

# Safety Audit Summary

## Martinez Refining Company LLC

*3485 Pacheco Blvd., Martinez*

### Introduction

Contra Costa Health Services Hazardous Materials Program (CCHSHMP) conducted a comprehensive audit/inspection of the safety programs, policies, and procedures developed by Martinez Refining Company LLC (MRC) [formerly Shell Oil Products U.S. Martinez Refinery] located at 3485 Pacheco Blvd., Martinez. This safety audit, conducted in the winter of 2021, was performed to assess compliance with the California Accidental Release Prevention (CalARP) Program and the 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 verified that MRC has addressed State and County specific requirements for managing additional safety programs beyond those already required under 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 a n y 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, CCHSHMP reviews safety programs through answering up to 444 questions. The CCHSHMP 2021 safety audit at MRC resulted in 28 corrective actions for MRC to implement and 33 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 two broad topics: management systems and process/equipment issues.

## Management System

- *Overall:* Numerous policies and procedures are in place to manage safety, including effectively managing changes to process and procedures.
- *Training:* Training is thorough for operational and maintenance personnel and well documented.
- *Compliance Audit:* The refinery has performed a number of self-audits in compliance with the regulation.
- *Contractor Safety:* MRC needs to conduct and document periodic field audits for on-site contractors.
- *Emergency Response:* An emergency response program is developed and implemented to protect workers, the public, and the environment from harm due to refinery emergencies. Improvement is needed to consistently conduct periodic drills within each operating plant.
- *Safety Culture:* Assessments need to include evaluation of all elements of process safety leadership and the improvement plan needs to include metrics from the interim study.
- *Human Factors:* MRC has a well implemented program although needs some improvement to document human factors evaluations associated with incident investigations.
- *Organizational Changes:* MRC has adequate programs in place to manage organizational/staffing changes. Improvement is needed in documenting leadership approval.

## Process/Equipment Issues

- *Mechanical Integrity:* Preventive maintenance inspection and testing is routinely performed as scheduled and is well documented.
- *Operating Procedures:* The refinery has developed a complete set of operating procedures to ensure consistency for refinery operations. CCHSHMP noted several procedures had alarm level discrepancies from the master alarm database.
- *Process/Equipment Safety Information:* The refinery has compiled, and made available electronically, process and equipment information to personnel as necessary. Improvement is needed to provide worker access to regulated substances' hazards.

- *Inherent Safety:* MRC needs significant improvement in this area to document how to make existing and new processes safer to satisfy local and state requirements.
- *Incident Investigations:* MRC has a process in place to investigate incidents.

## 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 Public Library at 740 Court St., Martinez or call 925-655-3200 for an appointment to view the report at CCHSHMP's offices.



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