

# **EXHIBIT 3-X**

**Docket No. DCA-08-MR009**

**NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C. 20594**

**NTSB Safety Recommendation R-05-10  
Recommendation Report**

# Recommendation Report

Tuesday, February 24, 2009

MODE:RAILROAD REC:R-05-010 STATUS:OUA ADDRESSEE:FRA

**Log Number R-717A**

**Issue Date 11/23/2005**

**Chicago III**

**10/12/2003**

On October 12, 2003, about 4:38 p.m., central daylight time, westbound Northeast Illinois Regional Commuter Railroad (Metra) train 519 derailed its two locomotives and five passenger cars as it traversed a crossover from track 1 to track 2 near Control Point 48th Street in Chicago, Illinois. The train derailed at a recorded speed of about 68 mph. The maximum authorized speed through the crossover was 10 mph. There were about 375 passengers and a crew of 3 on board. As a result of the accident, 47 passengers were transported to eight local hospitals. Of these, 44 were treated and released, and 3 were admitted for observation. Damages from the accident exceeded \$5 million.

**Recommendation # R-05-010**

**Overall Status  
OUA**

**Priority  
CLASS II**

Based on its investigation of the October 12, 2003, Metra train derailment in Chicago, Illinois, the National Transportation Safety Board makes the following safety recommendations to the FRA: Require train crews to call out all signal indications over the radio, including clear signals, at all locations that are not equipped with automatic cab signals with enforcement or a positive train control system.

FRA

Open - Unacceptable Response

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5/16/2006 Addressee

The requirement for the locomotive engineer to call out certain information over the radio and requiring an acknowledgment from a member of the train crew, has been a practice in the railroad industry since the 1960s. The origin of this practice was primarily rooted in attempting to maintain the alertness of the train crews who were either riding in the caboose at the rear of the train, or in the body of a passenger train, by notifying them that the train was approaching a siding or station. While far from universal, in the ensuing years, additional railroads slowly embraced the concept, some even expanding it to include fixed signal aspects and indications, but again strictly for the alertness value. Eventually, however, railroads recognized that an ancillary benefit could be derived from this practice by obligating the train crew to become more vigilant in the operation of the train.

By the 1980s, with the gradual elimination of cabooses on freight trains, the conductor and brakeman were now required to ride in the operating cab of the controlling locomotive, along with the engineer. Under these circumstances, signal calling was sometimes restricted to the locomotive cab, but over time railroads also continued to experiment with calling of signals on the radio.

When FRA issued Emergency Order No. 20 (EO 20) in February 1996 and modified in Notice No. 2 in March 1996, FRA recognized the immediate need to ensure that signal indications were followed by train and engine crews. Since certain operating rules requiring the communication of signal indications and other information were already in place on many railroads, FRA adopted in EO 20 a rule that required a crew member located in the operating cab of a controlling locomotive, cab car, or MU car to orally communicate each wayside signal indication that required that the train be prepared to stop at the next wayside signal or that the train be prepared to pass the next wayside signal at restricted speed. A designated crewmember, whether in the operating compartment or elsewhere in the train, must then immediately acknowledge and confirm the transmission. That requirement remains in place.

However, FRA did not require that this information be transmitted over the radio. If another crewmember is present in the operating compartment, or if an intercom is used, then these methods would satisfy this requirement. FRA's expectations are that in the absence of an appropriate response by the engineer to a restrictive indication that has been communicated, the designated crewmember shall take action to ensure the appropriate response. In the 10 years that this specific requirement of EO 20 has been in effect, FRA is unaware of any issues of noncompliance, or any instance of a train crewmember having to take any action to ensure that the train is being operated safely.

However, by contrast, FRA sees limited value in indiscriminately broadcasting all signal aspects and indications over the radio. On a passenger train, for example, train crews may be occupied with other important duties such as collecting tickets, making change, answering passenger inquiries, adjudicating fare disputes, controlling unruly passengers, and making heat/light adjustments. With tinted windows obscuring their external view and inhibiting their ability to judge speed and the train's location, particularly at night, a crew member's ability to react quickly and appropriately to signal information is dubious at best. In the case of freight trains, all crewmembers will typically be seated in the locomotive cab or will be distracted by other duties or personal needs away from their normal positions in the cab.

Second, arbitrary radio transmissions that have no practical value can actually be a detriment to safety by unnecessarily congesting the airwaves, particularly in terminal areas (as the Board notes in its accident investigation report, EO 20 has an exception for "yard and terminal limits"). Further, calling signal indications such as clear or advance approach, which require no immediate action on the part of the engineer, would be meaningless to another crew member located elsewhere in the train, since they would not be required to take any action either.

Third, radio transmissions can also be interrupted ("stepped on"), thereby rendering the information incomplete or useless. Requiring separate acknowledgement of each transmission-including clear signals-would further clog the airways and would like introduce a new source of disruption to the engineer's situational awareness, particularly in the case of commuter operations where train speeds and frequent signals could result in an unacceptable communications workload. Also, with the multiplicity of channels in use today, one crew may not necessarily hear all transmissions that could affect their train.

Fourth, repetitive radio transmissions lose their effectiveness over time and may become merely white noise. FRA believes that it is essential that the power of Federal regulation be reserved for truly necessary and practical requirements, lest their influence be seriously diluted.

Fifth, too much information broadcast over the radio regarding train locations, speed, signal aspects and indications, etc., may create an anticipatory environment that can influence crews to act capriciously on that information. FRA's accident files contain cases that were caused by crews acting on information regarding a preceding train's location, even though railroad operating rules and

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Federal regulations prohibit this practice. The Board itself has noted that "communications between trains can be inconsistent," and that "radio communication between trains, because it is ad hoc, can itself lead to misunderstandings that could compromise safety." (NTSB RAR 01-01 at 35-36.)

FRA does appreciate that, in the context of passenger operations subject to EO 20, it is appropriate to review the requirements for calling of signals, the present limitation to aspects more restrictive than those at issue in the Metra derailment and the practices of the railroads in designation areas where even these minimum requirements do not apply. In response to the Board's expressed concerns, FRA will request the Passenger Safety Working Group of the Railroad Safety Advisory Committee to include these issues in its forthcoming review of EO 20.

However, FRA strongly believes that an indiscriminant implementation of the subject recommendation to all railroad operations is not supported by the Board's analysis, the circumstances of the Metra derailment, or other information available to FRA. Accordingly, FRA respectfully requests that the NTSB reconsider this safety recommendation, classifying Safety Recommendation R-05-10 as "Closed-Reconsidered."

11/15/2006 NTSB

The Safety Board is aware that on February 22, 1996, the FRA issued Emergency Order 20 (EO20) and modified it in Notice No. 2 in March 1996, as a result of the collision and derailment of a Maryland Transit Administration (MARC) and an Amtrak train near Silver Spring, Maryland, on February 16, 1996. The Board notes that the FRA will request the Passenger Safety Working Group of the Railroad Safety Advisory Committee (RSAC) to include these issues in the forthcoming review of EO20. We would appreciate being informed of the timeframe for conducting this review. We further note concerns on the part of the FRA and some of the class I and commuter railroads regarding difficulties they anticipate such as airwave congestion and a loss of effectiveness of radio-transmitted messages due to the repetitious nature of this practice should the FRA require all railroads to call out all signals, including clear signal indications.

The Safety Board is aware that two class I railroads (CSX and Norfolk Southern [NS]) and two commuter railroads (Virginia Railway Express and MARC, when operating on CSX and NS track) currently call out all signals and apparently have not found this practice to be problematic. Several other railroads also require train crews to call out all signals under various circumstances and conditions. The Board suggests that, as part of its review of EO20, the FRA, through its RSAC, should study the effectiveness of these railroads' procedures related to calling out all signals to determine how these railroad procedures could be applied industry wide. The Board believes that all railroads should call all signal indications, including clear at all locations except yard and terminal limits. Pending these actions being taken, Safety Recommendation R-05-10 is classified "Open-Unacceptable Response."

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**Total Number of Recommendations for Recommendation Report: 1**

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## Selection for Report:

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ADDRESSEE:FRA