

## **Materials planned for Richmond Chevron refinery fix meet industry standards, experts say**

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RICHMOND -- Two metallurgy experts have concluded that metals proposed by Chevron to repair a crude unit burned in an Aug. 6 fire meet industry and local standards.

The conclusion was shared at a public meeting in the City Council chamber Wednesday night aimed to make more transparent the permitting process for rebuilding the refinery unit, which burst into flames when a carbon steel pipe more than 30 years old sprung a leak.

"It is (our) opinion that Chevron's logic and procedures used in their materials selection process is consistent with industry practices," said Jim McLaughlin, the city's metallurgical consultant, reading a statement provided by David Hendrix, a metallurgical engineering consultant also retained by the city.

The finding affirms Chevron's plans to replace the carbon steel piping in the burned unit with 9-Chrome Alloy, which will carry high-temperature, sulfur-containing fuels.

But residents, political leaders and environmental watchdog groups criticized the findings as ambiguous and not in compliance with a city resolution approved last month calling on the refinery to use only the "best available technology" in rebuilding the burned unit.

Experts from Communities for a Better Environment, a local watchdog group, continue to push for 300-series stainless steel to be used, which they say is a more durable material and more likely to ensure against another accident. CBE members cite a letter to the city from the U.S. Chemical Safety Board, an investigatory agency probing the cause of the fire, that suggested stainless steel may be the superior technology.

"The council called for the highest standards, not the minimum standards," said CBE's Andres Soto.

Contra Costa County Supervisor John Gioia, of Richmond, joined those questioning the findings, saying that county air quality and hazardous materials officials could not endorse Chevron's plans because they did not have "sufficient information." Gioia also noted the independent experts' findings did not say conclusively that 9-Chrome provided the "lowest risk ... of a catastrophic event."

"I have read these reports carefully," Gioia said. "And the consultants did not (conclude) this."

In his report, McLaughlin said 300 stainless steel may be susceptible to "stress corrosion cracking" that is difficult to detect.

9-Chrome is "immune to that," McLaughlin said.

Barbara Smith, a senior manager for Chevron, delivered her own presentation Wednesday, saying 9-Chrome "in this type of service has been validated by internationally recognized and universally adopted engineering and fire-safety standards" used industrywide.

Nine-Chrome "is more expensive on an installed basis than stainless steel pipe, but we made the determination that it was more appropriate for service based on a number of factors," Smith said.

Many in the crowd of more than 200 scoffed during Smith's remarks. During a public comment period, several residents urged the city to fast-track the permits so that work could resume, which they said would support local jobs.

The findings by the city's consultants could pave the way for the remaining city building and fire permits to be issued early next month, which would allow Chevron to complete repairs and resume full production of gasoline and other products. The Chemical Safety Board's findings on the fire's cause, maintenance practices and other procedures is also expected to be completed in January.

The Aug. 6 fire occurred when a 5-foot-long section of 8-inch carbon steel pipe carrying high-temperature gas oil sprung a leak, releasing hydrocarbons that soon ignited. The fire resulted in injuries to several workers and sent thousands of residents to hospitals to seek treatment. Chevron has reported that the leak resulted from accelerated sulfidation corrosion, exacerbated by low silicon content in the carbon steel.

City Manager Bill Lindsay said Thursday that he did not have a timetable for when the permits would be issued.