Introduction
Contra Costa Health Services Hazardous Materials Program (CCHMP) conducted a comprehensive audit/inspection of the safety programs, policies, and procedures developed by the Chemtrade Richmond Works, located at 525 Castro Street, Richmond. This safety audit, conducted in the fall of 2014, 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 Chemtrade 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 2014 safety audit at Chemtrade resulted in 59 corrective actions for Chemtrade to implement and 51 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:** Chemtrade has implemented numerous policies and procedures are in place to manage safety, including effectively managing changes to process and procedures; however, Chemtrade needs to clearly assign personnel to the various safety programs and improve tracking of due dates.
- **Training:** Chemtrade has a system in place to train all operations personnel in the duties they need to perform.
- **Emergency Response:** An emergency response plan was developed to protect workers, the public, and the environment from harm due to possible emergencies.
- **Contractor Safety:** Chemtrade needs to improve how contractors’ safety training and site performance are evaluated, prior to arriving on site and while on site.

Process/Equipment Issues

- **Mechanical Integrity:** Preventive maintenance inspection and testing is performed; however, Chemtrade needs to make sure tests and inspections are performed on time.
- **Operating Procedures:** Operating procedures and emergency procedures are available.
- **Process Hazards Analysis:** Chemtrade has performed process hazards analyses, but needs to improve within the PHA, the analysis of past incidents, facility siting, human factors, timely resolution of recommendations, and documentation of all of the above.

Industrial Safety Ordinance (RISO) Requirements

- Chemtrade needs to establish metrics to measure the effectiveness of the safety programs.
- Chemtrade also needs to improve the use of human factors checklists, including as part of PHAs and management of organizational change.
- The process for managing changes in the organization needs to be improved.
- The employee participation in and training on the human factors program needs to be improved.
- The policies related to the use of inherently safer systems needs to be improved.

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 the Richmond Public Library, 325 Civic Center Plaza, or Point Richmond Public Library, 135 Washington Ave., Richmond, or call 925-335-2200 for an appointment to view the report at CCHMP’s offices.

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