



National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: July 20, 1990

In reply refer to: I-90-18 and -19

Honorable Robert Holcomb
Mayor, City of San Bernardino
300 North D Street
San Bernardino, California 92401

About 7:36 a.m., Pacific daylight time, on May 12, 1989, Southern Pacific Transportation Company (SP) freight train 1-MJLBP-111, which consisted of a four-unit locomotive on the head end of the train, 69 hopper cars loaded with trona, and a two-unit helper locomotive on the rear of the train, derailed at milepost 486.8, in San Bernardino, California. The entire train was destroyed as a result of the derailment. Seven homes located in the adjacent neighborhood were totally destroyed and four others were extensively damaged. Of the five crewmembers onboard the train, two on the head end of the train were killed, one received serious injuries, and the two on the rear end of the train received minor injuries. Of eight residents in their homes at the time of the accident, two were killed and one received serious injuries as a result of being trapped under debris for 15 hours. Local officials evacuated homes in the surrounding area because of a concern that a 14-inch pipeline owned by the Calnev Pipe Line Company, which was transporting gasoline and was located under the wreckage, may have been damaged during the accident sequence or was susceptible to being damaged during wreckage clearing operations. Residents were allowed to return to their homes within 24 hours of the derailment.

About 8:05 a.m., on May 25, 1989, 13 days after the train derailment, the 14-inch pipeline ruptured at the site of the derailment, released its product, and ignited. As a result of the release and ignition of gasoline, 2 residents were killed, 3 received serious injuries, and 16 reported minor injuries. Eleven homes in the adjacent neighborhood were destroyed, 3 received moderate fire and smoke damage, and 3 received smoke damage only.

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In addition, 21 motor vehicles were destroyed. Residents within a four-block area of the rupture were evacuated by local officials.¹

Although the City of San Bernardino had developed a general plan for land use, which was the framework for decisions by the City on the use of its land for the protection of residents from natural and man-caused hazards, the use of land in proximity to mainline railroads or high pressure pipelines was not addressed in the general plan or in subsequent revisions to the plan. The Safety Board believes that city and county officials should take into account the location of railroads and high pressure pipelines when developing a general plan for land use.

The initial response to both the train derailment and the pipeline rupture was timely; mutual aid agreements were appropriately implemented and the necessary resources were available to an incident command system that was well organized. Evacuation of residents following both accidents was well coordinated and was conducted in a timely manner. Residential utility lines were appropriately shut down following both accidents. A staging area for incoming equipment was set up which was effective in the management of firefighting efforts following the pipeline rupture. The medical triage group coordinated transportation and treatment of injured with ambulance agencies and the Red Cross following both accidents.

When the incident commander arrived at the scene of the train derailment, he appropriately requested that a hazardous materials unit respond to the scene because of the unknown product being carried by the train, the leaking diesel fuel from the overturned locomotive units, and the possibility of pipeline involvement. Considerable effort was given to locating missing persons during the search and rescue operation before any attempt was made to remove the train wreckage.

The investigation revealed that personnel from the California State Fire Marshal's Office, as representatives for the Office of Pipeline Safety, did not make the incident commander sufficiently aware of their role in responding to the train derailment. The incident commander testified that he made several requests of Calnev following the train derailment but failed to exercise his authority as incident commander, which empowered him to shut down all operations until acceptable safety precautions had been taken, to follow up on his requests to ensure that the integrity of the pipeline had been maintained. Had the incident commander contacted the State Fire Marshal's Office and expressed his concerns, some of the requests he made to Calnev may have been more adequately addressed. Testimony from representatives of the State Fire Marshal's Office suggests that they had routinely dealt directly with pipeline companies and may have been remiss in not dealing more directly with the incident commander. During the response to the pipeline rupture, the presence and role of the State Fire Marshal's

¹For more detailed information, read Railroad Accident Report-- "Derailment of Southern Pacific Transportation Company Freight Train on May 12, 1989, and Subsequent Rupture of Calnev Petroleum Pipeline on May 25, 1989, at San Bernardino, California" (NTSB/RAR-90/02).

Office was made known to the incident commander. Nevertheless, the Safety Board believes that the role of the incident commander should be clearly defined to outline the individual's authority as the person in charge of the incident. The incident commander should not, as the deputy fire chief did following the train derailment, relinquish control of the incident until all concerns regarding the public's safety have been thoroughly satisfied.

The agreement between the City of San Bernardino and the SP that was brought to the Safety Board's attention at the public hearing raises concerns regarding adequate communication among the interested parties responding to the accident. Although one provision of the agreement signed by the City of San Bernardino and the SP indicated that the pipeline throughout the derailment area would be completely exposed and inspected, neither the incident commander, who testified that on scene he had expressed the desire to have the pipeline exposed and inspected, nor Calnev, who ultimately decided that complete exposure of the pipeline was not necessary, were informed of the provision at the time the agreement was signed. Further, the agreement was signed after the incident commander terminated his command of the emergency response to the train derailment and after Calnev resumed pipeline operations. According to testimony, neither Calnev nor the San Bernardino fire department were made aware of the provision until weeks after the pipeline rupture. Although it appears that the agreement was signed primarily for the SP to compensate the City of San Bernardino, the Safety Board is concerned that this information was not shared promptly with all pertinent parties.

Therefore, the National Transportation Safety Board recommends that the City of San Bernardino:

Revise the existing plan for land use to account for the location of railroads and high pressure pipelines. (Class II, Priority Action) (I-90-18)

Define clearly the authority of the incident commander as the person-in-charge of an emergency response and emphasize the need to not relinquish control of an incident until all concerns regarding the public safety have been thoroughly satisfied. (Class II, Priority Action) (I-90-19)

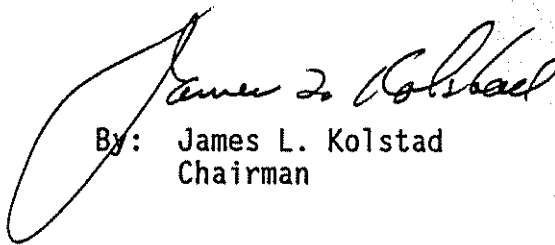
The National Transportation Safety Board is an independent Federal agency with the statutory responsibility "... to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations" (Public Law 93-633). The Safety Board is vitally interested 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. Please refer to Safety Recommendations I-90-18 and -19 in your reply.

Also, the Safety Board issued Safety Recommendations R-90-12 through -21 to the Southern Pacific Transportation Company; R-90-22 through -25 to the Federal Railroad Administration; R-90-26 and -27 to the Association of

American Railroads; P-90-22 and -23 to the Calnev Pipe Line Company; P-90-24 and -25 to the Research and Special Programs Administration and I-90-20 to the National Association of Counties and the National League of Cities.

The Safety Board also reiterated Safety Recommendations P-84-26, P-87-6, P-87-7, and P-87-22 to the Research and Special Programs Administration and R-89-50 to the Federal Railroad Administration.

KOLSTAD, Chairman, COUGHLIN, Vice Chairman, and LAUBER and BURNETT, Members, concurred in these recommendations.



By: James L. Kolstad
Chairman