



National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: OCT 1, 1999

In Reply Refer to: H-99-57 and -58

Honorable Kelley S. Coyner
Administrator
Research and Special Programs Administration
400 Seventh Street, S. W.
Washington, D.C. 20590

On August 9, 1998, about 12:53 a.m., a Premium Tank Lines, Inc., (Premium) truckdriver was transferring gasoline from a cargo tank to the underground storage tanks at a Fast Lane gasoline station-convenience store in Biloxi, Mississippi, when an underground storage tank containing gasoline overflowed. An estimated 550 gallons of gasoline flowed from the storage tank, across the station lot into the adjacent highway, through an intersection, and into a storm drain. The gasoline ignited, and fire engulfed three vehicles near the intersection, which ultimately resulted in the deaths of five occupants and the serious injury of one. Damages were estimated at \$55,000.¹

From its investigation of this accident, the Safety Board identified several deficiencies in Federal regulations, specifically the written procedures for loading and unloading cargo tanks transporting hazardous materials and the requirements for notifying Federal agencies in the event of a hazardous materials incident.

Interviews with experienced Premium drivers and the truckdriver involved in the Biloxi accident revealed that the employees' knowledge about company policies and procedures concerning loading and unloading gasoline varied widely. The Safety Board therefore looked at the reference materials and instruction Premium provided to its new hires concerning gasoline transfers.

The driver's manual given to Premium's new hires and the trainer's manual and the checksheet used by its driver-trainers were very general in nature and addressed few safety topics other than those concerning over-the-road transport. The manuals contained minimal instructions addressing gasoline transfers; the checksheet lacked detailed items under the category "Loading and Unloading." Although the driver-trainer said that he

¹ For more information, read *Overflow of Gasoline and Fire at a Service Station-Convenience Store, Biloxi, Mississippi, August 9, 1998*, Hazardous Materials Accident Report, NTSB/HMZ-99/02 (Washington, D.C.: National Transportation Safety Board, 1999).



explained and demonstrated specific unloading procedures to the truckdriver, the driver's personal notes taken during training list only very general steps and contain few safety considerations.

Because of the dangers that hazardous materials pose, the drivers transporting them must be among the most skilled operators. In addition to having a high degree of general truck driving skill and experience, drivers transporting hazardous materials need specialized knowledge, which makes training related to specific job functions especially important. Drivers must not only be well-versed in the properties of their cargo and the rules of the road concerning the transportation of those materials but also in all proper handling procedures if they are to be responsible for loading and unloading.

When addressing operational considerations with serious safety implications, oral instructions are not sufficient. Oral instructions can be misinterpreted. Even when driver-trainers follow up their oral instructions by watching the drivers perform a function, this is no guarantee that the drivers understand the safety implications of the procedures they are following. Further, over time many trainees will forget instructions on procedures that they are not required to perform frequently. All drivers of cargo tank trucks need specific written job procedures if they are to operate safely. In the case of new employees, in particular, well written loading and unloading procedures can establish desired work patterns before bad habits are learned. The Safety Board therefore concluded that to help drivers follow safe loading and unloading procedures, Federal regulations should require carriers that transport hazardous materials in cargo tanks to have specific written procedures for loading and unloading.

Although this accident occurred about 1:00 a.m. on August 9, 1998, Premium officials did not notify the National Response Center (NRC) until nearly 24 hours after the accident. The delayed notification precluded the Safety Board and other Federal agencies from responding promptly and initiating the accident investigation.

Under reporting criteria at 49 *Code of Federal Regulations* (CFR) 171.15, a carrier that transports hazardous materials is required to provide telephonic notification "at the earliest practical moment." However, the phrase "the earliest practical moment" is not defined in the hazardous materials regulations, nor has RSPA issued an interpretation that provides any time constraints on the reporting time frame. The Safety Board itself requires railroads under 49 CFR 840.3 to provide telephonic notification through the NRC not later than 2 hours after an accident resulting in a fatality, the release of hazardous materials, or an evacuation of the public and not later than 4 hours after an accident resulting in damages exceeding specified thresholds. Similarly, the Occupational Health and Safety Administration requires notification within 8 hours after the death or in-patient treatment of any employee following a work-related accident. The Safety Board concluded that the effectiveness of requirements for telephonic notification of certain hazardous materials accidents would be strengthened if the regulations contained a specified time frame.

The National Transportation Safety Board therefore recommends that the Research and Special Programs Administration:

Promulgate regulations requiring motor carriers that transport hazardous materials in cargo tanks to develop and maintain specific written cargo loading and unloading procedures for their drivers. (H-99-57)

Require that a hazardous materials incident meeting the immediate notification requirements in 49 *Code of Federal Regulations* 171.15 be reported within a specified time period to Federal authorities. (H-99-58)

Also, the Safety Board issued safety recommendations to the Federal Highway Administration, the Environmental Protection Agency, Premium Tank Lines, Inc., R.R. Morrison and Son, Inc., the American Petroleum Institute, the National Tank Truck Carriers Association, the National Association of Convenience Stores, the National Association of Truck Stop Operators, the Petroleum Marketers Association of America, the Service Station Dealers of America, and the Society of Independent Gasoline Marketers of America.

The Safety Board is 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. Please refer to Safety Recommendations H-99-57 and -58 in your reply. If you have any questions, you may call (202) 314-6678.

Chairman HALL, Vice Chairman FRANCIS, and Members HAMMERSCHMIDT, GOGLIA, and BLACK concurred in these recommendations.

Original Signed

By: Jim Hall
Chairman