

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

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ISSUED: November 27, 1985

Forwarded to:

Mr. Phillip Lathrop
Chairman
American Society of Mechanical Engineers
Gas Piping Standards Committee
c/o Pacific Gas and Electric Company
77 Beale Street
San Francisco, California 94106

SAFETY RECOMMENDATION(S)

P-85-32

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At 2:40 a.m., on February 22, 1985, a police patrolman on routine patrol smelled strong natural gas odors as he crossed railroad tracks while heading south on North Sixth Street in Sharpsville, Pennsylvania. He radioed this information to the Sharpsville Police Department dispatcher at 2:42 a.m.; the dispatcher relayed the information to the National Fuel Gas Company (gas company) by telephone at 2:43 a.m., and a gas serviceman was ordered to the scene. At 3:15 a.m., before the serviceman arrived at the site of the reported leak, the Sharpsville Inn and a connecting building exploded and burned, killing two persons. Firefighters arriving on scene moments later encountered a second, smaller explosion which injured one firefighter. Gas company personnel shut off the gas to the leak site at 4:15 a.m. 1/

Thirty-five minutes elapsed between the time of the discovery of escaping gas at 2:40 a.m. until the explosion at 3:15 a.m. During that period the gas company promptly alerted and dispatched a serviceman to the site but, as in many similar accidents, the serviceman lived some distance from the leak site, had to get dressed and drive to the gas company offices to get a truck and equipment, and then had to drive to the accident site. In this accident the serviceman arrived at the accident site about 3:25 a.m., about 30 minutes after he was notified, but 10 minutes after the first explosion. This 30-minute response time was reasonable under the circumstances.

The gas company should have suspected the severity of the gas leak when it received an additional call about a strong gas odor from the resident at 13 Fifth Street after receiving the first report from the police dispatcher about a strong gas odor and a possible gas main break. The gas company dispatcher should have requested the assistance of the police and fire departments in ventilating and evacuating the buildings in the immediate area of the leak. The patrolman requested persons in one building to evacuate, but a

1/ For more detailed information, read Pipeline Accident Report—"National Fuel Gas Company, Natural Gas Explosion and Fire, Sharpsville, Pennsylvania, February 22, 1985" (NTSB/PAR-85/02).

request from the gas company for additional assistance might have initiated additional ventilation and evacuation efforts. A request for assistance by the gas company might have prompted the patrolman to enter the Sharpsville Inn to ventilate it, where he would have found the two people inside. Moreover, the gas company's instructions to its dispatchers, which led to the resident at 13 Fifth Street not being told to vacate her building in the face of not only her report of a strong gas odor but also reports of a strong gas odor throughout the area by the police dispatcher, were inappropriate.

The serviceman who first arrived at the site had not been trained by the gas company regarding specific actions to be taken during gas leak emergencies. Although it was too late in this case to do anything about the demolished buildings and the two fatalities, the serviceman did not begin immediately to alert or to evacuate people residing in the immediate area or to ventilate any of the area buildings. These actions were not taken until later when a gas company emergency crew arrived. Since gas companies must rely heavily on employees who are called out for emergencies, particularly at night, they should be given in-depth training in emergency procedures and in working and coordinating with local police and fire departments.

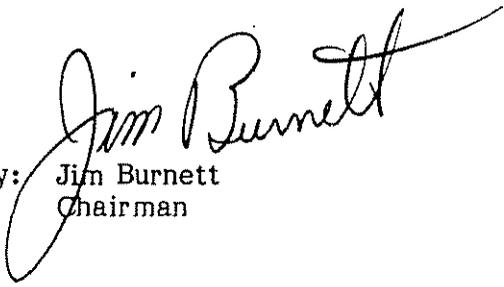
Since 1972 the Safety Board has investigated more than 19 gas distribution pipeline accidents, which involved 35 fatalities and 33 injuries and in which a request for assistance from the local emergency response agencies by the gas companies might have prevented many of the fatalities and injuries. Moreover, because the Board investigates only a small portion of the more than 1,200 gas distribution accidents reported annually (only those accidents involving a fatality or substantial property damage are investigated by the Board), the full effect of improved early notification by gas companies to local emergency response agencies cannot be assessed. The problem is not that gas companies are slow to respond, but that most gas companies have a limited initial response capability, particularly for nighttime incidents. Under normal conditions the gas company dispatcher, once informed of a leak or gas odor, must first verify it, make a determination of its severity, and call the serviceman; all of which takes time. In turn, the serviceman must drive to the problem area and begin his investigation, all of which takes still more time. From the point of view of public safety, it is important that the gas company dispatcher inform the local fire and police departments of the leak or gas odor reported and request that they make an immediate inspection of the affected area, determine the degree of hazard (and here the dispatcher can advise them), and make a decision to evacuate buildings, ventilate buildings, or monitor the area until the gas company serviceman arrives, thus saving much valuable time. When dealing with the possibility of deaths or injuries (not to mention property damage), it is far better to overreact on the side of public safety.

Therefore, the National Transportation Safety Board recommends that the American Society of Mechanical Engineers Gas Piping Standards Committee and the American Petroleum Institute:

Develop, in coordination with national associations of emergency response agencies, guidelines for operators of pipelines describing the circumstances under which local emergency response agencies should be called to respond to pipeline emergencies and to take initial lifesaving measures, and describing the type and extent of training that should be provided to local emergency response agencies as first responders to pipeline emergencies. (Class II, Priority Action) (P-85-32)

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-85-32 in your reply.

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

By:  Jim Burnett
Chairman