



**DEPARTMENT OF TRANSPORTATION**

**Federal Railroad Administration**

**49 CFR Part 222**

**Use of Locomotive Horns at Public Highway-Rail Grade Crossings; Notice of Safety**

**Inquiry**

**[Docket No. FRA-2016-0010, Notice No. 1]**

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

**ACTION:** Notice of Safety Inquiry.

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**SUMMARY:** FRA is conducting a retrospective review of its locomotive train horn regulations in 49 CFR part 222. As part of its review, FRA is soliciting public comment on whether FRA should modify, streamline, or expand any requirements of FRA's locomotive train horn regulations to reduce paperwork and other economic burdens on the rail industry and States and local authorities while still maintaining the highest standards of safety. The list of topics at the end of this Notice highlights specific areas on which FRA would particularly encourage the rail industry, as well as State and local authorities to provide comment.

**DATES:** Written comments must be received by **[INSERT DATE 120 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. Comments received after that date will be considered to the extent possible without incurring additional expense or delay.

**FOR FURTHER INFORMATION CONTACT:** Ron Ries, Staff Director, Highway-Rail Crossing and Trespasser Programs Division, U.S. Department of Transportation, Federal Railroad Administration, Office of Railroad Safety, Mail Stop 25, West Building 3<sup>rd</sup> Floor, 1200 New Jersey Avenue, SE, Washington, DC 20590 (telephone: 202-493-6299; Kathryn Gresham, Trial Attorney, U.S. Department of Transportation, Federal Railroad Administration, Office of Chief Counsel, Mail Stop 10, West Building 3<sup>rd</sup> Floor, 1200 New Jersey Avenue, SE, Washington, DC 20590 (telephone: 202-493-6052); or Brian Roberts, Trial Attorney, U.S. Department of Transportation, Federal Railroad Administration, Office of Chief Counsel, Mail Stop 10, West Building 3<sup>rd</sup> Floor, 1200 New Jersey Avenue, SE, Washington, DC 20590 (telephone: 202-493-6052).

**SUPPLEMENTARY INFORMATION:**

**Purpose of retrospective review**

Under its general statutory rulemaking authority, FRA promulgates and enforces rules as part of a comprehensive regulatory program to address all areas of railroad safety. See 49 U.S.C. 20103 and 49 CFR 1.89. To provide for safety at public highway-rail grade crossings (public grade crossings), FRA has issued specific regulations in 49 CFR part 222 that generally require locomotive horn use at such crossings except within authorized quiet zones established under the regulations. Congress mandated these regulations in Public Law 103-440, codified as Section 20153 to title 49 of the United States Code. This statute required the Secretary of Transportation (whose authority in this area had been delegated to the Federal Railroad Administrator) to issue regulations

on the use of locomotive horns at public grade crossings, but gave the Secretary the authority to make reasonable exceptions.

Consistent with Executive Order 13563 (“Improving Regulation and Regulatory Review”) and Executive Order 13610 (“Identifying and Reducing Regulatory Burdens”), FRA continually reviews its regulations and revises them as needed to: (1) ensure the regulatory burden is not excessive; (2) clarify the application of existing requirements and remove requirements that are no longer necessary; and (3) keep pace with emerging technology, changing operational realities, and safety concerns. Therefore, through this Notice of Safety Inquiry, FRA seeks to gather input from the rail industry and State and local authorities on any regulatory burdens associated with 49 CFR part 222, while still maintaining the highest level of safety at our Nation’s public grade crossings.

Executive Order 13563 requires agencies to periodically conduct retrospective analyses of their existing rules to identify requirements that may be outmoded, ineffective, insufficient, or excessively burdensome and to modify, streamline, expand, or repeal any problematic regulatory provisions identified during the review. Additionally, Executive Order 13610 requires agencies to take continuing steps to reassess regulatory requirements, and where appropriate, to streamline, improve, or eliminate those requirements. In particular, Executive Order 13610 emphasizes that agencies should prioritize “initiatives that will produce significant quantifiable monetary savings or significant quantifiable reductions in paperwork burdens.” Therefore, FRA is specifically interested in receiving comments on how the agency can reduce the regulatory burden on the regulated community and the public in a way that would provide monetary savings or

reduce paperwork burdens without negatively impacting safety at public grade crossings.

**Rulemaking background on 49 CFR part 222 (“Use of Locomotive Horns at Public Highway-Rail Grade Crossings”)**

FRA began the rulemaking process for 49 CFR part 222 on January 13, 2000, when it published a Notice of Proposed Rulemaking (NPRM) in the Federal Register addressing the use of locomotive horns at public grade crossings. The rulemaking was mandated by 49 U.S.C. 20153, which required the Secretary of Transportation to issue regulations that required the use of locomotive horns at public grade crossings, but gave the Secretary the authority to make reasonable exceptions. FRA received approximately 3,000 comments in response to the NPRM.

Due to the substantial and wide-ranging public interest in the NPRM, FRA conducted a series of twelve public hearings throughout the United States. More than 350 people testified at these hearings.

On December 18, 2003, FRA published an Interim Final Rule in the Federal Register (68 FR 70586). FRA could have proceeded directly to the final rule stage of the rulemaking. However, FRA chose to issue an interim final rule instead in order to give the public an opportunity to comment on changes that had been made to the rule since the NPRM. In addition, FRA held another public hearing in Washington, DC on February 4, 2004. By the close of the extended comment period, over 1,400 comments had been filed with the agency regarding the Interim Final Rule.

FRA then published a final rule in the Federal Register on April 27, 2005 (70 FR 21844). After the final rule was published, FRA received several petitions for

reconsideration and associated letters in support of the petitions. In addition, the Association of American Railroads (AAR) submitted a petition for an Emergency Order. On August 17, 2006, FRA published amendments in the Federal Register which amended and clarified the final rule in response to the petitions for reconsideration (71 FR 47614). FRA denied AAR's petition for an Emergency Order.

Since 2006, FRA has not issued any substantive revisions to 49 CFR part 222. Therefore, FRA is soliciting public comments on any needed revisions to the regulations as part of its retrospective review.

### **Overview of 49 CFR part 222**

FRA regulations require that engineers sound their locomotive horns while approaching public grade crossings until the lead locomotive fully occupies the crossing. See 49 CFR 222.21(a). In general, the regulations require locomotive engineers to begin to sound the train horn for a minimum of 15 seconds, and a maximum of 20 seconds, in advance of public grade crossings. See 49 CFR 222.21(b)(2). Engineers must also sound the train horn in a standardized pattern of two long, one short and one long blast and the horn must continue to sound until the lead locomotive or train car occupies the grade crossing. See 49 CFR 222.21(a). Additionally, the minimum sound level for the locomotive horn is 96 dB(A), while the maximum sound level is 110 dB(A). See 49 CFR 229.129(a).

Research and years of experience show that the use of train horns, flashing lights, and gates—in concert—at grade crossings are extremely effective in preventing accidents and their resulting injuries and deaths. The use of the locomotive horn while trains are

approaching public highway-rail grade crossings provides an important safety warning to pedestrians and motorists who are on or approaching the crossings. FRA conducted a nationwide study that showed there is a 66.8-percent increase in crossing collisions at crossings equipped with automatic warning devices consisting of flashing lights and gates when train horns are not routinely sounded.

### **Establishing a quiet zone**

FRA regulations authorize only public authorities to establish quiet zones. See 49 CFR 222.37(a). At a minimum, new quiet zones must be at least one-half mile in length and contain at least one public grade crossing (i.e., a location where a public highway, road, or street crosses one or more railroad tracks at grade). See definition of “quiet zone” in 49 CFR 222.9 and 222.35(a). Every public grade crossing in a quiet zone must be equipped at a minimum with active grade crossing warning devices consisting of flashing lights and gates. See 49 CFR 222.35(b).

If a public authority wants to establish a new quiet zone that will include a pedestrian crossing, a private highway-rail grade crossing that allows access to the public, or a private highway-rail grade crossing that provides access to an active industrial or commercial site, a diagnostic team (made up of representatives from the railroad, relevant State agencies, the public authority, and FRA, if possible) must evaluate the pedestrian or private highway-rail grade crossing and the crossing must be equipped or treated in accordance with the diagnostic team recommendations. See 49 CFR 222.25(b)(1) and 222.27(b). In addition, FRA has interpreted 49 CFR part 222 to require that any private highway-rail grade crossing or pedestrian crossing in a quiet zone must be located either

between the public grade crossings that serve as quiet zone endpoints or within one-quarter mile of the quiet zone endpoints.

Public authorities can establish quiet zones through either the public authority designation process or the public authority application process to FRA. See 49 CFR 222.39(a) and (b), respectively. Because the absence of routine horn sounding at public grade crossings increases the risk of a crossing collision, in most circumstances the regulations require public authorities seeking to establish quiet zones to mitigate additional risk. Public authorities that wish to reduce existing risk levels within the proposed quiet zone can implement certain specified pre-approved crossing improvements (i.e., Supplementary Safety Measures (SSMs)) to reduce the proposed quiet zone's risk level to an acceptable level. These improvements include: roadway medians or channelization devices to discourage motorists from driving around a lowered crossing gate; a four-quadrant gate system to block all lanes of highway traffic; converting a two-way street into a one-way street and installing crossing gates, and permanent or temporary (nighttime) closure of the crossing to highway traffic. See Appendix A to 49 CFR part 222. Public authorities that rely exclusively on SSMs to reduce existing risk levels within the proposed quiet zone to an acceptable level can establish quiet zones through the public authority designation process (i.e., without specific FRA approval). See 49 CFR 222.39(a). However, public authorities that want to implement Alternative Safety Measures (ASMs), i.e., modified SSMs or certain specified non-engineering crossing improvements, within a proposed quiet zone must apply for FRA approval of the effectiveness rate (i.e., the amount of risk that is mitigated by

deployment of a safety measure at a crossing) that will be assigned to the crossing improvement(s).

As an alternative, communities may also choose to silence routine locomotive horn sounding through the installation of wayside horns at public grade crossings. Wayside horns are train-activated stationary acoustic devices at grade crossings that are directed at highway traffic as a one-for-one substitute for train horns.

During the new quiet zone establishment process, the regulations require public authorities to provide a Notice of Intent to the railroads that operate within the quiet zone, and to the State agencies responsible for highway and grade crossing safety, to solicit comments on the proposed quiet zone. See 49 CFR 222.43(a). However, a quiet zone may not take effect until all the necessary safety measures have been installed and are operational. See 49 CFR 222.43(d)(2). The regulations also require the public authority to provide a Notice of Quiet Zone Establishment to all affected parties before the quiet zone is established, including all railroads that operate over crossings within the proposed quiet zone, State agencies responsible for highway and grade crossing safety, and FRA. See 49 CFR 222.43(a)(3). The Notice of Quiet Zone Establishment must provide the date when the quiet zone will take effect, which cannot be less than 21 days after the date on which the Notice of Quiet Zone Establishment is mailed. See 49 CFR 222.43(d).

### **Request for Comments**

While FRA solicits discussion and comments on all of 49 CFR part 222, we particularly encourage comments on the following questions:

- How can FRA decrease the barriers local communities encounter when

establishing a quiet zone?

- Should 49 CFR part 222 allow greater variances in highway-rail configurations when determining safety calculations for local communities establishing quiet zones? If so, what variances would be appropriate?
- Should FRA amend Appendix A to 49 CFR part 222 to include common alternative grade crossing safety measures and emerging grade crossing safety technologies? If so, what measures and technologies would be appropriate?
- What further actions can FRA take to mitigate train horn noise impacts for local communities while not decreasing safety for motorists and pedestrians?
- How can FRA change how train horns are sounded at grade crossings while not decreasing safety for motorists and pedestrians?
- Should railroads be required to file an official opinion of support or opposition to the establishment of a new quiet zone?
- Should train speed be a factor that is considered when establishing a new quiet zone?
- Should there be an online process for submitting quiet zone notices, applications, and required paperwork, in whole or in part?
- Should FRA be a required recipient of the Notice of Intent to establish a quiet zone?
- Should FRA provide additional guidance on how to measure the length of a quiet zone? If so, what guidance would be helpful?

- Should FRA develop a process to address modifications to grade crossings within an existing quiet zone? If so, please describe what process would be helpful?
- Should FRA require diagnostic reviews for all grade crossings within proposed quiet zones instead of requiring them only for pedestrian (pathway) grade crossings and private grade crossings that allow access to the public or which provide access to active industrial or commercial sites?
- How should FRA address safety measures that no longer meet the requirements for SSMs or ASMs?

Issued in Washington, DC, on February 29, 2016.

Sarah E. Feinberg,  
Administrator.

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