The Phillips 66 (formerly known as the ConocoPhillips Refinery, and the Unocal Refinery) Rodeo Refinery processes approximately 75,000 barrels (1 barrel = 42 gallons) of crude oil and approximately 38,000 barrels of partially refined oil from the Santa Maria Refinery per day into transportation fuels. The principal fuels produced are gasoline, diesel, and jet fuels. The refinery also produces propane, butane and elemental sulfur for commercial use. In addition, the facility produces petroleum coke.

Hazardous Substances Stored or Produced Onsite and their Immediate Health Effects

- Flammables – In Contra Costa County, flammables are methane, propane and butane. These gases are invisible and have a very slight, sweet, oil-like odor. Mildly irritates nose, throat and lungs.
- Hydrogen Sulfide – Hydrogen sulfide is a colorless, corrosive and highly toxic gas with an offensive rotten egg odor. It is also highly flammable and a respiratory inhibitor. Hydrogen sulfide’s odor is readily detectable at low concentrations; however, high concentrations may deaden a person’s sense of smell such that an odor would not be perceived. Irritates nose, throat and lungs, and may cause headaches, dizziness, difficulty in breathing, or nausea.
- Aqueous Ammonia – A clear, colorless liquid with a pungent suffocating odor, which is noticeable at low concentrations. May cause headache, nausea, or coughing. May cause convulsions, breathing difficulty and nausea. Made by dissolving anhydrous ammonia in water.
3-year Accident History (Last updated July 2017)

August 2, 2015: A 200-gallon Antifoam Day Tank located on top of the coke deck was overfilled resulted in the kerosene based solution to spill onto an ignition source, hot piping, and catch fire. The majority of the fire had burned out within 10 minutes of ignition, with residual light smoldering occurring for an additional 45 minutes. Small amount of smoke potentially drifted offsite. CCHMP incident responders tested surrounding area for organics (benzene, volatiles), H2S, CO, and found no detections.

Safety Features and Recent Improvements (Updated January 2017):

Phillips 66 reported improvement projects designed to reduce the potential for accidents and injuries, including: reduction in hazardous material inventory through elimination of process equipment; reduction in size of pre-fractionation tower; replaced equipment with higher pressure rating; upgraded to dual seal pumps; and installation of higher corrosion resistant piping and equipment to minimize release potential.

Summary of Most Recent Audit (January 2017):

Phillips 66 developed policies and procedures as required by the California Accidental Release Prevention (CalARP) Program and the County’s Industrial Safety Ordinance. During the most recent audit in the winter in 2017, the majority of programs were found to be in compliance. Nevertheless, some areas were found to be in need of improvement, for example: initial testing of independent protection layers needs to be completed for all units; responses to address compliance audit findings need to be completed promptly; contract employee training needs to be assessed every three years per policy; positions affected by a proposed management of organizational change need to be clearly documented; and metrics and indicators developed to ensure the safety culture improvement plan is being met.

For more information:
Copies of the latest audit findings may be found in the following locations:

CCHS Hazardous Materials Office
4585 Pacheco Blvd., Suite 100 Martinez, CA 94553

Crockett Public Library
991 Loring Avenue, Crockett, CA 94525

Rodeo Public Library
220 Pacific Avenue, Rodeo, CA 94572

Visit our website at www.cchealth.org/groups/hazmat or call 925-335-3200