

Board: Chevron failed to check bad pipe

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Andres Soto of Communities for a Better Environment addresses the Richmond City Council about the August 6 Chevron refinery fire in Richmond, Calif. on Tuesday, Sept. 11, 2012, Photo: Mathew Sumner, Special To The Chronicle / SF

There is no evidence that Chevron conducted a crucial inspection last year of the segment of the pipe that later ruptured at its Richmond refinery, leading to a fire that destroyed part of the plant, federal investigators said Tuesday.

Given the deteriorated condition of the pipe - which had retained only 20 percent of its original wall thickness - Chevron would have been obligated to replace it to comply with the company's own standards, said Don Holmstrom, Western regional office

director of the Chemical Safety Board.

Federal officials are focusing on the 52-inch-long segment of the line that failed Aug. 6 and have sent it to a private materials lab for testing.

But they say there is no indication that the 8-inch-diameter segment was inspected during a November 2011 maintenance shutdown of the Richmond refinery's No. 4 crude unit. That violated Chevron standards that all at-risk crude unit pipes be checked for corrosion or other damage during such shutdowns, the safety board officials said.

A post-accident examination showed that the failed part of the line had suffered about 80 percent wall loss, and was down to 1/16 of an inch thick from its original 5/16 of an inch. Company standards call for replacing at-risk pipes with 50 percent wall loss.

Chevron did inspect other pipe segments in the crude unit during the November inspection, and parts were close to the 50 percent wall-loss level that dictate replacement under Chevron's standards, Holmstrom said.

Chevron changes its mind

The company removed a corroded 12-inch pipe after the inspection, and originally intended also to replace the line that later failed, Chemical Safety Board officials said. Company officials changed their mind, however, and concluded the line had life remaining - a decision that federal investigators say is central to their probe.

Chevron knew that straight runs of pipe without angles, such as the 8-inch line in Richmond, could be more susceptible to corrosion, and this effect had led to three previous fires at other Chevron refineries, the safety board said in a statement.

"We have no evidence the section of pipe was ever inspected for thickness," Holmstrom said Tuesday night at the Richmond City Council meeting. Nigel Hearne, Chevron's refinery manager, said the company is committed to learning from the fire. "Clearly we fell short of the high standard we set for ourselves," he said.

Federal investigators also released a five-minute surveillance video taken of the refinery as a cloud of vapor leaking from the failing pipe grew bigger and ignited, enveloping the crude unit in flames and thick black smoke. About 20 workers who were near the pipe escaped with only seconds to spare.

"This shows a rapidly growing vapor cloud," said Holmstrom. "This clearly was a lot of hydrocarbon vapor being released at this point, so much that you can't see the workers."

The fire ignited more than two hours after Chevron employees detected a slow leak in the 8-inch line. The company cut refinery production slightly as it assessed the leak.

Huge vapor cloud

A small flash fire erupted and was extinguished shortly before the pipe gave way, leading to a vapor cloud that rose more than 1,000 feet into the air. Chevron has said the cloud - visible from across the bay - was mostly steam caused by water being poured on the refinery pipes.

A short time after that cloud appeared, the leak from the line worsened and the fire ignited, Chevron said. A smoke plume rose hundreds of feet in the air, and more than 15,000 residents sought treatment at local hospitals, complaining of respiratory problems and other ailments.

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