National Transportation Safety Board
Washington, DC 20594

Office of the Chairman

February 17, 2021

US Department of Transportation
Docket Management System
West Building, Ground Floor, Room W12-140
Routing Symbol M-30
1200 New Jersey Ave., SE
Washington, DC 20590-0001

Attention: Docket No. FRA–2015–0122, Notice No. 1

Dear Sir or Madam:

The National Transportation Safety Board (NTSB) has reviewed the Federal Railroad Administration's (FRA) December 22, 2020, notice of proposed rulemaking (NPRM), *Fatigue Risk Management Programs for Certain Passenger and Freight Railroads*.[1] In this NPRM, the FRA stated that, pursuant to the Rail Safety Improvement Act (RSIA) of 2008, the FRA proposes to issue regulations requiring certain railroads to develop and implement a fatigue risk management program (FRMP) as one component of the railroads' larger railroad safety risk reduction programs.[2]

The NPRM describes an FRMP as a comprehensive, system-oriented approach in which a railroad determines its fatigue risk by identifying and analyzing applicable hazards and takes action to mitigate, if not eliminate, that fatigue risk. A railroad would implement its FRMP with a written FRMP plan that would be submitted to the FRA for review and approval. A railroad's FRMP plan would become part of its existing safety risk reduction program plan, and the railroad would be required to implement its FRA-approved FRMP plan, annually conduct an internal assessment of its FRMP, and update its FRMP plan periodically. A railroad's FRMP would also be subject to assessments by the FRA.

The NTSB has identified fatigue as a probable cause or a contributing factor in investigations across all modes of transportation and Reduce Fatigue Related Accidents is an issue on the NTSB's 2019-2020 Most Wanted List of transportation safety improvements. Between 2000 and 2020, the NTSB conducted 11 major investigations of accidents involving railroads subject to FRA jurisdiction in which fatigue was identified as the probable or a contributing cause of the accident. Congress passed the RSIA in 2008, which mandated railroads to include fatigue management plans in their safety risk reduction programs. Fatigue continues to be a major safety issue in the railroad industry; however, many railroads have yet to develop or implement such a plan.

[1] *Federal Register* (*FR*) Vol. 85, no. 246 (December 22, 2020): 83484.

[2] Rail Safety Improvement Act of 2008, Public Law 110-432 (Oct. 16, 2008): 20156 Railroad Safety Risk Reduction Program.

The NTSB notes that since Congress passed the RSIA of 2008, the Federal Aviation Administration developed FRMP guidance.[3] In December 2011, the FRA, through its Rail Safety Advisory Committee, formed a Fatigue Management Plans Working Group to provide input regarding development of regulations for fatigue management plans. The group, which met several times in 2012-2013, was unable to reach consensus on how fatigue management plans should be implemented.

The NTSB supports the RSIA of 2008 requirement for fatigue management plans and is encouraged that this NPRM proposes to require that railroads develop and implement FRMPs. As a result of the investigation of the April 17, 2011, collision of a BNSF railway coal train with a standing BNSF maintenance-of-way equipment train near Red Oak, Iowa, the NTSB issued Safety Recommendation R-12-17, which asked the FRA to establish an ongoing program to monitor, evaluate, report on, and continuously improve fatigue management systems implemented by operating railroads. Implementation of the requirements proposed in the NPRM would likely satisfy this recommendation. The NTSB notes that the NPRM effectively identifies the causes of fatigue and proposes mitigation strategies, and we believe that the information provided in the NPRM provides railroads a solid foundation to develop an effective FRMP.

The NPRM states that "a railroad shall develop and implement mitigation strategies to reduce the risk of railroad accidents, incidents, injuries, and fatalities where fatigue of any of its safety-related employees is a contributing factor." The NTSB is encouraged that the NPRM includes track, mechanical, and hazmat employees in its definition of safety-related employees. We recently completed an investigation of a track worker who was fatally injured when he stepped in front of an approaching train. That investigation identified the railroad's allowance of overtime work schedules without properly considering and mitigating workers' risk of fatigue as a contributing cause to this accident.[4]

While the NTSB is encouraged by this NPRM, it does have concerns about the ability of some railroads to effectively execute such a plan once it is implemented. These concerns and proposed actions to address these areas are as follows:

1. The lack of personnel proficient in fatigue science needed to effectively identify and analyze fatigue risks. The NPRM recognizes that fatigue is a complex and multifaceted condition. The NPRM provides strategies railroads can use to identify the risk of fatigue, such as evaluating operator scheduling including on-duty call practices, work and rest cycles, and changes in start times. The FRA further suggests the use of validated biomathematical models of fatigue to assist in this assessment.[5] For railroads that do not

[3] Federal Aviation Administration, Advisory Circular 120-103A Fatigue Risk Management Systems for Aviation Safety, May 6, 2013.

[4] NTSB (National Transportation Board), *Long Island Rail Road Roadway Worker Fatality, Queens Village, New York, June 10, 2017*, RAR-20/01 (Washington, DC: NTSB, 2020).

[5] The NTSB has recommended the use of biomathematical models of fatigue in the following railroad reports: NTSB-RAR-20/01; NTSB, *Collision of Two Union Pacific Railroad Freight Trains, Hoxie, Arkansas*, *August 17, 2014,* RAR-16/03 (Washington, DC: NTSB, 2016); NTSB, *Collision of BNSF Coal Train With the Rear End of Standing BNSF Maintenance-of-Way Equipment Train, Red Oak, Iowa, April 17, 2011,* RAR-12/02 (Washington, DC: NTSB, 2012); NTSB, *Chicago Transit Authority Train Collides with Bumping Post and Escalator at O'Hare Station, Chicago, Illinois*, *March 24, 2014*, RAR-15-01 (Washington, DC: NTSB, 2015).

use fatigue models, however, a fatigue assessment would be made by company officials, who may not have the educational background, training, or experience needed to identify and evaluate fatigue risks or appropriate fatigue mitigation strategies. Therefore, the NTSB believes that to ensure that railroads accurately identify fatigue risks, the FRMP regulation should require that risk-based hazard analyses include personnel who have formal education or training in fatigue science and the evaluation of conditions, especially work schedules, that lead to human fatigue.

2. The need for comprehensive employee medical records required to evaluate medical conditions that can affect fatigue. In numerous accidents, the NTSB has identified medical conditions and medications that resulted in operator fatigue.[6] The NTSB supports the FRA's position that fatigue analyses consider general health and medical conditions that can affect the fatigue levels of safety-related railroad employees. However, the NTSB notes that FRA regulations only require safety-sensitive employees to be medically evaluated for hearing and vision.[7] The NTSB is aware that many railroads collect additional employee medical information beyond these basic federal requirements, but that is not necessarily the case for all railroads who are subject to this FRMP regulation.

   Since 2002, the NTSB has been recommending that the FRA expand the required medical screening to include sleep disorders. There are two recommendations on this subject currently classified "Open—Unacceptable Response."[8] Therefore, the NTSB believes that the FRMP regulation should require railroads to collect and evaluate all the necessary medical information needed to make an assessment for medical conditions and medications that may cause fatigue.

In summary, the NTSB supports the proposed regulations for railroads to develop and implement an FRMP plan that the FRA would review and approve. We believe that an FRMP in the railroad industry is an important step in identifying and mitigating fatigue risks and will significantly reduce or prevent incidents and accidents caused by fatigued employees.

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[6] See, for example: NTSB, *Collision of Two Canadian National/Illinois Central Railway Trains Near Clarkston, Michigan, November 15, 2001*, RAR-02/04 (Washington DC: NTSB, 2002); NTSB, *Derailment of Metro-North Railroad Train 8808, Bronx, New York, December 1, 2013*, RAB-14/12 (Washington, DC: NTSB, 2014).

[7] Title 49 *Code of Federal Regulations* (*CFR*) 240.121 Criteria for Vision and Hearing Acuity Data.

[8] Safety Recommendation R-12-16 "Require railroads to medically screen employees in safety-sensitive positions for sleep apnea and other sleep disorders," currently classified Open—Unacceptable Response and Safety Recommendation R-13-21 "Develop medical certification regulations for employees in safety-sensitive positions that include, at a minimum, (1) a complete medical history that includes specific screening for sleep disorders, a review of current medications, and a thorough physical examination, (2) standardization of testing protocols across the industry, and (3) centralized oversight of certification decisions for employees who fail initial testing; and consider requiring that medical examinations be performed by those with specific training and certification in evaluating medication use and health issues related to occupational safety on railroads." Classified Open—Unacceptable Response.R-13-21 supersedes Safety Recommendations R-02-24 through -26 issued November 27, 2002.

The NTSB appreciates the opportunity to comment on this notice.

Sincerely,

Robert L. Sumwalt, III
Chairman