

prediction value for that crossing must be recalculated for the new warning device. Determine the new risk index for the upgraded crossing by using the new accident prediction value in the severity risk index formula. This new risk index is then used to compute the new Quiet Zone Risk Index. (Remember that FRA's web-based Quiet zone Calculator will be able to do the actual computations.) Once the Quiet Zone Risk Index has been reduced to equal to, or less than, either the Nationwide Significant Risk Threshold or the Risk Index with Horns, the quiet zone has qualified for the Public Authority Designation method, and notification may take place once all the necessary improvements have been installed. If quiet zone is established by reducing the Quiet Zone Risk Index to equal to, or less than, the Nationwide Significant Risk Threshold, FRA will annually recalculate the Nationwide Significant Risk Threshold and the Quiet Zone Risk Index. If the Quiet Zone Risk Index for the quiet zone is above the Nationwide Significant Risk Threshold, FRA will notify the public authority so that appropriate measures can be taken (See § 222.51(a)).

**Note:** The provisions stated above for crossing closures, grade separations, and wayside horns apply for Public Authority Designation.

#### *D. Pre-Rule Quiet Zones—Public Authority Application to FRA*

The following discussion is meant to provide guidance in the steps necessary to establish a Pre-Rule Quiet zone using the Public Authority Application to FRA method.

1. All of the items listed in "Requirements for both Public Authority Designation and Public Authority Application—Pre-Rule Quiet Zones" previously mentioned are to be accomplished. Remember that a Pre-Rule Quiet Zone may be less than one-half mile in length if that was its length as of October 9, 1996. Also, a Pre-Rule Quiet Zone does not have to have automatic warning devices consisting of flashing lights and gates at every public crossing.

2. Calculate the risk index for each public crossing within the quiet zone (See Appendix D. FRA's web-based Quiet Zone Calculator may be used to simplify the calculation process). If the Inventory record does not reflect the actual conditions at the crossing, be sure to use the conditions that currently exist when calculating the risk index.

3. The Crossing Corridor Risk Index is then calculated by averaging the risk index for each public crossing within the proposed quiet zone. Since train horns are not being sounded for crossings, this value is actually the initial Quiet Zone Risk Index.

4. Calculate Risk Index with Horns by the following:

a. For each public crossing, divide its risk index that was calculated in Step 2 by the appropriate value in Table 1. This produces the risk index that would have existed had the train horn been sounded.

b. Average these reduced risk indices together. The resulting average is the Risk Index with Horns.

5. Begin to reduce the Quiet Zone Risk Index through the use of ASMs and/or SSMs.

Follow the procedure the provided in Step 6—Public Authority Designation until the Quiet Zone Risk Index has been reduced to a level equal to, or less than, either the Nationwide Significant Risk Threshold or the Risk Index with Horns. A public authority may elect to upgrade an existing warning device as part of its Pre-Rule Quiet Zone plan. When upgrading a warning device, the accident prediction value for that crossing must be re-calculated for the new warning device. Determine the new risk index for the upgraded crossing by using the new accident prediction value in the severity risk index formula. (Remember that FRA's web-based quiet zone risk calculator will be able to do the actual computations.) This new risk index is then used to compute the new Quiet Zone Risk Index. Effectiveness rates for ASMs should be provided as follows:

a. Modified SSMs—Estimates of effectiveness for modified SSMs may be proposed based upon adjustments from the benchmark levels provided in Appendix A or from actual field data derived from the crossing sites. The application should provide an estimated effectiveness rate and the rationale for the estimate.

b. Non-engineering ASMs—Effectiveness rates are to be calculated in accordance with the provisions of appendix B, paragraph 2(b).

6. Once it has been determined through analysis that the Quiet Zone Risk Index has been reduced to a level equal to, or less than, either the Nationwide Significant Risk Threshold or the Risk Index with Horns, the public authority may make application to FRA for a quiet zone under § 222.39(b). FRA will review the application to determine the appropriateness of the proposed effectiveness rates, and whether or not the proposed application demonstrates that the quiet zone meets the requirements of the rule. When submitting the application to FRA for approval, it should be remembered that the application must contain the following (§ 222.39(b)(1)):

a. Sufficient detail concerning the present safety measures at the public crossings within the proposed quiet zone. This includes current and accurate crossing inventory forms.

b. Detailed information on the SSMS's, ASM's, or upgraded warning devices that are proposed to be implemented and at which public crossings within the proposed quiet zone.

c. Membership and recommendations of the diagnostic team (if any) that reviewed the proposed quiet zone.

d. A commitment to implement the proposed safety measures.

e. Demonstrate through data and analysis that the proposed measures will reduce the Quiet Zone Risk Index to, or below, either the Nationwide Significant Risk Threshold or the Risk Index with Horns.

f. A copy of the application must be provided to the parties listed under Required Notifications.

7. Upon receiving written approval from FRA of the quiet zone application, the public authority may then proceed with notifications and implementation of the quiet zone. If the quiet zone is established by reducing the Quiet Zone Risk Index to a level

equal to, or less than, the Nationwide Significant Risk Threshold, FRA will annually recalculate the Nationwide Significant Risk Threshold and the Quiet Zone Risk. If the Quiet Zone Risk Index for the quiet zone is above the Nationwide Significant Risk Threshold, FRA will notify the public authority so that appropriate measures can be taken (See § 222.51(a)).

**Note:** The provisions stated above for crossing closures, grade separations, and wayside horns apply for Public Authority Application to FRA as well.

#### **Section IV—Required Notifications**

A. The public authority responsible for the creation of a New Quiet Zone or the continuation of a Pre-Rule Quiet Zone, is required to provide notification to parties that will be affected by the quiet zone. The notification process is to ensure that interested parties are made aware in a timely manner of the establishment or continuation of quiet zones. Specific information is to be provided so that the crossings in the quiet zone can be identified. The method used to qualify or continue the quiet zone is to be given. The notification process also includes additional information that must be provided to FRA. Once the rule becomes effective, railroads will be obligated to sound train horns when approaching all public crossings unless notified in accordance with the rule that a New Quiet Zone has been established or that a Pre-Rule Quiet Zone is being continued.

The time frames for the notification process is as follows:

- New Quiet Zones—Notification of the establishment of a New Quiet Zone under § 222.39 must be mailed at least 21 days before the routine sounding of train horns for public crossings is to cease (§ 222.43(a)(2)(i)). The routine use of train horns at public crossings will not cease unless the proper notification has been given.

- Pre-Rule Quiet Zones—Notification of the continuation of a Pre-Rule Quiet Zone under § 222.41 must be served no later than December 18, 2004 (§ 222.43(a)(2)(ii)). Failure to provide the required notice will result in the commencement of the sounding of train horns at public crossings on this date.

#### *B. Parties To Be Notified*

The public authority that is implementing a New Quiet Zone or is continuing a Pre-Rule Quiet Zone must provide notification of the quiet zone by certified mail, return receipt requested, to the following (see § 222.43(a)(1)):

- All railroads operating over the crossings within the quiet zone.
- The highway or traffic control authority, or law enforcement authority having control over vehicular traffic at crossings within the quiet zone.
- The State agency responsible for highway and road safety.
- All landowners owning a private crossing within the quiet zone.
- The Associate Administrator.

#### *C. Required Information*

The quiet zone implementation notification should contain the following information (§ 222.43(a)(3)):