

Reconciliation of State and Railroad Databases with the US DOT National Crossing Inventory File

Background

Almost all States and major Railroads (Agency) have medium or large size database files for their crossing inventory records. The major issue is to use this data to update the US DOT National Crossing Inventory File (National File). However, the process to do this can be daunting and it can become a mess if the Agency just sends their current data to FRA to update the National File. All sorts of problems can occur if this is tried. However, with the existence of the new Law, the RSIA 2008, updating the National File is mandatory. So, the question becomes, what is the best way to start the process of updating the National File with the Agency's current data.

First, the Agency must realize that the data fields that they intend to update **MUST** be compatible with the FRA National File and in the correct format. These fields are defined in the "Data Field Specification" located on the Crossing Inventory Webpage at <http://www.fra.dot.gov/us/content/801/>. While some Agencies have established their database with this requirement, others may have to do some reprogramming to get their databases to match. However, even without this compatibility of data fields, much can be done to make the two files equivalent for the number and type of crossings that exist and are open. This is the first place to start.

FRA recommends a three phase process when starting to reconcile the National File with the Agency's Database. Phase I is to just get the number of open crossings to agree in both Files. Phase II is to get reconciliation between the two Files with the Type/Position, and the correct Railroad or State, and/or County. Phase III is to update the remainder of the data fields where there is a complete match in Phases I and II by any of the various methods available.

Phase I. Validate Crossing Numbers for All Open Crossings

To begin Phase I, create a data file of just the open crossings in the Agency's database. This can be done by creating them in an Excel file, or other type of file. Then, send the file to FRA's Data Processing Contractor (CITI) at:

Inventory Crossing Updates
Creative Information Technology, Inc.
FRA Project Office
4601 N. Fairfax Drive, Suite 1100
Arlington, VA 22203

It is recommended that the Agency make contact with CITI staff before sending the file. CITI staff can be contacted at 703-548-3313, or by email at Support@frasafety.net, or at the FRA Project Office Helpdesk at 1-888-372-9393. When the Agency's database file is sent, the Agency should simply request a comparison of the Agency's file with the National File.

CITI will compare the Agency's file with the State or Railroad data in the National File and identify the differences, or discrepancies. These will consist of (1) open crossings in the National File that were not provided (as open) in the Agency's Crossing Number File (thus, closed or non-existent in the Agency's file), (2) crossings that are in the Agency's file, but that are not in the National File, (3) crossings that are shown as Closed in the National File, but are included as Open in the Agency's file, and (4) possibly some other anomalies. This information will be provided to the Agency to resolve, which will usually be no small task.

The Agency can perform this Phase I themselves by downloading the data directly from FRA's Safetydata Website at <http://safetydata.fra.dot.gov/officeofsafety/>, click on "Downloads" and follow the prompts. This will work well for States because the Download process is by State. For Railroads that operate in just a few States, this may not be a problem. They will just have to download the data from the States in which they operate. But, for the major Class I Railroads, this would be very time consuming, so it is best to contact the Data Processing Contractor directly to obtain a file of the data for their complete Railroad.

Once the Agency determines the differences or discrepancies, they should begin work on resolving them. The Agency should immediately send crossing records to FRA for any crossings that exist in the Agency's database and that are not in the National File. Crossings that are in the National File, but not in the Agency's database, will need to be investigated, possibility requiring a site visit to determine the status. Then, the appropriate action should be taken. The same process will also be required for crossings shown as Closed in the National File, but Open in the Agency's database. The crossing status will need to be determined in order to correct the appropriate data file. If any crossings are correctly open, CITI should be notified of this fact and instructed to re-open the crossings if the National File shows them as closed.

Phase II. Validate Crossing Type/Position and State/Railroad All Open Crossings

While the Phase I investigation of the discrepancies is taking place, Phase II can begin for the balance of the crossings that match in the two Files. The next step is to check the Type/Position of the crossings, that is, whether it is Public, Private, or Pedestrian, and either at-grade or grade-separated. Also, the correct State (and possibly County) and/or Railroad Company should be checked depending on whether the Agency is a Railroad or State, respectively. This process will most probably will again create a list of discrepancies that will need to be resolved, and again may take a significant amount of time, and possibility site visits to confirm the status. Once again, CITI should be notified of the results and instructed to make the appropriate changes or corrections.

Phase III. Update All Fields for All Open Matching Crossings

Once Phases I and II are essentially complete and the majority of the discrepancies resolved, then begin Phase III which is to send the data elements to be updated to the processing contractor, CITI. The Agency will now have to refer to the “Data Field Specification,” “Format for Submitting Electronic Updates,” “Frequently Asked Questions,” and other documentation contained on the Inventory Webpage for the correct manner in which to submit updates. Updates must be provided in the correct FRA defined format or the crossing records can not be updated and the updates will not be accepted. It is the Agency’s responsibility to develop the necessary software to provide the data in the correct format.