

Chevron Richmond Refinery

841 Chevron Way, Richmond, CA

Safety Audit Summary

Introduction

Contra Costa Health Services (CCHS) conducted a comprehensive audit/inspection of the safety programs, policies, and procedures at the Chevron Richmond Refinery (Chevron) located at 841 Chevron Way, Richmond. This safety audit, conducted in the first quarter of 2006, was performed to assess compliance with the California Accidental Release Prevention (CalARP) Program and the more comprehensive City of Richmond Industrial Safety Ordinance Safety Program. The prevention programs address maintenance, operating procedures, contractor safety, personnel training, incident investigations and understanding hazards at the plant. The inspection also examines the management systems in place to use these programs and the plant's emergency response program to make sure that the plant is prepared to respond to an emergency involving a hazardous chemical.

The audit also checks to verify that Chevron has addressed City of Richmond's specific requirements for managing additional safety programs beyond those already required under State and Federal regulations. These additional safety programs include:

- » Effectively managing organizational changes at the plant so there is minimal impact to emergency response and operations;
- » Conducting detailed incident investigations to fix the systems or safety programs that were at fault instead of just assigning blame to an employee in order to prevent future similar incidents from occurring;
- » Reviewing the plant's operations for signs of hidden problems that could lead to possible significant incidents. Identifying these signs and correcting them are the primary purposes of the Human Factors Program;
- » Assessing ways to improve equipment and processes to reduce the impact of hazards and make them safer to run.

During a comprehensive safety audit, CCHS reviews individual safety programs through answering more than 470 questions. The CCHS 2006 safety audit at Chevron resulted in 40 corrective actions for Chevron to implement and 30 other items that are not required but may assist in accident prevention. The following is a summary of some of the issues, both good and bad, within the various safety programs. For ease of presentation, the safety programs have been grouped into three broad topics: management systems, process/equipment issues, and the City Industrial Safety Ordinance requirements.

Management System

- » Management Oversight/communication: Management need to improve communication with and involvement of employees in various safety and prevention programs, including incident investigation and development of policies and procedures. Having employee ownership of programs will greatly improve and enhance the overall safety of the refinery.
- » Procedure and Policies: Extensive policies and procedures are in place to manage safety and prevention programs at this facility. All procedures have required review and update frequencies.
- » Training: The refinery has a system in place to document training of personnel and is tracked and reviewed by management on a regularly basis.
- » Compliance Audit: The refinery documented that internal reviews were performed to verify that prevention programs are in place and working. The refinery needs to sign future audit reports to meet regulatory certification requirements.
- » Contractor Safety: The audit confirmed that the refinery consistently obtains and evaluates information regarding the contract owner or operator's safety performance and programs when selecting a contractor; and weekly field safety evaluations are being conducted. A more comprehensive quarterly field audit of the contractors has not been performed.

Process/Equipment Issues

- » Mechanical Integrity: Preventive maintenance inspection and testing was routinely performed and was well documented in individual equipment files including data, sketches, test methods and narrative descriptions.
- » Operating Procedures: The current procedure review only captures changes that were made to operating procedures. A review and certification process needs to be in place to assure that all operating procedures are current. Hard copies of Emergency Procedures were not available in all control rooms. All operating procedures are available electronically. Some procedures needed additional Health, Safety shutdown and interlock information.
- » Process and Equipment Information: The refinery has compiled and made electronically available process chemistry information, process flow diagrams, physical chemical data, and process data.

City of Richmond Industrial Safety Ordinance (RISO) Requirements

- » The refinery needs to improve discussions with employees after changes are made to positions or responsibilities of positions to determine whether the change has generated any additional safety issues, concerns, or suggestions.
- » The refinery did not adequately document the involvement of hourly employees in the review and revision of operating procedures to minimize potential for human error.
- » The refinery did not track and complete all recommended actions from process hazard analysis to within one year.
- » The refinery needs to improve ways to encourage and explore additional inherently safer systems in existing and new processes to look for ways to reduce the impact of the hazard and make the process safer.

Next Steps

An announcement to review the complete safety audit will be made and a public meeting will be held to provide opportunity for CCHS to receive public comments and questions. Questions regarding this facility or about the hazardous materials program in general can be directed to (ARPTeam@hsd.cccounty.us) or addressed to Contra Costa Health Services Hazardous Materials Programs, c/o Randy Sawyer, 4333 Pacheco Blvd. Martinez, CA 94553. CCHS will respond to all written comments.

Additional Information

For more information, call 925-646-2906 or log on to the CCHS website (cchealth.org).