



National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Log B-10204
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Date: February 12, 1990

In reply refer to: R-89-89

Linda S. Anderson
Chairman, Board of County Commissioners
Lewis and Clark County
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About 4:30 a.m. mountain standard time on February 2, 1989, freight cars from Montana Rail Link Inc. (MRL) westbound train 1-121-28 (train 121) rolled eastward down a mountain grade and struck a stopped helper locomotive consist, Helper 1, in Helena, Montana. The locomotive consist of train 121 included three helper units (Helper 2) and three road units positioned at the head end of a 49-car train. The crewmembers of train 121 had uncoupled the locomotive units from the train to rearrange the locomotive consist while stopped on a mountain grade. In the collision and derailment, 15 cars from train 121 derailed, including 3 tank cars containing hydrogen peroxide, isopropyl alcohol, and acetone. Hazardous material released in the accident later resulted in a fire and explosions. About 3,500 residents of Helena were evacuated. Two crewmembers of Helper 1 were only slightly injured. The estimated damage (including clean-up and lading) as a result of this accident exceeded \$6 million.¹

The National Transportation Safety Board determined that the probable cause of this accident was the failure of the crew of train 1-121-28 to properly secure their train by placing the train brakes in emergency and applying hand brakes when it was left standing unattended on a mountain grade. Contributing to the accident was the decision of the engineer of Helper 2 to rearrange the locomotive consist and leave the train unattended on the mountain grade, and the effects of the extreme cold weather on the airbrake system of the train and the crewmembers. Also contributing was the failure of the operating management of the Montana Rail Link to adequately assess the qualifications and training of employees placed in train service. Contributing to the severity of the accident was the release and ignition of

¹ For more detailed information, read Railroad Accident Report-- "Collision and Derailment of Montana Rail Link Freight Train with Locomotive Units, and Hazardous Materials Release at Helena, Montana, February 2, 1989." (NTSB/RAR-89/05)

hazardous materials.

The Hazardous Materials Emergency Response Plan (HMER) designates the [acting] fire chief as the incident commander and all response actions are to be under one command. The incident commander could not implement the incident command system² during the absence of radio communications and therefore was unable to effectively exercise control over the multiple command posts for the city, county, and state. As a result, there was a break down in communications and lack of coordination at the communications center, command posts, and operations center. The lack of training of some of the responding agencies on the incident command system further compounded problems as some of the responding agencies did not know that with the incident command system the [acting] fire chief was the incident commander. As a result, many of the emergency responding agencies were unaware of the HFD command post, had difficulty obtaining information, and did not recognize anyone as being in overall command. The Safety Board believes that the City of Helena needs to coordinate with Lewis and Clark County DES and Montana DES and revise the Hazardous Materials Emergency Response Plan defining the role of each agency, the duties and authority of the incident commander, and the training for personnel to implement the plan.

Therefore, the National Transportation Safety Board recommends that the Lewis and Clark County Disaster and Emergency Services:

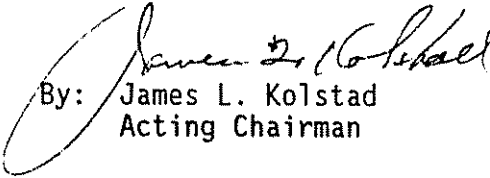
Revise, in coordination with the City of Helena and Montana Disaster and Emergency Services, the Hazardous Materials Emergency Response Plan to define the role of each agency, the duties and authority of the incident commander, and the training for personnel to implement the plan. (Class II, Priority Action) (R-89-89)

Also as a result of its investigation of this accident, the Safety Board issued Safety Recommendations R-89-68 through R-89-77 to Montana Rail Link, Inc., R-89-78 and R-89-79 to the Burlington Northern Railroad Company, R-89-80 to the Secretary of the U.S. Department of Transportation, R-89-81 and R-89-82 to the Federal Railroad Administration, R-89-83 to the Research and Special Programs Administration, R-89-84 through R-89-87 to the City of Helena, R-89-88 to the State of Montana, and R-89-90 through R-89-92 to the Association of American Railroads.

The National Transportation Safety Board is an independent Federal agency with the statutory responsibility "...to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations..."(Public Law 93-633). The Safety Board is vitally interested in any actions taken as a result of its safety recommendations and would appreciate a response from you regarding action taken or contemplated with respect to the recommendations in this letter. Please refer to Safety Recommendation R-89-89 in your reply.

²The incident command system provides for emergency management by the incident commander who has liaison with other agencies, directs the use of equipment, designates management of activities through other qualified officers, and has liaison with on-scene technical experts.

KOLSTAD, Acting Chairman, and BURNETT, LAUBER, NALL, and DICKINSON, Members, concurred in these recommendations.


By: James L. Kolstad
Acting Chairman