

Kansas: State says open valve led to oil spill at refinery

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COFFEYVILLE, Kan. — An oil spill that damaged hundreds of Coffeyville homes during flooding four weeks ago was caused when the valve on a refinery storage tank was left open, the Kansas Department of Health and Environment said.

The refinery's owner, Coffeyville Resources, has long acknowledged that a storage tank overflowed as the refinery was swamped by floodwaters from the nearby Verdigris River. An estimated 71,000 gallons of crude oil escaped and flowed downriver and into surrounding neighborhoods.

But refinery officials said they are still awaiting the findings of their own inspection on what caused the overflow and declined to comment on the department's report.

"The cause is not a relatively simple error," said company spokesman Steve Eames. "It's caused by an act of God ... a massive flood."

Eames said refinery staff made "heroic efforts" to shut down the plant as water flowed over the river levees. He said while securing the plant usually takes 24 hours, employees had only five or six hours before the flood forced them to evacuate.

"This was not an orderly shutdown like we would like to do," he said.

Refineries facing floods typically partially fill their oil tanks to keep them from floating away, which is what Coffeyville Resources said it was trying to do.

The Kansas Division of Emergency Management said a storage tank sitting at a higher elevation continued to pour oil into a main storage tank at a lower level. It was that lower tank that overflowed, said Sharon Watson, spokeswoman for the Kansas Adjutant General's Department.

Eames said the tank that overflowed was a "charge" tank that directs crude oil into the refinery for processing.

The Department of Health and Environment said an open valve allowed oil to continue flowing into the charge tank until it spilled into the floodwaters.

Asked how the valve was left open, department spokesman Joe Blubaugh said inspectors don't know.

"That would be a question to ask the company," Blubaugh said.

Phil Myers, a California-based tank safety expert, said it would take 10 to 15 minutes to manually shut a tank valve and less if a remote-controlled shut-off system is in place. He said making sure the valves on filled tanks are closed is a key step in an emergency shutdown but can be overlooked in the chaos surrounding a disaster.

Eames wouldn't comment on whether the valve played a part in the spill.

The U.S. Environmental Protection Agency, which is overseeing the environmental fallout of the spill, said it is awaiting the final results of the refinery's internal investigation.

"EPA will then determine if it is satisfied with the investigation," said EPA spokeswoman Beckie Himes. "If not, EPA will require further inquiry by the facility and additional information to be submitted to EPA."

Nine hours before the flooding began, city officials met and reviewed reports saying the Verdigris River would crest at 26.3 feet, or just below the levee's limit of 26.5 feet, said City Manager Jeff Morris.

"We both thought they were going to have time to shut down," Morris said of the refinery. "It got ugly real fast."

Eames said the refinery began shutting down some operations at 6:30 p.m. June 30 after staff saw the river was rising faster than expected. The plant switched to emergency shutdown less than two hours later but officials still thought they were in good shape, he said.

A river gauge upstream at Independence had become stuck that night so it wasn't registering accurate water levels. Once it was repaired between 10 and 11 p.m. that night, it showed that flooding would top the levees by three or four feet, said Pete Navesky, emergency manager with the U.S. Army Corps of Engineers' Tulsa office.

Janet Spurgeon, a National Weather Service hydrologist in Wichita, said there were other readings that pointed to record flooding.

Floodwaters began pouring over the levee and into the refinery around 11:15 p.m., or a little more than

three hours after the emergency shutdown began. Electricity to the plant was shut off more than two hours later, Eames said.

“Long before there was an overflow, we were without power,” he said.

At 2 a.m., with floodwater coming in from several directions, the order was sent to evacuate the plant. Eames said some workers had to be forced to leave their posts and many lost vehicles in the flooded parking lot.

Floodwaters eventually covered the refinery at depths up to 10 feet. It was deepest around the tanks, which are at one of the lowest areas of the property.

Police and fire teams monitoring the flooding said they noticed an oily substance in the river around 4 a.m. and notified the plant, Morris said.

Eames said it couldn’t have come from the refinery because water had not yet begun flowing out of the plant. He said the plant had an emergency shutdown plan to avoid overflowing during a flood, but he added “no emergency plan can account for an act of God” like the flood that hit the plant.

Morris defended the refinery, saying plant officials didn’t create the floodwaters than swamped a third of the city.

“If the oil hadn’t been released, we’d still have another problem” massive flooding, he said. “The oil just added another layer.”

Myers said it was important that whatever caused the overflow is avoided in the future.

“The public has a right to demand accountability for oil spills,” he said. “Otherwise, you get what we’ve had in the past, which is a mess, an environmental mess.”