Section 610 Periodic Review of
Railroad Freight Car Safety Standards
(49CFR Part 215)

Section 610 of the Regulatory Flexibility Act (RFA) requires agencies to review all regulations that have a significant economic impact on a substantial number of small entities within 10 years of their adoption as final rules. The purpose of this review is to determine whether such rules should be continued without change, or should be amended to minimize their significant impact on small entities.

The Federal Railroad Administration's (FRA) final Railroad Freight Car Safety Standards rule, 49 CFR Part 215, was published on December 31, 1979. 49 CFR Part 215 is divided into four subparts. Subpart A deals with the scope and application of the part, definitions, prohibited acts, movement of defective cars for repair, designated inspectors, pre-departure inspections and periodic inspections. Subpart B deals with freight car components (i.e., suspension system, car bodies and draft system). Subparts C and D pertain to restricted equipment and stenciling respectively.

These rules, with the exception of Section 215.15 (periodic inspection) became effective on March 1, 1980. Section 215.15 was promulgated on December 31, 1979, because the deadline for accomplishing initial periodic inspections was extended from December 31, 1979 to June 30, 1980.

On April 20, 1980, 49 CFR Part 215 was amended in response to two petitions from the Railway Labor Executives Association (RLEA) and the Association of American Railroads (AAR) for reconsideration of the final rule. These amendments, which related to pre-departure inspections, defective cars received in interchange, defective roller bearings, stenciling of maintenance-of-way equipment, and door safety hangers became effective on June 1, 1980. However, prior compliance was authorized and encouraged.

On August 15, 2000 FRA determined that 49 CFR Part 215 has a significant economic impact on a substantial number of small entities.

Therefore, in accordance with Section 610 of the RFA, FRA considered the following factors when reviewing the rule, in an effort to minimize its impact on small entities:

1. the continued need for the rule;
2. the nature of complaints or comments received concerning the rule from the public;
3. the complexity of the rule;
4. the extent to which the rule overlaps, duplicates, or conflicts with other federal rules and, to the extent feasible, with state and local governmental rules; and
5. the length of time since the rule has been evaluated or the degree to which technology, economic conditions, or other factors have changed since adoption of the rule.

FRA's analysis of each of factor follows:

1. The Continued Need for the Rule:

FRA has determined that there is a continuing need for 49 CFR Part 215, which prescribes minimum federal safety standards and inspection requirements for railroad freight cars. These minimum standards and inspection requirements are necessary because they ensure the safe transportation of commodities over our nation's rail system.

49 CFR Part 215 prohibits railroads from placing, or continuing in service, a freight car with defective components that are likely to cause derailments. As hazardous materials are often transported via railroad freight car, these prohibitions are necessary to protect public health by minimizing the risk of potential hazardous material releases that could result from a train derailment. In addition, these prohibitions ensure the safety of railroad employees who operate the trains, as train derailments can often result in the loss of lives of the train crew. Some examples of these prohibitions include:

(i) 49 CFR Part 215.103 specifies wheel measurements to prevent wheel failures.

(ii) 49 CFR Part 215.105 specifies minimum safety requirements for axle to prevent failures that could cause derailments from cracked or broken axles.

(iii) 49 CFR Parts 215.113 and 215.117 require that plain bearing wedges not be cracked, broken, or located in positions other than their design position and that roller bearing adapters not be out of place or have excessive wear on the crown, as any of these conditions could cause a derailment.

(iv) 49 CFR Part 215.119 prescribes acceptable standards for freight car trucks, snubbing devices, and side bearing assemblies, as a freight car that has broken or ineffective snubbing devices will respond more violently to track irregularities and may cause a derailment. In addition, if any part of the freight car's truck side bearing assembly is missing or broken, the freight car's load will be unevenly distributed in the suspension system, which could cause the car to sway and derail.

(v) 49 CFR Parts 215.127 and 215.129 prohibit railroads from placing or continuing in service a freight car with defective draft arrangements and cushioning devices. Effective draft gear arrangements and cushioning devices are necessary to prevent slack action between trains, which could result in a derailment.

2. The Nature of Complaints or Comments:

Some of the issues, formal inquires, complaints or comments received from the public include the following:

(i) Safety criteria/size of wheel shells: According to 49 CFR Part 215.103, the maximum allowable size of a shelled spot is two and a half inches in length, with no specification for width. This difference has increased confusion among railroad shop personnel and has resulted in billing problems between railroads. At a Technical Resolution Committee meeting in December 2001, FRA and AAR agreed to submit the issue for study by the Transportation Technical

Center, Inc. (TTCI). A recommendation for a unified permanent standard will be made when that study is completed. If adoption of a unified standard is warranted, then necessary change will need to be made to 49 CFR Part 215.103(f)(1).

(ii) Safety implications of noisy roller bearings when rotated by hand: This technique is a field inspection technique, which is required after minor derailments (less than 10 mph or dragged for less than 200 feet). It requires that the wheel set be rolled out from under the car, which takes time and costs money. However, this technique is more economical for the railroads than disassembling and inspecting the bearings, which is required for more serious derailments. FRA believes that this alternative inspection does not compromise safety, given the limited severity of the incidents in question. Some railroads wish to further reduce the cost of inspection by substituting a visual inspection of the bearing in place in the truck and then listening as the car is rolled past on its wheels. This has been approved under waiver in one specific case but FRA does not consider it to be generally applicable to all low speed derailments.

(iii) Safety implications of roller bearing tabs bent over: 49 CFR Part 215.15(a)(2)(ii) prohibits use of a freight car with a "Broken, missing, or improperly applied cap screw lock" on its roller bearings. Cap screw locking plates have two tabs per bolt. One major Railroad claimed that if one of the two tabs was bent up against each screw head, the other one did not need to be. Based upon the AAR Wheel and Axel Manual, a review of the industry standards for proper application of cap screw locking plates clearly shows that for application to be considered proper, both tabs must be bent up. Once reassured by the AAR that simply bending the tab into position was required to comply with their rule (not replacing the whole locking plate) the Railroad agreed to do so.

(iv) Safety implications of loose backing rings: Studies by the industry show that loose backing rings are one of the causes of roller bearing failure. However, there is nothing in 49 CFR Part 215.115 that can be used to cite loose backing rings as a Federal defect. Accordingly, whenever a defect is found, all that an inspector can do is to notify the Railroad about it. Region 8 Motive Power

and Equipment inspectors are conducting a study to evaluate the effects of loose backing rings.

(v) Safety implications of roller bearing wheel sets that suffer flood damage: The AAR Field Manual of Interchange Rule 36 states that "Roller bearings will be renewed if submerged." Also, "Roller bearing equipped cars, submerged in flood or fire damaged must have bearings reconditioned in accordance with Section C. Car must not be sent home on own wheels with defect card applied." 49 CFR Part 215.115 is silent regarding roller bearings which have been water damaged (submerged). However, Motive Power and Equipment Division requires that the submerged roller bearings should be replaced as quickly as possible in accordance with AAR Rule 36. The purpose for a quick replacement of the submerged roller bearings is to avoid internal rusting of water-etched components, ingestion of grit and dirt, and degradation of the bearing components and seals which may lead to overheated bearings, hot box set outs and derailments. Late model, low torque seals in bearings are of the non-contacting type and permit the direct pass-thru of water, grit and foreign particles to bearings when submerged. The traditional garter-seal type roller bearings of railcars are also not water-proof.

(vi) Safety implications of roller and constant contact side bearings set-up heights: There are safety implications for freight cars equipped with constant contact and roller side bearings to their proper set-up heights, just as for conventional side bearings. The requirements to inspect for, and the description of a defective side bearings are contained in 49 CFR Part 215.119, but the rule is silent regarding both constant contact and roller side bearings. FRA takes exception to conditions which do not meet the manufacturers recommended adjustment heights, but citations for violations are not issued. So far as short line railroads are concerned, very few car types which are equipped with constant contact side bearings are operated on other than Class I railroads. The predominant car type for constant contact side bearings is an articulated intermodal car, followed by tank cars. Most short line railroads do not have the facilities, or repair parts required to adjust the height for constant contact or roller

side bearings. If one is found to be out of adjustment, they contact their Class I interchange carrier, and report about the car defect. The car can then be moved to a repair facility pursuant to 49 CFR Part 215.9 and the repairs are done under AAR Interchange Rule 61. There are minimal safety or financial implications to short line railroads regarding roller and constant contact side bearings set-up heights. Their connecting Class I railroad carriers detect and repair the cars prior to delivering them to the short line railroads.

(vii) Safety implications of truck side frame, bolster gib, and pocket ware conditions as related to preventing "truck hunting" wheel climb derailments: 49 CFR Part 215.119 which covers the truck side frame, bolster gib, and pocket is silent regarding these components other than if the side frame is broken or cracked ¼ inch or more on a tension member. However, the AAR Interchange Rules 47 and 48 are very specific regarding the dimensional limits and repair criteria for these components. Short line railroads do not formally perform these types of repairs to cars other than their own. The overall inspection of these components is not onerous. If these components are found to be defective pursuant to AAR Rules 47 and 48, these can be returned to their connecting Class I railroads for repair.

Frequently these inquiries probe the "gray areas" of the CFR and/or items not explicit or covered by the rule.

3. The Complexity of the Rule:

On August 15, 2000, FRA conducted a "plain language" review of 49 CFR Part 215 to determine whether the rule could be reorganized and/or rewritten to make it easier to read, understand and use. After conducting this review, FRA determined that the rule appears to be clear, well organized, written in plain and simple language, and easy to understand by public. Also, FRA has not received any complaints or comments with regard to the rule's complexity or in understanding the language of the rule. Therefore, FRA finds that substantial review of the rule in not necessary.

4. Rule's Overlapping, Duplicity or Conflict with Other Federal Rules:

In accordance with Section 610 of the RFA, FRA conducted a quick survey of federal laws and regulations that pertain to railroad freight cars. After conducting this analysis, FRA determined that 49 CFR Part 215 does not appear to overlap, duplicate or conflict with other federal laws and regulations.

5. The Length of Time since the Rule was Evaluated:

The rule was evaluated on August 15, 2000. FRA determined and certified that it has a significant economic impact on a substantial number of small entities. FRA also observed, however, that this rule limits economic impact on small entities.

Small Entities:

"Short line" and "regional railroad" are generic terms without precise definitions, generally used to refer to small and middle-sized railroads, respectively. However, a precise revenue-based definition of the various categories of U.S. railroads can be found in the regulations of the Surface Transportation Board, which divide rail carriers into three classes:

(i) Class I: Carriers with annual carrier operating revenues of $250 million or more;

(ii) Class II: Carriers with annual carrier operating revenues of less than $250 million but in excess of $20 million; and

(iii) Class III: Carriers with annual carrier operating revenues of $20 million or less, and all switching and terminal companies regardless of operating revenues.

The Small Business Administration (SBA) has also promulgated regulations that clarify the term "small entity" by industry. In the SBA regulations, main line railroads with 1,500 employees or fewer employees and switching or terminal establishments with 500 or fewer employees constitute "small entities".

SBA's classification system may be altered by federal agencies, however, provided the public has notice and an opportunity to comment. Pursuant to that

authority, FRA published an interim policy statement that defines "small entities" as:

(i) Class III railroad (as defined by STB regulations);

(ii) Hazardous material shippers with annual operating revenues of $20 million or less;

(iii) Railroad contractors with annual operating revenues of $20 million or less; and

(iv) Commuter railroads or small governmental jurisdictions that serve populations of 50,000 or less.

FRA proposes to use this definition of "small entity" for purposes of this review, under which 562 of the approximately 700 railroads in the United States meet the definition of "small entity".

Rule Provisions that Limit Its Impact on Small Entities:

The role that small entities (Class III railroads) play in today's freight industry must be considered when considering the impact of a particular regulation on those entities. The current marketplace requires Class I, II and III railroads to operate as an integrated system. Many of today's smaller railroads rely on Class I railroads for the training of their employees and the maintenance of their equipment. In addition, many Class III railroads interchange with, and operate the equipment of, Class I and II railroads. Therefore, except in limited circumstances, it is impossible, from a regulatory standpoint, to separate these smaller railroads from the larger railroads.

The nature of much of the business of Class III railroads is to pick up and drop off freight cars to and from larger railroads. Appendix D to 49 CFR Part 215 attempts to minimize the economic impact of the rule's extensive inspection requirements by allowing abbreviated inspections of freight cars that have been either offered and accepted at points of interchange, or that are added to enroute trains. This abbreviated inspection is designed to detect imminently hazardous conditions that are likely to cause an accident or incident before a train arrives at its destination. Class III railroads need not employ carmen to perform these

inspections, as train crews are capable of determining if the freight cars are safe to transport. This provision is especially useful to small railroads who do not have carmen stationed throughout their operating territory.

49 CFR Part 215.9 also allows Class III railroads to move defective cars for purposes of repair to shops that are properly equipped to make such repairs, after following certain specified procedures. Class I railroads have designated repair facilities available at most points of train origin and destination. Therefore, Class III railroads can take advantage of 49 CFR Part 215.9 by moving their defective cars to these repair locations and thus, obviate the need to employ carmen to make repairs.

49 CFR Part 215.203 also provides the authority for small entities to petition FRA for the continued in-service use of equipment more than 50 years old, subject to safety review. Users of this petitioning authority are frequently Class III railroads and other small entities that do not have the necessary financial means to acquire new equipment.

In summary, 49 CFR Part 215 prescribes minimum federal safety standards for the inspection, testing, and maintenance of railroad freight cars. FRA has attempted to minimize the impact of this rule on small entities by allowing abbreviated inspections of freight cars by train crews, and by allowing considerable flexibility in the movement of defective cars for purposes of repair. In addition, FRA has provided small entities the authority to petition for continued in-service use of equipment that is more than 50 years old. Therefore, FRA has determined that 49 CFR Part 215 should continue without change, as the rule already contains provisions that minimize adverse effects on the safe transportation of railroad freight cars.