than 80,000 pounds (49 CFR 380.105(b)) (see 69 FR 16733, March 30, 2004). To enhance the safety of LCV operations on our Nation's highways, section 4007(b) of the Motor Carrier Act of 1991 directed the Secretary of Transportation to establish Federal minimum training requirements for drivers of LCVs (Title IV of the Intermodal Surface Transportation Efficiency Act of 1991, Pub. L. 102–240, 105 Stat. 1914, 2152). The Secretary of Transportation delegated responsibility for establishing these requirements to FMCSA (49 CFR 1.87), and on March 30, 2004, FMCSA established the current training requirements for operators of LCVs (69 FR 16722), codified at 49 CFR part 380. The LCV Driver Training Program in 49 CFR 380.201 described in Appendix F to part 380 lists topics of instruction required for drivers of LCVs to complete during training before they can obtain an LCV Driver-Training Certificate. Drivers receive an LCV Driver-Training Certificate that is substantially in accordance with the form in 49 CFR 380.401(a) upon successful completion of these training requirements. Section 380.401(b) requires drivers to provide a copy of the LCV Driver-Training Certificate to his/her employer to be filed in the Driver Qualification file. Section 380.113 bars motor carriers from permitting their drivers to operate an LCV if the drivers have not been properly trained in accordance with the requirements of 49 CFR 380.203 or 380.205. Motor carriers employing an LCV driver must verify the driver's qualifications to operate an LCV and must maintain a copy of the LCV Driver-Training Certificate and present it to authorized Federal, State, or local officials upon request.

Renewal of This IC

The current burden hour estimate associated with this IC, approved by OMB on June 26, 2020, is 4,244 hours. The expiration date of the current ICR is June 30, 2023. Through this ICR renewal, the Agency requests an increase in the burden hours from 4,244 hours to 4,360 hours. The increase is the result of the increase in estimated driver population as well as the increase in expected industry growth rate for drivers from 2020 to 2030.

On October 11, 2022, FMCSA published a **Federal Register** notice allowing for a 60-day comment period on this ICR (87 FR 61428). The comment period closed on December 12, 2022. There were no comments submitted in response to that notice.

Public Comments Invited: You are asked to comment on any aspect of this IC, including: (1) whether the proposed collection is necessary for the performance of FMCSA's functions; (2) the accuracy of the estimated burden; (3) ways for the FMCSA to enhance the quality, usefulness, and clarity of the collected information; and (4) ways that the burden could be minimized without reducing the quality of the information collected. The agency will summarize or include your comments in the request for OMB's clearance of this ICR.

Issued under the authority of 49 CFR 1.87.

Thomas P. Keane,

Associate Administrator, Office of Research and Registration.

[FR Doc. 2023–04382 Filed 3–2–23; 8:45 am]

BILLING CODE 4910–EX–P

DEPARTMENT OF TRANSPORTATION

Federal Railroad Administration

Safety Advisory 2023–01; Evaluation of Policies and Procedures Related to the Use and Maintenance of Hot Bearing Wayside Detectors

AGENCY: Federal Railroad Administration (FRA), Department of Transportation (DOT).

ACTION: Notice of Safety Advisory.

SUMMARY: Preliminary investigation of recent train derailments indicates the cause of, or contributing factor to, the incidents was a mechanical failure, specifically burnt journal bearings. Accordingly, FRA is issuing this Safety Advisory to make recommendations to enhance the mechanical reliability of rolling stock and the safety of railroad operations. This Safety Advisory recommends that railroads: evaluate the thresholds for inspections based on hot bearing detector (HBD) data; consider the use of real-time trend analyses of HBD data as a criterion for inspection; ensure the proper training and qualification of personnel responsible for the calibration, inspection, and maintenance of HBDs; ensure proper inspection of rolling stock with HBD alerts; and improve the safety culture of their organization, particularly as it pertains to operational decisions based on HBD data.

FOR FURTHER INFORMATION CONTACT: Karl Alexy, Associate Administrator for Railroad Safety and Chief Safety Officer, Office of Railroad Safety, FRA, 1200 New Jersey Avenue SE, Washington, DC 20590, (202)–493–6282.

Disclaimer: This Safety Advisory is considered guidance pursuant to DOT Order 2100.6A (June 7, 2021). Except when referencing laws, regulations, policies, or orders, the information in this Safety Advisory does not have the force and effect of law and is not meant to bind the public in any way. This document does not revise or replace any previously issued guidance.

SUPPLEMENTARY INFORMATION:

Background

Federal rail safety and hazardous materials transportation regulations (HMR) set minimum safety standards for the rail transportation of hazardous materials.[1] Among other things, those regulations include packaging, hazard communication, and operational requirements applicable to the rail transportation of all materials designated as hazardous materials. The HMR additionally include provisions specifically applicable to trains transporting large quantities of certain hazardous materials known as ''high-hazard flammable trains'' (HHFTs) and ''high-hazard flammable unit trains'' (HHFUTs).[2] These additional regulations applicable to HHFTs and HHFUTs include certain safety and security planning requirements, operational restrictions, and requirements related to ensuring State and local governments are notified of the types and quantities of hazardous materials transported through their jurisdictions.[3]

Although compliance with all applicable Federal regulations is a critical part of ensuring the safety of rail transportation of hazardous materials, the use of certain technologies (*e.g.,* wayside detectors), as FRA has previously acknowledged, has enabled railroads to develop new methods and processes for identifying defects in rail equipment and infrastructure as compared to those methods contemplated under applicable Federal regulations. For example, railroads have installed wayside detectors to assess the health of rail equipment and infrastructure to enable the early identification of mechanical or other defects.

Recognizing the value of wayside detection systems, if they are appropriately installed, maintained, and utilized, in 2015, FRA issued Safety Advisory 2015–01 addressing the use of wheel impact load detectors (WILDs) as

[1] 49 CFR parts 200 through 299 and 49 CFR parts 171 through 185.

[2] An HHFT is ''a single train transporting 20 or more loaded tank cars of a Class 3 flammable liquid in a continuous block or a single train carrying 35 or more loaded tank cars of a Class 3 flammable liquid throughout the train consist.'' An HHFUT is ''a single train transporting 70 or more loaded tank cars containing Class 3 flammable liquid.'' 49 CFR 171.8.

[3] *See* 49 CFR part 172, subpart I.

applied to HHFTs.[4] WILDs are designed to identify wheels on a railcar that may have flat spots or other defects. Specifically, FRA recommended that railroads continue to install and maintain WILDs along HHFT routes and that railroads lower the impact thresholds of the detectors that determine when corrective actions are to be taken. FRA also recommended that railroads use highly qualified individuals to conduct brake and mechanical inspections on those trains.

In Safety Advisory 2015–01, FRA referenced the July 6, 2013, catastrophic rail accident in Lac-Mégantic, Quebec, Canada, and its tragic consequences. The Lac-Mégantic accident made clear the risk of transporting large amounts of hazardous materials, including large amounts of flammable liquids. FRA also referenced the March 5, 2015, derailment of a BNSF Railway Co. train that resulted in a release of petroleum crude oil, as well as a series of other derailments involving crude oil and ethanol, both designated as Class 3 flammable liquid hazardous materials under the HMR.

Each of the accidents referenced in Safety Advisory 2015–01 demonstrates the potential consequences of train derailments involving hazardous materials, even if a train does not meet the definition of a HHFT or HHFUT.

Since 2021, at least five derailments occurred that were suspected of being caused by burnt journal bearings.[5] Three of those five derailments, all occurring on the Norfolk Southern Railway (NS) are discussed below. Two other derailments, reported to FRA by the Kansas City Southern Railway (KCS), occurred on August 2, 2021, and December 3, 2021, and in both cases, wayside detectors, known as HBDs,[6] flagged a suspect bearing, but the crews were either unable to act in time to prevent a derailment or were directed to continue the train move resulting in a derailment. These investigate into each of these accidents is ongoing, but they demonstrate not only the potential catastrophic consequences of a train derailment involving hazardous materials, but also the importance of implementing appropriate standards, processes, and procedures governing the use of HBDs.

Warner Robins, GA—July 12, 2022

On July 10, 2022, at 6 a.m. EDT, Train 175, consisting of 2 locomotives and 123 cars, departed Chattanooga, Tennessee, for Macon, Georgia. During the trip, a series of warnings from HBDs of an overheated journal bearing on one car in the consist (car PPTX 3293) were logged into NS's wayside desk system. The dispatcher transmitted the third alert to the crew. The crew stopped the train and inspected the journal bearing of concern, reporting that the car behind PPTX 3293 had been sprayed with lubricating grease, which is an indication that the journal bearing in question was leaking and defective. The crew was instructed to continue the train movement and to ''keep an eye [on] the axle over the next couple of detectors.'' The train arrived at Macon, Georgia, traveling about 75 track miles and passing additional detectors that did not record any alerts. In Macon, Train 175 was terminated and a block of cars including PPTX 3293 was added to a different train, Train 151. PPTX 3293 was not inspected by mechanical personnel or set out for repair before it was added to Train 151. In addition, during the same time, the NS system sent an email to all area dispatchers informing them of a condemnable bearing on PPTX 3293 with a conflicting message that if the journal bearing is deemed to be safe for continued movement it is required to be repaired at the next switch event. A similar message was also sent to mechanical personnel.

Subsequently, Train 151, consisting of 3 locomotives and 139 cars, departed Macon, Georgia, on July 12, 2022. At 5:11 p.m., after traveling approximately 15 track miles, Train 151 passed the first HBD in Warner Robins, GA. The HBD reported a bearing temperature on PPTX 3293 to be 263 °F above the ambient temperature. After a few minutes, the HBD emitted a warning ''talker message'' [7] to the crew of Train 151. The crew acknowledged that they received the message but claimed they did not have time to react. At 5:13 p.m., the lead locomotive of Train 151 reached a grade crossing at MP 15.98G in Warner Robins. A dash camera from a police car at the crossing captured the train as it approached the crossing, showing PPTX 3293 being dragged over the crossing with one of the trucks on the ground. Train 151 then derailed seconds after PPTX 3293 cleared the crossing.

Sandusky, OH—October 8, 2022

On October 8, 2022, at approximately 4:20 p.m. EDT, NS Train 310–08, consisting of 3 headend locomotives with 98 freight cars and 3 locomotives in tow (dead-in-tow), derailed 1 of the dead-in-tow locomotives and 20 freight cars. The train was traveling east from Elkhart, Indiana to Cleveland, Ohio when the train derailed near MP 240.

Prior to the derailment location, the train crew did not receive any HBD alarms for an overheated journal bearing, but instead the crew was contacted by the dispatcher to ensure they were aware of the suspect bearing in their train. Upon notification from the dispatcher, the crew stopped the train and noticed smoke coming from the journal bearing. The crew requested permission to set out the subject car multiple times and requested support from mechanical inspectors. After two hours, while the train remained stopped on the mainline, NS sent an electrician to investigate the crew's report. The electrician reported the smoke had stopped and the bearing had cooled. The crew was then directed to move the train. After the train travelled another 7 miles, it derailed due to a burnt journal bearing. One axle on a ''dead-in-tow'' locomotive failed catastrophically, causing the derailment. Initial reports state one tank car placarded UN 3257 ''HOT'' was punctured and leaked molten paraffin wax into the surroundings. This derailment caused power outages to approximately 1,200 residents.

East Palestine, OH—February 3, 2023

Most recently, on February 3, 2023, a NS general merchandise train (*i.e.,* a train not meeting the definition of an HHFT or HHFUT) derailed in East Palestine, Ohio. The derailment resulted in a release of hazardous materials, which subsequently fueled extensive fires, damaging additional rail cars, and resulting in an evacuation that affected up to approximately 2,000 residents. Although the National Transportation Safety Board (NTSB) is the lead agency for the investigation into this accident and has not yet reached final conclusions as to probable cause,

[4] *https://railroads.dot.gov/elibrary/mechanical-inspections-and-wheel-impact-load-detector-standards-trains-transporting-large.*

[5] The four derailments include two derailments reported to FRA by the Kansas City Southern Railway (KCS) in 2021 and the Warner Robins, Georgia, and Sandusky, Ohio, accidents discussed below. The 2021 KCS derailments occurred on August 2, 2021, and December 3, 2021, respectively, and in both cases, an HBD flagged a suspect bearing, but the crews were either unable to act in time to prevent a derailment or were directed to continue the train move resulting in a derailment.

[6] HBDs are devices used to assess the health of railcar bearings by monitoring their temperatures. The system consists of the following: wheel sensors to detect an approaching train and to turn on the scanning equipment; an axle counter; thermal sensors for reading axle bearing temperatures (*i.e.,* one sensor on each side of the train); and thermal sensors for reading bearing temperatures on each side of the train. HBD systems detect and record infrared energy (heat) from each roller bearing. The heat signal from each roller bearing is stored digitally and measured against pre-established thresholds.

[7] A prerecorded auditory alert that is meant to inform train crews of imminent hazards pertaining to equipment in their train.

preliminary information [8] indicates that a burnt journal bearing [9] may have played a role in the derailment. Preliminary information also indicates that the train that derailed in East Palestine (Train 32N) passed at least three wayside detectors before derailing. That information indicates that, over the course of approximately 30 miles, the HBDs recorded an increase of over 200 degrees in the temperature of a car's journal bearing.[10]

On February 3, 2023, at about 8:54 p.m. EST, eastbound NS Train 32N (comprised of 2 headend locomotives, 149 freight cars, and 1 distributed power locomotive between the 109th and 110th freight cars in the consist) derailed 38 railcars in East Palestine, Ohio. The derailed equipment included 11 tank cars carrying hazardous materials that subsequently ignited, fueling fires that damaged additional railcars and resulted in the evacuation of up to 2,000 residents. There were no reported fatalities or injuries. Preliminary information indicates that the cause of the derailment may have been a burnt journal bearing, as noted above.

As further noted above, prior to derailing, Train 32N passed HBDs. First, at milepost (MP) 79.9 in Sebring, Ohio, an HBD recorded a temperature of 38 °F above ambient temperature for one bearing on the 23rd car in the consist. Approximately ten miles later, Train 32N passed a second HBD (at MP 69.01 in Salem, Ohio), which recorded a temperature of 103 °F above ambient for the same bearing on the 23rd car. Finally, approximately twenty miles later (at MP 49.81 in East Palestine), the train passed a third HBD, which recorded the suspect bearing's temperature at 253 °F above ambient.

NS has established the following HBD temperature thresholds (above ambient) and procedures:

- Between 170 °F and 200 °F, warm bearing (non-critical); stop and inspect.
- A difference between bearings on the same axle greater than or equal to 115 °F (non-critical); stop and inspect.
- Greater than 200 °F (critical); set out railcar.

At milepost 49.81, as Train 32N passed the third HBD, which measured the suspect bearing's temperature as 253 °F above ambient, the HBD transmitted a critical audible alarm message instructing the crew to slow and stop the train to inspect a hot axle. The train engineer attempted to slow and stop the train. During this deceleration, an automatic emergency brake application initiated, and Train 32N came to a stop. After the train stopped, the crew observed fire and smoke and notified authorities.

Journal Bearings and Detecting Journal Bearing Defects

Journal bearings are critical components of freight cars that serve to transfer the weight of the car and its cargo to the axle while allowing the axle, and its wheels to rotate. If a journal bearing is defective (or becomes defective while in use), the temperature of the bearing may increase and become overheated, to the point where the bearing ceases to effectively perform its function. In some cases, journal bearings with relatively large defects can run at normal operating temperatures for tens of thousands of miles before any abnormality in their operating temperature is observed. In other cases, a bearing's raceway (*i.e.,* the path or groove that the bearing moves along) may deteriorate rapidly and cause excessive roller misalignment. The misaligned rollers generate frictional heating, which can weaken an axle in just a few minutes and may lead to a catastrophic derailment depending on the traveling speed of the train and the weight of the load the car with the defective bearing is carrying.[11]

Detecting overheated journal bearings before they fail is critical to accident prevention. Journal bearings are sealed components, and, as such, often do not display ''tell-tale signs'' of overheating (*e.g.,* leaking lubrication), making defects in journal bearings difficult to identify through visual inspections. HBDs can serve an important role in early detection of bearing defects, but the effectiveness of any HBD system depends on numerous factors, including: (1) the establishment and adherence to adequate maintenance standards and procedures; (2) the establishment of safe thresholds at which to act on HBD alerts; and (3) strict adherence to procedures that prescribe actions to be taken.

Although there are no Federal regulations requiring the use of HBDs for freight trains, or any regulations related to the inspection, calibration, and maintenance of this equipment, there are existing industry standards and manufacturer recommendations that railroads should incorporate into existing inspection and maintenance practices. Because defects in journal bearings are difficult to identify visually, personnel charged with inspecting equipment subject to an HBD alert should be properly trained and qualified. FRA encourages using personnel trained and experienced in identifying critically hot bearings, and with the demonstrated ability to properly evaluate the condition of a suspect bearing. Further, FRA encourages railroads to ensure these individuals are available at all hours of operations across a railroad's network.

Data is critical to identifying effective HBD temperature thresholds for action (*e.g.,* appropriate thresholds for a stop-and-inspect requirement, or a mandatory remove-from-service requirement). Additionally, as the East Palestine accident demonstrates, thresholds for temperatures measured by HBDs requiring action should be established for both single measurement and multiple measurements in a temperature trend analysis.

The procedures governing the use of HBD systems should be sufficient to ensure all employees understand the meaning of any HBD alert and are empowered to take appropriate action in response to those alerts. The response procedures governing any HBD system should be commensurate with the risk (specifically consequences) of a derailment. For trains containing hazardous materials, the potential consequence of a derailment is catastrophic, and allowing a train transporting a hazardous material to continue to operate, without restriction, after an HBD alert is likely not appropriate.

FRA recommends that railroads consider expanding application of Association of American Railroads (AAR) Circular OT–55 (Recommended Railroad Operating Practices for the Transportation of Hazardous Materials).[12] According to Circular OT–55, if a defect in a ''Key Train'' [13]

[8] *https://www.ntsb.gov/investigations/Pages/RRD23MR005.aspx.*

[9] A journal bearing is the mechanical subassembly on each end of the axles of a wheel set of railroad rolling stock. The journal bearing transfers the weight of freight car, coach or locomotive to the wheels and rails while allowing the axle to spin; the bearing design is typically roller bearings on newer rolling stock.

[10] NTSB Preliminary Report, Norfolk Southern Railway Train Derailment with Subsequent Hazardous Material Release and Fires, East Palestine, Ohio, February 3, 2023 (issued Feb. 23, 2023, and available at *https://www.ntsb.gov/investigations/Documents/RRD23MR005%20East%20Palestine%20OH%20Prelim.pdf*).

[11] Defect detection in freight railcar tapered-roller bearings using vibration techniques | SpringerLink.

[12] AAR Circular No. OT–55 (CPC–1348) (available at *https://public.railinc.com/documents/ot-55pdf*).

[13] AAR Circular OT–55 defines a ''Key Train'' as a train with:

(1) one tank car load of a Poison Inhalation Hazard, anhydrous ammonia, or ammonia solutions; or

(2) 20 car loads or intermodal portable tank loads of any combination of hazardous material; or

bearing is reported by a wayside detector, but a visual inspection fails to confirm evidence of the defect, OT–55 prohibits the train from exceeding 30 MPH until it has passed over the next wayside detector or it is delivered to a terminal for a mechanical inspection. If the same car again sets off the next detector or is found to be defective, it must be set out from the train. This also provides the railroads the opportunity to define a defect based on new/lower thresholds for HBD alerts.

Accordingly, FRA encourages the industry to continue to utilize wayside detection technologies such as HBDs, but notes that to realize the benefits of these technologies, railroads should identify appropriate HBD impact thresholds for action, and implement and adhere to appropriate procedures for action in the event of an HBD alert, particularly on trains transporting hazardous materials.

Recommended Railroad Actions

In light of the above discussion, FRA recommends that railroads take the following actions:

1. Review existing HBD system inspection and maintenance policies and procedures for compliance with existing industry standards and manufacturer recommendations for HBDs.

2. Review existing procedures to train and qualify personnel responsible for installing, inspecting, and maintaining HBDs to ensure they have the appropriate knowledge and skills. Railroads should also develop and implement appropriate training on the inspection and maintenance requirements for HBDs and provide that training at appropriate intervals to ensure the required knowledge and skill of inspection and maintenance personnel. Further, railroads should evaluate their training content and training frequency to ensure any employee who may be called upon to evaluate a suspect bearing has the necessary training, experience, and qualifications. FRA also encourages railroads to ensure these individuals are available at all hours of operations across a railroad's network.

3. Review current HBD detector thresholds in light of recent derailments, and all other relevant available data (including data from any close calls or near misses), to determine the adequacy of the railroad's current thresholds. Thresholds should be established for single measurement as well as multiple measurements of individual bearings to enable temperature trend analysis.

4. Review current procedures governing actions responding to HBD alerts to ensure required actions are commensurate with the risk of the operation involved. With regard to trains transporting any quantity of hazardous materials, FRA recommends railroads adopt the procedures outlined in AAR's OT–55 for key trains as an initial measure.

Conclusion

In general, the issues identified in this Safety Advisory are indicators of a railroad's safety culture. Implementing procedures that ensure safety, and training personnel so those procedures become second nature, is vital. Equally important is the commitment, throughout the organization, to safety and empowerment of personnel to live up to that commitment. Specifically, personnel should be encouraged and empowered to develop procedures that may temporarily impact operations, but maximize safety, just as those executing the procedures should be empowered to strictly adhere to those procedures, even if it delays a train. The railroads should evaluate their safety culture not only as it relates to the issues indicated in this Safety Advisory, but to all aspects of their operations.

FRA encourages railroads to take actions consistent with the preceding recommendations, and any other complementary actions, to ensure the safety of rail transportation. FRA may modify this Safety Advisory, issue additional safety advisories, or take other actions necessary to ensure the highest level of safety on the Nation's railroads, including pursuing other corrective measures under its authority.

Issued in Washington, DC.

Amitabha Bose,

Administrator.

[FR Doc. 2023–04415 Filed 3–2–23; 8:45 am]

BILLING CODE 4910–06–P

(3) One or more car loads of Spent Nuclear Fuel or High Level Radioactive Waste.

DEPARTMENT OF TRANSPORTATION

Federal Transit Administration

[Docket No. FTA–2022–0018]

National Transit Database: Reporting Changes and Clarifications

AGENCY: Federal Transit Administration, Department of Transportation (DOT).

ACTION: Final Notice; response to comments.

SUMMARY: This Notice finalizes and responds to comments on proposed changes to the National Transit Database (NTD) reporting requirements published in the **Federal Register** on July 7, 2022.

DATES: Some of the changes will take effect beginning in NTD Report Year (RY) 2023 or 2024, which corresponds to an agency's fiscal year, while others will take effect in calendar year (CY) 2023.

FOR FURTHER INFORMATION CONTACT: Thomas Coleman, National Transit Database Program Manager, FTA Office of Budget and Policy, (202)-366–5333, *thomas.coleman@dot.gov.*

SUPPLEMENTARY INFORMATION:

Table of Contents

A. Background

The National Transit Database (NTD) is the nation's primary database for statistics on the transit industry. Pursuant to 49 U.S.C. 5334(k), FTA published a notice in the **Federal Register** on July 7, 2022 (87 FR 40582), seeking public comment on five changes to NTD reporting requirements. The comment period closed on September 6, 2022. FTA received one hundred and ninety-five (195) comments from forty (40) unique commenters.

The updates to NTD reporting requirements implement changes to Federal transportation law made by the Bipartisan Infrastructure Law, enacted as the Infrastructure Investment and Jobs Act (Pub. L. 117–58), and are informed by input from the transit industry. These changes are not related to safety and security (S&S) reporting, as FTA proposed S&S changes in a separate **Federal Register** notice (87 FR 42539).

B. General Comments

FTA received four general comments on the proposed NTD reporting requirements.

General: Additional Resources

Two comments indicated that States and rural and Tribal transit agencies would need additional resources to comply with the proposed requirements. One commenter noted that new, targeted funding would likely be required and requested that State Departments of Transportation be allowed to assist local agencies with reporting requirements.