Introduction
Contra Costa Health Services (CCHS) conducted the sixth comprehensive audit/inspection of the safety programs, policies, and procedures developed by Air Products and Chemicals, Inc. (APCI) at the Shell Martinez Refinery (AP-Shell) and at Tesoro’s Golden Eagle Refinery (AP-Tesoro). This safety audit conducted in April 2015, was performed to determine compliance with the California Accidental Release Prevention (CalARP) Program and the more comprehensive Contra Costa County Industrial Safety Ordinance (ISO) Safety Program. The prevention programs address maintenance, operating procedures, contractor safety, personnel training, incident investigations and understanding hazards at the plant. The inspection also examined the management systems in place to implement these programs and the plant’s emergency response program to ensure that the plant is prepared to respond to an emergency involving a hazardous chemical.

The audit verified that AP-Shell and AP-Tesoro plants have addressed Contra Costa County’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 facility 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 assigning blame to an employee, in order to prevent possible future similar incidents from occurring;
- Reviewing the facility’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 new and existing equipment/processes to reduce the impact of the hazards, and make the processes safer to run.

During a comprehensive safety audit, CCHS reviews individual safety programs through answering up to 480 questions. The CCHS 2015 safety audit at APCI Martinez plants resulted in 18 corrective actions for APCI to implement, and 34 other items that are not required but may assist in accident prevention. Identified below is a summary of some of the findings, 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 County ISO requirements.
Management System

- Management Oversight: Systems to manage the safety programs were in place and functioning per the requirements of the regulation. However, many policies need to be updated to incorporate new changes to the ISO.
- Compliance Audit: The facility documented that completed compliance audits have been performed to verify that all CalARP/ISO programs are in place.

Process/Equipment Issues

- Mechanical Integrity: APCI has long-term contracts with engineering design firms that design the equipment for the Hydrogen process. In addition, Air Products tracks trends in equipment performance for all of their hydrogen plants worldwide to identify potential equipment problems and additional modification. Tests and inspections were performed on process equipment in accordance with their Mechanical Integrity program.
- Process/Equipment Changes: A process needs to be developed to verify that required items have been completed and then checked again when managing and tracking changes to equipment.
- Process/Equipment Safety Information: Safety and design information for process equipment was found to be well-documented and accessible to personnel.

Industrial Safety Ordinance (ISO) Requirements

- The facility needs to finalize their plan for incorporating human factors into maintenance procedures.
- The facility needs to develop milestones and metrics for their action items resulting from their safety culture assessment.

Next Steps

The results of the entire safety audit are now available for review and CCHS is looking to receive public comments. Written comments should be sent via email to (ARPTeam@hsd.cccounty.us) or addressed to Contra Costa Health Services Hazardous Materials Programs, c/o Randy Sawyer, 4585 Pacheco Blvd., Suite 100, Martinez, CA 94553. CCHS will respond to all written comments. Check CCHS website (cchealth.org) for comment period.

Additional Information

For more information, call 925-335-3240 or logon to the CCHS website: cchealth.org. To review the complete safety audit report, visit the Martinez Library at 740 Court Street, Martinez, CA 94553 or call 925-335-3200 for an appointment to view the report at CCHS’ office.