inspect their equipment more frequently and many inspect their equipment on a less frequent basis. Both petitioners note that FRA did not propose a 92-day inspection interval in the NPRM and believe that the increase in the frequency of such inspection is unjustified and inconsistent with current industry practice. APTA contends that the final rule requirement to conduct a 92-day periodic mechanical inspection will seriously impact equipment utilization and will require its member railroads to purchase approximately 30–60 new passenger coaches in order to have a sufficient number of replacement units available when cars are removed from service to have the inspection performed. The purchase of these replacement units will

cost the industry approximately \$45–90 million dollars. Amtrak also recommends that periodic intervals of 180 days and 365 days be provided for RoadRailer® and express cars, respectively, due to the fact that they are less complicated than other types of passenger equipment and their safety record does not justify more frequent periodic mechanical inspections.

In the final rule, FRA made clear that its adoption of the 92-day periodic mechanical inspection interval was an attempt to incorporate the current practices of the industry. See 64 FR 25620. When issuing the final rule FRA believed that railroads were conducting periodic mechanical inspection at cycles that were less than 92 days. After review of the petitions, it appears that several railroads conduct periodic mechanical inspections and maintenance at intervals which are greater than 92 days. As it was not FRA's intention to significantly alter the current inspection practices when proposing the 92-day periodic interval, FRA grants the petitions of APTA and Amtrak to the extent that they request elimination of the 92-day periodic mechanical inspection interval. Thus, the final rule is being amended, as requested by the petitioners, by eliminating the 92-day periodic inspection and requiring a 184-day periodic mechanical inspection interval similar to that proposed in the NPRM. See 62 FR 49809. Therefore, many of the components required by the final rule to be inspected on a 92-day basis are being moved to a 184-day cycle and the requirements related to the inspection of passenger car floors and roller bearings are being moved to the exterior calendar day inspection provisions as discussed above. Consequently, paragraph (c) of this section is being modified to require periodic mechanical inspection of passenger equipment at 184-day intervals.

Two of the requirements contained in paragraph (c) are also being modified in response to Amtrak's petition seeking clarification of the periodic inspection requirements related to draft gears and center casting on trucks. Amtrak contends that the final rule is unclear as to what steps must be taken to ensure that these two components are in proper condition. Amtrak seeks clarification that the requirement that center castings are not cracked or broken does not require that the cars be jacked and the trucks rolled out. Amtrak also seeks clarification that the determination that a car's draft gear is not broken does not require the dropping of the cover plates under the car. Amtrak contends that imposition of either of these procedures

will greatly increase the cost of performing periodic mechanical inspections. As it was not FRA's intent to require the extensive type of inspections that Amtrak details in its petition, the final rule is amended to clarify that cover plates do not need to be dropped when inspecting draft gears and that cars do not need to be jacked and trucks rolled out when determining whether center castings are broken at the periodic mechanical inspection. Although FRA believes that the most effective method of determining whether center casting on trucks are cracked or broken is to jack the car and roll out the truck, FRA recognizes the cost and time implications of requiring such an inspection every 184 days. However, FRA believes this type of extensive inspection should be performed periodically. Consequently, in accordance with the recommendation made by APTA in its petition, the final rule is amended to require this extensive inspection of a truck center casting at the COT&S cycle provided in § 238.309 for the vehicle. FRA believes this is an opportune time in which to conduct this inspection and will impose the least burden on the railroads.

It should be noted that FRA is not granting APTA's petition as it relates to the extension of the inspection of couplers. APTA's petition requested extension of the inspection requirement regarding the distance between coupler guard arm and the knuckle nose to a period consistent with a vehicle's COT&S interval. APTA contends that in order to conduct this inspection cars must be uncoupled and that the final rule requirement to conduct this inspection every 184 days will require unnecessary uncoupling of train consists that rarely experience undesired partings. Although FRA recognizes the impact of the inspection requirement, FRA finds no reason to extend the interval related to this inspection requirement and believes that railroads will not be substantially affected by retaining the final rule interval. Furthermore, in response to the NPRM, APTA requested that the coupler inspection requirements be moved to the periodic mechanical inspection interval, which FRA did in the final rule. See 64 FR 25561, 25620, 25681. FRA will not now extend the inspection interval further without credible data showing that the component will not fail between the periodic inspection interval. In paragraph (b) of this section in the final rule, FRA provided railroads the option to develop alternative intervals for performing inspections for specific components or equipment

based on a more quantitative reliability assessment completed as part of their system safety programs. The final rule contained a detail discussion regarding a railroad's use of reliability assessments to change the periodic inspection intervals contained in the final rule. See 64 FR 25621–22, 25680, and 25704–05. Individual railroads may want to pursue the extension of the coupler inspection requirement through this approach.

The requirement related to the inspection of seats and seat attachments which will be contained in paragraph (c)(1) of this modified section is amended to include provisions for moving equipment discovered with non-complying seats or seat attachments. FRA agrees with the general statements of Amtrak and APTA that this interior component should not be handled in the same manner as other non-running gear defects pursuant to § 238.17 of the final rule. FRA agrees that it makes no sense to lock-out an entire car when only one seat is found broken or loose, which can be isolated and rendered unuseable without impacting the safety of the people traveling on the train. Although FRA believes that defective seats should be repaired as soon as possible, FRA recognizes that repairs to this component may be more difficult in some circumstances than the repairs required to fix other interior components. FRA also agrees that the safety impacts of locking-out an entire car is probably greater than the safety impacts of allowing passengers on a car with a seat that is rendered unuseable. Thus, separate requirements related to the handling of equipment found with non-complying seats or seat attachments are being included in this paragraph. This paragraph permits a car that is found with a non-complying seat to be used in passenger service until the performance of an interior calendar day mechanical inspection on the day following the discovery of the defective condition, provided the seat is rendered unuseable, a notice is prominently displayed on the seat, and a record is maintained with the date and time that the non-complying condition was discovered.

A technical change has been made to the paragraph redesignated as paragraph (e)(1) of this section to clarify the nature of the record that must be retained regarding the performance of interior mechanical inspections. The final rule requires that the signature of the inspector was to be part of the record; however, the final rule specifically allows the record to be maintained electronically. Thus, FRA's intent when

issuing the final rule was to allow some type of electronic signature or electronic identification to serve as the inspector's signature. In order to avoid confusion, this paragraph has been modified to clarify that the signature or some type of electronic identification of the inspector must be included in the required record. This paragraph has also been reorganized, with no substantive change, in order to bring it into conformity with the record keeping provisions contained in other sections of the final rule.

Section 238.309 Periodic Brake Equipment Maintenance

Paragraph (d) of this section is being modified in response to Amtrak's petition seeking recognition of its current practice of performing periodic brake system maintenance on equipment equipped with AB, ABD, ABDX, and equivalent brake systems. Amtrak contends that AB-type brake valves have proven very reliable and that there is no COT&S cycle for these types of brake valves in freight operations. Amtrak asserts that it has over 450 cars equipped with AB-type brake systems and because such brake systems are not a 26-C or equivalent brake system the final rule would impose a three year COT&S maintenance interval on these cars. Amtrak contends that it has conducted COT&S on these types of brake systems on a six-year cycle since 1982 and this interval has proven safe and reliable. Thus, Amtrak asserts that reducing the COT&S interval for these vehicles would result in a significant cost burden to the railroad with no safety justification for such a reduction.

FRA agrees with Amtrak's concerns and is granting its petition as it relates to this issue. When issuing the final rule, it was FRA's intent to incorporate existing industry practices as they relate to the performance of COT&S on passenger equipment. At that time, FRA staff working on this rulemaking were not aware that Amtrak operated some vehicles equipped with AB-type brake systems. FRA agrees that the current COT&S interval of six years conducted on this type of equipment has proven safe and reliable. Consequently, the final rule is amended to provide a six year COT&S interval for passenger coaches and other unpowered vehicles equipped with AB-type brake systems.

It should be noted that the BRC's petition generally asserts that increases in the time interval for COT&S provided in the final rule have not been bolstered by significant safeguards for dry air. The rationale for the COT&S intervals provided in the final rule are fully

explained in the section-by-section analysis related to this section in the final rule. FRA points out that the extension of the COT&S interval related to MU locomotives draws a distinction between locomotive fleets that are 100 percent equipped with air dryers and those locomotive fleets that are not so equipped. The preamble to the final rule also explains that virtually all of the required COT&S intervals are based on extensive tests or previous waivers granted by FRA for which service experience has been satisfactory. See 64 FR 25622-23.

Section 238.311 Single Car Test

Paragraph (e)(1) of this section is being modified in response to AAPRCO's petition seeking an exception for private cars from the requirement to perform a single car test on any vehicle which is placed in service after being out of service for 30 days or more. AAPRCO contends that the final rule requirement contained in this paragraph imposes a significant cost to the owners of private cars. They assert that private cars are used on an occasional basis in many instances and may sit for months in between trips. Furthermore, they contend that the cost and availability of locations where single car tests can be performed on a private car makes the requirement overly burdensome to private car owners. The AAPRCO contends that the yearly single car test required by Amtrak during the annual inspection of a private car is sufficient to ensure the integrity of the brake systems on such equipment. FRA agrees with the concerns raised by AAPRCO in its petition. Consequently, FRA is amending the final rule to exclude private cars from the requirement to have a single car test performed when such a car is placed in service after being out of service for 30 days or more.

Section 238.313 Class I Brake Test

Paragraph (c) of this section regarding the performance of a Class I brake test on cars added to a passenger train is being modified in response to petitions filed by APTA and AAPRCO. Both these parties contend that the requirement to perform a Class I brake test at the time a passenger vehicle is added to a train is overly burdensome and unnecessary. They contend that at many locations where such cars are added to trains there is not a QMP available to perform such an inspection. They also note that under current regulations when cars are added to a passenger train only an intermediate-type brake test is required on the cars being added. Furthermore, they assert that the final rule requires

that cars added to a train must receive a Class I brake test sometime during the day in which they are added to the train. APTA also notes that FRA's treatment of cars being added to a train is more stringent than the current and final rule requirements for cars departing on the first run of the day that are already entrained. Under the final rule cars in a train may depart on their first run of the day with only a Class IA brake test being performed. Consequently, these petitioners request that cars added to a train be permitted to be added after the performance of a Class I or Class IA brake test.

After consideration of the petitions received, FRA believes that the final rule requirement that a Class I brake test be performed on cars added to a passenger train is overly burdensome and somewhat inconsistent with the current regulatory provision when equipment is added to a passenger train. FRA agrees that the final rule requirement that a Class I brake test be performed when the equipment is added to a train is inconsistent with the requirements related to performing a Class IA brake test prior to the first run of a train on any given calendar day. FRA also recognizes that equipment may be added to a passenger train at a location where a QMP is not readily available to perform a Class I brake test. Furthermore, any equipment added to a passenger train that does not receive a Class I brake test when added to a train is required to receive a Class I brake test sometime during that calendar day on which the car is added to the train. Moreover, FRA believes that a Class IA brake test, although performed by a person likely to be less qualified than a QMP, generally ensures that the brake system on a piece of equipment operates as intended. Consequently, the final rule has been amended to require that when a vehicle is added to a train it must receive either a Class I or Class IA brake test unless the vehicle had received a Class I brake test pursuant to this section within the previous calendar day, has not been off a source of compressed air for more than four hours prior to being added to the train, and the train crew operating the train to which the vehicle is added is notified of the date, time, and location of that inspection.

As noted above, paragraph (c) of the final rule has also been modified to clarify that the train crew must be notified of the date, time, and location where the previous Class I brake test was performed in order to add a vehicle to a train without performing either a Class I or Class IA brake test at the time it is added to a train. The final rule

merely stated that the train crew must be provided "documentation" of the previous brake test. See 64 FR 25682. However, as APTA correctly asserts in its petition, the final rule does not indicate how or in what form the documentation is to be provided. To clarify the issue, FRA is amending the final rule to indicate that the train crew must be notified of the date and time that the previous Class I brake test was performed on the vehicle and the location where that inspection was performed on the vehicle in order to be excepted from the requirement to perform a Class I or Class IA brake test at the time the vehicle is added to the train. FRA intends to make clear that this notification may be provided in any format that best suits the railroad's operation. Thus, the notification may be either written, electronic, or via radio communication.

A clarifying change is being made to paragraph (g) of this section to explain that a Class I brake test is to be performed at the air pressure at which the train will be operated but not less than 90 psi. Although the final rule did not contain this specific requirement, FRA believes that it was understood that all the brake tests in this part were to be performed at either the pressure at which the train would be operated or 90 psi, whichever is greater, and it is currently standard industry practice to perform brake tests at these pressures. Consequently, in order to prevent any confusion or misunderstanding, the final rule is being amended to specifically state that the brake test is to be performed at the pressure at which the train will be operated or at 90 psi, whichever is greater.

Paragraph (g)(3) is being modified in response to the petition submitted by the TWU, which indicated that some confusion exists regarding what constitutes an effective brake. In order to prevent misunderstandings and avoid confusion, the final rule is being modified to clarify the difference between Class I brake test piston travel limits and the piston travel limits at which a brake will be considered not to be effective. As part of this clarification, the existing piston travel requirements related to the performance of initial terminal inspections on vehicles equipped with 8½-inch and 10-inch diameter brake cylinders, currently contained at § 232.12(f), are being added to this paragraph. Although these piston travel limits and adjustment requirements were not specifically included in the final rule, it was clearly FRA's intent to have the requirements remain in effect for passenger equipment containing such brake

systems. FRA believes this modification also clarifies the definition of "effective brake" by making clear that although a car may be found with piston travel that exceeds the Class I brake test limits, and that piston travel must be adjusted at a Class I brake test, such excess travel does not render the brakes inoperative until the piston travel exceeds the outside limits established for that particular type of piston design. However, piston travel that exceeds the applicable Class I brake test limits would be considered a defective condition if the piston travel were not adjusted at the time that a Class I brake test was performed, and would be considered a partial failure to perform a Class I brake test pursuant to § 238.313(g). FRA also believes that the modifications being made to this paragraph more clearly delineate how the brakes are to be inspected during the performance of a Class I brake test.

The language added to this paragraph clarifies that if the piston travel on a standard 12-inch stroke brake cylinder is found to be more than 9 inches or less than 7 inches of piston travel at the time that a Class I brake test is performed, it must be adjusted to nominally 7½ inches. It should be noted that this adjustment requirement is slightly different from the existing 7-inch nominal adjustment requirement. However, this change is consistent with the requirements proposed by FRA in the 1998 NPRM related to brake system safety standards for freight and other non-passenger trains and equipment. See 63 FR 48340, 48363. The change is based on a request from the industry to change the nominal adjustment for these brake cylinders to 7½ inches from 7 inches because several railroads were finding it extremely difficult to adjust piston travel to precisely 7 inches and that in some cases the adjustment would be marginally less than 7 inches and, thus, require readjustment. Therefore, in order to provide a small measure for error when adjusting piston travel, FRA proposed that the adjustment be changed to nominally 7½ inches for freight equipment containing these types of brake systems. FRA believes this same margin for error should be extended to passenger equipment containing a similar brake system and, thus, has incorporated the change in this paragraph.

Paragraphs (g)(4) and (g)(15) are being modified in response to petitions submitted by Amtrak and AAPRCO. Both these parties seek clarification of the final rule requirement that the communicating signal system is tested and known to be operating as intended and the requirement that the

communication of brake pipe pressure changes at the rear of the train is verified. These parties assert that the requirement regarding operation and testing of the communicating signal system should either be deleted or clarified to acknowledge that a tested and operating two-way radio system meets the requirement. Amtrak notes that it has not maintained the electric feature in the communication train line because the railroad uses radios carried by train crew members to serve the same function. Amtrak also seeks clarification of the requirement to verify communication of brake pipe pressure changes at the rear of the train to permit this requirement to be met through observation of the application and release of the brakes on the rear car of the train. Amtrak seeks this clarification to ensure that an air gauge is not required at the rear of passenger trains, which would be consistent with the existing regulations.

FRA supports the positions discussed above and believes that there is nothing in the final rule to indicate that the practices discussed above would not meet the requirements contained in the final rule. In fact, it was FRA's intent to consider a tested and operated two-way radio system to meet the requirement in paragraph (g)(4) of the final rule as well as to permit visual observation of the application and release of the rear car to serve as a method for verifying that proper communication of brake pipe changes at the rear of the train under paragraph (g)(15), which is currently permitted. However, in order to avoid confusion or misunderstanding, the final rule is being modified to acknowledge acceptance of the practices discussed above.

Paragraph (g)(11) of this section is being slightly modified in response to a petition submitted by the TWU. In its petition, the TWU requests modification of the definitions of "bind" and "foul," contending that the definitions of these terms fail to address every possible condition that could affect the proper operation of a brake system. FRA believes that the conditions noted by TWU as not being covered by these definitions are sufficiently covered by the definition of "effective brake" contained in the final rule. See 64 FR 25661. Thus, even though a condition may not cause a brake to "bind" or "foul," the condition would cause the brake not to be an "effective brake" as defined in the final rule. In order to fully address TWU's concerns, FRA is modifying the language contained in paragraph (g)(11), regarding the operation of the brake rigging, to include language that the rigging or

system mounted on a car for transmission of the braking force operates as intended and does not bind or foul. This modification is intended to clarify that even though a condition may not cause the brake rigging to "bind" or "foul," the condition could cause the brake not to operate as intended and, thus, render the brake ineffective.

Paragraph (h) of this section is being amended in order to make the record keeping requirements pertaining to Class I brake tests consistent with the record keeping requirements applicable to mechanical inspections addressed in §§ 238.303 through 238.307. Rather than specifically requiring that a written record of the performance of a Class I brake test be maintained in the cab of the controlling locomotive, FRA believes that a railroad should be allowed to maintain records in a fashion that best suits their operations and that the record keeping requirements related to inspections, mechanical and brake, be consistent. FRA also believes that the provisions must be revised to allow railroads to take advantage of existing and developing technologies regarding the electronic maintenance and retention of records. Consequently, this paragraph is being amended to make it consistent with the record keeping provisions applicable to the performance of mechanical inspections.

The petitions of the BRC and the TWU raise general objections to FRA's renaming of the various brake inspections and departing from the terminology used in the current regulations, and also object to an approach which allows major brake tests to be performed anytime during a calendar day. As these parties raised these same objections when both the ANPRM and the NPRM were issued, FRA believes that the issues have been fully addressed in the preambles to the NPRM and the final rule. See 62 FR 49737-39, 64 FR 25563, and 25624-28. Contrary to the contentions of these parties, FRA does not believe that the final rule's designation of the brake inspections as Class I, Class IA, and Class II in any way conflicts with previous case law regarding the inspection of passenger equipment. FRA continues to believe that the classifications contained in the final rule clearly delineate what is required at each inspection, better clarify when each inspection is to be performed, and avoid the potential confusion caused by the terminology used in the present regulations.

Section 238.315 Class IA Brake Test

A clarifying change is being made to paragraph (f) of this section to explain

that a Class IA brake test is to be performed at the air pressure at which the train will be operated. This clarifying change is identical to the change made in § 238.313 regarding Class I brakes tests. Although the final rule did not contain this specific requirement, FRA believes that it was understood that all the brake tests in this part were to be performed at this pressure, and it is standard industry practice to perform brake tests at the pressure at which a train will be operated. Consequently, in order to prevent any confusion or misunderstanding, the final rule is being amended to specifically state that the brake test is to be performed at the pressure at which the train will be operated.

Paragraphs (f)(5) and (f)(6) of this section are being slightly modified in order to conform with the clarifying changes being made with regard to the Class I brake test requirements. The modifications made in these paragraphs clarify that the requirement to have a tested and operating communicating signal system may be met by having a tested and operating two-way radio system, and that verification that brake pipe changes are being communicated at the rear of the train may be accomplished through observation of the application and release of the brakes on the rear car of the train. These clarifying changes are identical to the changes made in § 238.313(g)(4) and (g)(15) discussed above.

The TWU's petition raises the same objection to allowing the use of brake indicators as was raised in the TWU's response to the NPRM. The TWU again asserts that brake indicators should not be permitted to be used to perform a brake inspection because they are prone to malfunction and do not prove a true indication as to whether the brakes operate as intended. In the final rule, FRA acknowledged the concerns raised by various commenters regarding the use of piston travel indicators and agreed that indicators do not provide 100 percent certainty that the brakes are effective. However, FRA noted that brake system piston travel or piston cylinder pressure indicators have been used with satisfactory results for many years and that the indicators have proven themselves effective enough to be preferable to requiring an inspector to assume a dangerous position. Moreover, the use of a brake indicator is only permitted to be relied on to aid in the performance of a Class IA brake test when such an inspection is required to be performed at a location where it is impossible or hazardous to the safety of the inspector to physically observe

the application and release of the brakes.

Section 238.317 Class II Brake Test

Paragraph (d)(1) of this section is being modified in order to clarify the method by which a railroad must verify that the brakes on the rear car of a train apply and release in response to signals from the engineer's brake valve when conducting a Class II brake test. The second clause of this paragraph has been slightly modified to acknowledge that a gauge "or similar device" at the rear of the train indicates that brake pipe pressure changes are properly communicated. FRA is adding the words "or similar device" in order to clarify that an indicator that provides a positive indication regarding the increase and decrease in brake pipe pressure at the rear car may be utilized to meet this requirement in lieu of direct observation of the application and release of the brakes on the rear car in a train.

Paragraph (d)(3) of this section is being slightly modified in order to conform with the clarifying changes being made with regard to the Class I and Class IA brake test requirements. The modification made in this paragraph clarifies that the requirement to have a tested and operating communicating signal system may be met by having a tested and operating two-way radio system. This clarifying change is identical to the changes made in § 238.313(g)(4) and § 238.315(f)(6) discussed above.

Appendix A to Part 238—Schedule of Civil Penalties

Appendix A to this part contains the schedule of civil penalties to be used in connection with this part. Conforming changes are being made to the schedule of civil penalties based on the changes being made to the final rule discussed in detail above.

Regulatory Impact

Executive Order 12866 and DOT Regulatory Policies and Procedures

This response to petitions for reconsideration of the final rule has been evaluated in accordance Executive Order 12866 and DOT policies and procedures. Although the final rule met the criteria for being considered a significant rule under those policies and procedures, the amendments contained in this response to petitions for reconsideration of the final rule are not considered significant because they either clarify requirements currently contained in the final rule or allow for greater flexibility in complying with the

rule. The economic impact of the amendments and clarifications contained in this response to petitions for reconsideration will generally reduce the cost of compliance with the rule. However, the cost reduction will be of a minimal nature and does not alter FRA's original analysis of the costs and benefits associated with the original final rule.

Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980 (5 U.S.C. 601 *et seq.*) requires a review of rules to assess their impact on small entities. FRA certifies that this response to petitions for reconsideration does not have a significant impact on a substantial number of small entities. Because the amendments contained in this document either clarify requirements currently contained in the final rule or allow for greater flexibility in complying with the rule, FRA has concluded that there are no substantial economic impacts on small units of government, businesses, or other organizations.

Paperwork Reduction Act

This response to petitions for reconsideration of the final rule does not change any of the information collection requirements contained in the original final rule.

Environmental Impact

FRA has evaluated this response to petitions for reconsideration of the final rule in accordance with its "Procedures for Considering Environmental Impacts" (FRA 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 document 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) of FRA's Procedures.

Federalism Implications

FRA believes it is in compliance with Executive Order 13132. Because the amendments contained in this response to petitions for reconsideration of the final rule either clarify requirements currently contained in the final rule or allow for greater flexibility in complying with the rule, this document will not have a substantial effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various

levels of government. This response to petitions for reconsideration of the final rule will not have federalism implications that impose any direct compliance costs on State and local governments.

List of Subjects

49 CFR Part 215

Freight, Penalties, Railroad safety, Reporting and recordkeeping requirements.

49 CFR Part 220

Penalties, Radio, Railroad safety, Reporting and recordkeeping requirements.

49 CFR Part 238

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

The Rule

PART 215—[AMENDED]

1. The authority citation for part 215 is revised to read as follows:

Authority: 49 U.S.C. 20103, 20107; 28 U.S.C. 2461, note; and 49 CFR 1.49.

2. Section 215.3 is amended by adding a new paragraph (c)(4) to read as follows:

§ 215.3 Application.

* * * * *

(c) * * *
(4) Operated in a passenger train and that is inspected, tested, maintained, and operated pursuant to the requirements contained in part 238 of this chapter.

PART 220—[AMENDED]

3. The authority citation for part 220 is revised to read as follows:

Authority: 49 U.S.C. 20102–20103, 20107, 21301–21302, 21304, 21311; 28 U.S.C. 2461, note; and 49 CFR 1.49.

4. Section 220.5 is amended by revising the definition of *Train* to read as follows:

§ 220.5 Definitions.

* * * * *

Train means one or more locomotives coupled with or without cars, requiring an air brake test in accordance with 49 CFR part 232 or part 238, except during switching operations or where the operation is that of classifying and assembling rail cars within a railroad yard for the purpose of making or breaking up trains.

* * * * *

PART 238—[AMENDED]

5.–6. The authority citation for part 238 is revised to read as follows:

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

Subpart A—General—[Amended]

7. Section 238.1(c) is revised to read as follows:

§ 238.1 Purpose and scope.

* * * * *

(c) Railroads to which this part applies shall be responsible for compliance with all of the requirements contained in §§ 238.15, 238.17, 238.19, 238.107, 238.109, and subpart D of this part effective January 1, 2002.

* * * * *

8. Section 238.5 is amended by adding a definition for *Actuator*, and revising the definitions for *Brake, effective*, *Primary responsibility*, *Qualified person*, and *Running gear defect* to read as follows:

§ 238.5 Definitions.

* * * * *

Actuator means a device directly actuated by the movement of the brake cylinder piston which provides an indication of the piston travel.

* * * * *

Brake, effective means a brake that is capable of producing its required designed retarding force on the train. A brake is not effective if its piston travel is in excess of the maximum prescribed limits. On vehicles equipped with nominal 12-inch stroke brake cylinders, the brake is not effective if its piston travel exceeds 10½ inches.

* * * * *

Primary responsibility means the task that a person performs during at least 50 percent of the time that the person is working. The totality of the circumstances will be considered on a case-by-case basis in circumstances where an individual does not spend 50 percent of his or her workday engaged in any one readily identifiable type of activity. Time spent supervising employees engaged in the functions of troubleshooting, inspection, testing, maintenance, or repair of train brake and mechanical components and systems covered by this part shall be considered work which is generally consistent with the function of troubleshooting of such systems and components for the purpose of the definition of this term and the definition of "Qualified Maintenance Person."

* * * * *

Qualified person means a person who has received, as a part of the training, qualification, and designation program required under § 238.109, instruction and training necessary to perform one or more functions required under this part. The railroad is responsible for determining that the person has the knowledge and skills necessary to perform the required function for which the person is assigned responsibility. The railroad determines the qualifications and competencies for employees designated to perform various functions in the manner set forth in this part. Although the rule uses the term “qualified person” to describe a person responsible for performing various functions required under this part, a person may be deemed qualified to perform some functions but not qualified to perform other functions. For example, although a person may be deemed qualified to perform the Class II brake test required by this part, that same person may or may not be qualified to perform the Class IA brake test or authorize the movement of defective equipment under this part. The railroad will determine the required functions for which an individual will be deemed a “qualified person” based upon the instruction and training the individual has received pursuant to § 238.109 on a particular function.

* * * * *

Running gear defect means any condition not in compliance with this part which involves a truck component, a draft system component, a wheel, or a wheel component.

* * * * *

9. Section 238.15 is amended by revising the first sentence of the introductory text, paragraphs (b), introductory text, (c), introductory text, (c)(2), introductory text, (d)(1)(ii), (d)(1)(iv), and (d)(1)(iv)(C) to read as follows:

§ 238.15 Movement of passenger equipment with power brake defects.

Beginning on January 1, 2002, the following provisions of this section apply to railroads operating Tier I passenger equipment covered by this part. * * *

* * * * *

(b) *Limitations on movement of passenger equipment containing a power brake defect at the time a Class I or IA brake test is performed.* Except as provided in paragraph (c) of this section (which addresses brakes that become defective en route after a Class I or IA brake test was performed), a commuter or passenger train that has in its consist passenger equipment

containing a power brake defect at the time that a Class I or IA brake test (or, for Tier II trains, the equivalent) is performed may only be moved, without civil penalty liability under this part—

* * *

(c) *Limitations on movement of passenger equipment in passenger service that becomes defective en route after a Class I or IA brake test.* Passenger equipment hauled or used in service in a commuter or passenger train that develops inoperative or ineffective power brakes or any other power brake defect while en route to another location after receiving a Class I or IA brake test (or, for Tier II trains, the equivalent) may be hauled or used by a railroad for repair, without civil penalty liability under this part, if the applicable operating restrictions set forth in paragraphs (d) and (e) of this section are complied with and all of the following requisites are satisfied:

* * * * *

(2) *Record.* A tag or card is placed on both sides of the defective passenger equipment, or an automated tracking system is provided, with the following information about the defective passenger equipment:

* * * * *

(d) * * *

(ii) For trains equipped with only tread brake units (TBUs), the percentage of operative power brakes shall be determined by dividing the number of operative TBUs by the total number of TBUs in the train.

* * * * *

(iv) The following brake conditions not in compliance with this part do not render power brakes inoperative for purposes of this calculation:

* * * * *

(C) Piston travel that is in excess of the Class I brake test limits required in § 238.313 but that does not exceed the maximum prescribed limits for considering the brakes to be effective; and

* * * * *

10. Section 238.17 is amended by revising the first sentence of the introductory text, paragraphs (b), introductory text, (c), introductory text, (d)(1), (d)(2)(ii), and (d)(2)(iv) to read as follows:

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

Beginning on January 1, 2002, the following provisions of this section apply to railroads operating Tier I

passenger equipment covered by this part. * * *

* * * * *

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

* * * * *

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

* * * * *

(d) *Inspection of roller bearing on equipment involved in a derailment.*

(1) A railroad shall not continue passenger equipment in service that has a roller bearing whose truck was involved in a derailment unless the bearing has been inspected and tested in accordance with the railroad's procedures for handling defective equipment.

(2) * * *

(ii) It makes any unusual noise when its wheel set is spun freely (an on-track rolling test is acceptable) or when the bearing is manually rotated;

(iii) * * *

(iv) Its truck was dragged on the ground for more than 100 feet.

* * * * *

11. Section 238.19 is amended by revising the section heading, the first sentence of paragraph (a) and paragraph (a)(2) to read as follows:

§ 238.19 Reporting and tracking of repairs to defective passenger equipment.

(a) *General.* Beginning on January 1, 2002, each railroad shall have in place a reporting and tracking system for passenger equipment with a defect not in conformance with this part. * * *

* * * * *

(2) The date the defect was discovered;

* * * * *

Subpart B—Safety Planning and General Requirements—[Amended]

12. The first sentence of § 238.107(a) is revised to read as follows:

§ 238.107 Inspection, testing, and maintenance plan.

(a) *General.* Beginning on January 1, 2002, the following provisions of this section apply to railroads operating Tier I passenger equipment covered by this part.

* * * * *

13. Section 238.109 is amended by revising the first sentence of paragraph (a), by revising paragraphs (b)(1) through (b)(7) and paragraph (b)(11) to read as follows:

§ 238.109 Training, qualification, and designation program.

(a) Beginning on January 1, 2002, each railroad shall have adopted a training, qualification, and designation program for employees and contractors that perform any of the inspections, tests, or maintenance required by this part, and shall have trained such employees and contractors in accordance with the program.

* * * * *

(b) As part of this program, the railroad shall, at a minimum:

(1) Identify the tasks related to the inspection, testing, and maintenance required by this part that must be performed on each type of equipment that the railroad operates;

(2) Develop written procedures for the performance of the tasks identified in paragraph (b)(1) of this section;

(3) Identify the skills and knowledge necessary to perform each task identified in paragraph (b)(1) of this section;

(4) Adopt a training curriculum that includes classroom and “hands-on” lessons designed to impart the skills and knowledge identified as necessary to perform each task identified in paragraph (b)(1) of this section. The training curriculum shall specifically address the Federal regulatory requirements contained in this part that are related to the performance of the tasks identified;

(5) Require all employees and contractors to successfully complete the training course that covers the equipment and tasks for which they are responsible that are required by this part as well as the specific Federal regulatory requirements contained in this part

related to equipment and tasks for which they are responsible;

(6) Require all employees and contractors to pass a written examination covering the equipment and tasks for which they are responsible that are required by this part as well as the specific Federal regulatory requirements contained in this part related to equipment and tasks for which they are responsible;

(7) Require all employees and contractors to individually demonstrate “hands-on” capability to successfully perform the tasks required by this part that must be performed as part of their duties on the type equipment to which they are assigned;

* * * * *

(11) Require periodic refresher training, at an interval not to exceed three years, that includes classroom and “hands-on” training, as well as testing; except, employees and contractors that have completed their initial training under this part prior to January 1, 2002, shall not be required to complete their first periodic refresher training until four years after the completion of their initial training, and every three years thereafter;

* * * * *

Subpart C—Specific Requirements for Tier I Passenger Equipment—[Amended]

14. Section 238.231 is amended by revising paragraphs (j), introductory text, and (m) and by adding new paragraphs (h)(3), (n), and (o) to read as follows:

§ 238.231 Brake system.

* * * * *

(h) * * *

(3) The air brake shall not be depended upon to hold equipment standing unattended on a grade (including a locomotive, a car, or a train whether or not a locomotive is attached). When required, a sufficient number of hand brakes shall be applied to hold the train or equipment before the air brakes are released. Any hand brakes applied to hold equipment shall not be released until it is known that the air brake system is properly charged.

* * * * *

(j) Locomotives ordered after September 8, 2000, or placed in service for the first time after September 9, 2002, that are equipped with blended brakes shall be designed so that: * * *

* * * * *

(m) When a passenger train is operated in either direct or graduated release—

(1) all the cars in the train consist shall be set up in the same operating mode or

(2) up to two cars may be operated in direct release mode when the rest of the cars in the train are operated in graduated release mode, provided that the cars operated in direct release mode are hauled at the rear of the train consist.

(n) Before adjusting piston travel or working on brake rigging, the cutout cock in the brake pipe branch must be closed and the air reservoirs must be voided of all compressed air. When cutout cocks are provided in brake cylinder pipes, these cutout cocks may be closed, and air reservoirs need not be voided of all compressed air.

(o) All passenger trains to which this part applies shall comply with the requirements covering the use of two-way end-of-train devices contained in part 232 of this chapter.

* * * * *

Subpart D—Inspection, Testing, and Maintenance Requirements for Tier I Passenger Equipment—[Amended]

15. Section 238.301 is amended by revising the first sentence of paragraph (b) to read as follows:

§ 238.301 Scope.

* * * * *

(b) Beginning on January 1, 2002, the requirements contained in this subpart shall apply to railroads operating Tier I passenger equipment covered by this part.

* * * * *

16. Section 238.303 is amended by revising paragraphs (b), (e)(7)(ii), (e)(8)(x), (e)(15)(i), and (g)(2)(iv) and by adding a new paragraph (e)(16) to read as follows:

§ 238.303 Exterior calendar day mechanical inspection of passenger equipment.

* * * * *

(b) Each passenger car and each unpowered vehicle added to a passenger train shall receive an exterior calendar day mechanical inspection in accordance with the following:

(1) Except as provided in paragraph (b)(2) of this section, each passenger car and each unpowered vehicle added to a passenger train shall receive an exterior calendar day mechanical inspection at the time it is added to the train unless notice is provided to the train crew that an exterior mechanical inspection was performed on the car or vehicle on the last day it was used in passenger service. The notice required by this section shall contain the date, time, and

location of the last exterior mechanical inspection;

(2) Each express car, freight car, and each unit of intermodal equipment (e.g., RoadRailers®) added to a passenger train shall receive an exterior calendar day mechanical inspection at the time it is added to the train, unless notice is provided to the train crew that an exterior mechanical inspection was performed on the car within the previous calendar day. The notice required by this section shall contain the date, time, and location of the last exterior mechanical inspection.

* * * * *

(e) * * *

(7) * * *

(ii) Each friction side bearing does not run in contact unless designed to operate in that manner; and

* * * * *

(8) * * *

(x) Except as provided in paragraph (e)(8)(iii) of this section, a crack or break in the flange, tread, rim, plate, or hub;

* * * * *

(15) * * *

(i) MU locomotives equipped with dynamic brakes found not to be in operating mode or containing a defective condition which prevents the proper operation of the dynamic brakes shall be handled in accordance with the following requirements:

(A) A tag bearing the words "inoperative dynamic brakes" shall be securely displayed in a conspicuous location in the cab of the locomotive and contain the locomotive number, the date and location where the condition was discovered, and the signature of the individual who discovered the condition;

(B) The locomotive engineer shall be informed in writing that the dynamic brakes on the locomotive are inoperative at the location where the locomotive engineer first takes charge of the train; and

(C) The inoperative or defective dynamic brakes shall be repaired or removed from service by or at the locomotive's next exterior calendar day mechanical inspection.

* * * * *

(16) All roller bearings do not have any of the following conditions:

(i) A sign of having been overheated as evidenced by discoloration or other telltale sign of overheating, such as damage to the seal or distortion of any bearing component;

(ii) A loose or missing cap screw;

(iii) A broken, missing, or improperly applied cap screw lock; or

(iv) A seal that is loose or damaged or permits leakage of lubricant in clearly formed droplets.

* * * * *

(g) * * *

(2) * * *

(iv) The signature or electronic identification of the inspector.

* * * * *

17. Section 238.305 is amended as follows:

a. Paragraphs (d) and (e) are redesignated as paragraphs (e) and (f).

b. A new paragraph (d) is added.

c. Paragraph (c) and redesignated paragraph (f)(2)(iv) are revised. The addition and revisions to § 238.305 read as follows:

§ 238.305 Interior calendar day mechanical inspection of passenger cars.

* * * * *

(c) As part of the interior calendar day mechanical inspection, the railroad shall verify conformity with the following conditions, and nonconformity with any such condition renders the car defective whenever discovered in service, except as provided in paragraphs (c)(5) through (c)(10), and paragraph (d) of this section:

(1) All fan openings, exposed gears and pinions, exposed moving parts of mechanisms, pipes carrying hot gases and high-voltage equipment, switches, circuit breakers, contactors, relays, grid resistors, and fuses are installed in non-hazardous locations or equipped with guards to prevent personal injury.

(2) Floors of passageways and compartments are free from oil, water, waste, or any obstruction that creates a slipping, tripping, or fire hazard, and floors are properly treated to provide secure footing.

(3) All D rings, pull handles, or other means to access manual door releases are in place based on a visual inspection.

(4) All emergency equipment, including a fire extinguisher, pry bar, auxiliary portable lighting, and first aid kits, as applicable, are in place.

(5) The words "Emergency Brake Valve" are legibly stenciled or marked near each brake pipe valve or shown on an adjacent badge plate.

(6) All doors and cover plates guarding high voltage equipment are marked "Danger—High Voltage" or with the word "Danger" and the normal voltage carried by the parts so protected.

(7) All safety-related signage is in place and legible.

(8) All trap doors safely operate and securely latch in place in both the up and down position. A non-complying car may continue in passenger service

pursuant to paragraph (d) of this section, if the trap door can be secured by locking out the door for which it is used.

(9) All vestibule steps are illuminated. A non-complying car may continue in passenger service pursuant to paragraph (d) of this section, if the car will be used solely in high-platform service.

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

(d) Any passenger car found not to be in compliance with the requirements contained in paragraphs (c)(5) through (c)(10) of this section at the time of its interior calendar day mechanical inspection may remain in passenger service until the car's next interior calendar day mechanical inspection where it must be repaired or removed from passenger service; provided, all of the specific conditions contained in paragraphs (c)(8) through (c)(10) of this section are met and all of the following requirements are met:

(1) A qualified person or a qualified maintenance person determines that the repairs necessary to bring the car into compliance cannot be performed at the time that the current day's interior mechanical inspection is conducted;

(2) A qualified person or a qualified maintenance person determines that it is safe to move the equipment in passenger service; and

(3) A record is maintained of the non-complying condition with the date and time that the condition was first discovered.

* * * * *

(f) * * *

(2) * * *

(iv) The signature or electronic identification of the inspector.

* * * * *

18. Section 238.307 is amended as follows:

a. Paragraph (d) is removed,

b. Paragraphs (e) through (g) are redesignated as paragraphs (d) through (f) respectively, and

c. Paragraph (c) and redesignated paragraph (e)(1) are revised to read as follows:

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

* * * * *

(c) The periodic mechanical inspection shall specifically include the

following interior and exterior mechanical components, which shall be inspected not less frequently than every 184 days. At a minimum, this inspection shall determine that:

(1) Seats and seat attachments are not broken or loose. If a car is found with a seat that is not in compliance with this requirement while being used between periodic mechanical inspections, the equipment may continue to be used in passenger service until the performance of an interior calendar day mechanical inspection pursuant to § 238.305 on the day following the discovery of the defective condition provided the seat is rendered unuseable, a notice is prominently displayed on the seat, and a record is maintained with the date and time that the non-complying condition was discovered.

(2) Luggage racks are not broken or loose.

(3) All beds and bunks are not broken or loose, and all restraints or safety latches and straps are in place and function as intended.

(4) A representative sample of emergency window exits on the railroad's passenger cars properly operate, in accordance with the requirements of § 239.107 of this chapter.

(5) Emergency lighting systems are operational.

(6) With regard to switches:

(i) All hand-operated switches carrying currents with a potential of more than 150 volts that may be operated while under load are covered and are operative from the outside of the cover;

(ii) A means is provided to display whether the switches are open or closed; and

(iii) Switches not designed to be operated safely while under load are legibly marked with the voltage carried and the words "must not be operated under load".

(7) Each coupler is in the following condition:

(i) The distance between the guard arm and the knuckle nose is not more than 5 $\frac{1}{8}$ inches on standard type couplers (MCB contour 1904), or not more than 5 $\frac{5}{16}$ inches on D&E couplers;

(ii) The free slack in the coupler or drawbar not absorbed by friction devices or draft gears is not more than $\frac{1}{2}$ inch; and

(iii) The draft gear is not broken, to the extent possible without dropping cover plates.

(8) All trucks are equipped with a device or securing arrangement to prevent the truck and car body from separating in case of derailment.

(9) All center castings on trucks are not cracked or broken, to the extent possible without jacking the car and rolling out the trucks. However, an extensive inspection of all center castings shall be conducted by jacking the equipment and rolling out the trucks at each COT&S cycle provided in § 238.309 for the equipment.

(10) All mechanical systems and components of the equipment are free of all the following general conditions that endanger the safety of the crew, passengers, or equipment:

(i) A continuous accumulation of oil or grease;

(ii) Improper functioning of a component;

(iii) A crack, break, excessive wear, structural defect, or weakness of a component;

(iv) A leak;

(v) Use of a component or system under a condition that exceeds that for which the component or system is designed to operate; and

(vi) Insecure attachment of a component.

(11) All of the items identified in the exterior calendar day mechanical inspection contained at § 238.303 are in conformity with the conditions prescribed in that section.

(12) All of the items identified in the interior calendar day mechanical inspection contained at § 238.305 are in conformity with the conditions prescribed in that section.

(e) *Records.* (1) A record shall be maintained of each periodic mechanical inspection required to be performed by this section. This record may be maintained in writing or electronically, provided FRA has access to the record upon request. The record shall be maintained either in the railroad's files, the cab of the locomotive, or a designated location in the passenger car. The record shall be retained until the next periodic mechanical inspection of the same type is performed and shall contain the following information:

(i) The date of the inspection;

(ii) The location where the inspection was performed;

(iii) The signature or electronic identification of the inspector; and

(iv) The signature or electronic identification of the inspector's supervisor.

* * * * *

19. Section 238.309 is amended by revising paragraph (d) to read as follows:

§ 238.309 Periodic brake equipment maintenance.

* * * * *

(d) *Passenger coaches and other unpowered vehicles.* The brake equipment on each passenger coach and each unpowered vehicle used in a passenger train shall be cleaned, repaired, and tested at intervals in accordance with following schedule:

(1) Every 2,208 days for a coach or vehicle equipped with an AB-type brake system.

(2) Every 1,476 days for a coach or vehicle equipped with a 26-C or equivalent brake system; and

(3) Every 1,104 days for a coach or vehicle equipped with other than an AB, ABD, ABDX, 26-C, or equivalent brake system.

* * * * *

20. Section 238.311 is amended by revising paragraph (e)(1) to read as follows:

§ 238.311 Single car test.

* * * * *

(e) * * *

(1) Except for private cars, a car or vehicle is placed in service after having been out of service for 30 days or more; or

* * * * *

21. Section 238.313 is amended by revising paragraphs (c), (g), introductory text, (g)(3), (g)(4), (g)(11), (g)(15), and (h) to read as follows:

§ 238.313 Class I brake test.

* * * * *

(c) Each passenger car and each unpowered vehicle added to a passenger train shall receive a Class I or Class IA brake test at the time it is added to the train unless notice is provided to the train crew that a Class I brake test was performed on the car within the previous calendar day and the car has not been disconnected from a source of compressed air for more than four hours prior to being added to the train. The notice required by this section shall contain the date, time, and location of the last Class I brake test.

* * * * *

(g) A Class I brake test shall be performed at the air pressure at which the train's air brakes will be operated, but not less than 90 psi, and shall be made to determine and ensure that:

* * * * *

(3) Piston travel is within prescribed limits, either by direct observation, observation of an actuator, or in the case of tread brakes by determining that the brake shoe provides pressure to the wheel. For vehicles equipped with 8 $\frac{1}{2}$ -inch or 10-inch diameter brake cylinders, piston travel shall be within 7 to 9 inches. If piston travel is found to be less than 7 inches or more than 9

inches, it must be adjusted to nominally 7½ inches. Proper release of the brakes can be determined by observation of the clearance between the brake shoe and the wheel or between the brake pad and the brake disc.

(4) The communicating signal system is tested and known to be operating as intended; a tested and operating two-way radio system meets this requirement;

* * * * *

(11) The brake rigging or the system mounted on the car for the transmission of the braking force operates as intended and does not bind or foul so as to impede the force delivered to a brake shoe, impede the release of a brake shoe, or otherwise adversely affect the operation of the brake system;

* * * * *

(15) The communication of brake pipe pressure changes at the rear of the train is verified, which may be accomplished by observation of an application and release of the brakes on the last car in the train.

* * * * *

(h) *Records.* A record shall be maintained of each Class I brake test performed.

(1) This record may be maintained in writing or electronically, provided FRA has access to the record upon request.

(2) The written or electronic record must contain the following information:

(i) The date and time that the Class I brake test was performed;

(ii) The location where the test was performed;

(iii) The identification number of the controlling locomotive of the train;

(iv) The total number of cars inspected during the test; and

(v) The signature or electronic identification of the inspector.

(3) This record shall be maintained at the place where the inspection is conducted or at one central location and shall be retained for at least 92 days.

* * * * *

22. Section 238.315 is amended by revising paragraphs (f), introductory text, (f)(5) and (f)(6) to read as follows:

§ 238.315 Class IA brake test.

* * * * *

(f) A Class IA brake test shall be performed at the air pressure at which the train's air brakes will be operated and shall determine and ensure that:

* * * * *

(5) The communication of brake pipe pressure changes at the rear of the train is verified, which may be accomplished by observation of an application and release of the brakes on the last car in the train; and

(6) The communicating signal system is tested and known to be operating as intended; a tested and operating two-way radio system meets this requirement.

* * * * *

23. Section 238.317 is amended by revising paragraphs (d)(1) and (d)(3) to read as follows:

§ 238.317 Class II brake test.

* * * * *

(d) * * *

(1) The brakes on the rear unit of the train apply and release in response to a signal from the engineer's brake valve or controller of the leading or controlling unit, or a gauge or similar device located at the rear of the train or in the cab of the rear unit indicates that brake pipe pressure changes are properly communicated at the rear of the train;

(2) * * *

(3) The communicating signal system is tested and known to be operating as intended; a tested and operating two-way radio system meets this requirement.

* * * * *

24. Appendix A to part 238 is amended as follows:

a. The entry for section 238.231 is revised;

b. In the entry for section 238.303 by adding (e)(16);

c. In the entry for section 238.305 by revising (c)(1) through (c)(9) and adding (c)(10), (c)(11), and (f);

d. In the entry for section 238.307 by revising (c)(1) through (c)(7), adding (c)(8) through (c)(10), (d), (e)(1), and (e)(1)(i)–(iv); and

e. In the entry for section 238.313 by adding (g)(3).

The revisions and additions read as follows:

Appendix A to Part 238—Schedule of Civil Penalties ¹

* * * * *

Section	Violation	Willful violation
238.231 Brake System (a)–(g), (i)–(n)	2,500	5,000
(h)(1), (2) Hand or parking brake missing or inoperative	5,000	7,500
(h)(3) Hand or parking brake not applied to hold equipment unattended on grade or prematurely released	5,000	7,500
238.303 Exterior mechanical inspection of passenger equipment:		
(e)(16) Roller bearings:		
(i) Overheated	5,000	7,500
(ii) Cap screw loose or missing	2,500	5,000
(iii) Cap screw lock broken or missing	1,000	2,000
(iv) Seal loose, damaged, or leaks lubricant	2,500	5,000
238.305 Interior mechanical inspection of passenger equipment:		
(c)(1) Failure to protect against personal injury	2,500	5,000
(c)(2) Floors not free of condition that creates hazard	2,500	5,000
(c)(3) Access to manual door release not in place	2,000	4,000
(c)(4) Emergency equipment not in place	1,000	2,000
(c)(5) Emergency brake valve not stenciled or marked	2,500	5,000
(c)(6) Door or cover plates not properly marked	2,500	5,000
(c)(7) Safety signage not in place or legible	1,000	2,000
(c)(8) Trap door unsafe or improperly secured	2,500	5,000

Section	Violation	Willful violation
(c)(9) Vestibule steps not illuminated	2,000	4,000
(c)(10) Door not safely operate as intended	2,500	5,000
(c)(11) Seat broken, loose, or not properly attached	2,500	5,000
(f) Record of inspection:		
(1), (4) Failure to maintain record of inspection	2,000	4,000
(2) Record contains insufficient information	1,000	2,000
* * * * *	*	*
238.307 Periodic mechanical inspection of passenger cars and unpowered vehicles:		
* * * * *	*	*
(c)(1) Seat or seat attachment broken or loose	2,500	5,000
(c)(2) Luggage rack broken or loose	2,500	5,000
(c)(3) Bed, bunks, or restraints broken or loose	2,500	5,000
(c)(4) Emergency window exit not properly operate	2,500	5,000
(c)(5) Emergency lighting not operational	2,500	5,000
(c)(6) Switches not in proper condition	2,500	5,000
(c)(7) Coupler not in proper condition	2,500	5,000
(c)(8) Truck not equipped with securing arrangement	2,500	5,000
(c)(9) Truck center casting cracked or broken	5,000	7,500
(c)(10) General conditions endangering crew, passengers	2,500	5,000
(d) Manual door release not operate as intended	2,500	5,000
(e)(1) Failure to maintain record of inspection	2,000	4,000
(i)-(iv) Record contains insufficient information	1,000	2,000
* * * * *	*	*
238.313 Class I brake test:		
* * * * *	*	*
(g) * * *		
(3) Failure to adjust piston travel (per car)	2,500	5,000
* * * * *	*	*

* * * * *

Issued in Washington, D.C., on June 19,
2000.

Jolene M. Molitoris,

Federal Railroad Administrator.

[FR Doc. 00-16522 Filed 6-30-00; 8:45 am]

BILLING CODE 4910-06-P