

P-184

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: July 28, 1981

Forwarded to:

Mr. K. E. Bailey
President
Williams Pipe Line Company
P.O. Drawer 3448
Tulsa, Oklahoma 74101

SAFETY RECOMMENDATION(S)

P-81-17 through -19

At 4:45 p.m., c.s.t., on April 16, 1980, gasoline at the Williams Pipe Line Company's Minneapolis terminal in Roseville, Minnesota, sprayed from the fractured cast-iron base of a station booster pump at 72 psig pressure, vaporized, and exploded after it was ignited by the arcing of an electric switch in the mainline pump control room 50 feet downwind of the booster pump. 1/

The explosion killed one person and the following fire burned three other persons and destroyed the receiving manifold valves and piping, the station pumping equipment, and four vehicles. About 3,500 barrels (147,000 gallons) of petroleum products burned and property damage was estimated at \$3 million.

The newly installed pump together with its valves and fittings had not been hydrostatically tested as a completed facility prior to this accident. The electric switch in the mainline pump control room which was located 50 feet away from the failed station booster pump was not explosion-proof and it arced when disengaged. Additionally, Williams did not have written emergency procedures at the time of the accident to deal with this type of situation.

Therefore, the National Transportation Safety Board recommends that the Williams Pipe Line Company:

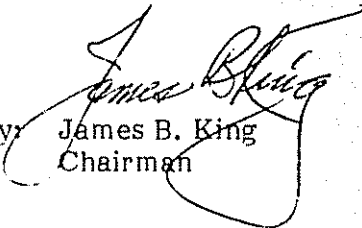
Revise its equipment installation procedures to include hydrostatic tests in accordance with the provisions of 49 CFR 195.302, General Requirements, and 49 CFR 195.304, Testing of Components. (Class II, Priority Action) (P-81-17)

1/ For more information, read Pipeline Accident Report--"Williams Pipe Line Company, Gasoline Explosion and Fire, Roseville, Minnesota, April 16, 1980" (NTSB-PAR-81-3).

Evaluate its existing facilities to determine the need for explosion-proof electrical equipment. (Class II, Priority Action) (P-81-18)

Provide appropriate written instructions to its employees covering precautionary safety measures to be taken in a hazardous atmosphere, particularly in regard to emergency shutdown procedures. (Class II, Priority Action) (P-81-19)

KING, Chairman, DRIVER, Vice Chairman, McADAMS, GOLDMAN, and BURSLEY, Members, concurred in these recommendations.


By: James B. King
Chairman