

SP-20
R-85-98

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: SEP 26 1985

Forwarded to:

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Director
Arkansas Office of Emergency Service
Post Office Box 758
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SAFETY RECOMMENDATION(S)

R-85-98

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. 1/

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.

1/ 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).

The fire department, like most all public agencies surveyed in the Safety Board's special investigation report on railroad yard safety, 2/ 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 indepth 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.

The independent action taken by the terminal superintendent to develop an emergency plan for this yard is commendable. However, this action did not result in the development of a fully effective, coordinated emergency preparedness response plan because it failed to include the community in the initial development stages. As pointed out in the Safety Board's special investigation report on railroad yard safety, "An adequate level of community/railroad yard hazardous materials risk management implies that each entity: will have a clear idea of the risk to the community, will have knowledge of the emergency resources and procedures of the other, and will familiarize the other with their response capabilities and expectations of what is needed to reduce the risk. For all of this to occur, each entity must develop a response capability, tailor parts of it to the specific needs of the other entity, and practice these procedures to the extent possible to identify new needs or to improve upon existing practices. Doing these things only after an accident has occurred means that the opportunity to prevent loss already has been missed."

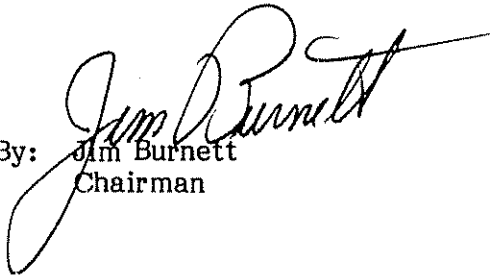
Therefore, as a result of its investigation of this accident, the National Transportation Safety Board recommends that the Arkansas Office of Emergency Services:

Develop in cooperation with the railroads operating in the State and with the Federal Emergency Management Agency, emergency response guidelines for use by communities adjacent to railroad yards that handle bulk shipments of hazardous materials and assist those communities in the development of effective procedures for responding to releases of hazardous materials within railroad yards. These procedures 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 by the community, and emergency drills and exercises. (Class II, Priority Action) (R-85-98)

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 recommendation in this letter.

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

BURNETT, Chairman, GOLDMAN, Vice Chairman, and BURSLEY, Member, concurred in this recommendation.

By:  Jim Burnett
Chairman