



**M O V I N G T H E
AMERICAN
ECONOMY**

**Federal Railroad Administration
Railroad Accident/Incident Investigations
Overview**

Background on FRA Railroad Accident/Incident Investigations

The Federal Railroad Administration (FRA) conducts wide-ranging regulatory oversight activities to promote safety in every area of railroad operations to reduce rail-related accidents, incidents and casualties. As part of those efforts, the FRA conducts formal investigations of select railroad accidents and incidents in order to determine the root cause and identify any contributing factors so that the railroad, FRA or other parties can implement proper remedial action to prevent similar future occurrences. Such corrective actions range from ensuring that simple repairs are made, changing operating rules or equipment and infrastructure inspection procedures, or developing a new federal regulation or safety standard.

FRA headquarters staff assigns formal investigations for about 100 railroad accidents/incidents each calendar year as well as for all railroad employee fatalities. In addition, the FRA's eight regional offices conduct several hundred informal investigations or follow-up inquiries into serious events that occur on the nation's rail system.

FRA Enforcement Action

During the course of an accident/incident investigation, the FRA may determine that one or more violations of federal regulations occurred. If so, FRA may take enforcement action including, but not limited to, assessing civil penalties or fines as appropriate. However, the occurrence of an accident/incident is not necessarily the result of a failure by a railroad, or a railroad employee, to comply with federal regulations.

FRA Accident/Incident Investigation Criteria

The decision to assign a railroad accident for investigation generally follows a railroad's telephonic notification directly to FRA or to the National Response Center, the primary Federal entity to which all major transportation accidents are reported. Railroads are required to report a vast array of accidents/incidents, however not all meet the criteria warranting an FRA investigation. FRA generally investigates accidents/incidents meeting the following criteria:

- A collision, derailment, or passenger train incident resulting in at least one fatality or serious injury to railroad passengers or crew members;
- All railroad employee fatalities including contract employees, regardless of craft;
- Certain highway-rail grade crossing collisions resulting in:
 - A death of one or more persons in a commercial motor vehicle or school bus; or serious injuries sustained by several persons transported by such vehicles;
 - Three or more motor vehicle occupant fatalities; or
 - No fatality, but involving credible evidence of a malfunction or failure of an active warning device which is alleged to have contributed to or caused the accident;
- Certain accidents or incidents involving Amtrak passenger trains;
- Train accidents resulting in damages to track or equipment exceeding \$1 million;

- Certain train accidents resulting in the derailment of a locomotive and/or large number of cars, resulting in extensive property damage;
- Accidents or incidents resulting in a serious fire, explosion, or unintended release of hazardous materials, and incidents involving an evacuation, especially if it poses an imminent safety hazard to persons in the surrounding locale;
- Certain train accident involving the transport of nuclear or radioactive materials;
- Incidents involving run-away equipment, with or without locomotives;
- Collisions between trains and maintenance-of-way or hi-rail equipment;
- Incidents caused by failure of a locomotive or any part of a locomotive, or a person coming in contact with an electrical power sources that result in a serious injury or death of one or more persons; and
- Accidents or incidents that arouse considerable public interest.

FRA Accident/Incident Investigation Process

FRA inspectors specialize in several disciplines, including: track & structures, railroad operating practices, signal & train control systems, motive power & equipment (i.e. locomotives and rail cars), hazardous materials, and highway-rail grade crossings. In addition to their areas of expertise, most FRA field personnel receive training in the science and art of accident investigation and “root cause” analysis. FRA accident/incident investigations typically involve:

- Inspecting and testing track, signal systems, and other infrastructure, as well as locomotives, rail cars and other equipment;
- Interviewing train crews or railroad employees whose actions may have contributed to the accident/incident and recording other eyewitness accounts;
- Reviewing a railroad’s records concerning inspections, testing, maintenance, and employee training and hours of service;
- Retrieving and reviewing locomotive event recorder (black box) data and other information regarding railroad communications, including the actions of railroad dispatchers; and
- Exchanging information with other federal or state and local entities as appropriate.

FRA investigators are required and expected to take as long as necessary in order to methodically evaluate and analyze all physical and factual evidence to objectively determine the probable cause of an accident. Investigations vary considerably in duration; however, FRA seeks to complete all major accident/incident investigations within 270 days. Once an investigation is completed, a formal written report is produced describing in detail the accident/incident.

Role of National Transportation Safety Board (NTSB)

In some instances, the National Transportation Safety Board (NTSB), an independent federal investigatory agency, may decide to launch an investigation of a railroad accident (typically the most serious or catastrophic events involving loss of life). When the NTSB decides to do so, it generally becomes the primary federal investigative body and has responsibility for determining the probable cause of the accident. In such cases, FRA works cooperatively with the NTSB while continuing to be responsible for determining compliance with existing federal regulations.

For additional information, please contact
 FRA Public Affairs (202) 493-6024
www.fra.dot.gov
 November 2007