Safety Audit Summary
Marathon Martinez Refinery
150 Solano Way, Martinez

Introduction

Contra Costa Health Services Hazardous Materials Program (CCHMP) conducted a comprehensive audit/inspection of the safety programs, policies, and procedures developed by Marathon Golden Eagle Refinery (Marathon) located at 150 Solano Way, Martinez. This safety audit, conducted in Fall of 2019, 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 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 verifies that Marathon 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 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 ISO'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 2019 safety audit at Marathon resulted in 32 corrective actions for Marathon to implement and 16 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

- *Overall:* The facility had good management system in place to make sure that all of the safety programs are properly implemented.
- *Incident Investigation:* Thorough program implemented to uncover root causes and apply to the facility to prevent recurrence. Recommendations should be tracked until the corrective action is properly mitigated.
- *Management-of-Change:* Marathon has implemented an MOC program to capture changes however they need to ensure the proper documentation is maintained with each MOC.
- *Employee Participation:* Marathon needs to ensure that employees and their representatives are involved in providing input for review of all written instructions/programs related to Process Safety Management and that this is documented.
- *Contractor Safety:* Marathon conducts various audits of contractors. Each contractor is trained in the work practice to safety perform his or her job.

Process/Equipment Issues

- *Mechanical Integrity:* Marathon has developed a very detailed mechanical integrity program. However, Marathon needs to ensure gap in the Damage Mechanism program are addressed.
- *Operating Procedures:* Marathon has improved their operating procedures and incorporated many best practices in procedure management.
- *Safework Practices:* Marathon has an extensive Hot Work program that exceeds many regulatory requirements and should lead to safe execution of hot work. However, some issues were found with documentation and supervision of active permits.

Industrial Safety Ordinance (ISO) Requirements

Marathon needs to complete implementation of their fatigue program for workers. The Process Safety Culture Assessment needs to address both the ISO and CalARP Program 4 requirements and actions tracked for progress and completion. The facility needs to ensure their inherently safer systems program has proper employee participation and is completed for all required instances.

Next Steps

The results of the entire safety audit are available for review at the Martinez library 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 Martinez Library at 740 Court St, Martinez, CA 94553, or call 925-655-2200 for an appointment to view the report at CCHMP's offices.

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