

(b) Proceedings under this subpart are subject to the requirements of 5 U.S.C. 554-559.

(c) Notwithstanding §211.1 of this part, as used in this subpart *Administrator* means the Federal Railroad Administrator or Deputy Administrator.

§211.73 Presiding officer; powers.

(a) An administrative hearing for the review of an emergency order is presided over by the Administrator or by an administrative law judge designated at the request of FRA pursuant to 5 CFR 930.213.

(b) The presiding officer may exercise the powers of the FRA to regulate the conduct of the hearing and associated proceedings for the purpose of achieving a prompt and fair determination of all material issues in controversy.

(c) The final decision of the presiding officer shall set forth findings and conclusions based on the administrative record. That decision may set aside, modify or affirm the requirements of the emergency order under review.

(d) Except as provided in §211.77, the decision of the presiding officer is administratively final.

§211.75 Evidence.

(a) The Federal Rules of Evidence for United States Courts and Magistrates shall be employed as general guidelines for the introduction of evidence in proceedings under this subpart. However, except as provided in paragraph (b) of this section, all relevant and probative evidence offered by a party shall be received in evidence.

(b) The presiding officer may deny the admission of evidence which is determined to be—

(1) Unduly repetitive; or

(2) So extensive and lacking in relevance or probative effect that its admission would impair the prompt, orderly, and fair resolution of the proceeding.

§211.77 Appeal to the Administrator.

(a) Any party aggrieved by the final decision of a presiding officer (other than the Administrator) may appeal to the Administrator. The appeal must be filed within twenty (20) days from issuance of the presiding officer's decision and must set forth the specific ex-

ceptions of the party to the decision, making reference to the portions of the administrative record which are believed to support the exceptions. The notice of appeal and any supporting papers shall be accompanied by a certificate stating that they have been served on all parties to the proceeding.

(b) [Reserved]

APPENDIX A TO PART 211—STATEMENT OF AGENCY POLICY CONCERNING WAIVERS RELATED TO SHARED USE OF TRACKAGE OR RIGHTS-OF-WAY BY LIGHT RAIL AND CONVENTIONAL OPERATIONS

1. By statute, the Federal Railroad Administration (FRA) may grant a waiver of any rule or order if the waiver "is in the public interest and consistent with railroad safety." 49 U.S.C. 20103(d). Waiver petitions are reviewed by FRA's Railroad Safety Board (the "Safety Board") under the provisions of 49 CFR part 211. Waiver petitions must contain the information required by 49 CFR 211.9. The Safety Board can, in granting a waiver, impose any conditions it concludes are necessary to assure safety or are in the public interest. If the conditions under which the waiver was granted change substantially, or unanticipated safety issues arise, FRA may modify or withdraw a waiver in order to ensure safety.

2. Light rail equipment, commonly referred to as trolleys or street railways, is not designed to be used in situations where there is a reasonable likelihood of a collision with much heavier and stronger conventional rail equipment. However, existing conventional railroad tracks and rights-of-way provide attractive opportunities for expansion of light rail service.

3. Light rail operators who intend to share use of the general railroad system trackage with conventional equipment and/or whose operations constitute commuter service (see Appendix A of 49 CFR part 209 for relevant definitions) will either have to comply with FRA's safety rules or obtain a waiver of appropriate rules. Light rail operators whose operations meet the definition of urban rapid transit and who will share a right-of-way or corridor with a conventional railroad but will not share trackage with that railroad will be subject to only those rules that pertain to any significant point of connection to the general system, such as a rail crossing at grade, a shared method of train control, or shared highway-rail grade crossings.

4. Shared use of track refers to situations where light rail transit operators conduct their operations over the lines of the general system, and includes light rail operations

that are wholly separated in time (temporally separated) from conventional operations as well as light rail operations operating on the same trackage at the same time as conventional rail equipment (simultaneous joint use). Where shared use of general system trackage is contemplated, FRA believes a comprehensive waiver request covering all rules for which a waiver is sought makes the most sense. FRA suggests that a petitioner caption such a waiver petition as a Petition for Approval of Shared Use so as to distinguish it from other types of waiver petitions. The light rail operator should file the petition. All other affected railroads will be able to participate in the waiver proceedings by commenting on the petition and providing testimony at a hearing on the petition if anyone requests such a hearing. If any other railroad will be affected by the proposed operation in such a way as to necessitate a waiver of any FRA rule, that railroad may either join with the light rail operator in filing the comprehensive petition or file its own petition.

5. In situations where the light rail operator is an urban rapid transit system that will share a right-of-way or corridor with the conventional railroad but not share trackage, any waiver petition should cover only the rules that may apply at any significant points of connection between the rapid transit line and the other railroad. A Petition for Approval of Shared Use would not be appropriate in such a case.

I. PRELIMINARY JURISDICTIONAL DETERMINATIONS

Where a light rail operator is uncertain whether the planned operation will be subject to FRA's safety jurisdiction and, if so, to what extent, the operator may wish to obtain FRA's views on the jurisdictional issues before filing a waiver petition. In that case, the light rail operator (here including a transit authority that may not plan to actually operate the system itself) should write to FRA requesting such a determination. The letter should be addressed to Chief Counsel, Federal Railroad Administration, 1120 Vermont Ave., NW., Mail Stop 10, Washington, DC 20590, with a copy to the Associate Administrator for Safety at the same address at Mail Stop 25. The letter should address the criteria (found in 49 CFR part 209, appendix A) FRA uses to determine whether it has jurisdiction over a rail operation and to distinguish commuter from urban rapid transit service. A complete description of the nature of the contemplated operation is essential to an accurate determination. FRA will attempt to respond promptly to such a request. Of course, FRA's response will be based only on the facts as presented by the light rail operator. If FRA subsequently learns that the facts are different from those

presented or have changed substantially, FRA may revise its initial determination.

II. GENERAL FACTORS TO ADDRESS IN A PETITION FOR APPROVAL OF SHARED USE

1. Like all waiver petitions, a Petition for Approval of Shared Use will be reviewed by the Safety Board. A non-voting FTA liaison to the Safety Board will participate in an advisory capacity in the Safety Board's consideration of all such petitions. This close cooperation between the two agencies will ensure that FRA benefits from the insights, particularly with regard to operational and financial issues, that FTA can provide about light rail operations, as well as from FTA's knowledge of and contacts with state safety oversight programs. This working relationship will also ensure that FTA has a fuller appreciation of the safety issues involved in each specific shared use operation and a voice in shaping the safety requirements that will apply to such operations.

2. FRA resolves each waiver request on its own merits based on the information presented and the agency's own investigation of the issues. In general, the greater the safety risks inherent in a proposed operation the greater will be the mitigation measures required. While FRA cannot state in advance what kinds of waivers will be granted or denied, we can provide guidance to those who may likely be requesting waivers to help ensure that their petitions address factors that FRA will no doubt consider important.

3. FRA's procedural rules give a general description of what any waiver petition should contain, including an explanation of the nature and extent of the relief sought; a description of the persons, equipment, installations, and locations to be covered by the waiver; an evaluation of expected costs and benefits; and relevant safety data. 49 CFR 211.9. The procedural rules, of course, are not specifically tailored to situations involving light rail operations over the general system, where waiver petitions are likely to involve many of FRA's regulatory areas. In such situations, FRA suggests that a Petition for Approval of Shared Use address the following general factors.

A. *Description of operations.* You should explain the frequency and speeds of all operations on the line and the nature of the different operations. You should explain the nature of any connections between the light rail and conventional operations.

•If the light rail line will operate on any segments (e.g., a street railway portion) that will not be shared by a conventional railroad, describe those segments and their connection with the shared use segments. If the petitioner has not previously sought and received a determination from FRA concerning jurisdictional issues, explain, using the criteria set out in 49 CFR part 209, Appendix A,

whether the light rail operation is, in the petitioner's view, a commuter operation or urban rapid transit.

- You should describe precisely what the respective hours of operation will be for each type of equipment on the shared use segments. If light rail and conventional operations will occur only at different times of day, describe what means of protection will ensure that the different types of equipment are not operated simultaneously on the same track, and how protection will be provided to ensure that, where one set of operations begins and the other ends, there can be no overlap that would possibly result in a collision.

- If the light rail and conventional operations will share trackage during the same time periods, the petitioners will face a steep burden of demonstrating that extraordinary safety measures will be taken to adequately reduce the likelihood of a collision between conventional and light rail equipment to the point where the safety risks associated with joint use would be acceptable. You should explain the nature of such simultaneous joint use, the system of train control, the frequency and proximity of both types of operations, the training and qualifications of all operating personnel in both types of operations, and all methods that would be used to prevent collisions. You should also include a quantitative risk assessment concerning the risk of collision between the light rail and conventional equipment under the proposed operating scenario.

B. Description of equipment. (1) You should describe all equipment that will be used by the light rail and conventional operations. Where the light rail equipment does not meet the standards of 49 CFR part 238, you should provide specifics on the crash survivability of the light rail equipment, such as static end strength, sill height, strength of corner posts and collision posts, side strength, etc.

(2) Given the structural incompatibility of light rail and conventional equipment, FRA has grave concerns about the prospect of operating these two types of equipment simultaneously on the same track. If the light rail and conventional operations will share trackage during the same time periods, you should provide an engineering analysis of the light rail equipment's resistance to damage in various types of collisions, including a worst case scenario involving a failure of the collision avoidance systems resulting in a collision between light rail and conventional equipment at track speeds.

C. Alternative safety measures to be employed in place of each rule for which waiver is sought. The petition should specify exactly which rules the petitioner desires to be waived. For each rule, the petition should explain exactly how a level of safety at least equal to that afforded by the FRA rule will be pro-

vided by the alternative measures the petitioner proposes.

(1) Most light rail operations that entail some shared use of the general system will also have segments that are not on the general system. FTA's rules on rail fixed guideway systems will probably apply to those other segments. If so, the petition for waiver of FRA's rules should explain how the system safety program plan adopted under FTA's rules may affect safety on the portions of the system where FRA's rules apply. Under certain circumstances, effective implementation of such a plan may provide FRA sufficient assurance that adequate measures are in place to warrant waiver of certain FRA rules.

(2) In its petition, the light rail operator may want to certify that the subject matter addressed by the rule to be waived is addressed by the system safety plan and that the light rail operation will be monitored by the state safety oversight program. That is likely to expedite FRA's processing of the petition. FRA will analyze information submitted by the petitioner to demonstrate that a safety matter is addressed by the light rail operator's system safety plan. Alternately, conditional approval may be requested at an early stage in the project, and FRA would thereafter review the system safety program plan's status to determine readiness to commence operations. Where FRA grants a waiver, the state agency will oversee the area addressed by the waiver, but FRA will actively participate in partnership with FTA and the state agency to address any safety problems.

D. Documentation of agreement with affected railroads. Conventional railroads that will share track with the light rail operation need not join as a co-petitioner in the light rail operator's petition. However, the petition should contain documentation of the precise terms of the agreement between the light rail operator and the conventional railroad concerning any actions that the conventional railroad must take to ensure effective implementation of alternative safety measures. For example, if temporal separation is planned, FRA expects to see the conventional railroad's written acceptance of its obligations to ensure that the separation is achieved. Moreover, if the arrangements for the light rail service will require the conventional railroad to employ any alternative safety measures rather than strictly comply with FRA's rules, that railroad will have to seek its own waiver (or join in the light rail operator's petition).

III. WAIVER PETITIONS INVOLVING NO SHARED USE OF TRACK AND LIMITED CONNECTIONS BETWEEN LIGHT RAIL AND CONVENTIONAL OPERATIONS

Even where there is no shared use of track, light rail operators may be subject to certain

FRA rules based on limited, but significant connections to the general system.

1. *Rail crossings at grade.* Where a light rail operation and a conventional railroad have a crossing at grade, several FRA rules may apply to the light rail operation at the point of connection. If movements at the crossing are governed by a signal system, FRA's signal rules (49 CFR parts 233, 235, and 236) apply, as do the signal provisions of the hours of service statute, 49 U.S.C. 21104. To the extent radio communication is used to direct the movements, the radio rules (part 220) apply. The track rules (part 213) cover any portion of the crossing that may affect the movement of the conventional railroad. Of course, if the conventional railroad has responsibility for compliance with certain of the rules that apply at that point (for example, where the conventional railroad maintains the track and signals and dispatches all trains), the light rail operator will not have compliance responsibility for those rules and would not need a waiver.

2. *Shared train control systems.* Where a light rail operation is governed by the same train control system as a conventional railroad (e.g., at a moveable bridge that they both traverse), the light rail operator will be subject to applicable FRA rules (primarily the signal rules in parts 233, 235, and 236) if it has maintenance or operating responsibility for the system.

3. *Highway-Rail Grade Crossings.* Light rail operations over highway-rail grade crossings also used by conventional trains will be subject to FRA's rules on grade crossing signal system safety (part 234) and the requirement to have auxiliary lights on locomotives (49 CFR 229.125). Even if the conventional railroad maintains the crossing, the light rail operation will still be responsible for reporting and taking appropriate actions in response to warning system malfunctions.

In any of these shared right-of-way situations involving significant connections, the light rail operator may petition for a waiver of any rules that apply to its activities.

IV. FACTORS TO ADDRESS RELATED TO SPECIFIC REGULATIONS AND STATUTES

Operators of light rail systems are likely to apply for waivers of many FRA rules. FRA offers the following suggestions on factors petitioners may want to address concerning specific areas of regulation. (All "part" references are to title 49 CFR.) Parts 209 (Railroad Safety Enforcement Procedures), 211 (Rules of Practice), 212 (State Safety Participation), and 216 (Special Notice and Emergency Order Procedures) are largely procedural rules that are unlikely to be the subject of waivers, so those parts are not discussed further. For segments of a light rail line not involving operations over the general system, assuming the light rail operation meets the definition of "rapid transit,"

FRA's standards do not apply and the petition need not address those segments with regard to each specific rule from which waivers are sought with regard to shared use trackage.

1. Track, structures, and signals.

A. *Track safety standards (part 213).* For general system track used by both the conventional and light rail lines, the track standards apply and a waiver is very unlikely. A light rail operation that owns track over which the conventional railroad operates may wish to consider assigning responsibility for that track to the other railroad. If so, the track owner must follow the procedure set forth in 49 CFR 213.5(c). Where such an assignment occurs, the owner and assignee are responsible for compliance.

B. *Signal systems reporting requirements (part 233).* This part contains reporting requirements with respect to methods of train operation, block signal systems, interlockings, traffic control systems, automatic train stop, train control, and cab signal systems, or other similar appliances, methods, and systems. If a signal system failure occurs on general system track which is used by both conventional and light rail lines, and triggers the reporting requirements of this part, the light rail operator must file, or cooperate fully in the filing of, a signal system report. The petition should explain whether the light rail operator or conventional railroad is responsible for maintaining the signal system. Assuming that the light rail operator (or a contractor hired by this operator) has responsibility for maintaining the signal system, that entity is the logical choice to file each signal failure report, and a waiver is very unlikely. Moreover, since a signal failure first observed by a light rail operator can later have catastrophic consequences for a conventional railroad using the same track, a waiver would jeopardize rail safety on that general system trackage. Even if the conventional railroad is responsible for maintaining the signal systems, the light rail operator must still assist the railroad in reporting all signal failures by notifying the conventional railroad of such failures.

C. *Grade crossing signal system safety (part 234).* This part contains minimum standards for the maintenance, inspection, and testing of highway-rail grade crossing warning systems, and also prescribes standards for the reporting of system failures and minimum actions that railroads must take when such warning systems malfunction. If a grade crossing accident or warning activation failure occurs during light rail operations on general system track that is used by both conventional and light rail lines, the light rail operator must submit, or cooperate with the other railroad to ensure the submission

of, a report to FRA within the required time frame (24 hours for an accident report, or 15 days for a grade crossing signal system activation failure report). The petition should explain whether the light rail operator or conventional railroad is responsible for maintaining the grade crossing devices. Assuming that the light rail operator (or a contractor hired by this operator) has responsibility for maintaining the grade crossing devices, that entity is the logical choice to file each grade crossing signal failure report, and a waiver is very unlikely. Moreover, since a grade crossing warning device failure first observed by a light rail operator can later have catastrophic consequences for a conventional railroad using the same track, a waiver would jeopardize rail safety on that general system trackage. However, if the conventional railroad is responsible for maintaining the grade crossing devices, the light rail operator will still have to assist the railroad in reporting all grade crossing signal failures. Moreover, regardless of which railroad is responsible for maintenance of the grade crossing signals, any railroad (including a light rail operation) operating over a crossing that has experienced an activation failure, partial activation, or false activation must take the steps required by this rule to ensure safety at those locations. While the maintaining railroad will retain all of its responsibilities in such situations (such as contacting train crews and notifying law enforcement agencies), the operating railroad must observe requirements concerning flagging, train speed, and use of the locomotive's audible warning device.

D. Approval of signal system modifications (part 235). This part contains instructions governing applications for approval of a discontinuance or material modification of a signal system or relief from the regulatory requirements of part 236. In the case of a signal system located on general system track which is used by both conventional and light rail lines, a light rail operation is subject to this part only if it (or a contractor hired by the operator) owns or has responsibility for maintaining the signal system. If the conventional railroad does the maintenance, then that railroad would file any application submitted under this part; the light rail operation would have the right to protest the application under §235.20. The petition should discuss whether the light rail operator or conventional railroad is responsible for maintaining the signal system.

E. Standards for signal and train control systems (part 236). This part contains rules, standards, and instructions governing the installation, inspection, maintenance, and repair of signal and train control systems, devices, and appliances. In the case of a signal system located on general system track which is used by both conventional and light rail lines, a light rail operation is subject to

this part only if it (or a contractor hired by the operation) owns or has responsibility for installing, inspecting, maintaining, and repairing the signal system. If the light rail operation has these responsibilities, a waiver would be unlikely because a signal failure would jeopardize the safety of both the light rail operation and the conventional railroad. If the conventional railroad assumes all of the responsibilities under this part, the light rail operation would not need a waiver, but it would have to abide by all operational limitations imposed this part and by the conventional railroad. The petition should discuss whether the light rail operator or conventional railroad has responsibility for installing, inspecting, maintaining, and repairing the signal system.

2. Motive power and equipment.

A. Railroad noise emission compliance regulations (part 210). FRA issued this rule under the Noise Control Act of 1972, 42 U.S.C. 4916, rather than under its railroad safety authority. Because that statute included a definition of "railroad" borrowed from one of the older railroad safety laws, this part has an exception for "street, suburban, or inter-urban electric railways unless operated as a part of the general railroad system of transportation." 49 CFR 210.3(b)(2). The petition should address whether this exception may apply to the light rail operation. Note that this exception is broader than the sole exception to the railroad safety statutes (i.e., urban rapid transit not connected to the general system). The greater the integration of the light rail and conventional operations, the less likely this exception would apply.

If the light rail equipment would normally meet the standards in this rule, there would be no reason to seek a waiver of it. If it appears that the light rail system would neither meet the standards nor fit within the exception, the petition should address noise mitigation measures used on the system, especially as part of a system safety program. Note, however, that FRA lacks the authority to waive certain Environmental Protection Agency standards (40 CFR part 201) that underlie this rule. See 49 CFR 210.11(a).

B. Railroad freight car safety standards (part 215). A light rail operator is likely to move freight cars only in connection with maintenance-of-way work. As long as such cars are properly stenciled in accordance with section 215.305, this part does not otherwise apply, and a waiver would seem unnecessary.

C. Rear end marking devices (part 221). This part requires that each train occupying or operating on main line track be equipped with, display, and continuously illuminate or flash a marking device on the trailing end of the rear car during periods of darkness or other reduced visibility. The device, which must be approved by FRA, must have specific intensity, beam arc width, color, and

flash rate characteristics. A light rail operation seeking a waiver of this part will need to explain how other marking devices with which it equips its vehicles, or other means such as train control, will provide the same assurances as this part of a reduced likelihood of collisions attributable to the failure of an approaching train to see the rear end of a leading train in time to stop short of it during periods of reduced visibility. The petition should describe the light rail vehicle's existing marking devices (e.g., headlights, brakelights, taillights, turn signal lights), and indicate whether the vehicle bears reflectors. If the light rail system will operate in both a conventional railroad environment and in streets mixed with motor vehicles, the petition should discuss whether adapting the design of the vehicle's lighting characteristics to conform to FRA's regulations would adversely affect the safety of its operations in the street environment. A light rail system that has a system safety program developed under FTA's rules may choose to discuss how that program addresses the need for equivalent levels of safety when its vehicles operate on conventional railroad corridors.

D. Safety glazing standards (part 223). This part provides that passenger car windows be equipped with FRA-certified glazing materials in order to reduce the likelihood of injury to railroad employees and passengers from the breakage and shattering of windows and avoid ejection of passengers from the vehicle in a collision. This part, in addition to requiring the existence of at least four emergency windows, also requires window markings and operating instructions for each emergency window, as well as for each window intended for emergency access, so as to provide the necessary information for evacuation of a passenger car. FRA will not permit operations to occur on the general system in the absence of effective alternatives to the requirements of this part that provide an equivalent level of safety. The petition should explain what equivalent safeguards are in place to provide the same assurance as part 223 that passengers and crewmembers are safe from the effects of objects striking a light rail vehicle's windows. The petition should also discuss the design characteristics of its equipment when it explains how the safety of its employees and passengers will be assured during an evacuation in the absence of windows meeting the specific requirements of this part. A light rail system that has a system safety program plan developed under FTA's rule may be able to demonstrate that the plan satisfies the safety goals of this part.

E. Locomotive safety standards (part 229). (1) This part contains minimum safety standards for all locomotives, except those propelled by steam power. FRA recognizes that due to the unique characteristics of light rail

equipment, some of these provisions may be irrelevant to light rail equipment, and that others may not fit properly in the context of light rail operations. A waiver petition should explain precisely how the light rail system's practices will provide for the safe condition and operation of its locomotive equipment.

(2) FRA is not likely to waive completely the provision (section 229.125) of this rule concerning auxiliary lights designed to warn highway motorists of an approaching train. In order to reduce the risk of grade crossing accidents, it is important that all locomotives used by both conventional railroads and light rail systems present the same distinctive profile to motor vehicle operators approaching grade crossings on the general railroad system. If uniformity is sacrificed by permitting light rail systems to operate locomotives through the same grade crossings traversed by conventional trains with light arrangements placed in different locations on the equipment, safety could be compromised. Accordingly, the vehicle design should maintain the triangular pattern required of other locomotives and cab cars to the extent practicable.

(3) FRA is aware that light rail headlights are likely to produce less than 200,000 candela. While some light rail operators may choose to satisfy the requirements of section 229.125 by including lights on their equipment of different candlepower controlled by dimmer switches, the headlights on the majority of light rail vehicles will likely not meet FRA's minimum requirement. However, based on the nature of the operations of light rail transit, FRA recognizes that waivers of the minimum candela requirement for transit vehicle headlights seems appropriate.

F. Safety appliance laws (49 U.S.C. 20301-20305). (1) Since certain safety appliance requirements (e.g., automatic couplers) are statutory, they can only be "waived" by FRA under the exemption conditions set forth in 49 U.S.C. 20306. Because exemptions requested under this statutory provision do not involve a waiver of a safety rule, regulation, or standard (see 49 CFR 211.41), FRA is not required to follow the rules of practice for waivers contained in part 211. However, whenever appropriate, FRA will combine its consideration of any request for an exemption under §20306 with its review under part 211 of a light rail operation's petition for waivers of FRA's regulations.

(2) FRA may grant exemptions from the statutory safety appliance requirements in 49 U.S.C. 20301-20305 only if application of such requirements would "preclude the development or implementation of more efficient railroad transportation equipment or other transportation innovations." 49 U.S.C. 20306. The exemption for technological improvements was originally enacted to further the implementation of a specific type of

freight car, but the legislative history shows that Congress intended the exemption to be used elsewhere so that "other types of railroad equipment might similarly benefit." S. Rep. 96-614 at 8 (1980), reprinted in 1980 U.S.C.C.A.N. 1156,1164.

(3) FRA recognizes the potential public benefits of allowing light rail systems to take advantage of underutilized urban freight rail corridors to provide service that, in the absence of the existing right-of-way, would be prohibitively expensive. Any petitioner requesting an exemption for technological improvements should carefully explain how being forced to comply with the existing statutory safety appliance requirements would conflict with the exemption exceptions set forth at 49 U.S.C. 20306. The petition should also show that granting the exemption is in the public interest and is consistent with assuring the safety of the light rail operator's employees and passengers.

G. Safety appliance standards (part 231). (1) The regulations in this part specify the requisite location, number, dimensions, and manner of application of a variety of railroad car safety appliances (e.g., handbrakes, ladders, handholds, steps), and directly implement a number of the statutory requirements found in 49 U.S.C. 20301-20305. These very detailed regulations are intended to ensure that sufficient safety appliances are available and able to function safely and securely as intended.

(2) FRA recognizes that due to the unique characteristics of light rail equipment, some of these provisions may be irrelevant to light rail operation, and that others may not fit properly in the context of light rail operations (e.g., crewmembers typically do not perform yard duties from positions outside and adjacent to the light rail vehicle or near the vehicle's doors). However, to the extent that the light rail operation encompasses the safety risks addressed by the regulatory provisions of this part, a waiver petition should explain precisely how the light rail system's practices will provide for the safe operation of its passenger equipment. The petition should focus on the design specifications of the equipment, and explain how the light rail system's operating practices, and its intended use of the equipment, will satisfy the safety purpose of the regulations while providing at least an equivalent level of safety.

H. Passenger equipment safety standards (part 238). This part prescribes minimum Federal safety standards for railroad passenger equipment. Since a collision on the general railroad system between light rail equipment and conventional rail equipment could prove catastrophic, because of the significantly greater mass and structural strength of the conventional equipment, a waiver petition should describe the light rail operation's system safety program that is in place to minimize the risk of such a collision.

The petition should discuss the light rail operation's operating rules and procedures, train control technology, and signal system. If the light rail operator and conventional railroad will operate simultaneously on the same track, the petition should include a quantitative risk assessment that incorporates design information and provide an engineering analysis of the light rail equipment and its likely performance in derailment and collision scenarios. The petitioner should also demonstrate that risk mitigation measures to avoid the possibility of collisions, or to limit the speed at which a collision might occur, will be employed in connection with the use of the equipment on a specified shared-use rail line. This part also contains requirements concerning power brakes on passenger trains, and a petitioner seeking a waiver in this area should refer to these requirements, not those found in 49 CFR part 232.

3. Operating practices.

A. Railroad workplace safety (part 214). (1) This part contains standards for protecting bridge workers and roadway workers. The petition should explain whether the light rail operator or conventional railroad is responsible for bridge work on shared general system trackage. If the light rail operator does the work and does similar work on segments outside of the general system, it may wish to seek a waiver permitting it to observe OSHA standards throughout its system.

(2) There are no comparable OSHA standards protecting roadway workers. The petition should explain which operator is responsible for track and signal work on the shared segments. If the light rail operator does this work, the petition should explain how the light rail operator protects these workers. However, to the extent that protection varies significantly from FRA's rules, a waiver permitting use of the light rail system's standards could be very confusing to train crews of the conventional railroad who follow FRA's rules elsewhere. A waiver of this rule is unlikely. A petition should address how such confusion would be avoided and safety of roadway workers would be ensured.

B. Railroad operating rules (part 217). This part requires filing of a railroad's operating rules and that employees be instructed and tested on compliance with them. A light rail operation would not likely have difficulty complying with this part. However, if a waiver is desired, the light rail system should explain how other safeguards it has in place provide the same assurance that operating employees are trained and periodically tested on the rules that govern train operation. A light rail system that has a system safety program plan developed under FTA's rules

may be in a good position to give such an assurance.

C. Railroad operating practices (part 218). This part requires railroads to follow certain practices in various aspects of their operations (protection of employees working on equipment, protection of trains and locomotives from collisions in certain situations, prohibition against tampering with safety devices, protection of occupied camp cars). Some of these provisions (*e.g.*, camp cars) may be irrelevant to light rail operations. Others may not fit well in the context of light rail operations. To the extent the light rail operation presents the risks addressed by the various provisions of this part, a waiver provision should explain precisely how the light rail system's practices will address those risks. FRA is not likely to waive the prohibition against tampering with safety devices, which would seem to present no particular burden to light rail operations. Moreover, blue signal regulations, which protect employees working on or near equipment, are not likely to be waived to the extent that such work is performed on track shared by a light rail operation and a conventional railroad, where safety may best be served by uniformity.

D. Control of alcohol and drug use (part 219). FRA will not permit operations to occur on the general system in the absence of effective rules governing alcohol and drug use by operating employees. FTA's own rules may provide a suitable alternative for a light rail system that is otherwise governed by those rules. However, to the extent that light rail and conventional operations occur simultaneously on the same track, FRA is not likely to apply different rules to the two operations, particularly with respect to post-accident testing, for which FRA requirements are more extensive (*e.g.*, section 219.11(f) addresses the removal, under certain circumstances, of body fluid and/or tissue samples taken from the remains of any railroad employee who performs service for a railroad). (FRA recognizes that in the event of a fatal train accident involving a transit vehicle, whether involving temporal separation or simultaneous use of the same track, the National Transportation Safety Board will likely investigate and obtain its own toxicology test results.)

E. Railroad communications (part 220). A light rail operation is likely to have an effective system of radio communication that may provide a suitable alternative to FRA's rules. However, the greater the need for radio communication between light rail personnel (*e.g.*, train crews or dispatchers) and personnel of the conventional railroad (*e.g.*, train crews, roadway workers), the greater will be the need for standardized communication rules and, accordingly, the less likely will be a waiver.

F. Railroad accident/incident reporting (part 225). (1) FRA's accident/incident information is very important in the agency's decision-making on regulatory issues and strategic planning. A waiver petition should indicate precisely what types of accidents and incidents it would report, and to whom, under any alternative it proposes. FRA is not likely to waive its reporting requirements concerning train accidents or highway-rail grade crossing collisions that occur on the general railroad system. Reporting of accidents under FTA's rules is quite different and would not provide an effective substitute. However, with regard to employee injuries, the light rail operation may, absent FRA's rules, otherwise be subject to reporting requirements of FTA and OSHA and may have an interest in uniform reporting of those injuries wherever they occur on the system. Therefore, it is more likely that FRA would grant a waiver with regard to reporting of employee injuries.

(2) Any waiver FRA may grant in the accident/incident reporting area would have no effect on FRA's authority to investigate such incidents or on the duties of light rail operators and any other affected railroads to cooperate with those investigations. See sections 225.31 and 225.35 and 49 U.S.C. 20107 and 20902. Light rail operators should anticipate that FRA will investigate any serious accident or injury that occurs on the shared use portion of their lines, even if it occurs during hours when only the light rail trains are operating. Moreover, there may be instances when FRA will work jointly with FTA and the state agency to investigate the cause of a transit accident that occurs off the general system under circumstances that raise concerns about the safety of operations on the shared use portions. For example, if a transit operator using the same light rail equipment on the shared and non-shared-use portions of its operation has a serious accident on the non-shared-use portion, FRA may want to determine whether the cause of the accident pointed to a systemic problem with the equipment that might impact the transit system's operations on the general system. Similarly, where human error might be a factor, FRA may want to determine whether the employee potentially at fault also has safety responsibilities on the general system and, if so, take appropriate action to ensure that corrective action is taken. FRA believes its statutory investigatory authority extends as far as necessary to address any condition that might reasonably be expected to create a hazard to railroad operations within its jurisdiction.

G. Hours of service laws (49 U.S.C. 21101–21108). (1) The hours of service laws apply to all railroads subject to FRA's jurisdiction, and govern the maximum work hours and minimum off-duty periods of employees engaged in one or more of the three categories

of covered service described in 49 U.S.C. 21101. If an individual performs more than one kind of covered service during a tour of duty, then the most restrictive of the applicable limitations control. Under current law, a light rail operation could request a waiver of the substantive provisions of the hours of service laws only under the "pilot project" provision described in 49 U.S.C. 21108, provided that the request is based upon a joint petition submitted by the railroad and its affected labor organizations. Because waivers requested under this statutory provision do not involve a waiver of a safety rule, regulation, or standard (see 49 CFR 211.41), FRA is not required to follow the rules of practice for waivers contained in part 211. However, whenever appropriate, FRA will combine its consideration of any request for a waiver under §21108 with its review under part 211 of a light rail operation's petition for waivers of FRA's regulations.

(2) If such a statutory waiver is desired, the light rail system will need to assure FRA that the waiver of compliance is in the public interest and consistent with railroad safety. The waiver petition should include a discussion of what fatigue management strategies will be in place for each category of covered employees in order to minimize the effects of fatigue on their job performance. However, FRA is unlikely to grant a statutory waiver covering employees of a light rail operation who dispatch the trains of a conventional railroad or maintain a signal system affecting shared use trackage.

H. *Hours of service recordkeeping (part 228)*. This part prescribes reporting and recordkeeping requirements with respect to the hours of service of employees who perform the job functions set forth in 49 U.S.C. 21101. As a general rule, FRA anticipates that any waivers granted under this part will only exempt the same groups of employees for whom a light rail system has obtained a waiver of the substantive provisions of the hours of service laws under 49 U.S.C. 21108. Since it is important that FRA be able to verify that a light rail operation is complying with the on- and off-duty restrictions of the hour of service laws for all employees not covered by a waiver of the laws' substantive provisions, it is unlikely that any waiver granted of the reporting and recordkeeping requirements would exclude those employees. However, in a system with fixed work schedules that do not approach 12 hours on duty in the aggregate, it may be possible to utilize existing payroll records to verify compliance.

I. *Passenger train emergency preparedness (part 239)*. This part prescribes minimum Federal safety standards for the preparation, adoption, and implementation of emergency preparedness plans by railroads connected with the operation of passenger trains. FRA's expectation is that by requiring af-

ected railroads to provide sufficient emergency egress capability and information to passengers, along with mandating that these railroads coordinate with local emergency response officials, the risk of death or injury from accidents and incidents will be lessened. A waiver petition should state whether the light rail system has an emergency preparedness plan in place under a state system safety program developed under FTA's rules for the light rail operator's separate street railway segments. Under a system safety program, a light rail operation is likely to have an effective plan for dealing with emergency situations that may provide an equivalent alternative to FRA's rules. To the extent that the light rail operation's plan relates to the various provisions of this part, a waiver petition should explain precisely how each of the requirements of this part is being addressed. The petition should especially focus on the issues of communication, employee training, passenger information, liaison relationships with emergency responders, and marking of emergency exits.

J. *Qualification and certification of locomotive engineers (part 240)*. This part contains minimum Federal safety requirements for the eligibility, training, testing, certification, and monitoring of locomotive engineers. Those who operate light rail trains may have significant effects on the safety of light rail passengers, motorists at grade crossings, and, to the extent trackage is shared with conventional railroads, the employees and passengers of those railroads. The petition should describe whether a light rail system has a system safety plan developed under FTA's rules that is likely to have an effective means of assuring that the operators, or "engineers," of its equipment receive the necessary training and have proper skills to operate a light rail vehicle in shared use on the general railroad system. The petition should explain what safeguards are in place to ensure that light rail engineers receive at least an equivalent level of training, testing, and monitoring on the rules governing train operations to that received by locomotive engineers employed by conventional railroads and certified under part 240. Any light rail system unable to meet this burden would have to fully comply with the requirements of part 240. Moreover, where a transit system intends to operate simultaneously on the same track with conventional equipment, FRA will not be inclined to waive the part 240 requirements. In that situation, FRA's paramount concern would be uniformity of training and qualifications of all those operating trains on the general system, regardless of the type of equipment.

V. WAIVERS THAT MAY BE APPROPRIATE FOR TIME-SEPARATED LIGHT RAIL OPERATIONS

1. The foregoing discussion of factors to address in a petition for approval of shared use concerns all such petitions and, accordingly, is quite general. FRA is willing to provide more specific guidance on where waivers may be likely with regard to light rail operations that are time-separated from conventional operations. FRA's greatest concern with regard to shared use of the general system is a collision between light rail and conventional trains on the same track. Because the results could well be catastrophic, FRA places great emphasis on avoiding such collisions. The surest way to guarantee that such collisions will not occur is to strictly segregate light rail and conventional operations by time of day so that the two types of equipment never share the same track at the same time. This is not to say that FRA will not entertain waiver petitions that rely on other methods of collision avoidance such as sophisticated train control systems. However, petitioners who do not intend to separate light rail from conventional operations by time of day will face a steep burden of demonstrating an acceptable level of safety. FRA does not insist that all risk of collision be eliminated. However, given the enormous severity of the likely consequences of a collision, the demonstrated risk of such an event must be extremely remote.

2. There are various ways of providing such strict separation by time. For example, freight operations could be limited to the hours of midnight to 5 a.m. when light rail operations are prohibited. Or, there might be both a nighttime and a mid-day window for freight operation. The important thing is that the arrangement not permit simultaneous operation on the same track by clearly defining specific segments of the day when only one type of operation may occur. Mere spacing of train movements by a train control system does not constitute this temporal separation.

3. FRA is very likely to grant waivers of many of its rules where complete temporal separation between light rail and conventional operations is demonstrated in the waiver request. The chart below lists each of

FRA's railroad safety rules and provides FRA's view on whether it is likely to grant a waiver in a particular area where temporal separation is assured. Where the "Likely Treatment" column says "comply" a waiver is not likely, and where it says "waive" a waiver is likely. Of course, FRA will consider each petition on its own merits and one should not presume, based on the chart, that FRA will grant or deny any particular request in a petition. This chart is offered as general guidance as part of a statement of policy, and as such does not alter any safety rules or obligate FRA to follow it in every case. This chart assumes that the operations of the local rail transit agency on the general railroad system are completely separated in time from conventional railroad operations, and that the light rail operation poses no atypical safety hazards. FRA's procedural rules on matters such as enforcement (49 CFR parts 209 and 216), and its statutory authority to investigate accidents and injuries and take emergency action to address an imminent hazard of death or injury, would apply to these operations in all cases.

4. Where waivers are granted, a light rail operator would be expected to operate under a system safety plan developed in accordance with the FTA state safety oversight program. The state safety oversight agency would be responsible for the safety oversight of the light rail operation, even on the general system, with regard to aspects of that operation for which a waiver is granted. (The "Comments" column of the chart shows "State Safety Oversight" where waivers conditioned on such state oversight are likely.) FRA will coordinate with FTA and the state agency to address any serious safety problems. If the conditions under which the waiver was granted change substantially, or unanticipated safety issues arise, FRA may modify or withdraw a waiver in order to ensure safety. On certain subjects where waivers are not likely, the "Comments" column of the chart makes special note of some important regulatory requirements that the light rail system will have to observe even if it is not primarily responsible for compliance with that particular rule.

POSSIBLE WAIVERS FOR LIGHT RAIL OPERATIONS ON THE GENERAL RAILROAD SYSTEM BASED ON SEPARATION IN TIME FROM CONVENTIONAL OPERATIONS

Title 49 CFR part	Subject of rule	Likely treatment	Comments
Track, Structures, and Signals			
213	Track safety standards	Comply (assuming light rail operator owns track or has been assigned responsibility for it).	If the conventional RR owns the track, light rail will have to observe speed limits for class of track.
233, 235, 236	Signal and train control	Comply (assuming light rail operator or its contractor has responsibility for signal maintenance).	If conventional RR maintains signals, light rail will have to abide by operational limitations and report signal failures.

POSSIBLE WAIVERS FOR LIGHT RAIL OPERATIONS ON THE GENERAL RAILROAD SYSTEM BASED ON SEPARATION IN TIME FROM CONVENTIONAL OPERATIONS—Continued

Title 49 CFR part	Subject of rule	Likely treatment	Comments
234	Grade crossing signals	Comply (assuming light rail operator or its contractor has responsibility for crossing devices).	If conventional RR maintains devices, light rail will have to comply with sections concerning crossing accidents, activation failures, and false activations.
213, Appendix C	Bridge safety policy	Not a rule. Compliance voluntary..	
Motive Power and Equipment			
210	Noise emission	Waive	State safety oversight.
215	Freight car safety standards.	Waive	State safety oversight.
221	Rear end marking devices.	Waive	State safety oversight.
223	Safety glazing standards.	Waive	State safety oversight.
229	Locomotive safety standards.	Waive, except for arrangement of auxiliary lights, which is important for grade crossing safety.	State safety oversight.
231*	Safety appliance standards.	Waive	State safety oversight; see note below on statutory requirements.
238	Passenger equipment standards.	Waive	State safety oversight.
Operating Practices			
214	Bridge worker	Waive	OSHA standards.
214	Roadway worker safety	Comply.	
217	Operating rules	Waive	State safety oversight.
218	Operating practices	Waive, except for prohibition on tampering with safety devices related to signal system, and blue signal rules on shared track.	State safety oversight.
219	Alcohol and drug	Waive if FTA rule otherwise applies	FTA rule may apply.
220	Radio communications	Waive, except to extent communications with freight trains and roadway workers are necessary.	State safety oversight.
225	Accident reporting and investigation.	Comply with regard to train accidents and crossing accidents; waive as to injuries; FRA accident investigation authority not subject to waiver.	Employee injuries would be reported under FTA or OSHA rules.
228**	Hours of service record-keeping.	Waive (in concert with waiver of statute); waiver not likely for personnel who dispatch conventional RR or maintain signal system on shared use track.	See note below on possible waiver of statutory requirements.
239	Passenger train emergency preparedness.	Waive	State safety oversight.
240	Engineer certification	Waive	State safety oversight.

* *Safety Appliance Statute.* Certain safety appliance requirements (e.g., automatic couplers) are statutory and can only be waived under the conditions set forth in 49 U.S.C. 20306, which permits exemptions if application of the requirements would "preclude the development or implementation of more efficient railroad transportation equipment or other transportation innovations." If consistent with employee safety, FRA could probably rely on this provision to address most light rail equipment that could not meet the standards.

** *Hours of Service Statute.* Currently, 49 U.S.C. 21108 permits FRA to waive substantive provisions of the hours of service laws based upon a joint petition by the railroad and affected labor organizations, after notice and an opportunity for a hearing. This is a "pilot project" provision, so waivers are limited to two years but may be extended for additional two-year periods after notice and an opportunity for comment.