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NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: June 23, 1976

Forwarded to:

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President
Interstate Natural Gas
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1660 L Street, N. W.
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SAFETY RECOMMENDATION(S)

P-76-26

At 9:04 a.m., January 7, 1976, employees at the Michigan-Wisconsin Pipe Line Company's (Mich-Wis) Cedardale, Oklahoma, compressor station were directed to open a valve on a shut-in 12-inch gas-gathering pipeline in an attempt to increase the flow into the main line. Natural gas and natural gas liquids at 700-psig pressure roared through the valve, out through the end of an open 12-inch pipe, and into a ditch, where seven men were working near an open flame heater. The natural gas liquids saturated their clothing and the heater set them on fire. Five men were killed and two men were burned seriously as a result of this accident.

Mich-Wis had employed an independent contractor to fabricate the piping and to install three additional compressors to increase the capacity of Cedardale station. All work was completed except for the installation of a 16-inch suction line to the compressors. The ditch for the 16-inch line had been dug and the 12-inch suction line had been cut in preparation for welding to the 16-inch. All piping within the work area had been depressured and gas-freed, and the Cedardale station had been bypassed. The main line carried gas around the station and on to the transmission line, while the loop line was closed in at 700-psig pressure. The 12-inch suction line, which was already cut in preparation for welding to the 16-inch line, was connected to the main line by a 12-inch valve, which was closed. On one side of this valve, the pressure was 700 psig; on the other side, the 12-inch suction line pointed straight down the ditch. Eight other valves, some open and some closed, cross-connected the two incoming 12-inch pipelines with the station piping.

Mich-Wis had written comprehensive procedures to control the planning, the preparation, the shutdown, and the reopening of the station to allow the contractor to complete his work. On January 2, 1976, 3 days before the station was to be shut down, all parties concerned with the construction met to discuss the procedures. The discussion included which valves were to remain open and which valves were to be closed and chained to prevent inadvertent reopening; all procedures were followed, but the valves were not chained because no chains were on hand.

On January 6, the Mich-Wis dispatchers ordered the Cedardale personnel to open the 12-inch loop line to increase the system capacity. This operation was not included in the procedures previously discussed with the contractor nor was the contractor advised as to which valves were to be opened. The station personnel discussed the operation and used a station piping diagram as a guide. The accident occurred when the wrong valve was opened inadvertently, and natural gas liquids deluged the contractor's employees and then ignited.

Therefore, the National Transportation Safety Board recommends that the Interstate Natural Gas Association of America:

Advise their member companies who operate similar natural gas-gathering pipeline systems of the importance of following precisely the written procedures covering these situations. (P-76-26)(Class I, Urgent Followup)

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

By: Webster B. Todd, Jr.
Chairman