

Appendix C

Freight Rail Safety Regulations

This appendix provides additional information on the laws and regulations summarized in *Chapter 3, Freight Rail Safety, Section 3.1.1, Approach*.

C.1 FRA – Safety Standards

Railroad track safety standards (49 C.F.R. Part 213) are based on track classifications that determine maximum operating speed limits, inspection frequencies, maintenance tolerances, and recordkeeping. Higher classes of track must meet more stringent safety standards for the track's physical condition and require more frequent inspections and maintenance to ensure they remain safe for the higher speeds permitted. As higher classes of track can be operated at lower speeds, however, posted speeds are not always an accurate indication of track class. Railroads set their desired operating speeds for track segments via timetables or train orders. They are required to maintain those track segments according to Federal Railroad Administration (FRA) standards for specific classes of track corresponding to the desired train speeds. For example, lines that are maintained to Class III standards allow a maximum operating speed of 40 miles per hour for freight trains and require track segments to be inspected at least weekly to verify compliance with FRA regulations. The number of daily trains or commodities carried is not a factor in establishing the track class.

All incidents on mainlines, at rail yards, and at intermodal facilities resulting in damages greater than FRA's current reporting threshold are reported to FRA. FRA determines the reporting threshold for each calendar year. For instance, in 2019 and 2020, the reporting threshold was \$10,700; in 2021, it was \$11,200; in 2022, it was \$11,300; in 2023, it was \$11,500; and in 2024, it is \$12,000 (FRA 2023a). Whenever a collision, derailment, or other incident occurs, FRA investigates the incident if it meets certain general criteria. For example, FRA investigates incidents that result in the derailment of a locomotive, derailment of 15 or more cars, or extensive property damage, as well as any incidents that are likely to generate considerable public interest. FRA maintains a database of incidents as reported by railroads, with details about the types and locations of incidents reported. The FRA Office of Safety Analysis provides online query tools to dynamically search the incident data using selection criteria such as the railroad involved, year of the incident, and type of track where the incident occurred (FRA 2024a).

The Rail Safety Improvement Act of 2008 (RSIA) mandated the implementation of Positive Train Control (PTC), a collision avoidance system, on large Class I railroad mainlines that transport 5 million or more gross tons of annual traffic and certain hazardous materials. PTC systems are designed to prevent train-to-train collisions, over-speed derailments, incursions into established work zones, and movements of trains through switches left in the wrong position. FRA expects that implementing PTC will decrease the number of incidents on those rail lines. According to FRA, as of December 29, 2020, PTC is in operation on all 57,536 required freight and passenger railroad route miles, including the Eagle Pass Subdivision of the UP mainline (FRA 2023b).

C.2 FRA – Hazardous Materials

FRA regulations require that trains carrying hazardous materials maintain shipping papers with emergency response information that is immediately available for use at all times the hazardous material is present. The information, including the emergency response telephone number, must be immediately available to any person who, as a representative of a Federal, State or local government agency, responds to an incident involving a hazardous material, or is conducting an investigation which involves a hazardous material. 49 C.F.R. § 172.602. The emergency response telephone number must be monitored at all times that the hazardous material is in transport by a person who either has comprehensive emergency response and incident mitigation information for that material or has immediate access to a person who possesses such knowledge and information. 49 C.F.R. § 172.604.

The shipping papers must contain information that can be used in the mitigation of an incident involving hazardous materials. The papers must include information such as the basic description and technical name of the hazardous material; immediate hazards to health; risks of fire or explosion; immediate precautions to be taken in the event of an accident or incident; immediate methods for handling fires; initial methods for handling spills or leaks in the absence of fire; and preliminary first aid measures. 49 C.F.R. § 172.602.

FRA guidance states that freight railroads should develop general plans and procedures that include a pre-determined list of materials, equipment, and cleanup contractors available to assist in restoration operations. (FRA 1993)

C.3 EPA – Hazardous Materials

U.S. Environmental Protection Agency (EPA) regulations (40 C.F.R. 300) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) govern incidents, spills, and other emergency releases of pollutants and contaminants to the environment. Regulations of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) provide a framework for responding to spills including hazardous substance releases. Reportable spills must be reported to the National Response Center (NRC), the federal point of contact for such incidents, which triggers the emergency response procedures set forth in the NCP. The NRC then notifies the appropriate local, state, and federal agencies (such as EPA), including emergency responders such as fire departments and HAZMAT teams, to assess the situation, secure the area, and initiate containment measures to prevent the spread of hazardous materials.

More recently, the Pipeline and Hazardous Materials Safety Administration (PHMSA) amended the Hazardous Materials Regulations, effective June 24, 2026, to require railroads to ensure that trains provide information that is electronically accessible to emergency response personnel. This information must be updated in real-time and made available through multiple electronic means, providing redundancy in case primary communication methods fail. If an incident occurs, these data must be promptly shared with response authorities. Additionally, first responders in areas lacking cellular service must receive training on alternative communication methods during emergencies. All incidents involving electronic information sharing with first responders must be documented, with a consolidated report submitted to PHMSA detailing successes and necessary corrective actions. 89 FR 52956.