

Safety Audit Summary

Tesoro Golden Eagle Refinery

150 Solano Way, Martinez

Introduction

Contra Costa Health Services (CCHS) conducted a comprehensive audit/inspection of the safety programs, policies, and procedures developed by Tesoro Golden Eagle Refinery (Tesoro) located at 150 Solano Way, Martinez. This safety audit, conducted in the Fall of 2005, was performed to assess compliance with the California Accidental Release Prevention (CalARP) Program and the more comprehensive Contra Costa County's 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 examines the management systems in place to implement 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 verifies that Tesoro has 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 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 ISO's Human Factors Program;
- Assessing ways to improve new and existing equipment/processes to reduce the impact of the hazards and make them safer to run

During a comprehensive safety audit, CCHS reviews safety programs through answering up to 480 questions. The CCHS 2005 safety audit at Tesoro resulted in 59 corrective actions for Tesoro to implement and 9 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 County ISO requirements.

Management System

- Procedure and Policy Updates: Policies and procedures were not updated to reflect the new way some of the safety programs are carried out after changes were made. Not all safety programs were correctly described in the Risk Management/Safety Plan. CCHS has since received an updated Safety Plan.
- Training: Tesoro has a system in place to document training of personnel, but a method needs to be developed to verify that training was understood. The on-going training on equipment for all maintenance staff needs to be developed.
- Changes in Process and Equipment: A tracking system was in place to manage permanent changes to equipment. CCHS found that improvements should be made to the change management procedures to make sure that all the necessary training is completed.
- Compliance Audit: Tesoro documented that completed internal reviews have been performed to verify that all programs are in place and working, however, improvements are needed to address identified deficiencies from the audit.
- Incident Investigation: Tesoro has a good program in place to investigate and identify incident causes, but investigations need to be completed more timely and recommendations need to be promptly addressed. Results of the investigations need to be communicated to all affected personnel.
- Contractor Safety: The audit confirmed that Tesoro consistently obtains and evaluates information regarding the contract owner or operator's safety performance and programs when selecting a contractor; in addition, Tesoro's Health & Safety personnel and members of the Contractor Committee perform weekly field audits to verify that safety procedures are correctly followed. However, the policy to re-qualify contractors has not been consistently enforced.

Process/Equipment Issues

- Mechanical Integrity: Preventive maintenance inspection and testing was generally performed and well documented including data, sketches, photographs, and narrative descriptions. Policy needs to reflect that records will be kept for the life of the equipment.

- Operating Procedures: There were procedures that needed additional clarification to let employees know that procedures are to be followed exactly and are not provided as a guide. The operating procedures did not include all required safety information for all processes and not all were certified current and accurate.
- Preparation for Maintenance Work: Tesoro have a very thorough system for planning and preparing for maintenance work that includes having hot-work and confined-space pre-plans. However, these pre-plans needed to be consistently attached to the permits.

Industrial Safety Ordinance (ISO) Requirements

- Tesoro needs to continue to provide opportunities for all employees to develop and implement the human factors program.
- Tesoro did not adequately develop a plan to review and revise operating and emergency procedures to minimize potential for human error including providing training to personnel responsible for writing the procedures.
- Tesoro needs to work with CCHS to develop ways to evaluate potential signs of hidden problems in the units to identify and correct them before they contribute to an incident.

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, 4333 Pacheco Blvd. Martinez, CA 94553. CCHS will respond to all written comments. Check CCHS website (cchealth.org) for comment period.

Additional Information

For more information, call 925-646-2906 or logon to the CCHS website cchealth.org. To review the complete safety audit report, visit the Martinez Library at 740 Court St, Martinez, CA 94553, or call 925-646-2286 for an appointment to view the report at CCHS' offices.