Introduction
Contra Costa Health Services Hazardous Materials Program (CCHMP) conducted a comprehensive audit/inspection of the safety programs, policies, and procedures developed by the Chevron Refinery located at 841 Chevron Way, Richmond. This safety audit, conducted in the Summer of 2016, was performed to assess compliance with the California Accidental Release Prevention (CalARP) Program and the more comprehensive City of Richmond’s Industrial Safety Ordinance (RISO) 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 adequacy of the management systems in place to implement these programs and the plant’s emergency response program to verify the plant ability and preparedness to respond to a hazardous chemical emergency.

The audit verified 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 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 the RISO’s 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, CCHMP reviews safety programs through answering up to 497 questions. The CCHMP 2016 safety audit at Chevron resulted in 40 corrective actions for Chevron to implement and 55 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 three broad topics: management systems, process/equipment issues, and the City of Richmond’s ISO requirements.
Management System

- **Oversite/Communication:** Chevron has implemented a metric system as part of their management systems to track goals for the site. Numerous policies and procedures are in place to manage safety, including effectively managing changes to process and procedures. Chevron needs to invite the employee representatives to actively participate on the audit/inspection teams including internal compliance audits.

- **Training:** Chevron has a system in place to train all operations personnel in the duties they need to perform as well as an extensive maintenance employee apprenticeship program. Improvements in refresher training for operating procedures are needed.

- **Emergency Response:** An emergency response plan was developed to protect workers, the public, and the environment during possible emergencies. Procedures were in place for notification of first responders and different agencies and other back up if necessary.

- **Contractor Safety:** Chevron implemented a way to qualify contractors; however, the periodic verification of contractor qualification must be applied to all contractors that meet CalARP definition, and not by Chevron classifications.

Process/Equipment Issues

- **Mechanical Integrity:** Preventive maintenance inspection and testing is routinely performed and is documented in individual equipment files including data, test methods and descriptions; however instrumentation and controls identified as safeguards need to clearly and consistently be included in the maintenance program.

- **Operating Procedures:** Operating procedures and emergency procedures are available electronically. The procedures are regularly reviewed for accuracy; however, improvements are needed in safety information indicated in procedures and annual certification.

- **Process/Equipment Safety Information:** Chevron has compiled, and made available electronically, a substantial amount of process and equipment information for personnel.

Industrial Safety Ordinance (RISO) Requirements

- **Chevron has a human factors program in place, but needs to improve the documentation of eliminating hidden problems and gaps from their procedures as well as the use of vague terms; the human factors program also needs to address recommendations systemically versus on a case by case basis and ensure the recommendations are close out properly.**

- **Chevron has started performing Procedural PHA however this process needs to be documented in their policy. Additionally, procedures called out as a safeguard in PHA must be a procedure or a checklist and not a job aid.**

- **The process for managing changes in the organization is detailed and some proposed changes were not made as a result of the assessment.**

- **Chevron needs to develop a process for the personnel to recognize when an incident could reasonably have been Major Chemical Accidental Releases so that it could be investigated accordingly. These incidents were investigated, however, may not have been the corresponding protocol.**

Next Steps

The results of the entire safety audit are available for review at the Richmond 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:

- Richmond Public Library
  325 Civic Center Plaza
- Point Richmond Public Library
  135 Washington Ave.
- CCHSHMP’s office: call 925-335-2200 for an appointment to view the report.

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