

NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C.

Log P-90

ISSUED: December 9, 1977

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Forwarded to:

Mr. Thomas Kiley  
President  
Pennsylvania Gas and Water Company  
39 Public Square  
Wilkes-Barre, Pennsylvania 18711  
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SAFETY RECOMMENDATION(S)

P-77-38 through 40

On June 6, 1977, the National Transportation Safety Board made three recommendations as a result of the pipeline explosions on January 25, 1977, near Williamsport, Pennsylvania. The following is a brief chronology of the accident with further recommendations the Board is making in conjunction with the full report issued by the Board, November 23, 1977.

At 1:36 a.m., e.s.t., on January 25, 1977, a low-order explosion and fire destroyed a house in a residential area near Williamsport, Pennsylvania; the occupant was not seriously injured by the explosion. 1/

At 1:44 a.m., the fire chief of the Old Lycoming Township Volunteer Fire Department, which had responded to the fire, requested that the Pennsylvania Gas and Water Company (Penn Gas) be notified of the fire and explosion. Because the serviceman assigned to emergency calls lived in a town 20 miles away, and it would have taken him 45 minutes to reach the scene of the accident because of heavy snow, a local serviceman was dispatched from Williamsport at 1:55 a.m. At 2:01 a.m., firemen again notified the gas company of strong odors of gas at the accident site.

The local serviceman arrived about 2:10 a.m. in his personal vehicle without the necessary tools and equipment to deal effectively with the gas emergency. He concluded that, since there was no gas service into the house that exploded, the gas main was leaking. He telephoned his dispatcher for a street crew at 2:15 a.m.; he also drove to the gas company shop for a combustible gas indicator (CGI) and other work tools.

1/ For more detailed information about this accident, read "Pipeline Accident Report--Pennsylvania Gas and Water Company, Natural Gas Explosions and Fires, Williamsport, Pennsylvania, January 25, 1977" (NTSB-PAR-77-4)

At 2:39 a.m., a few minutes after the street crew arrived, another explosion demolished a large house 70 feet away. A resident of the house and a bystander were killed by the explosion; several persons, including 19 firemen, were injured. Automobiles, a firetruck, and many houses within a one-block radius were damaged severely.

The Penn Gas leak procedures mention only "customers" and do not include the "public" or mention liaison with public officials such as firemen. Because the two houses that exploded were not served by natural gas, it is possible that the residents of the houses were not familiar with the smell of the odorant put in natural gas, what the hazards of a natural gas leak are, and what the odor of the gas in a house portends. If the volunteer firemen or the residents of the houses that fronted on the street that contained the high-pressure gas main knew more of the hazards of natural gas, the nearby houses probably could have been evacuated sooner and the fatalities prevented.

The gas company dispatcher did not obtain enough information to determine if the leak initially should have been designated as a "major gas leak" which required the priority response capability of a fully equipped street crew. This failure of the dispatcher to obtain more information from the fire department indicates a lack of training on gas emergency procedures. If a street crew had been originally dispatched, it would have had approximately one-half hour of field investigation before the second explosion. This probably would have been enough time to check and evacuate nearby houses.

The one-half hour of field investigation time by the street crew might not have been enough time to shut off the high-pressure gas main to thereby prevent the second explosion. And, in this case, a high-pressure shutoff valve that was shown on gas main drawings to be nearby actually did not exist, so searching for it would have been fruitless. If the valve had been designated as an emergency shutoff valve, it would have had to be inspected annually, and its absence should have been detected during the first annual inspection several years ago.

Therefore, the National Transportation Safety Board recommends that the Pennsylvania Gas and Water Company:

Initiate an effective general public and gas customer information program about the nature, characteristics, and hazards of natural gas and what to do when it is encountered. (Class II, Priority Action) (P-77-38)

Test the effectiveness of the emergency procedure training of all operating personnel. If the training is found to be ineffective for any group of employees, provide additional instruction. (Class II, Priority Action)(P-77-39)

Verify the location of all high-pressure shutoff valves shown on gas main atlases and change maps where necessary. (Class II, Priority Action)(P-77-40)

BAILEY, Acting Chairman, McADAMS, HOGUE, and KING, Members, concurred in the above recommendations.

A handwritten signature in cursive script that reads "Kay Bailey".

By: Kay Bailey  
Acting Chairman