

NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C.

ISSUED: July 15, 1980

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Forwarded to:

Mr. Robert C. Shields  
Vice President  
Texaco, Inc.  
1501 Canal Street  
New Orleans, Louisiana 70112

SAFETY RECOMMENDATION(S)

M-80-44 through -48

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About 0930 c.d.t., on June 5, 1979, a buried 4-inch-diameter, high-pressure, natural gas pipeline was separated at a collar by a mooring spud dropped from the crane barge C. L. DILL 10 as the barge was being maneuvered by a tugboat alongside tank battery No. 205 in a channel of the Texaco, Inc., oil field in the Garden Island Bay section of the Mississippi River Delta. Gas, escaping under 700-psig pressure, was ignited by an unknown source and set the barge, tugboat, and tank battery on fire. Four of the six persons on the barge drowned in their attempt to escape. The fire was extinguished about 1030; damage was estimated at \$500,000. <sup>1/</sup>

The barge had been pushed from the Texaco camp to the tank battery by the tugboat M/V DILL V. The barge and tugboat with crews had been contracted by Texaco, Inc., from the C. L. Dill Company, Inc., to replace a pump at the tank battery. The accident occurred while the barge was being maneuvered into a mooring position. The Safety Board determined that the crane operator, who was in charge, failed to survey the channel for pipeline crossings near the tank battery before dropping the spud. Normally, mooring at the tank battery was made using mooring lines tied to piling clusters along the tank battery. The use of spuds for mooring at a tank battery was permitted, but only when special precautions were taken.

The crane barge had been scheduled first for cribbing repairs at oil well No. 160 and then for a pump replacement at tank battery No. 205. There had been no arrangements made for Texaco supervision at the oil well. The schedule as planned would have permitted time for the head roustabout to disconnect the pump while the cribbing repairs were made. The crane operator in charge of the barge deviated from the schedule and went directly to the tank battery. Had the barge been met by the head roustabout or some other supervisor, who had knowledge of the local hazards to direct the mooring operations, the spud might not have been dropped. There were no signs on the tank battery to prohibit mooring with spuds in the channel opposite the tank battery.

<sup>1/</sup> For more detailed information read "Marine Accident Report--Crane Barge C. L. DILL 10 Fire, Garden Island Bay, Mississippi River Delta, June 5, 1979" (NTSB-MAR-80-9).

Five groups of pipelines crossed below the 8- to 10-foot-deep channel at the tank battery, and two of the groups, separated by about 25 feet, crossed in front of the main platform. Texaco records indicated that all pipelines were laid between the early 1950's and the mid 1960's, and were either oil flow or gas lift pipelines. Most of the 29 pipelines were still in use. According to Texaco, it was normal practice to have the groups of pipelines protected as well as marked only where they surfaced along the spoil bank opposite the tank battery. This was done by driving single, 5-foot-high (above high water) piling clusters upstream and downstream of each group. However, the group of pipelines which included the 4-inch separated pipeline had only an upstream piling cluster and another group, located about 175 feet downstream, had none. There were no protective pilings on the tank battery side of the channel.

The Safety Board was unable to determine how the fire started. Exhaust from diesel engines and sparks from an operating generator onboard the barge were available sources of ignition. The source of ignition also could have been lighted tobacco products. The crane operator, barge foreman, and one laborer smoked. There were no signs on the tank battery prohibiting smoking, and someone on the barge who was unaware of the no-smoking rule may have been smoking.

Texaco employees who worked in the oil fields were required to attend regularly scheduled safety meetings. Attendance was optional for employees of outside contractors, such as Dill. The safety subjects discussed included smoking restrictions, policy on wearing work vests, and hazards in the oil fields. Their failure to use available lifesaving devices and their uncoordinated efforts to save themselves indicated that the DILL crews were not trained for emergencies.

Therefore, the National Transportation Safety Board recommends that Texaco, Inc.:

Provide a uniform system for marking pipelines which cross beneath the privately maintained channels and canals in the oil fields of the Mississippi River Delta. (Class II, Priority Action) (M-80-44)


Post warning signs at Texaco facilities where active pipelines cross navigable waters of the Mississippi River Delta to prohibit mooring with spuds or anchors. (Class II, Priority Action) (M-80-45)

Post warning signs (including signs visible from the waterside) at Texaco tank batteries to prohibit smoking. (Class II, Priority Action) (M-80-46)

Establish a procedure to ensure that supervision is provided at every work site where work is being undertaken by an outside contractor in the Texaco oil fields of the Mississippi River Delta. (Class II, Priority Action) (M-80-47)

Establish procedures to require employees of outside contractors who work in the Texaco oil fields to attend regularly scheduled safety meetings related to their work. (Class II, Priority Action) (M-80-48)

KING, Chairman, GOLDMAN and BURSLEY, Members, concurred in these recommendations. DRIVER, Vice Chairman, and McADAMS, Member, did not participate.

for   
By: James B. King  
Chairman