

Pat Toth-Smith: Are We Safer in Benicia Now? A year after the Valero Flaring Incident

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A year after the May 5th 2017 Valero Emergency Shutdown and Major Flaring incident, and the subsequent release of more than 74,000 pounds of sulfur dioxide into the air, are we any safer in Benicia? Has the emergency backup electrical generation changed for the refinery since this incident? Should we stop worrying about future emergency shutdowns and flaring incidents with the subsequent releases of plumes of sulfur dioxide? Based on research from online sources, I'd have to say the answer is, No. From an article titled, "*Valero Sues PG&E for \$75M Over Power Outage at Benicia Refinery*" in Claycord News, June 30th 2017, "According to Valero, PG&E provides both the primary and backup electrical power for Valero's refinery. Valero contracted with PG&E for the allocation of a second redundant power line which serves as the refinery's backup power source and is intended to prevent unplanned power interruptions. Valero says the power outage caused an emergency shutdown of the entire refinery, resulting in extensive flaring, emissions, and significant damage to the refinery equipment... 'Given PG&E's track record of poor reliability and safety problems in California, it is crucial that PG&E be held accountable for its actions,' Valero said."

This information was verified by, the May 5th 2017 *Valero Benicia Refinery Incident Summary* from the Solano County Environmental Health Division. The stated power sources for Valero in the report were two PG&E operated independent power sources and they were both turned off for 18 minutes which caused the refinery to shut down. Another source of power in the report was a 47 megawatt cogeneration plant, which was insufficient to run the refinery alone and had to maintain a power circuit to one of the two PG&E lines to remain functioning.

What is unclear is why Valero is still depending on PG&E as their primary and backup source for electrical power, when both power sources to the refinery were shut down on May 5th and Valero sued PG&E for their poor performance.

In another article titled, "*CA Refinery's 'Huge' Flaring Incident*," from Industrial Safety and Security Source, June 16, 2017 by gHale, "The month long release of 74,000 pounds of sulfur dioxide was 'A huge amount of sulfur dioxide' said Anthony Wexler, director of the Air Quality Research Center at UC Davis, who reviewed the Valero report filed with the state of California. He continued 'The fact that it was emitted over a short period of time in some ways makes it worse,' Wexler said. 'That would have a much larger health impact.' Nearly half of the sulfur dioxide the refinery released — 31,000 pounds — was emitted on May 5, the day the plant went offline and began flaring after the outage. That was also the day authorities imposed a shelter-in-place and evacuation orders for parts of the city and at least a dozen people sought medical treatment for breathing difficulties. The Valero refinery released nearly 25,000 pounds of sulfur dioxide on May 6 and 7, the company's report said. On May 14, it released close to 8,000 pounds of the gas, the company's report said. To put those numbers in perspective, air district statistics show the Valero refinery released an estimated total of 13,800 pounds of sulfur dioxide in 2016 and 15,400 pounds in 2015 through flaring."

Sulfur Dioxide as quoted by Wexler is a lot worse when a person is exposed to a larger amount of it in a short time. The *Canadian Center for Occupational Health and Safety's website* says, 'Sulfur Dioxide inhaled at large doses is very TOXIC, can cause death. Can cause severe irritation of the nose and throat. At high concentrations: can cause life-threatening accumulation of fluid in the lungs (pulmonary edema). Symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest. A single exposure to a high concentration can cause a long-lasting condition like asthma, called Reactive Airways Dysfunction Syndrome (RADS).'

Through all of my research, it's apparent that Valero has not changed their power systems and is still relying on PG&E to provide their current and back up generation to keep the facility running 24/7. With the potential problem of another May 5th incident, it's imperative that Benicia adopt its own Industrial Safety Ordinance (ISO). A community ISO would be a place where the issues of safety, accident prevention, air monitoring, and an extensive alert system can be addressed. Our city council should implement an ISO and make our city a safer place to live.

Pat Toth-Smith

Benicia Resident