

US DOT National Highway-Rail Crossing Inventory Program

Frequently Asked Questions

<http://www.fra.dot.gov/us/content/801/>

- Question 1. What types of crossings are crossing inventory numbers required to be assigned and have Inventory Forms submitted to FRA.?

The RSIA 2008 now requires that all crossings, Public, Private, and Pedestrian (Pathway), both at-grade and grade-separated, have a crossing inventory number assigned (including those crossings that are located within a railroad yard, in a port or dock area, or in the private railroad yard of a private company or corporation). Crossings that are located within a railroad yard, in a port or dock area, or in a private rail yard, can have one number assigned to all the crossing locations within the facility. These crossing numbers are also required on FRA Accident Reports in the unfortunate event that a vehicle-train collision should happen. Once a crossing Inventory Number is assigned, an Inventory Form must be completed including all data elements, and submitted to FRA for inclusion in the US DOT National Crossing Inventory File (National File).

- Question 2. Where can I get valid Crossing Inventory Numbers?

Valid Crossing Inventory Numbers are provided by the FRA Crossing Inventory Program Manager in the quantity that you need for any crossings that are not inventoried. See the FRA Crossing Inventory Program Webpage at <http://www.fra.dot.gov/us/content/801/> for details of how to obtain valid numbers under the item, "Assignment of Crossing Inventory Numbers."

- Question 3. How do I update the National Crossing Inventory File for my Railroad or State?

When updating crossing Inventory Information, use Form FRA F 6180.71. Usually the Railroad will initiate the updating process. For changes in data for existing crossings, Items A, B, C, D, and Part I. 1-3 must be provided. You can find additional information on updating your State or Railroad crossing inventory records at the web address http://www.fra.dot.gov/us/content/801 under the section entitled "Inventory Updating and Database Reconciliation Processes."

- Question 4. What information is required when an Inventory Form is provided for a new crossing or one that is not currently in the National Inventory File?

For new or un-inventoried Public highway-rail vehicle at-grade crossings, the Railroad needs to provide complete data for all fields in Parts I - IV, including

the actual values for both Latitude and Longitude in decimal degrees (degrees, decimal degrees, nn.nnnnnnn), and telephone numbers in Fields 31-33. The State needs to provide the data for Part V.

All data must be provided before the record can be processed into the National File. While the State is responsible for Part V, "Highway Information," it is strongly suggested that the Railroad communicate with the State Inventory Contact and/or a local highway engineer to obtain the Part V Highway Information and place it on the Form before moving it forward. By proceeding in this manner, the Railroad will know that the Form has been completed rather than waiting for someone else to complete the process.

For new or previously un-inventoried Private highway-rail vehicle at-grade crossings, Railroads need to provide data for Part I, "Location and Classification Information," including the actual values for both Latitude and Longitude in decimal degrees. They may also provide data for Parts II - IV which will be put into the National File.

For all Pathway (Pedestrian) crossings and grade-separated crossings, Railroads need to provide complete data for Part I only. States are required to insure that all inventory records are updated for all Public Crossings, including Pedestrian and grade-separated, including actual Latitude and Longitude data and the telephone numbers in Fields 31-33.

Question 5. Where do I send hardcopy of completed Inventory Forms?

Completed hardcopy Inventory Forms can be sent to the FRA Inventory Program Manager:

*Thomas P. Woll
Federal Railroad Administration
Office of Safety
1200 New Jersey Ave, SE, Mail Stop 25
Washington, DC 20590
(O) 202-493-6290*

or they can be sent directly to the data processing contractor at:

*Inventory Crossing Updates
FRA Project Office
Creative Information Technology, Inc.
4601 N. Fairfax Drive, Suite 1100
Arlington, VA 22203
(O) 703-548-3313*

Question 6. If I prepare only a few hardcopy submittals, and I have them scanned electronically, how and where do I submit them?

A special email address has been set up to receive such submittals. Send updates of this type to: rxiupdates@frasafety.net. This address goes to FRA's data processing contractor who will process the submittals in accordance with their workload.

Question 7. Can I update crossing records online at the FRA Safetydata Website?

No, there is no provision to update crossing records via the internet at the FRA Safetydata Website. FRA is investigating the possibility of utilizing this method of updating at some time in the future.

However, there is an electronic MS Word (.doc) Fill-in Template of the Inventory Form that can be downloaded and completed using a computer, and then emailed, faxed, or mailed to FRA, or emailed to CITI at rxiupdates@frasafety.net

The Fill-in Template is located at <http://www.fra.dot.gov/us/content/801> under the section "Crossing Inventory Form and Instructions."

Question 8. What if there is no change in the data that currently exists in the National File?

If there is no change in the existing data, and the Railroad or State has verified this, and the crossing is still in existence, then a new Effective Date should be provided that consists of January 1st of the current year. For example, most Pedestrian and grade-separated crossings will not change and the data will remain the same. The Railroad and/or State will need to first verify its continued existence, then check the Location Information to determine that the information is still correct (Railroad Division/Sub-Division names may have changed). If this information is correct and there is no change, then a new Effective Date of 01/01/2009 is assigned if the crossing is updated anytime during the year 2009.

Question 9. Do we have to use the hardcopy or paper Form FRA F 6180.71 for updating, or is there a way that we can send the data electronically?

You do not have to update using only the hardcopy paper Form. You may submit updated data electronically. If you are updating less than 40 crossings, it is usually easier to do it with hardcopy Forms. For more than 40 crossings, it will probably be easier to update electronically. Many of the larger railroads have established electronic databases that can easily transmit updates to FRA electronically; some do it on a monthly basis.

You can also use Excel, or other database formats to submit updates electronically. These formats are described on the FRA Inventory Program Website at <http://www.rfa.dot.gov/us/content/801> . If you plan to update electronically from your State's or Railroad's data file, you need to check with FRA's data processing contractor, Creative Information Technology Incorporated (CITI) before initiating electronic updating to ensure that your submittal method is compatible and can be processed. You may also request a copy of "GX32" which is a software program provided free by FRA for updating Crossing Inventory information.

Question 10. How do I get assistance on how to submit Inventory updates via electronic format, and in a format that is acceptable?

FRA encourages States and Railroads to submit updated data via electronic format. It is usually simpler, more convenient, and more accurate than submitting by other methods. Electronic format that data can be submitted include .mdb, .xls, .txt, and XML. All submittals MUST follow FRA's specifications for Inventory File format. See the "Data Filed Specification" on the Inventory Program Webpage at <http://www.fra.dot.gov/us/content/801> . If you plan to submit electronic updates from a State's or Railroad's database file, the FRA's data processing contractor, CITI, must be contacted first at support@frasafety.net or by calling their Helpdesk at 1-888-372-9393.

Question 11. What is "GX32?"

"GX32" is a Grade Crossing (Xing) software program for updating crossing inventory data on a personal computer that has a Windows (32 bit) operating system. It is free and comes with the specific State's or Railroad's data that is requested. It allows the user to update crossing inventory information similar to the way that one would use income tax software. When the updates are complete, the program allows for electronic submittal to the data processing contractor. To get a free copy of GX32 with your State's or Railroad's data, contact Tom Woll or FRA's data processing contractor, CITI.

GX32 can be installed on a computer for a single user or on a server as a multiuser system. For the single-user system, the GX32 software application and database is installed on a single personal computer. For a multiuser system, the database resides on a network server while the application is installed and operated on various client machines so that several users can access the GX32 database simultaneously.

Question 12. How long does it take for submitted updates to appear on FRA's Website.

Website data is updated once a month. Normally, it takes between 1 to 3 months before updates will appear on the FRA's Website. If data is submitted electronically with the GX32 software, or one of the other previously approved methods used by several large data submitters, it will take about one month. For hardcopy submittals, it will take 2-3 months for the data to be processed and appear on the FRA Website, depending on when during a month the information is submitted.

FRA's contractor processes submittals by month, and uses an extensive data check and editing software program to verify the information before it is added to the National File. Submittals that are provided in one month, are batched after the 15th day of the following month. Then, they are processed and input into a separate 'Updated File' during the next month. The 'Updated File' is then uploaded to the Website during the first week of the next following month.

Question 13. What is the best way to get started updating records for a State or Railroad that has thousands of crossings?

For States and Railroads with a large number of crossings, the best way to get started updating the National File is to first verify the existence of the number of crossings in the National File. This can be accomplished by verification of the crossing number in both the National File and the respective State or Railroad File. Compare only the Crossing Numbers, and then resolve the status of those that don't match (Open or Closed, or non-existent in either file). Next, carry the comparison further by verifying Public versus Private status, and then State or Operating Railroad. Once there is agreement with the existing number of crossings, Open or Closed, whether Public or Private, and in which State or on which Operating Railroad, then the balance of the information can be checked, verified, and updated.

Question 14. How do I get the most recent National Inventory data for our State or Railroad?

The most current National Crossing Inventory data is available for download by State (not by Railroad) from FRA's Safetydata Website at <http://safetydata.fra.dot.gov/officeofsafety/>, click on the "Downloads" tab. This is a database file that can be imported into Excel. The data is available in three separate downloadable files. Select "Highway-Rail Crossing Inventory by State" and follow the direction prompts.

Question 15. We are planning to develop our own database software for our own crossing inventory file. Are there consultants that have done this before that we can contact, and is there anything specific that we should know or do before we get

started?

There are several States and Railroads that have hired consulting firms to develop electronic databases for their crossing inventory records and for managing their crossing improvement program and contracts. Unfortunately, FRA does not have information on all the various firms that have developed such software program applications and databases. You will have to contact the individual States or Railroads to determine those firms that have performed in a satisfactory manner. However, if you contract with a firm directly, instruct them to develop their data file structure to be compatible with the FRA data file so that data can be directly transferred to FRA without conversion. The software developer should first contact FRA and/or FRA's data processing contractor, CITI, before beginning development.

Question 16. Where can I find information regarding the current Format and Description of the Crossing Inventory Data Fields?

This information can be found in the "Data Field Specification" document on the FRA Website at the following Web address:

<http://www.fra.dot.gov/us/content/801>

Question 17. The Act requires States and Railroads to update annually by September 30th of each year after October 16, 2010. Many States perform site inventory inspections on a three-year rotating basis, covering one-third of the crossings annually. Will States be allowed to continue this process?

The Act clearly states that the updating process has to be performed annually by September 30th of the current year after 2010. FRA recognizes that most crossing inventory information will change very little from one year to another, and that this requirement may be unnecessarily too frequent. A change in this statutory requirement will require a rulemaking process. FRA will need to confer with FHWA on this requirement.

However, crossings receiving improvements, such as new warning devices or surface changes, must have this updated information reported when the improvements are completed. This will normally be performed by the Railroad.

Question 18. After October 16, 2010 when all records are supposed to be updated, how will FRA check to see that this is accomplished?

FRA intends to review the National File for all records that have an Effective Date prior to the 2008 Act. This will probably be done in stages, and may even be started before October 16, 2010, to assist States and Railroads in achieving compliance. The earliest records will be reviewed first and Railroads and States

will be requested to update those records as appropriate. Some States have already started this process and have requested lists of crossing inventory records for all of their crossings with dates prior to 2007.

Question 19. What is the definition of a crossing for Crossing Inventory purposes, and how is a public crossing defined?

The statute definition of a crossing is defined in 49 CFR Part 234.5(a), in 23 CFR Part 460.2, and in RSIA 2008, Section 204. It is also defined in Section 1.0 of the "Highway-Rail Crossing Inventory Instructions and Procedures Manual," dated December 1996, can be found on the Inventory Program Website at <http://www.fra.dot.gov/us/content/801>.

For purposes of the Inventory, "A highway-rail crossing is the location of an intersection of railroad tracks and a roadway, including associated sidewalks and pathways, and can be either public, private or pedestrian, and either at-grade or grade-separated. A crossing is further defined as including those tracks that lie within a pair of warning devices." Thus, an intersection of a roadway with 3 tracks (2 mainline and 1 spur) where the mainline tracks have flashing lights and the spur has crossbucks, would actually be two crossings with two separate crossing inventory numbers.

For a public crossing, the roadway must be part of the general system of public roads, and under the jurisdiction of and maintained by a public highway authority, and open to the general traveling public. For a public at-grade crossing, usually both roadway approaches are maintained by a public highway authority, or the public authority accepts responsibility for roadway maintenance through the crossing. All other intersections of railroad tracks with roadways are considered private crossings.

Question 20. What is the status of the New Inventory Form that FRA has been working on for the last two years?

The changes for the new Form are just about complete. Railroads and States will have an opportunity to comment on the final revisions before they are implemented. Full implementation will take a significant amount of time to create and revise the file structure and software processing programs. Additionally, as required by RSIA 2008, FRA will implement the New Form in conjunction with an official rulemaking. However, FRA has not yet established a target date for the initiation of a rulemaking for this issue.

Question 21. How do I access crossing records and information from FRA's Website?

Crossing records can be accessed from FRA's Safetydata Website at <http://safetydata.fra.dot.gov/officeofsafety/> and click on the "Crossing" tab. If that crossing number is known, enter it in the box and click "Generate Report." If the crossing number is not known, or if a group of crossings is desired, there are two searches that can be used.

Query by Location/Railroad: Under "Additional Links," click on "Query by Location/Railroad," pick the "State," then the "County" or "City" (if you are sure that the crossing is within the City limits). DO NOT pick "Street;" it is too unreliable because of variances in spelling. You can pick the "Railroad" if you know the railroad name, and if you think that the crossing has been in the railroad's name for a long time. Note: In picking the Railroad by clicking on the down arrow, you will first obtain a drop down short list of the major railroads and those with many crossings. If you don't find the railroad name you desire, back up and click on the line below the box for a list of all railroads (about 650), and then click again on the down arrow. You will then find the railroad name and code that you are seeking. Click on "Generate Report" and a list is generated of all the crossings per the query.

Query by Crossing Numbers: Under "Additional Links," click on "Query by Crossing." A page appears with two boxes for choosing a crossing range. This query allows the search for a list of crossings without including the alpha check character. Also, it can be any number of digits that you decide, that is, you can chose the series from 768xxx to 769xxx, and you may get all 1000 crossings from 768000 to 769000, or a fewer number depending on how many of these numbers have been assigned to crossings and the Inventory Form submitted to FRA for inclusion in the National File. Normally, a search will involve a smaller number of crossing numbers. Select the range of crossing numbers desired and click on "Generate Report." You will get a list of the numbers which are in the National File that fall with in this range. It may be a complete list, a partial list, or nothing at all, depending on the crossing records existing in the National File.

You can find additional information on using the Safetydata Website at <http://www.fra.dot.gov/us/content/801> in the section "General."

Question 22. How do I get crossing inventory data and information for my locale?

Crossing records can be accessed from FRA's Safety Date Website at <http://safetydata.fra.dot.gov/officeofsafety/>. Click on the "Crossing" tab, and under "Additional Links," click on "Query by Location/Railroad." Pick the "State," then the "County" or "City" (if you are sure that the crossing is within the City limits). Then click on "Generate Report" and a list is generated of all

the crossings per the query.

Question 23. Who is responsible for closing a crossing and how is it done? Also, if a crossing is closed, can it be reopened?

Closing a crossing is a very simple process. Normally, it will be the Railroad that is responsible for closing a crossing, but it may be performed by the State for Public crossings if the State does a site visit and finds the crossing closed. The closing can be effected by completing an Inventory Form, or printing a copy of the current record from the Safetydata Website and indicating that it is 'Closed' with the Effective Date. A default Effective Date would be the date of notification to FRA. Alternatively, an Excel File or a simple list of the crossing numbers to be closed can be provided via email or in a letter. Again, be sure to include the Effective Date of the closure. If the actual date is unknown, a reasonable guess is sufficient.

A crossing that is closed remains in the National File forever. The crossing number remains with that location forever, and the number can not be reused at a different location. A crossing that is closed can be reopened at any time in the future by simply notifying FRA and providing updated information.

When a Railroad sells or transfers a rail-line with crossings to a different Operating Railroad, it needs to transfer the crossings to the new Operating Railroad and not submit them as closed, even though they might show them as closed in their railroad's inventory file.

Question 24. Who needs to provide Latitude / Longitude (GPS) data and in what format?

Both States and Railroads need to provide GPS data. The States have the responsibility for providing it for all existing open Public at-grade crossings, including those that are grade-separated and Pathway (Pedestrian). The Railroads are responsible for providing GPS data for all Private crossings and any Pedestrian crossings that are private. However, for new or un-inventoried crossings, it is the responsibility of the Railroad to obtain and provide this information when they create the 'new' crossing Inventory Form. By design, for a 'new' crossing, the data can not be input into the National File without all of the information on the Form for the crossing.

The FRA Office of Safety uses the WGS-84 (World Geodetic System 1984) datum standard. The National Inventory File requires Latitude and Longitude to be submitted in "Degrees.Digital Degrees" (DDD) format. The coordinates are to be measured at the center of the highway-rail crossing. The measurement values are to be entered in decimal (DDD) format as (nn.nnnnnnn) for Latitude and as (-nnn.nnnnnnn) for Longitude. The values need to be taken to seven (7) decimal

places. Additional information is located on the Inventory Program Webpage under the section on “Inventory Updating and Database Reconciliation Processes” at <http://www.fra.dot.gov/us/content/801> which includes conversion from the “Degrees.Minutes.Seconds” (DMS) format.

Question 25. What is the distance between railroad tracks where two separate crossings numbers need to be assigned?

Sometimes there are crossings with railroad tracks that are separated by a greater than normal distance between tracks, often operated by different railroads. It may be unclear whether or not the crossing is one very long crossing or multiple crossings requiring separate crossing numbers. The normal distance between railroad track centers is 15 to 20 feet. At locations where, for example, there are gates, there may be just one pair of gates covering all crossings, or there may be pairs of gates covering each track crossing.

The Inventory Program defines a crossing as “those tracks that lie between a pair of warning devices.” In such cases, each track crossing with its own pair of warning devices, even if they are the same devices, needs to have a crossing number assigned.

The determination, as to whether or not there should be a pair of warning devices covering all tracks or a pair for each track, should be determined by an engineering diagnostic study and will depend on the storage distances and the type of vehicles using the crossing. Usually, a track separation of a 100 feet or more will require separate pairs of warning devices and separate crossing inventory numbers.

Question 26. When is a Pedestrian or Pathway Crossing considered to be separate from a regular highway-rail crossing?

By definition, a highway-rail crossing includes a location where associated sidewalks and pathways are included. For a Pathway (or Pedestrian) crossing to be considered separate from the highway-rail crossing, it must be at least 25 feet from the roadway and be explicitly distinct. Such crossings are usually designed and dedicated for the use of non-vehicular traffic, including pedestrians, bicyclists, snowmobiles, and other methods of travel.

Question 27. We have installed Automated Wayside Horns at some of our crossings. Since there is no field for that information on the current Inventory Form, how do we provide that information about this warning device.

The Automated Wayside Horn was not available as a crossing warning device in 1999 when the current Inventory Form was implemented. Thus, there is no field

(or box) for reporting that information, but it will be on the new Form currently under review. In the meantime, report this information in Box 12, Part III, Page 2, "Reserved for Future Use." This is a three space character field. If Wayside Horns are installed, indicate this by inserting "WSH" in Box 12.