

# Safety Audit Summary

## Phillips 66 Rodeo Refinery

*1380 San Pablo Avenue, Rodeo*

### Introduction

Contra Costa Health Services Hazardous Materials Program (CCHSHMP) conducted a comprehensive audit/inspection of the safety programs, policies, and procedures developed by the Phillips 66 Rodeo Refinery (Phillips 66), located at 1380 San Pablo Avenue, Rodeo. This safety audit, conducted in the winter of 2020, was performed to assess compliance with the California Accidental Release Prevention (CalARP) Program and the Contra Costa County's Industrial Safety Ordinance (ISO) Safety Program. In 2017 the State CalARP regulations were modified to add Program 4 requirements for petroleum refineries that closely matched those contained within the County's ISO. The prevention programs under these regulations address maintenance, operating procedures, contractor safety, personnel training, incident investigations and understanding hazards at the plant. The inspection also examines the adequacy of the management systems in place to implement these programs and the plant's emergency response program to verify the plant's ability and preparedness to respond to a hazardous chemical emergency.

The audit verified that Phillips 66 has addressed State and County specific requirements for managing additional safety programs beyond those already required under Federal regulations. These additional safety programs include:

- Effectively managing organizational changes at the plant so there is minimal impact on emergency response and operations;
- Conducting detailed incident investigations to correct safety programs or management system that contributed to the incident instead of assigning blame to an employee in order to prevent similar incidents from occurring in the future;
- Reviewing the plant's operations and physical layouts for signs of hidden problems that could lead to possible significant incidents. Identifying these signs and correcting them are the primary purposes of a n y Human Factors Program;
- Assessing ways to improve new and existing equipment/processes to make them safer to run and to reduce the impact of the hazards in case of an incident.

During a comprehensive safety audit, CCHSHMP reviews safety programs by answering up to 444 questions. The CCHSHMP 2020 safety audit at Phillips 66 resulted in 19 corrective actions for Phillips 66 to implement and 30 other items that are not required but may assist in accident prevention. Identified below is a summary of some of the issues found, both good and bad, within the various safety programs. For ease of presentation, the safety programs have been grouped into two broad topics: management systems and process/equipment issues.

## Management System

- *Overall:* Phillips 66 has developed a good management system to make sure that all of the safety programs are properly implemented. Numerous policies and procedures are in place to manage safety, including effectively managing changes to process and procedures.
- *Training:* An effective operator training program is in place. Additional effort is needed to ensure the workforce is trained in an overview of the CalARP Program 4 requirements.
- *Compliance Audit:* The refinery has performed several self-audits; however, these audits need to be documented as complete every three years in a detailed written report.
- *Contractor Safety:* The refinery has a process to verify proper contractor performance and safety programs, although assessments need to be expanded to smaller contracting companies and more performed each year.
- *Emergency Response:* An emergency response program was developed and implemented to protect workers, the public, and the environment from harm due to refinery emergencies
- *Safety Culture:* The refinery is overdue for completing a Process Safety Culture Assessment to satisfy CalARP Program 4/ISO requirements.
- *Organizational Changes:* The refinery has programs in place to manage organizational/staffing changes, although it needs to improve training for evaluation team members and compilation of affected job descriptions.
- *Inherent Safety:* The refinery has programs in place to evaluate how to make existing processes, as well as new processes, safer, although an additional effort is needed in evaluating process hazard analysis recommendations.
- *Incident Investigations:* The refinery has a process in place to investigate incidents to comply with new CalARP Program 4 regulatory requirements.

## Process/Equipment Issues

- *Mechanical Integrity:* Preventive maintenance inspection and testing is routinely performed as scheduled and is well documented.
- *Operating Procedures:* Operating procedures were found to be clear and in sufficient detail.
- *Process/Equipment Safety Information:* The refinery has compiled and made available electronically, process and equipment information to personnel as necessary.

## Next Steps

The results of the entire safety audit are available for review at the Rodeo and Crockett libraries and at the Hazardous Materials Program Office. (See information below).

### Additional Information

For more information, logon to the Hazardous Materials Programs website: <http://www.cchealth.org/groups/hazmat/>. The complete safety audit report is at the Crockett Public Library at 991 Loring Avenue, the Rodeo Public Library at 220 Pacific Avenue, or call 925-655-3200 for an appointment to view the report at CCHSHMP's offices.

