

RECORD OF DECISION

USE OF LOCOMOTIVE HORNS FINAL RULE

FEDERAL RAILROAD ADMINISTRATION

DECISION

This Record of Decision (ROD) contains the reasoning employed by the Federal Railroad Administration (FRA) to reach a decision on issuance of the Final Rule on the Use of Locomotive Horns at Highway-Rail Grade Crossings. It is supported by the much more detailed analysis included in the preambles to the Interim Final Rule on the Use of Locomotive Horns at Highway-Rail Grade Crossings (Interim Final Rule) and Final Rule. On December 5, 2003, Federal Railroad Administrator Allan Rutter approved the Final Environmental Impact Statement (EIS) for the Interim Final Rule. The final EIS notice of availability was published in the Federal Register by the Environmental Protection Agency (EPA) on January 2, 2004.

After carefully considering all of the information in the public record including: technical support documents, public and agency comments submitted on the draft EIS and final EIS and on the Notice of Proposed Rulemaking and the Interim Final Rule, public and agency comments at hearings, and the final EIS, the FRA has decided to proceed with the Action Alternative by issuing a Final Rule, which is being published in the Federal Register on April 27, 2005. The Action Alternative was identified as the agency's Proposed Action in the final EIS. This Record of Decision (ROD) explains the agency's decision and accompanies the release of the Final Rule. The preambles to the Final Rule and Interim Final Rule also contain exhaustive discussions of the history of the locomotive horn rule proceeding and the basis for the agency's decisions in this complicated rulemaking. The Interim Final Rule was published in the Federal Register on December 18, 2003.

The final EIS considered a No Action alternative and an Action alternative implementing the Interim Final Rule. In the EIS, FRA found that the Action Alternative would have impacts on the human environment with respect to noise and safety at over 150,000 locations across the United States, which would occur and accrue over a period of years after the rule goes into effect. The EIS found that while there is the potential for adverse noise impacts at existing whistleban locations (approximately 2,400), the Action Alternative would enable more than half of these locations to be converted into quiet zones without initial improvements and would provide opportunities to convert other whistleban locations to quiet zones with the application of safety measures. The final EIS also concluded that implementation of the Action Alternative is expected to have important public safety benefits in terms of lives saved as well as injuries and accidents averted.

FRA provided printed summaries of the final EIS by mail, with a letter announcing the availability of the final EIS on the agency's website, to approximately 600 persons and agencies that had commented on or expressed an interest in the draft EIS. Only EPA commented on the Final EIS, and they indicated no objection to the Proposed Action.

After reviewing approximately 1,400 comments on the Interim Final Rule, FRA is now issuing a final rule that clarifies certain provisions in the Interim Final Rule and addresses comments raised on a number of issues. The Final Rule will have beneficial environmental impacts and while having the potential for some adverse environmental impacts, integral provisions can fully mitigate those adverse impacts. The Final Rule will become effective on June 24, 2005 because delaying the effective date of the Interim Final Rule satisfied the one-year statutory delay requirement.

In selecting the Action Alternative, FRA has determined that the Action Alternative is not only the preferred alternative from an overall standpoint, but also the preferred alternative from an environmental standpoint. From an overall standpoint, FRA is responsible for promoting the safety of America's railroads for both railroad employees and the public. Collisions at highway-rail crossings are one of the leading causes of death and serious injury associated with railroad operations. Congress enacted the requirement for the FRA to issue a rule requiring the use of locomotive horns at public highway-rail crossings to address the safety implications of the adoption of whistle bans by local communities across the Nation. As noted above, the Final Rule will have important safety benefits by saving lives and avoiding injuries.

Implementation of the Final Rule will not only have important safety benefits but will set a maximum horn sound level that would reduce community noise impacts nationally and provide an opportunity for communities to create new quiet zones or retain existing quiet conditions, which can fully mitigate potential direct noise impacts. The Final Rule also defers action with respect to Chicago Region no whistle grade crossings as described in greater detail below.

BACKGROUND

On November 2, 1994, Congress passed Public Law 103-440 ("Act"), which added section 20153 to title 49 of the United States Code ("title 49"). Subsections (i) and (j) were added on October 9, 1996 when section 20153 was amended by Public Law 104-264. The Act requires the use of locomotive horns at public grade crossings, but gives FRA the authority to make reasonable exceptions.

On January 13, 2000, FRA published a NPRM in the Federal Register (65 FR 2230) and Draft EIS addressing the use of locomotive horns at public highway-rail grade crossings. Due to the substantial and wide-ranging public interest in the NPRM, FRA conducted a series of public hearings throughout the United States in which local citizens, local and State officials, Congressmen, and Senators provided testimony. Twelve hearings were held on the NPRM and

Draft EIS (Washington, DC; Fort Lauderdale, Florida; Pendleton, Oregon; San Bernadino, California; Chicago, Illinois (four hearings were held in the greater Chicago area); Berea, Ohio; South Bend, Indiana; Salem, Massachusetts; and Madison, Wisconsin) at which more than 350 people testified.

FRA solicited comments from the public on the Draft EIS as well as on the NPRM. By the close of the comment period on May 26, 2000, approximately 3,000 entries had been filed in the docket regarding the NPRM. During this comment period approximately 950 individuals and organizations commented on the Draft EIS, who made distinct comments totaling almost 1,900 written comments and approximately 1,000 oral comments.

On December 18, 2003, FRA published an Interim Final Rule in the Federal Register (68 FR 70586) and a Final EIS. Because the Interim Final Rule had the same force and effect as a final rule, FRA delayed the effective date of the Interim Final Rule for one year, in order to comply with 49 U.S.C. 20153(j) and to give public authorities sufficient time to prepare for quiet zone implementation before the rule's locomotive horn sounding requirements took effect. Even though FRA could have proceeded directly to the final rule stage, FRA chose to issue an interim final rule in order to give the public an opportunity to comment on changes that had been made to the rule. FRA also held a public hearing on the Interim Final Rule 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.

ALTERNATIVES CONSIDERED

FRA considered the Proposed Action and the No-Action Alternative in the final EIS.

The No-Action Alternative would preserve the status quo: states and municipalities could try to regulate the sounding of locomotive horns while railroads could continue to resist such regulation through litigation and other means. This rule is a statutory obligation and that does not provide the FRA with the authority to implement the No-Action Alternative. Adoption of the No-Action Alternative would involve congressional action to reverse its mandate to require the use of locomotive horns at highway-rail grade crossings as set forth in 49 U.S.C. 20153.

The Proposed Action would satisfy the statutory requirements of 49 U.S.C. 20153 and would address FRA concerns regarding horn sounding. First, the Proposed Action requires that horns be sounded at public at-grade highway-rail crossings in the United States. Second, it sets a maximum sound level for the sounding of locomotive horns. Third, it prescribes how and when locomotive horns are to be sounded. Fourth and finally, it provides an opportunity for any community in the nation to establish a quiet zone.

PURPOSE AND DESCRIPTION OF THE PROPOSED ACTION

FRA is issuing the train horn rule to satisfy the statutory requirements of 49 U.S.C. 20153 in a manner consistent with maximizing railroad safety, making regulations related to railroad safety nationally uniform to the extent practicable (49 U.S.C. 20106) and consistent with other Department of Transportation initiatives and programs related to the safety of highway-rail grade crossings, and minimizing the impact of train horn noise where possible without compromising safety.

The opportunities to establish a quiet zone are intended to minimize potential direct noise impacts in communities that are now subject to whistle bans and assist communities that may want to establish quiet zones in the future. The Final Rule delineates and describes a series of supplementary and alternative safety measures that can be employed to establish a quiet zone. These provisions constitute a means of substituting other safety measures for locomotive horns. Establishment of a quiet zone can fully mitigate any potential direct adverse noise impact of the locomotive horn rule.

As required by 49 USC 20153, FRA has taken into account the interest of communities that either have whistle bans in effect or are not currently subject to the routine sounding of locomotive horns. In implementing the rule, FRA will work in partnership with affected communities to provide technical assistance and allow a reasonable amount of time for the communities to install added safety measures.

This Final Rule complies with the statutory mandate contained within section 20153 of title 49 of the United States Code. With the exception of Chicago Region no whistle grade crossings, the Final Rule retains the locomotive horn sounding requirement for trains that approach and enter public highway-rail grade crossings. (See rule § 222.21.) However, the rule contains exceptions for certain categories of rail operations and highway-rail grade crossings, in accordance with 49 U.S.C. 20153(c)(1). Section 222.33 of the rule provides that a railroad operating over a public highway-rail grade crossing may, at its discretion, choose not to sound the locomotive horn if the locomotive speed is 15 miles per hour or less and the train crew or appropriately equipped flaggers provide warning to motorists. FRA has determined that these limited types of rail operations do not present a significant risk of loss of life or serious personal injury.

The rule also contains an exception for highway-rail grade crossing corridors that are equipped with Supplementary Safety Measures (SSMs) at each public highway-rail grade crossing, or that have a Quiet Zone Risk Index at or below the Nationwide Significant Risk Threshold or the Risk Index With Horns. These highway-rail grade crossing corridors have been deemed, by the Administrator, to constitute a category of highway-rail grade crossings that do not present a significant risk with respect to loss of life or serious personal injury and/or fully compensate for the absence of the warning provided by the locomotive horn. Therefore, communities with grade crossing corridors that meet either of these

standards may silence the locomotive horn within the crossing corridor, if all other applicable quiet zone requirements have been met. (See § 222.39)

Section 20153(i) of title 49 requires FRA to “take into account the interest of communities that have in effect restrictions on the sounding of a locomotive horn at highway-rail grade crossings”. FRA has complied with this requirement in several ways. The rule allows Pre-Rule Quiet Zone communities to continue to silence the locomotive horn, without any additional safety improvements, if the Quiet Zone Risk Index is at, or below, two times the Nationwide Significant Risk Threshold and there have not been any relevant collisions within the quiet zone during the five years preceding April 27, 2005. (See § 222.41] It should also be noted that Pre-Rule Quiet Zone communities can continue to silence the locomotive horn, without any additional safety improvements, if SSMs have been implemented at every public grade crossing within the quiet zone or if the Quiet Zone Risk Index is at, or below, the Nationwide Significant Risk Threshold or the Risk Index With Horns.) Additionally, the rule allows Pre-Rule Quiet Zone communities to take additional time (up to 8 years from the effective date of the Final Rule) within which to implement safety improvements that will bring them into compliance with the requirements of the rule. This “grace period” has been included in the rule in order to comply with 49 U.S.C. 20153(i)(2), which requires FRA to provide “a reasonable amount of time for [pre-existing whistle ban] communities to install SSMs”.

Section 20153(d) of title 49 states that “. . . the Secretary may not entertain an application for waiver or exemption of the regulations issued under this section unless such application shall have been submitted jointly by the railroad carrier owning, or controlling operations over, the crossing and by the appropriate traffic control authority or law enforcement authority.” However, section 20153(i) authorizes the Secretary to “waive (in whole or in part) any requirement of this section that the Secretary determines is not likely to contribute significantly to public safety.” Therefore, § 222.15, which governs the process for obtaining a waiver from the requirements of the rule, requires joint filing of waiver petitions by the railroad and public authority, unless the railroad and public authority cannot reach agreement. Should this occur, the FRA Associate Administrator must determine that a jointly filed submission would not be likely to significantly contribute to public safety before waiving the requirement for joint submission.

Section 222.55 addresses the manner in which new SSMs and Alternative Safety Measures (ASMs) are demonstrated and approved for use. Paragraph (c) of this section, which reflects the requirements contained within 49 U.S.C. 20153(e), specifically provides that the Associate Administrator may order railroad carriers operating over a crossing or crossings to temporarily cease sounding the locomotive horn at the crossing(s) to demonstrate proposed new SSMs and ASMs that have been subject to prior testing and evaluation.

Section 20153(f) of title 49 explicitly gives discretion to the Secretary as to whether private highway-rail grade crossings, pedestrian crossings, and crossings utilized primarily by nonmotorized and other special vehicles should

be subject this regulation. FRA has decided to refrain from exercising jurisdiction over crossings utilized primarily by nonmotorized and other special vehicles in this Final Rule. FRA has, however, exercised its jurisdiction, in a limited manner, over private grade and pedestrian crossings. Locomotive horn use at private grade and pedestrian crossings will be subject to the requirements of this rule, if the private grade or pedestrian crossing is located within a quiet zone. Sections 222.25 and 222.27 address the specific requirements that pertain to private grade and pedestrian crossings within quiet zones.

Section 222.7 contains a concise statement of the rule's impact with respect to 49 U.S.C. 20106 (national uniformity of regulation). This statement of the rule's effect on State and local law, which was required by 49 U.S.C. 20153(h), provides that the rule, when effective, will preempt most State and local laws that govern locomotive horn use at public highway-rail grade crossings. However, as stated in section 222.7(b) and described below, the rule will not preempt State and local laws governing locomotive horn use at Chicago Region highway-rail grade crossings where railroads were excused from sounding the locomotive horn by the Illinois Commerce Commission, and where railroads did not sound the horn, as of December 18, 2003. In addition, State and local laws that govern routine locomotive horn use at private grade and pedestrian crossings outside quiet zones will not be preempted.

Lastly, this rule complies with the statutory one-year delay requirement. Section 20153(j) of title 49 prohibits any regulations issued under its authority from becoming effective before the 365th day following the date of publication of the final rule. Since the Interim Final Rule had the same force and effect as a final rule, FRA delayed the effective date of the Interim Final Rule for more than a year in order to comply with this requirement.

Important issues surrounding the statistical analysis of crossing data for the Chicago Region (defined as the following six counties in the Chicago Region: Cook, DuPage, Lake, Kane, McHenry and Will) have led FRA to conclude that highway-rail grade crossings in the Chicago Region at which railroads were excused from sounding the locomotive horn by the Illinois Commerce Commission, and where railroads did not sound the locomotive horn, as of December 18, 2003 should be excepted from the Final Rule pending further analysis. FRA has decided that it is prudent to inquire further into whether known data quality issues—which themselves cannot be effectively addressed by FRA without cooperation from other parties—have the potential to adversely affect the Chicago Region analysis.

Therefore, FRA will arrange for an independent peer review of its conclusion on this issue before issuing an amendment to this final rule which will address Chicago Region crossings. FRA will respond to the “peer review report” and place a copy of its response in the public docket.

Pending completion of this Chicago Region re-analysis, FRA is excepting existing Chicago Region no whistle crossings from the requirement to sound the

train horn. It is FRA's intention to leave those crossings—and those crossings alone—subject to existing Illinois State Law pending the further rulemaking described above.

ENVIRONMENTAL COMMENTS ON THE INTERIM FINAL RULE

Les Blomberg, Mark Garvey, Ray Winters and Robert Guttman commented on the Interim Final Rule and raised questions about the consideration of potential health effects from train horns. Les Blomberg commented that OSHA regulations, while inadequate, should be applied with other criteria to assess the general population risk of hearing loss in the from train horn noise. He stated that FRA did not research the potential health effects of noise. Further Les Blomberg commented that train horns expose persons adjacent to tracks on public or private property to noise levels that can cause hearing loss. Mark Garvey commented that FRA's survey of scientific literature was bad. Ray Winters commented that buildings adjacent to railroad tracks could channel horn noise. Robert Guttman commented that train horn noise causes OSHA problems for properties abutting railroad tracks. Another comment from the Concerned Citizens of Newbury suggested that the number of persons potentially impacted by the resumption of horn sounding there was higher than the number reported in the FEIS.

FRA did address the potential health effects of train horn noise in the DEIS and FEIS. FRA prepared a literature summary report of published scientific studies titled "General Health Effects of Transportation Noise", cited the report in the FEIS and made it available on the internet. Furthermore, the Final Rule is likely to decrease the train horn noise exposure of persons nationally. Given that horn noise is not being increased, except at the few indeterminate locations where whistlebans are canceled, the potential for health effects in the US population due to train horn noise would be expected to decrease. Even if a practical method were available to measure such risk, the conclusion would not be expected to differ.

OSHA standards exist to protect employees in the workplace from among other things physical damage from noise exposure leading to hearing loss. Railroad operating employees whose principal exposure is in the locomotive cab are currently protected by 49 CFR § 229.121 (in lieu of OSHA general industry requirements), and FRA has proposed revisions to the regulation which will include hearing conservation measures similar to those required by OSHA in the future (69 FR 35146; June 23, 2004). All major railroads have provided and required use of hearing protectors where exposures would otherwise exceed the permissible dose.

FRA is not aware that intermittent horn sounding places abutters in violation of OSHA regulations and the highly site-specific nature of this condition makes it impractical to analyze on a national basis. However, exposure of most persons to horn noise occurs outdoors from train horn use as a warning device. This type of exposure to horn noise only momentarily reaches the highest levels when the moving train passes the person adjacent to the tracks. Persons in

buildings or vehicles are shielded from this noise and their exposure is lessened. Hearing loss can result from extended exposure to similar noise levels but not from momentary exposure of train horn noise at the levels reached near railroad lines, even if repeated occasionally. In addition, train air horns have been in common use for the better part of a century and no data is available to suggest that standard warning signals from train horns have caused hearing loss amongst bystanders. The typical response of bystanders is to move away from the train both to reduce their noise exposure and to maintain a safe distance from the train. Additionally, persons in buildings close to the tracks are not likely to be subject to injurious noise levels from train horns because buildings act as barriers and insulators to the train noise.

The calculations of persons potentially impacted by the resumption of train horn sounding in communities with whistle bans was based upon contemporary highway-rail grade crossing inventory information and a calibrated train horn impact calculation model. The FRA noise impact assessment methodology adds train horn noise events within a 24-hour period and compares the train horn noise to existing noise to determine the impact area. The suggested simple circle around a grade crossing of $\frac{1}{2}$ or $\frac{1}{4}$ mile radius would not accurately represent the effect of train horn noise exposure.

MEASURES TO MINIMIZE HARM

The Final Rule will reduce total noise exposure nationwide by setting a maximum horn sounding duration and a maximum horn sound level. These provisions will apply to all crossings and will eliminate existing estimated impacts to more than 3.4 million persons, 1.9 million of them with severe impacts. This will reduce horn noise impacts by an estimated 38 percent nationwide.

The potential adverse noise impacts of the rule on populations adjacent to existing whistleban crossings were analyzed in the final EIS although FRA expects most whistlebans to convert to Pre-Rule Quiet Zones. Using empirical information about locomotive horn sound, current population statistics, and computer models, potential noise impacts were modeled to estimate the maximum number of people potentially affected in the vicinity of about 1,600 crossings with current whistle bans. Because FRA estimates that approximately 66% of whistleban crossings may be eligible for conversion to Pre-Rule Quiet Zones without any initial improvements, the potential for adverse noise impacts is much less than the final EIS noise analysis indicated. FRA also estimates that only 2% of current whistleban crossings are likely to be discontinued and that most needed improvements will be made so that whistlebans can be converted into Quiet Zones. Additionally, any persons impacted would also share in the benefits of the maximum horn sound level and horn sounding duration provisions of the rule.

Provisions that reduce existing horn noise exposure as well as potential direct noise impacts are a prominent feature of the Final Rule. These provisions will allow affected communities to create new quiet zones or retain existing quiet

zones. In addition, the provisions for a maximum horn sound level and duration limits will reduce community noise impacts nationally. These provisions reflect the intent of Congress and meet the requirements for an integral opportunity for mitigation set forth in 49 U.S.C. 20153 and would be available to all localities, including those communities that do not currently have whistle bans.

To make quiet zones both effective and available, the Final Rule details a list of SSMS and ASMS that would be available to local jurisdictions that wish to avoid potential noise impacts in their communities. As provided for in the Final Rule, communities will have the sole discretion to designate a quiet zone, if the SSMS listed in Appendix A of the Final Rule are used. Alternatively, a community may implement ASMS at some or all of the crossings within a quiet zone upon demonstrating the total effectiveness of these measures to FRA. FRA is prepared to provide technical assistance to communities seeking to implement quiet zones, including information regarding public education and awareness resources.

FRA views the provisions for quiet zones as an ample and unlimited measure to address and mitigate direct horn noise impacts that would be available to all localities, including those communities that do not currently have whistle bans. FRA is also confident that many communities will seek to formally adopt quiet zones to further mitigate locomotive horn noise impacts. FRA estimates that over half of the current whistle ban crossings would not require any improvements for inclusion in pre-rule quiet zones that would maintain the existing prohibition on the sounding of locomotive horns. Accordingly, FRA has concluded that all practicable means to avoid or minimize environmental harm from the selected alternative have been included.

CONCLUSION

Based on the factors outlined above, it is my decision to approve the Use of Locomotive Horns Final Rule.

/s/ Robert D. Jamison

Acting Administrator

Federal Railroad Administration

Date: April 21, 2005