



# National Transportation Safety Board

Washington, D.C. 20594

## Safety Recommendation

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Date: September 26, 1985

In reply refer to: R-85-100 and -101

Honorable Terry Hartwick  
Mayor  
City of North Little Rock  
City Hall, 3rd and Main Street  
North Little Rock, Arkansas 72114

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About 4:45 a.m., c.s.t., December 31, 1984, a switchman discovered ethylene oxide leaking from a tank car at the Missouri Pacific Railroad Company's (MOPAC) automatic retarder classification railroad yard at North Little Rock, Arkansas. Railroad officials, fearing an explosion, evacuated the yard and formulated plans to transfer the remaining ethylene oxide to an empty rail tank car. At 3:15 p.m., in anticipation of the arrival of the equipment to transfer the ethylene oxide and concern about the tank car rocketing should ignition occur, the evacuation was expanded to include an estimated 2,500 persons within a 1-mile radius of the leaking car. All rail and highway traffic within the evacuated area was stopped with the exception of traffic using Route 67-167 located in the extreme northwest quadrant of the evacuated area. After the transfer, the residual ethylene oxide was purged from the tank car with nitrogen, and the evacuation was terminated at 11:25 a.m., January 1, 1985. There were no injuries or fire. <sup>1/</sup>

At the time of the accident, North Little Rock had no coordinated community/yard emergency preparedness procedures in effect. The lack of such procedures resulted in delayed notification of emergency response personnel (1 hour 38 minutes after the leakage was discovered) and delayed the evacuation of persons in the 1-mile evacuation zone (about 10 hours after the leakage discovery).

Fire department personnel were not familiar with the railroad yard, including its layout, operations, access routes, and firefighting equipment. Further, there was no prior agreement between the fire department, other emergency response agencies, and yard personnel concerning the manner in which emergency management decisions were to be made, the specific emergency response role each was to fulfill, and the emergency response capabilities of each. The fire marshal and the district chief stated that they arrived at the railroad yard expecting railroad officials to tell them what action they were to take. The fact that the fire department was not prepared to respond effectively to an emergency within the yard and was not aware of the insufficient and unmaintained water system within the yard increased the hazard to the public from accidents within the yard.

<sup>1/</sup> For more detailed information, read Hazardous Material Special Investigation Report--"Hazardous Materials Release, Missouri Pacific Railroad Company's North Little Rock, Arkansas, Railroad Yard, December 31, 1984" (NTSB/SIR-85/03).

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The fire department, like most all public agencies surveyed in the Safety Board's special investigation report on railroad yard safety, <sup>2/</sup> perceived the MOPAC yard as a unique threat to public safety; yet, it had made no special preparations for responding to emergencies in the yard. For example, the fire department had prepared no contingency plan for handling the release of hazardous materials in the yard, it possessed no special or protective equipment required for responding to releases of hazardous materials handled within the yard, its personnel had not been trained in handling hazardous materials releases, and it had made no effort to determine the yard's capabilities or resources and the nature of the hazardous materials moved within the yard. The Arkansas Office of Emergency Services should review in-depth the emergency response in this accident and, in carrying out its responsibility for aiding communities in preparing for emergencies, should determine the state of preparedness of other communities located adjacent to yards and work with those communities to correct deficiencies.

Therefore, as a result of its investigation, the National Transportation Safety Board recommends that the City of North Little Rock, Arkansas:

Develop, in cooperation with the Arkansas Office of Emergency Services and the Missouri Pacific Railroad Company, an emergency response plan for responding to releases of hazardous materials within railroad yards. The plan should address, at a minimum, initial notification, identification of key contact personnel, response actions for the safe handling of releases of the various types of hazardous materials transported, identification of the resources to be provided, actions to be taken by the railroad and the city, and emergency drills and exercises. (Class II, Priority Action) (R-85-100)

Provide fire and other emergency response personnel with training, response guidance, and equipment necessary to deal with the release of hazardous materials within railroad yards. (Class II, Priority Action) (R-85-101)

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 action taken as a result of its safety recommendations. Therefore, it would appreciate a response from you regarding action taken or contemplated with respect to the recommendations in this letter.

BURNETT, Chairman, GOLDMAN, Vice Chairman, and BURSLEY, Member, concurred in these recommendations.

By:   
Jim Burnett  
Chairman

<sup>2/</sup> Special Investigation Report—"Railroad Yard Safety—Hazardous Materials and Emergency Preparedness" (NTSB/SIR-85/02).

