

Refinery Probe Focuses on Corrosion

JASON DEAREN, Associated Press



SAN FRANCISCO (AP) — Federal investigators probing the cause of a massive Chevron oil refinery fire are focusing on possible corrosion in a decades-old pipe the company inspected late last year but did not replace.

Investigators with the U.S. Chemical Safety Board told The Associated Press on Saturday that the November inspection led Chevron to replace an old pipe connected to the one that failed Monday.

The fire exploded when a vapor cloud ignited, endangering more than a dozen workers in the immediate vicinity. The resulting blaze sent up thick, black smoke and caused thousands to seek medical attention for related health issues in one of the most serious U.S. refinery fires in recent years.

The Richmond refinery, located about 10 miles northeast of San Francisco, produces about 16 percent of California's daily gasoline supply.

Refinery Probe Focuses on Corrosion

Published on Chem.Info (<http://www.chem.info>)

Chevron said Saturday it too is seeking to understand why the accident occurred.

"We agree that this is a serious incident that warrants thorough investigation," said Sean Comey, a company spokesman. "We are cooperating with all regulatory agencies and are committed to better understanding the root cause of this incident."

The inspectors have not yet seen testing records for the pipe that failed, but given its age and the condition of pipes connected to it, they believe corrosion is a strong possible cause of its failure. Investigators said, in general, all pipes corrode over time.

The crude unit where the fire occurred is a key part of the refinery, helping to create a specialized blend of cleaner burning gasoline that satisfies air quality laws in California. On Saturday, the average price for a gallon of regular gas in California was \$4.04, up from \$3.86 cents Tuesday.

While high crude prices have driven prices up nationwide, the partial loss of production at Chevron's Richmond refinery has also had an effect on driving prices in the state even higher, analysts said.

The incident began Monday afternoon, when a small dripping leak was detected by refinery workers. When engineers responded to find the leak's cause, they removed insulation around the pipe.

"Due to the high temperature of the material in the tower, in excess of 600 degrees Fahrenheit, the gas-oil immediately formed a large flammable vapor cloud," chemical safety board investigators said in a statement.

Investigators told the AP that more than a dozen Chevron refinery workers were engulfed by the vapor and narrowly escaped serious injury when it ignited.

"These workers might have been killed or severely injured, had they not escaped the cloud as the release rate escalated and the cloud ignited, shortly thereafter," said Dan Tillema, the board's investigative team leader.

County officials say sirens were activated to warn residents of the accident, and the company later alerted county officials.

Chevron's response and Contra Costa County's emergency warning system are being investigated by the federal chemical safety agency. Several other agencies also are investigating the refinery fire.

More than 4,000 people were treated and released at from hospitals in the days following the fire, officials have said. Chevron has set up a claims center for people who were affected, which by Friday had received about 2,000 calls.

The pipe that failed Monday dated back to the 1970s, investigators said, but it is still unclear whether the thickness testing conducted by Chevron in its last major

Refinery Probe Focuses on Corrosion

Published on Chem.Info (<http://www.chem.info>)

inspections noted corrosion in that specific, 8-inch pipe.

However, investigators said a 12-inch pipe connected to the one that leaked Monday was found to be corroded, and was replaced after the November "turnaround," an industry term for when a refinery unit is taken off-line so all the lines can be inspected.

Tillema said "important issues in the investigation included understanding why the pipe that later failed was kept in service during a late 2011 maintenance turnaround."

By choosing not to replace the pipe that failed, he said Chevron had decided that it was strong enough to last another five years, when the next piping inspection would have been conducted, which is the industry standard.

"The failed pipe is like the wing that fell off the airplane. Naturally, we want to find out why it happened," said Daniel Horowitz, the board's managing director. "And we will examine potential corrosion as well as other failure mechanisms."

Source URL (retrieved on 08/22/2014 - 7:43pm):

<http://www.chem.info/news/2012/08/refinery-probe-focuses-corrosion>