

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

FOR RELEASE: 6:30 A.M., E.D.T., MAY 20, 1976

(202) 426-8787

ISSUED: May 20, 1976

Forwarded to:
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President
Arizona Public Service Company
P. O. Box 21666
Phoenix, Arizona 85036

SAFETY RECOMMENDATION(S)

P-76-17 through 19

At 3:18 a.m. on February 8, 1976, a house in Phoenix, Arizona, exploded and burned. 1/ Of two persons who were hospitalized as a result of the accident, one died.

The National Transportation Safety Board's investigation of this accident disclosed that natural gas at 39-psig pressure had leaked from the compression coupled connection of a 2-inch plastic pipe located 10 feet from the house in an alley. The 2-inch pipe appeared to have been inserted insufficiently through the gasket and into the coupling. Gas which leaked from this joint was trapped from above by heavily compacted soil; it consequently seeped into the house, where it was ignited by an unknown source.

The 2-inch plastic pipe, which was installed in 1968 by the Arizona Public Service Company, was damaged by an excavator in 1969. The gas company repaired the leak by installing a 6-inch-long compression coupling to connect each end of the severed 2-inch plastic pipe. The repaired section was wrapped with tape which extended 3 to 4 inches over the pipe on each side of the coupling.

The Safety Board reviewed the company's leak experience to determine if other pipes had leaked because of faulty com-

1/ The Safety Board will not issue a formal report on this accident.

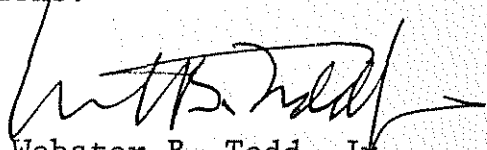
pression coupling installations. It learned that an explosion occurred on March 17, 1975, and that five persons were injured as a result. In that accident, gas had escaped when a 2-inch plastic pipe had separated from a compression coupling because the plastic pipe had been inserted insufficiently into the compression coupling.

A review of the gas company's written procedures indicates that they did not provide adequate information on the use of this type of compression coupling and that there was no adequate training in or monitoring of the installation of this type of compression coupling.

Therefore, the National Transportation Safety Board recommends that the Arizona Public Service Company:

1. Determine the number of similar plastic pipe coupling installations in their facilities, excavate and inspect a statistically representative sample of these to determine if they have been installed correctly, take remedial action on any deficient installations found during the sampling, and based upon the results of the sampling, institute necessary corrective action. (P-76-17)(Class I, Urgent Followup)
2. Develop comprehensive construction standards for the installation of compression couplings for each type of pipe for which each type of fitting will be used. (P-76-18)(Class I, Urgent Followup)
3. Train employees who will install compression couplings under the standards developed and monitor their performance by inspecting their work. (P-76-19)(Class I, Urgent Followup)

TODD, Chairman, McADAMS, BURGESS, HALEY, and HOGUE, Members, concurred in the above recommendations.


By: Webster B. Todd, Jr.
Chairman

THESE RECOMMENDATIONS WILL BE RELEASED TO THE PUBLIC ON THE DATE INDICATED ABOVE. NO PUBLIC DISSEMINATION OF THE INFORMATION CONTAINED HEREIN SHOULD BE MADE BEFORE THAT DATE.