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This information is preliminary and subject to change.

Safety Performance of DOT-111 Tank Cars

Reed Point, Montana
June 24, 2023

On June 24, 2023, about 6:14 a.m. local time, Montana Rail Link (MRL) freight train MLEUMIS123, a 55-railcar key train, derailed near Reed Point, Stillwater County, Montana.[1] The train was crossing the MRL 51 bridge over the Yellowstone River at a speed of 38 mph when 16 tank cars derailed at milepost 51.6. (See figure.) Sixteen railcars in positions 36 through 52, 15 of which were loaded with hazardous materials (hazmat), derailed. Ten derailed railcars submerged in the water, nine of which were hazmat tank cars. No fire, injuries, or evacuations were reported. Visibility conditions at the time of the derailment were daylight and clear; the temperature was 53°F. There was no precipitation and the wind was out of the north-northwest at 17 mph. Three local water treatment facilities downstream of the derailment were shut down, but emergency protective measures were lifted by noon of that day.

[1] Although MLEUMIS123A did not meet the definition of a high-hazard flammable train as defined in Title 49 *Code of Federal Regulations (CFR)* 171.8, it met the April 1, 2020, edition of *United States Hazardous Materials Instructions for Rail,* definition of a *key train* by having 20 or more loaded hazardous materials shipments or intermodal portable tank loads having any combination of hazardous material and was listed on the train's consist as such. This train was subject to the safety and security planning requirements of 49 *CFR* Part 172, Subpart I.

Figure. View of the accident scene.

Train MLEUMIS123 originated from Laurel, Montana, and was destined for Missoula, Montana. It was 3,280 feet long and weighed about 6,663 tons. It contained 55 railcars, 47 were loaded and 35 contained hazardous materials. No passenger trains traveled this route. The track speed limit was 45 mph on the approach to the bridge, then reduced to 40 mph on the curve.

All of the submerged hazmat tank cars were US Department of Transportation (DOT) specification 111A100W1. The 15 derailed hazmat tank cars included three loaded with molten sulfur (NA2488), two with sodium hydrosulfide (UN2922), and six with asphalt petroleum liquid (UN2522). The molten sulfur and asphalt petroleum liquid released into the river.

The National Transportation Safety Board (NTSB) initiated an investigation focusing only on the performance of the DOT-111 tank cars in this derailment. The Federal Railroad Administration is taking the lead on the other aspects of this investigation. NTSB's on-scene inspections of the tank cars were completed on July 11, 2023, and preliminary findings show that hazmat releases occurred from nine mechanically breached tank cars. The remaining 26 hazardous materials tank cars did not breach. The NTSB's investigation is ongoing.