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NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: September 17, 1976

Forwarded to:

Mr. F. B. Fulenwider President Sun Pipe Line Company 907 South Detroit Tulsa, Oklahoma 74102

SAFETY RECOMMENDATION(S)

P-76-58 through P-76-60

About 1:51 a.m. on August 2, 1975, an 8-inch pipeline which was owned by the Sun Pipe Line Company ruptured in Romulus, Michigan. Propane escaped from the rupture, sprayed into the air, vaporized, and ignited; flames 500 feet high engulfed a 600-foot-diameter area, destroyed four houses and damaged three others, burned 12 vehicles, and consumed 2,389 barrels (100,338 gallons) of propane. Nine persons were injured as a result of this accident. 1/

A valve at the terminal had been closed against the pipeline stream and caused an abnormally high pressure to build up in the pipe at the leak site. Surface cracks in the 8-inch pipe, which had been dented and gouged previously by outside forces, propagated until failure occurred. The damage had been undetected and unreported.

Although the pump station had been shut down automatically by low-flow controls, the pump was started again manually without clearance, and pumped an additional amount of propane out at the leak site.

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

Instruct its personnel more adequately in inspection techniques and procedures and emphasize the potential hazards of undetected, unreported, construction damage to an operating pipeline. (P-76-58) (Class II, Priority Followup)

^{1/} For more detailed information on this accident, read "Pipeline Accident Report -- Sun Pipe Line Company, Rupture of 8-inch Pipeline, Romulus, Michigan, August 2, 1975." NTSB-PAR-76-7.

Reevaluate its propane cavern operating procedures and emphasize to its terminal personnel the potential hazards created by a line blockage. (P-76-59) (Class II, Priority Followup)

Study the possible use, at its terminals and pump stations, of lockout equipment which shuts down a pipeline system unless all valves are positioned properly and full clearance to operate has been obtained. (P-76-60) (Class II, Priority Followup)

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

By:

Webster B. Todd,

Chairman

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