



National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: November 24, 1986

In reply refer to: P-86-18

Mr. Richard Grande
Mayor of Derby
City Hall
35 Fifth Street
Derby, Connecticut 06415

About 3:55 p.m., eastern standard time, December 6, 1985, a natural gas explosion and fire destroyed the River Restaurant at 268 Main Street in Derby, Connecticut. Gas escaping from a broken gas main at a pressure of about one pound per square inch had escaped, migrated into the restaurant basement, ignited, exploded, and burned. Of the 18 persons inside the restaurant at the time, 6 were killed and 12 were injured; 1 passerby and 1 firefighter were also injured. After the accident the street adjacent to the restaurant was excavated where a 24-inch diameter sewer system had just been installed; an 87-year-old, 3-inch diameter, cast-iron natural gas main was found broken. 1/

In 1985, the city of Derby, Connecticut, contracted with the New England Railroad Construction Company (contractor) to separate the city's combined storm and sanitary sewer system into individual systems. This Federally assisted project included the installation of new storm sewers, the disconnection of related service laterals from the older combined system, and the reconnection of these laterals, as appropriate, to the individual storm or sanitary system. This contractor had six years of experience in constructing sewer, water, and other systems.

The city of Derby also hired Philip W. Genovese and Associates, Incorporated (Genovese), consulting and design engineers, to monitor the work performed by the contractor. Genovese was formed in 1940 and since that time have designed numerous rail, highway, water sewer, and related projects.

An area of concern to the Safety Board is the role that Genovese and Associates were contracted to fulfill. Genovese had been hired by the city of Derby to perform the engineering, prepare the construction plans and specifications, draw up the contract documents for the sewer project, and supply a Resident Project Representative (resident engineer) at the job site. At the Public Hearing held by the Safety Board in Waterbury, Connecticut, on February 11 and 12, 1986, the resident engineer stated that he understood

1/ For more detailed information read Pipeline Accident Report—"Northeast Utilities Service Company, Explosion and Fire, Derby, Connecticut, December 6, 1985" (NTSB/PAR-86/02).

his duties were "to observe the progress of the job and to try and see that the finished product is the same as what was laid out in the specs and the prints." He further pointed out that he had no authority over the contractor and could not direct the contractor to do something or to cease doing something even though the act was unsafe.

The contract between Derby and Genovese expressly stated that Genovese:

. . . shall not be responsible for the acts or omissions of any Contractors, any subcontractors or any of the Contractors' agents or employees or any other persons (except his own employees and agents) at the project site or otherwise performing any of the work on the project.

The contract further stated that the resident engineer:

. . . shall endeavor to provide further protection for the OWNER [Derby] against defects and deficiencies in the work, but the furnishing of such Resident Project Representative will not make the ENGINEER responsible for construction means, methods, techniques, sequences or procedures or for safety precautions or programs, or for the Contractor's failure to perform the construction work in accordance with the Contractor Documents.

The Safety Board believes that when a company is hired ". . . to provide further protection for the OWNER (municipality) against defects and deficiencies in the work. . ." it should be obligated to promote public safety. Apparently, this was not the case as the resident engineer was not explicitly required to and did not take any action to prevent this accident.

In this accident each of the three parties, the contractor, the gas company, and Genovese, apparently all assumed it was the other person's responsibility to protect the gas main. The contractor did not exercise sufficient care in supervising the operation and permitted the excavation, backfill, and compaction close to the cast-iron pipe without sufficient oversight and caution. The gas company did not take the steps necessary to protect its cast-iron pipe even though the pipe was one of the oldest in its system. The resident engineer, who knew the location of the cast-iron gas main and its proximity to the sewer construction, neither cautioned the contractor nor alerted the gas company to the potential hazard. No on-site communication took place among the three parties and as a result, the gas main was broken.

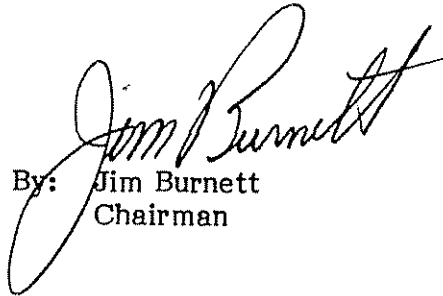
Therefore, the National Transportation Safety Board recommends that the city of Derby, Connecticut:

Establish contracts that involve excavation activities specific authority and responsibility for detecting and correcting any unsafe activities and specifically provide for stopping all excavation-related work until the unsafe conditions are corrected. (Class II, Priority Action) (P-86-18)

Also, as a result of its investigation, the Safety Board issued Safety Recommendations P-86-16 to the National Utilities Contractors' Association, P-86-17 to the American Gas Association, and to the American Public Gas Association, and P-86-19 and -20 to the Northeast Utilities Service Company.

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 recommendation in this letter. Please refer to Safety Recommendation P-86-18 in your reply.

BURNETT, Chairman, GOLDMAN, Vice Chairman, and LAUBER and NALL, Members concurred in this recommendation.


By: Jim Burnett
Chairman