

NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C.

ISSUED: April 21, 1977

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Forwarded to:  
Honorable Brock Adams  
Secretary  
Department of Transportation  
400 Seventh Street, S. W.  
Washington, D.C. 20590  
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SAFETY RECOMMENDATION(S)  
R-77-9 and 10  
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About 4:25 a.m., on May 16, 1976, a Chicago and North Western Transportation Company (CNW) freight train derailed near Glen Ellyn, Illinois. Another CNW freight train on an adjacent track collided with the derailed cars; the locomotive and nine cars of this train derailed. During the derailment, the head on a tank car was punctured by the coupler of another car. The tank car's anhydrous ammonia cargo escaped. Fifteen persons were injured as a result of the derailment and release of the ammonia. Damage from the accident amounted to \$1,914,600. 1/

The emergency personnel at Glen Ellyn performed exceptionally well during this emergency. They confined the ammonia's harm to minor injuries and minor ecological damage. Their lack of expert advice during the earliest stage of the emergency, however, shows a weakness in current methods of assisting emergency personnel in accidents involving hazardous materials.

Awareness of the presence of hazardous materials in a train wreck during the earliest stages of the emergency response is essential for police and firemen. When hazardous materials are present, firemen may have to abandon normal approaches and use alternative methods to eliminate the hazard. Department of Transportation safety regulations require that hazardous materials cars must be placarded, and that the commodity names must be stenciled on cars carrying certain cargoes such as anhydrous ammonia. The traincrew carries documents that indicate the position in the train of each loaded car containing hazardous materials. A member of the traincrew also possesses copies of the shipping papers for the hazardous materials which show the information required.

1/ For more detailed information on this accident, read "Railroad Accident Report: Chicago and North Western Transportation Company, Freight Train Derailments and Collision, Glen Ellyn, Illinois, May 16, 1976." NTSB-RAR-77-2.

Under the regulatory procedures, emergency personnel are expected to look for the placards, stencils, or crewman with the hazardous materials information. There is no evidence that the first policemen or firemen to arrive at the Glen Ellyn accident site attempted to locate this information. The odor of the ammonia was the first indication of hazardous materials given to emergency personnel. This indicates that these procedures cannot be relied on to alert emergency personnel.

An alternative procedure for informing public safety officials that hazardous materials are present in a railroad emergency is suggested by the communications between the Dupage County Communications Center and the railroad dispatcher within 3 minutes after the Glen Ellyn derailment. If the railroad dispatcher were routinely informed that a train was carrying hazardous materials he could be required to inform the public safety communicator as soon as he becomes aware of a wreck involving that train. If the dispatcher were provided with the names and locations of the hazardous materials shipments in the train, this also could be given to the public safety communicator. At Glen Ellyn, the firechief could have been alerted to the presence of the hazardous material and its specific location before he arrived at the scene.

By requiring communication between two specified parties, the reliability of the notification to public safety officials should be increased. It would not be affected by weather or wreckage conditions and when radios are operational should provide the data to the proper official, usually before he would arrive at the scene. Also, public safety officials could communicate with the railroad dispatcher whenever they observe a train wreck, if they have no prior information from the dispatcher.

The investigation of the derailment disclosed that train No. 242 was the first eastbound freight train permitted by CNW to operate at a passenger train speed of 60 mph on track 2 and was moving at 60 mph when the accident occurred. A freight train speed of 60 mph requires that the track be maintained to the Federal Track Safety Standards requirements for Class 4. An examination of track 2 immediately west of the derailment point disclosed five locations where the crosstie conditions only complied with Class 3 specifications and one point where they did not even comply with Class 1. There were several locations where the differences in cross levels were marginal and several joint locations where unsecured track shims had been used to adjust levels.


It is obvious from the conditions found that track 2 did not comply with the requirements for Class 4 track.

Therefore the National Transportation Safety Board recommends that the Secretary of Transportation:

Require by regulation that persons performing train dispatching functions maintain a record of trains and cars that are carrying hazardous materials and of current methods of and procedures for, containment of these materials in the event of a mishap and communicate this information to public safety officials immediately after they learn of a train accident. (Class II, Priority Followup) (R-77-9)

Require the Chicago and North Western Transportation Company to maintain its tracks to the specifications of the Federal Track Standards for each class and not increase train speeds until it is determined that the track is adequate for such speeds. (Class II, Priority Followup) (R-77-10)

TODD, Chairman, BAILEY, Vice Chairman, McADAMS and HOGUE, Members, concurred in the above recommendations. Haley, Member did not participate.

  
for By: Webster B. Todd, Jr.  
Chairman