CONTRA COSTA HEALTH

INDUSTRIAL SAFETY ORDINANCE ANNUAL PERFORMANCE REVIEW AND EVALUATION REPORT

January 2025

By Contra Costa Health
Hazardous Materials Programs

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Executive Summary

Contra Costa County's Industrial Safety Ordinance (ISO), adopted in 1998 by the Board of Supervisors, requires regulated facilities in the county to implement comprehensive safety programs to prevent chemical accidents. The ISO's requirements are among the most stringent in the United States, if not the world. The goal is for facilities to implement comprehensive safety programs, instill a safety culture at the workplace and create management systems that prevent incidents that could have detrimental impacts to surrounding communities. The ISO also mandates outreach and participation from industries, agencies, elected officials, and the public.

Three major oil refineries and three chemical facilities are required to comply with ISO requirements. One refinery within the City of Richmond is required to comply with the Richmond Industrial Safety Ordinance (RISO), which mandates the same requirements from a separate municipal authority. Both ordinances are administered by Contra Costa County's Health Hazardous Materials Programs (CCHHMP), a division of Contra Costa Health. Per ISO Section 450-8.030, CCHHMP annually evaluates and reports on ISO performance to the Board of Supervisors.

CCHHMP's Accidental Release Prevention (ARP) Program engineers oversee the ISO and RISO programs and work with other agencies such as the U.S. Environmental Protection Agency (EPA), the California Occupational Safety and Health Administration (Cal/OSHA), US Chemical Safety and Hazardous Investigation Board, California Environmental Protection Agency (Cal EPA), and other local program agencies. This interagency collaboration includes the sharing of incident and inspection results, discussion of regulatory interpretations, and joint training.

Public Participation

CCHHMP maintains an active public outreach program and continually seeks ways to improve it. With the easing of COVID-19 restrictions, CCHHMP resumed conducting community engagement activities in late 2022, including:
Presented the third-party Incident Investigation Report on the Chevron Wharf Oil Spill Major Chemical Accidental Release (MCAR) at Civic Center Plaza in Richmond on July 17, 2023.
Presented the third-party Community Toxic Risk Screening Assessment Report on the Martinez Refining Company (MRC) Catalyst Release MCAR at the county administration building in Martinez on September 25, 2023.
Presented the third-party Incident Investigation Report on the Martinez Refining Company (MRC) Catalyst Release MCAR at the county administration building in Martinez on April 11, 2024.
Shared Air Liquide Large Industry's safety plan and Phillips 66's safety audit and outreach information at a booth at the Sugar Town Festival and Street Faire in Crockett on July 21, 2024.
Shared Air Liquide Large Industry's safety plan and Phillips 66's safety audit and outreach information at a booth at the Rodeo-Hercules Fire District Open House on October 12, 2024.

The Board of Supervisors also requested that staff provide copies of the annual report to communities through the Community Advisory Panels (CAP). This 2024 Annual Report is available on our website and will be sent to CAP representatives for further dissemination.

In 2024, Winston Churchill Trust sponsored an Australian representative to observe the ISO program as a model for best practices in process safety regulations. The representative's report particularly noted ISO for its public engagement, and interagency collaboration.

Audits

Audits of regulated businesses are required at least once every three years to ensure that the facilities are implementing the required programs. We completed two ISO audits and no RISO audits in fiscal year 2023-2024*:

- Air Products & Chemicals (at MRC) – September 2023
- Martinez Refining Company (MRC) – January 2024

* An audit was started at the Martinez Renewable Fuels (MRF) facility in June 2024 although the audit was not completed until the end of July 2024

Major Chemical Accidents or Releases (MCAR)

There were two MCAR events involving ISO/RISO-regulated facilities during the reporting period of this report (July 1, 2023, through June 30, 2024):

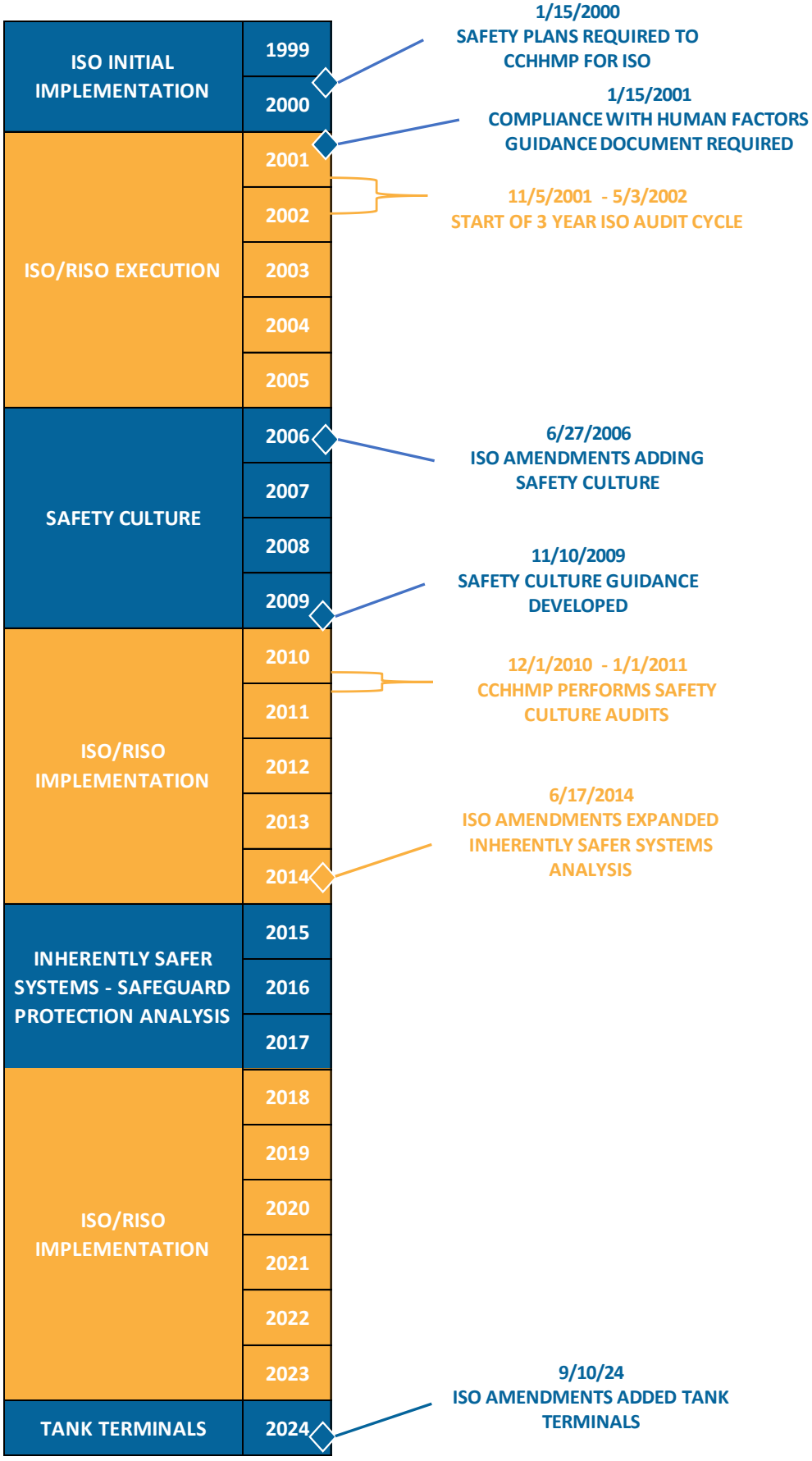
- On November 19, 2023, Martinez Renewable Fuels (MRF) Refinery (formerly Marathon Refinery) had a furnace fire. This fire resulted in the release of over 200,000 pounds of renewable diesel that caught fire that engulfed an operator and damaged equipment. The operator received third-degree burns over 80% of their body. This event was classified as a Community Warning System (CWS) Level 2 incident. As a result, this incident met the requirements of an MCAR.
- On December 15, 2023, PBF Martinez Refining Company (MRC) had a steam generator failure. The loss of steam resulted in the shutdown of most of the refinery and significant flaring and strong sulfur odors in the community for hours. CCHHMP classified this event as a CWS Level 2 incident. As a result, this incident met the requirements of an MCAR.

Conclusion

Despite the two MCARs that took place during this fiscal year, the severity and frequency of MCAR events in Contra Costa County has declined since the implementation of the ISO. The ISO has improved regulated facilities' safety programs and operations.

Introduction

The Board of Supervisors adopted the ISO due to significant accidents that occurred at oil refineries and chemical plants in the county in the 1990s. The effective date of the ISO was January 15, 1999. The ordinance applies to oil refineries and chemical plants with specified North American Industry Classification System (NAICS) codes that were required to submit a Risk Management Plan to the U.S. EPA and are Program Level 3 Stationary Sources as defined by the U.S. EPA Risk Management Program. The timeline below shows the requirements of the ordinance and various changes to date:


ISO INITIAL IMPLEMENTATION
1999
2000
ISO/RISO EXECUTION
2001
2002
2003
2004
2005
SAFETY CULTURE
2006
2007
2008
2009
ISO/RISO IMPLEMENTATION
2010
2011
2012
2013
2014
INHERENTLY SAFER SYSTEMS - SAFEGUARD PROTECTION ANALYSIS
2015
2016
2017
ISO/RISO IMPLEMENTATION
2018
2019
2020
2021
2022
2023
TANK TERMINALS
2024
1/15/2000
SAFETY PLANS REQUIRED TO CCHHMP FOR ISO
1/15/2001
COMPLIANCE WITH HUMAN FACTORS GUIDANCE DOCUMENT REQUIRED
11/5/2001 - 5/3/2002
START OF 3 YEAR ISO AUDIT CYCLE
6/27/2006
ISO AMENDMENTS ADDING SAFETY CULTURE
11/10/2009
SAFETY CULTURE GUIDANCE DEVELOPED
12/1/2010 - 1/1/2011
CCHHMP PERFORMS SAFETY CULTURE AUDITS
6/17/2014
ISO AMENDMENTS EXPANDED INHERENTLY SAFER SYSTEMS ANALYSIS
9/10/24
ISO AMENDMENTS ADDED TANK TERMINALS

General Responsibilities

Hazardous Materials Programs

- May perform individual Root Cause Analysis or other third-party evaluations after an MCAR
- Develop and Maintain Safety Plan Guidance Document
- Review submitted Safety Plans
- Audit every three years after initial ISO/RISO audits
- Create Safety Culture Guidance and update as needed
- Create Tank Terminal Guidance

Stationary Sources

- Perform Root Cause Analysis after an MCAR
- Consider Inherently Safer Systems for new and existing processes, expanded (2014 amendments) to include reviewing during major changes that could result in MCAR occur
- Submit Safety Plan every 3 years
- Perform Safeguard Protection Analysis [SPA] (2014 Amendments)
- Include Maintenance in the Human Factors and Management of Organizational Change Programs (2006 Amendments)
- Perform Security Vulnerability Assessments and Safety Culture Assessments (2006 Amendments)
- Develop and Track Performance Indicators (2014 Amendments)

Tank Terminals

- Participate in the development of Tank Terminal safety program guidance (optional)
- Begin updating site programs to comply with 2024 County ISO amendments

City of Richmond Industrial Safety Ordinance

The Richmond City Council passed its version of the ISO on December 18, 2001. Richmond's Industrial Safety Ordinance (RISO) mirrors the ISO, currently covering one stationary source: Chevron Richmond Refinery (Chevron). CCHHMP administers the RISO for the city. Previously, the RISO covered the Chemtrade West Richmond Works until they modified their processes such that they are no longer subject to the RISO.

There were no RISO audits conducted in this reporting period. CCHHMP receives annual performance updates from Chevron each June. CCHHMP worked with U.S. EPA, Cal OSHA, BAAQMD and CSB in CSB's independent investigation of the August 6, 2012 incident. CCHHMP completed working with an oversight committee regarding the incident investigation of the Chevron February 9, 2021, wharf oil spill incident.

Regulated Stationary Sources Listing

There are a total of six stationary sources covered by the ISO and one stationary source covered by RISO**:
Air Liquide Large Industries at Phillips 66
Air Products at MRC (formerly Shell Martinez Refinery)
Air Products at MRF (formerly Marathon Refinery)
Martinez Renewable Fuels (formerly Marathon Refinery)
PBF Martinez Refining Company – MRC (formerly Shell Martinez Refinery)
Phillips 66 Rodeo Renewable Energy Complex
Chevron Richmond Refinery (RISO)

** Chemtrade West Richmond Works modified its processes and is no longer subject to RISO.

Tank Terminal Listing

The ISO was modified in September 2024 to expand process safety requirements to cover Tank Terminals not otherwise included within petroleum or renewable fuel refineries. The City of Richmond modified the RISO in October 2024 to mirror the ISO requirements on Tank Terminals. At the time the ISO and RSIO were updated, there were a total of two tank terminals covered by the ISO and four tank terminals covered by RISO:

Tank Terminal Name	Location	Covered Under
Shore Terminals LLC (formerly NuStar)	90 San Pablo Ave, Crockett	ISO
Chevron Products Company – Avon Terminal	611 Solano Way, Martinez	ISO
Phillips 66 Richmond Terminal	1300 Canal Blvd., Richmond	RISO
TransMontaigne- Richmond Terminal	488 Wright Ave, Richmond	RISO
Kinder Morgan Liquids Terminals, LLC Richmond Products Terminal	1306 Canal Blvd., Richmond	RISO
IMTT	100 Cutting Blvd., Richmond	RISO

Status of Safety Plans and Programs

Stationary sources were required to initially submit safety plans in 2000 (ISO) and 2003 (RISO) and resubmit every 3 years. Audits have also been completed on the same schedule. The most recent status of each of the regulated stationary sources is given in Tables I and II:

A full summary of all Safety Plan Updates and audits is maintained via database at CCHHMP's office.

Table I
Industrial Safety Ordinance (ISO)
Stationary Source and Tank Terminal Status *
(Most Recent)

NAME	Safety Plan (SP) Received	Safety Plan Complete	Audit/ Inspection	Audit Public Meeting
Air Liquide Large Industries	1/10/2023	Yes	1/5/2022	10/15/2022
Air Products – MRC	7/25/2023	No	9/25/2023	Not yet
Air Products – MRF	7/25/2023	No	**	**
Martinez Renewable Fuels	10/31/2022	No	6/24/2024	Not yet
PBF Martinez Refining Company (MRC)	10/31/2022	Yes	1/8/2024	Not yet
Phillips 66 Rodeo Renewable Energy Complex	8/6/2021	Yes	10/24/2022	7/21/24

* Two Tank Terminals (Shore Terminals, formerly NuStar; and Chevron Products Company - Avon Terminal) are subject to ISO requirements. Both are required to submit their Safety Plan 1.5 years after the development of a guidance document, which is currently being developed. Audits will take place within one year after submission of the Safety Plan.

** Air Products – MRF deregistered and was idled in 2020 when the Marathon Refinery (now called Martinez Renewable Fuels) shut down during the pandemic. The plant has recently become operational.

Table II
Richmond Industrial Safety Ordinance (RISO)
Stationary Source and Tank Terminal Status ***
(Most Recent)

NAME	Safety Plan (SP) Received	Safety Plan Complete	Audit/ Inspection	Audit Public Meeting
Chevron Richmond Refinery	7/23/2024	No	4/25/2022	5/7/2023

*** Four Tank Terminals (Phillips 66 Richmond Terminal; TransMontaigne - Richmond Terminal; Kinder Morgan Liquids Terminals, LLC Richmond Products Terminal; and IMTT) are subject to RISO requirements. All are required to submit their Safety Plan 1.5 years after the development of a guidance document, which is currently being developed. Audits will take place within one year after submission of the Safety Plan.

Locations of the Regulated Stationary Sources and Tank Terminals Safety Plans

Regulated stationary sources are required to update their safety plans at least once every three years. These plans are available for public review at the Hazardous Materials Programs office, 4585 Pacheco Blvd., Suite 100, Martinez. When CCHHMP determines that a safety plan update is complete, before the required 45-day public comment period, the staff places the updated plan in the Contra Costa Library branch or branches closest to the regulated stationary source, so it is easily accessible for public review. Table III lists each safety plan location.

Table III
Location of Safety Plans – Libraries Φ

Regulated Stationary Source	Location 1	Location 2	Location 3
Air Liquide Large Industries Rodeo	Hazardous Materials Programs Office	Rodeo Public Library	Crockett Public Library
Air Products – MRC	Hazardous Materials Programs Office	Martinez Public Library	
Air Products – MRF	Hazardous Materials Programs Office	****	
Martinez Renewable Fuels	Hazardous Materials Programs Office	****	
PBF Martinez Refining Company (MRC)	Hazardous Materials Programs Office	Martinez Public Library	
Phillips 66 Rodeo Renewable Energy Complex	Hazardous Materials Programs Office	Rodeo Public Library	Crockett Public Library
Chevron Richmond Refinery (RISO)	Hazardous Materials Programs Office	Point Richmond Public Library	Main Richmond Public Library

**** Safety Plans for Air Products – MRF and Martinez Renewable Fuels were recently submitted and have not been reviewed yet.

Φ Once Safety Plans have been submitted for the Tank Terminals, this table will be updated.

Effectiveness of Implementation of the Industrial Safety Ordinance

Contra Costa Health Hazardous Materials Programs has developed policies, procedures, protocols, and questionnaires to implement the California Accidental Release Prevention (CalARP) Program and the Industrial Safety Ordinance. The policies, procedures, protocols, & questionnaires for these programs are listed below:

Audits/Inspections Policy
Conducting the Risk Management Plan/Safety Plan Completeness Review Protocol
Risk Management Plan Completeness Review Questionnaires
Safety Plan Completeness Review Questionnaires
Conducting Audits/Inspections Protocol
Safe Work Practices Questionnaires
CalARP Program Audit Questionnaires
Safety Program Audit Questionnaires
Conducting Employee Interviews Protocol
Employee Interview Questionnaires
Field Verification Protocols
Covered Process Modification Policy
Public Participation Policy
Dispute Resolution Policy
Reclassification Policy
CalARP Internal Performance Audit Policy
Conducting the Internal Performance Audit
CalARP Internal Audit Performance Audit Submission
Fee Policy
Notification Policy
Unannounced Inspection Policy
Risk Management Plan Public Review Policy

Hazardous Materials Programs also developed the Contra Costa County CalARP Program Guidance Document and the Contra Costa County ISO Safety Program Guidance Document. This ISO Guidance document was recently updated and posted online on September 19, 2024, after no comments were received from stakeholders. Guidance is currently being developed to outline programs to be included within Safety Plans for Tank Terminals. All policies, procedures, protocols, and questionnaires are available through the Hazardous Materials Programs office, and the guidance documents are available electronically at:

- https://www.cchealth.org/health-and-safety-information/hazmat-programs/california-accidental-release-prevention-calarp-program/calarp-program-guidance-document and
- https://www.cchealth.org/health-and-safety-information/hazmat-programs/industrial-safety-ordinance/iso-guidance-document

Effectiveness of the Procedures for Records Management

CCHHMP has digital files for each stationary source. The files include:

1. Annual status reports
2. Audits & inspections
3. Communications
4. Completeness review
5. Emergency response
6. Incident investigation
7. Trade secret information

Digital copies of the files are stored on the Hazardous Materials Programs network and are accessible to the Accidental Release Prevention (ARP) engineers, supervisor, and the Hazardous Materials Program Director. Portable document format (PDF) versions of these files are also available for public viewing at the CCHHMP office. The Accidental Release Prevention Program files contain regulations, policies, information from the U.S. EPA, Cal EPA, CSB, and other information pertinent to the engineers. The risk management and safety plans are received in hard copy, scanned, and kept at the CCHHMP office.

Number and Type of Audits and Inspections Conducted

Beginning in the winter of 2022, CCHHMP began its next round of required audits at each of the ISO and RISO facilities. This is the ninth round of audits since 2000. In response to the COVID-19 pandemic, CCHHMP developed audit protocols to perform audits both onsite as well as remotely. The two ISO audits completed during this period were conducted onsite only (Air Products MRC) and a combination of onsite and remotely (Martinez Renewable Fuels).

When CCHHMP ARP engineers review a safety plan, a notice of deficiencies is issued documenting any changes the stationary source must make before the plan is determined to be complete. The stationary source has up to 90 days to respond. Assigned ARP engineers will work with the stationary source until the plan contains the required changes.

When the plan is complete, the ARP engineer will open a public comment period and make the plan available in a public meeting or venue as well as at the public library branch closest to the stationary source. The ARP engineer will respond to all written comments in writing and, when appropriate, use the comments in upcoming audits/inspections of the regulated stationary source.

An ARP engineer will issue a Preliminary Audit Findings report after each stationary source audit/inspection. The stationary source will have 90 days to respond, and the ARP engineer will review the response. The stationary source must submit an action plan to correct any uncovered ISO compliance issues, which the ARP engineer will review. If the ARP engineer agrees with the action plan, CCHHMP will issue the Preliminary Audit Findings for public comment and make them available in a public meeting or venue and at the public library branch closest to the stationary source. The ARP engineer will consider comments received during the public comment period and may revise the Preliminary Audit Findings report. When the public review process is complete, the ARP engineer will issue the Final Audit Findings report and respond in writing to any written public comments received. Table I lists the status of each stationary source's safety plan, audit and inspections of their safety programs, and public meetings.

Third Party Evaluations Conducted by Hazardous Materials Programs

The Martinez Renewable Fuels (MRF) Refinery (formerly Marathon Refinery) had a furnace fire on November 19, 2023, that injured an operator and damaged equipment. As a result of the MRF furnace fire, CCHHMP was instructed to conduct a third-party evaluation to assess the safety culture/management systems at the refinery. A contractor has been hired to conduct the work, which will be performed and reported out under the next fiscal year ISO Report.

As described in the previous ISO Report, the PBF Martinez Refining Company had an MCAR in November 2022, resulting in 20-24 tons of powdered catalyst being discharged into the surrounding community. CCHHMP was instructed to conduct three third-party evaluations for the MRC Refinery. The status of these evaluations is as follows:

1. Screening Level Human Health and Ecological Risk Assessment. A toxicologist conducted community soil sampling and determined the catalyst release did not increase the risk of exposure to hazardous materials in local soils. The evaluation is complete and the final report was uploaded in February 2024 and can be found at: https://www.cchealth.org/home/showpublisheddocument/29802/638465394388200000
2. Root Cause Analysis Incident Investigation. An independent incident investigation was commissioned to identify management system failures associated with the MCAR and recommendations to prevent reoccurrence. The work for this evaluation has been completed and a draft report was issued for public comment in May 2024. The final report that responds to all public comments will be summaried in next year's ISO Report.
3. Safety Culture Assessment. A company was hired to conduct an independent assessment of the safety culture at MRC. The work for this evaluation has been completed and a draft report was issued for public comment in September 2024. The final report that responds to all public comments will be summarized in next year's ISO Report.

It should also be noted that a consultant was hired in 2021 to conduct an independent evaluation of an MCAR at the Chevron Richmond Refinery for their February 9, 2021, Wharf Oil Spill. A report for this independent evaluation was completed in 2023 and a public meeting was held where numerous comments were received. CCHHMP responded to all public comments and presented the report to the County Board of Supervisors and the City of Richmond in 2024.

A historical listing of MCAR events starting in 1992 is available at:
https://www.cchealth.org/health-and-safety-information/hazmat-programs/hazmat-incident-response/major-accidents-at-chemical-refinery-plants

This list also includes major accidents that occurred before the adoption of the ISO.

CCHHMP's Process for Public Participation

CCHHMP continues the practice of sharing results of safety plans and preliminary audit findings and receiving public comment about them at community events, as recommended by community members in 2005. Based on a 2012

recommendation from the County Board of Supervisors, CCHHMP also shares ISO annual reports and makes presentations to Community Advisory Panels.

Effectiveness of the Public Information Bank

The Hazardous Materials Programs website (https://www.cchealth.org/health-and-safety-information/hazardous-materials) includes:

Programs	Incident Response and Follow-up	Resources
ISO and RISO	HazMat Incident Response	Chemical Safety Board Incident Search
Land Use Permitting Assistance	List of recent incidents	CCHHMP Guidance Documents
CalARP (Including P4)	MCAR Accident History	CalARP/ISO/RISO Regulations
Underground Storage Tanks	Incident Search Database	
Green Business Program	Incident Notification Policy	
Business Plan	72-hour and 30-day Reports	

Effectiveness of the Hazardous Materials Ombudsperson

The Hazardous Materials Ombudsperson is a conduit for the public to express their concerns about how CCHHMP personnel are performing their duties. Attachment A is a report from the Hazardous Materials Ombudsperson on the effectiveness of the position for this reporting period.

Other Program Elements Necessary to Implement and Manage the ISO

The CalARP Program is administered in Contra Costa County by CCHHMP. Stationary sources are required to submit risk management plans in addition to ISO safety plans. An ARP engineer reviews the risk management plans and performs CalARP Program audits simultaneously with ISO audits.

Annual Accident History Report and Inherently Safer Systems Implemented as Submitted by the Regulated Stationary Sources

The ISO requires stationary sources to update their accident history in their safety plans and include how they have used inherently safer processes within the last physical year. Tables IV and V summarize Inherently Safer Systems that have been implemented during this reporting period. Attachment B includes individual reports from the stationary sources that also include the required reporting of four common process safety performance indicators.

Table IV
Inherently Safer Systems Contra Costa County ISO Stationary Sources
(July 2022 – June 2023)

Regulated Stationary Source	Inherently Safer System Implemented	Risk Reduction Level	Strategy
Air Liquide Large Industries Rodeo	No new inherently safer systems have been implemented	N/A	N/A
Air Products – MRC	No new inherently safer systems have been implemented	N/A	N/A
Air Products - MRF	Elimination of alternate feed stock and high pressure hydrogen supply line	Inherent	Elimination
PBF Martinez Refining Company (MRC)	Install a physical barrier between delivery truck and valve station	Passive	Moderate
	Label equipment in the field (2 times)	Procedural	Moderate
	Install alarms on select equipment combined with operator response (14 times)	Active	Moderate
	Add sample point to barrier list	Procedural	Moderate
Phillips 66 Rodeo Renewable Energy Complex	Upgraded equipment seal to minimize leak potential	Passive	Moderate

Regulated Stationary Source	Inherently Safer System Implemented	Risk Reduction Level	Strategy
	Install a mechanical stop to prevent a valve from rotating too far to prevent equipment trip	Passive	Simplify
	Install a high temperature alarm	Active	Moderate
	Modernize motor controls for easier troubleshooting and making equipment less likely to trip	Active	Simplify
	Update procedure to ensure selective catalytic reduction bed temperature is properly pre-heated before ammonia injection	Procedural	Moderate
	Develop procedures to properly manage disposing of filters in the Pretreatment Unit	Procedural	Moderate
Martinez Renewable Fuels (formerly Marathon Refinery)	Removal of a hazard by modifying the physical conditions of the process	Inherent	Elimination
Martinez Renewable Fuels – Continued	Eliminated a hazard by switching to a non-hazardous alternative	Inherent	Substitution
	Upgraded equipment to make it more resilient to plant conditions (5 times)	Inherent	Substitution
	Modified plant physical conditions to less hazardous conditions (3 times)	Passive	Moderate

Table V
Inherently Safer Systems Richmond ISO Stationary Sources
(July 2022 – June 2023)

Regulated Stationary Source	Inherently Safer System Implemented	Risk Reduction Level	Strategy
Chevron Richmond Refinery (RISO)	Upgraded pump to dual seals to eliminate loss of containment from seal failure	Inherent	Eliminate/Moderate
	Implemented multiple pump seal upgrades to reduce loss of containment from seal failure	Inherent	Moderate
	Replaced a high pressure vessel with upgraded metallurgy to resist chemical damage	Passive	Moderate
	Upgraded H2 Plant instrumentation and control logic for improved reliability	Active	
	Implemented a burner management system to improve operability	Active	
	Improved console flow indicators to provide flow direction and readings to console operators	Procedural	

Status of the Incident Investigations, including the Root Cause Analyses Conducted by the Regulated Stationary Sources

The ISO requires regulated stationary sources to conduct an incident investigation including a root cause analysis (RCA) after each MCAR incident. MCAR incidents meet the definition of a Level 3 or Level 2 incident in the Community Warning System incident level classification system defined in the Hazardous Materials Incident Notification Policy, as determined by Contra Costa Health; or result in the release of a regulated substance and meet one or more of the following criteria:

Results in one or more fatalities

Results in at least 24 hours of hospital treatment of three or more persons

Causes on- and/or off-site property damage (including cleanup and restoration activities) initially estimated at $500,000 or more. On-site estimates shall be performed by the regulated stationary source. Off-site estimates shall be performed by appropriate agencies and compiled by the department.
Results in a vapor cloud of flammables and/or combustibles that is more than 5,000 pounds.

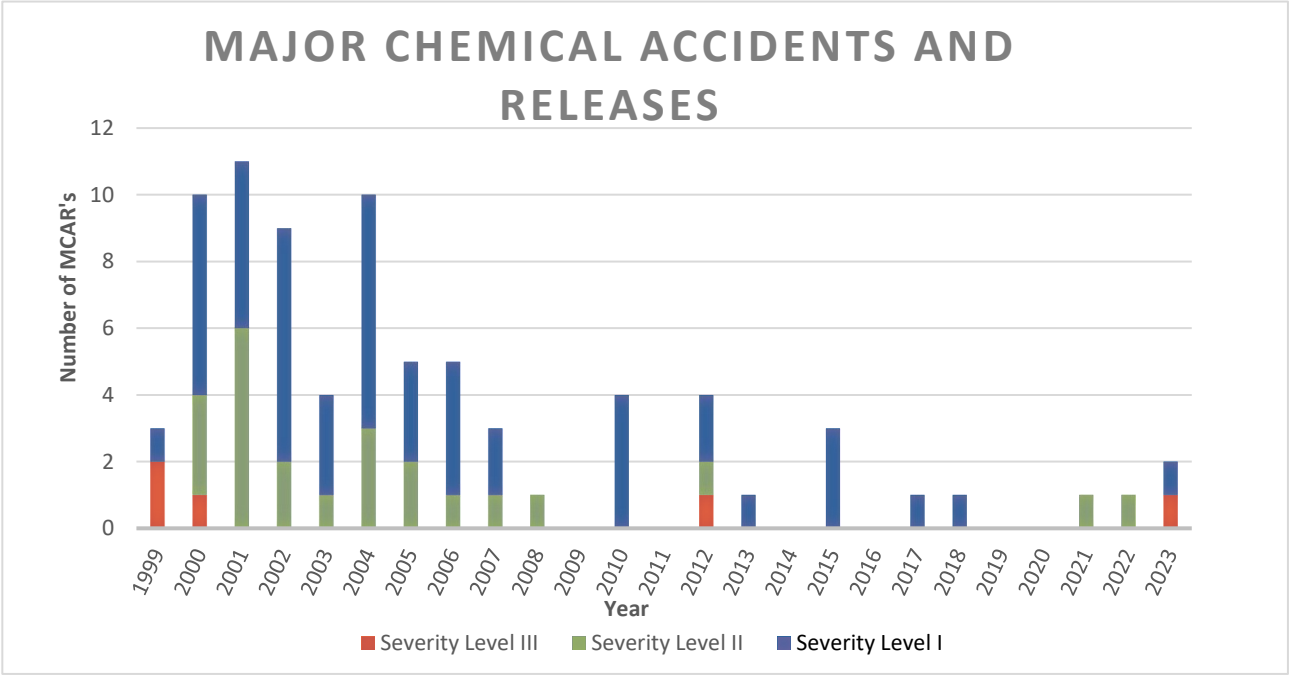
The regulated stationary source is required to submit a report to CCHHMP 30 days after the root cause analysis is complete. There were two MCAR incidents that occurred within this reporting period in Contra Costa County at an ISO facility.

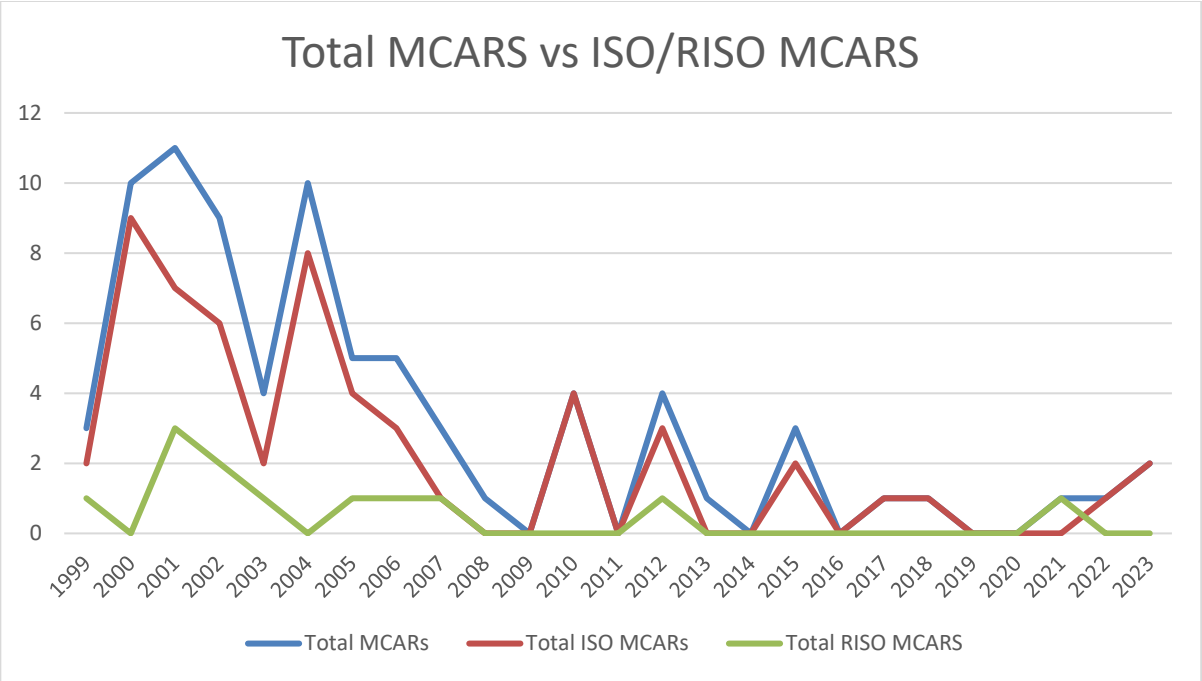
- The Martinez Renewable Fuels (formerly Marathon Refinery) furnace fire on November 19, 2023, resulted in the completion of a root cause analysis report submitted to CCHHMP. This report can be found at: https://www.cchealth.org/home/showpublisheddocument/30798/638622621019230000
- The Martinez Refining Company's (MRC) steam generator loss on December 15, 2023, , resulted in the requirement for MRC to complete a root cause analysis report. CCHHMP has not received this report yet.

Major Chemical Accidents or Releases

CCHHMP analyzed the number and severity of MCARs that occurred since the implementation of the ISO:
Severity Level III — Resulted in a fatality, serious injuries or major on-site and/or off-site damage.
Severity Level II — Resulted in an impact to the community or could easily have become a Level III incident if the situation was slightly different, or it is a recurring type of incident at that facility.
Severity Level I — Resulted in no or minor injuries, no or slight impact to the community, and no or minor on-site damage.

These charts show MCARs from 1999 through June 30, 2024, for all stationary sources in Contra Costa County. The charts include MCARs at stationary sources only, none that occurred during transportation.





Legal Enforcement Actions Initiated by Contra Costa Health Hazardous Materials Programs

As part of the enforcement of the ISO and CalARP Program, CCHHMP staff may issue notices of deficiency in the safety and risk management plans of ISO-regulated facilities and may issue audit findings detailing what a stationary source is required to change to come into compliance with the regulations. In connection with the November 2022 MCAR incident at MRC (covered in the 2023 ISO report), CCHHMP referred a case to the District Attorney due to a failure to provide proper notification. The District Attorney is currently handling this case. No additional legal enforcement actions took place on any ISO facility during this reporting period.

Penalties Assessed as a Result of Enforcement

No penalties have been assessed in this period for noncompliance with the ISO.

Total Fees, Service Charges, and Other Assessments Collected Specifically for the ISO/RISO

Fees charged for the ISO/RISO cover the time ARP engineers use to enforce the ordinance, the position of the Hazardous Materials Ombudsperson, outreach material, and a portion of the overhead for CCHHMP. Fees charged for administering this ordinance for fiscal year 2023–2024 total $632,852.

Total Personnel and Personnel Years Used by the Hazardous Materials Programs to Implement the Industrial Safety Ordinance

ARP engineers review resubmitted Safety Plans, prepare and present information for public meetings, perform audits of stationary sources for compliance with both the CalARP Program and ISO, and do follow-up work after MCARs. During the current reporting period:

Approximately 4371 hours total of CCHHMP personnel time was spent on the ISO/RISO during the current reporting period. This includes hours spent performing on-site audit activities, reviewing and updating information for the website, performing safety plan reviews, follow-up of deficiencies from audits or plan reviews, preparing materials for presentations and/or public meetings. This also includes time in activities specifically related to the MRC November

2022 Catalyst Release MCAR, including meeting with hired consultants, public meetings, and Oversight Committee meetings. This time also includes activities specifically related to the MRF November 2023 Furnace Fire MCAR, including the safety inspection and meetings with refinery personnel. The total does not include Ombudsperson time spent preparing for public meetings, working with engineers on questions arising from the ISO/RISO, and answering questions from the public on the ISO/RISO.

Comments from Interested Parties Regarding the Effectiveness of the Industrial Safety Ordinance

Associated with the independent third-party evaluation process associated with the MRC Catalyst Release MCAR in 2022, CCHHMP received comments on the length of time taken to start and complete all three independent evaluations. Similar public comments were received associated with the third-party evaluation conducted associated with the Chevron Wharf Oil Spill 2021 MCAR. As a result of these comments, CCHHMP is actively seeking to have select consultants on retainer to allow for contracts to be expedited for future independent evaluations.

The Impact of the ISO on Improving Industrial Safety

The ISO is one of four programs that work together to reduce the risk of accidental release from a regulated stationary source that could impact communities in Contra Costa County. Each of the programs is very similar in requirements. Those programs are:

The Process Safety Management Program administered by Cal/OSHA
The federal Accidental Release Prevention Program administered by the U.S. EPA
The California Accidental Release Prevention Program administered by CCHHMP
The Richmond Industrial Safety Ordinance, also administered by CCHHMP.

The ISO was modified in September 2024 to expand process safety requirements to cover Tank Terminals not otherwise included within petroleum or renewable fuel refineries. The expansion of the ISO was a direct result of a fire at a tank terminal located near Crockett in Contra Costa County in October 2019. The ISO modification resulted in separate ISO requirements for Tank Terminals than required for Stationary Sources. The differences in the regulatory requirements for Tank Terminals reflects the relatively lower risk they pose to the public compared to Stationary Sources.

Table VI
General ISO Requirements for Stationary Sources and Tank Terminals

ISO/RISO Regulatory Requirement	Appicable to Stationary Sources	Appicable to Tank Terminals
Process Safety Information	X	X
Operating Procedures	X	X
Employee Participation	X	
Training	X	X
Mechanical Integrity	X	X
Management of Change	X	X
Pre-Startup Reviews	X	X
Compliance Audits	X	
Incident Investigation / Root Cause Analysis	X	X
Safe Work Practices	X	X
Contractors	X	
Emergency Response	X	X
Safety Program Management	X	X
Safety Performance Indicators	X	X
Human Factors Program	X	
Process Hazard Analysis / Hazard Analysis	X	X
Security and Vulnerability Assessment	X	X
Safety Culture Assessment	X	
Inherently Safer System Analysis	X	
Safeguard Protection Analysis	X	

On October 1, 2017, California petroleum refineries were required to comply with the requirements of CalARP Program 4 and OSHA PSM for refineries. Both are based on the ISO.

CalARP Program 3 differs from the federal Accidental Release Prevention Program in the following ways:

- The number of chemicals regulated
- The threshold quantity of these chemicals
- An external events analysis, including seismic, and security and vulnerability analysis, is required
- Additional information to be included within the Risk Management Plan
- CCHHMP is required to audit and inspect stationary sources at least once every three years
- The interaction required between the stationary source and CCHHMP.

The ISO differs from CalARP Program 3, which the chemical facilities are required to follow, in the following ways:

- Stationary sources are required to include a root cause analysis with the incident investigations for Major Chemical Accidents or Releases
- The stationary sources are required to consider inherently safer systems for existing processes, in the development and analysis of recommended action items identified in a process hazard analysis, as part of the management of change review, as part of an incident investigation or root cause analysis development of recommendation, and during the design of new processes, process units and facilities.
- All of the processes at the regulated stationary sources are covered.
- The implementation of a Human Factors Program evaluation of latent conditions in existing units, operating and maintenance procedures, root cause analysis, and process hazard analysis
- Managing changes in the organization for operations, maintenance, health and safety, and emergency response
- A requirement that the stationary sources perform a Security and Vulnerability Analysis and test the effectiveness of the changes made as a result of the Security and Vulnerability Analysis
- The stationary sources perform Safety Culture Assessments
- Conduct, document, and complete safeguard protection analysis associated with process hazard analysis to reduce catastrophic releases.
- Use and reporting of process safety performance indicators in the annual performance review and evaluation report.

The major program differences of ISO from CalARP Program 4 and PSM for Refineries is that the Program 4 requirements identify:

- Mechanical Integrity must include an assessment of Damage Mechanism Review based on operating history and industry experience.
- Process Hazard Analysis must include a review of the Damage Mechanism Review report compiled as part of process safety information.
- Contractor and any subcontractors use a skilled and trained workforce pursuant to Health and Safety Code Section 25536.7
- Require a management system with specific requirements for managing and communicating recommendations from the prevention program elements.
- Require a Stop Work procedure and an anonymous hazard reporting system.

The Safety Culture Assessment guidance chapter was finalized in November 2009. The Industrial Safety Ordinance Guidance Document was updated to reflect all the updates in September 2010. The Accidental Release Prevention Engineers have participated with the Center for Chemical Process Safety in developing the second edition of Inherently Safer Chemical Processes, a book that is referenced in the ordinance and with the Center for Chemical Process Safety on developing process safety metrics for leading and lagging indicators. CCHHMP also participated in developing the third edition of CCPS: Inherently Safer Chemical Processes to further clarify and promote the practice and consideration of Inherently Safer Systems.

The success of Contra Costa's programs at reducing MCARs and improving facility safety practices have been frequently cited as exemplary or model policies within the regulatory community:

Contra Costa County was recognized as an alternative model for doing process-safety inspections by the CSB in its report on a 2005 refinery accident in Texas City, TX. The board also mentioned Contra Costa in its DVD, "Anatomy of a Disaster: Explosion at BP Texas City Refinery," as a model resource.

CSB Chair Carolyn W. Merritt also recognized Contra Costa County in testimony to the House of Representatives Committee on Education and Labor.

Senator Barbara Boxer, during a 2007 hearing to consider John Bresland's nomination to chair of the CSB Board, asked Mr. Bresland about the Contra Costa County program for process safety audits of refineries and chemical companies.

In its final investigation report of a 2008 incident at the Bayer Crop Science Institute in West Virginia, the CSB recommended that regulatory agencies in the area audit their chemical facilities using Contra Costa County's process. CCHHMP staff and a representative from the local United Steelworkers Union were part of a panel when the CSB presented this report to the Kanawha Valley community.

CCHHMP was asked to give testimony at a June 2010 hearing on "Workplace Safety and Worker Protections in the Gas and Oil Industry" before the U.S. Senate Committee on Health, Education, Labor, and Pensions Subcommittee on Employment and Workplace Safety regarding the success of Accidental Release Prevention Programs in place in Contra Costa County.

In September 2012, CCHMP was asked to present at the "Expert Forum on the Use of Performance-based Regulatory Models in the U.S. Oil and Gas Industry: Offshore and Onshore" in Texas City, Texas to share the regulatory experience at Contra Costa County and give testimony on how local, state and federal agencies can work together and have an unprecedented alignment on regulations that is required for the same facilities. This meeting was spearheaded by the federal Occupational Safety and Health Administration and attended by the Bureau of Safety and Environmental Enforcement, U.S. Coast Guard, U.S. EPA, Pipeline and Hazardous Materials Safety Administration, United Steelworkers, American Petroleum Institute, academia and industry representatives.

CCHHMP staff also testified at a June 2013 hearing on "Oversight of Federal Risk Management and Emergency Planning Programs to Prevent and Address Chemical Threats, Including the Events Leading up to the Explosions in West, TX and Geismar, LA" before the U.S. Senate's Committee on Environment and Public Works.

CONTRA COSTA HEALTH

ATTACHMENT A
HAZARDOUS MATERIALS OMBUDSPERSON EVALUATION
January 1, 2024 – December 31, 2024

Hazardous Materials Ombudsperson Evaluation
January 1, 2024 – December 31, 2024

Introduction

On July 15, 1997 the Contra Costa County Board of Supervisors authorized creation of an Ombudsperson role for the County's Hazardous Materials Programs. The first Hazardous Materials Ombudsperson began work on May 1, 1998. The Contra Costa County Board of Supervisors adopted an Industrial Safety Ordinance on December 15, 1998. Section 450-8.022 of the Industrial Safety Ordinance requires Contra Costa Health to continue to employ an Ombudsperson for the Hazardous Materials Programs. Section 450-8.030(B)(vii) of the Industrial Safety Ordinance requires an annual evaluation of the effectiveness of the Hazardous Materials Ombudsperson, with the first evaluation to be completed on or before October 31, 2000.

The goals of section 450-8.022 of the Industrial Safety Ordinance for the Hazardous Materials Ombudsperson are:

1. To serve as a single point of contact for people who live or work in Contra Costa County regarding environmental health concerns, and questions and complaints about the Hazardous Materials Programs.
2. To investigate concerns and complaints, facilitate their resolution, and assist people in gathering information about programs, procedures, or issues.
3. To provide technical assistance to the public.

The Hazardous Materials Ombudsperson currently accomplishes these goals through the following program elements:

1. Continuing an outreach strategy so that the people who live and work in Contra Costa County can know about and utilize the program.
2. Investigating and responding to questions and complaints, and assisting people in gathering information about programs, procedures, or issues.
3. Participating in a network of environmental programs for the purpose of providing technical assistance.

This evaluation covers the period from January 1, 2024 through December 31, 2024, for the Hazardous Materials Ombudsperson program. The effectiveness of the program shall be demonstrated by showing that the activities of the Hazardous Materials Ombudsperson meet the goals established in the Industrial Safety Ordinance.

Program Elements

Continuing an Outreach Strategy

An informational website for the Hazardous Materials Ombudsperson is located at:

https://www.cchealth.org/health-and-safety-information/hazmat-programs/hazardous-materials-ombudsman

This period efforts were focused on maintaining the outreach tools currently available. The web page was maintained for the program as part of Contra Costa Health's web site. This page contains information about the program, links to other related web sites, and information about upcoming meetings and events. A toll-free phone number is published in all three Contra Costa County phone books in the Government section. The Hazardous Materials Ombudsperson can be contacted at: hazmat.ombudsman@cchealth.org.

Investigating and Responding to Questions and Complaints, and Assisting in Information Gathering

The Hazardous Materials Ombudsperson plays a crucial role in addressing community concerns regarding hazardous materials by facilitating open communication between residents and local authorities. When residents voice questions or complaints concerning hazardous materials, the Hazardous Materials Ombudsperson investigates these issues and gathers information from various sources including government agencies, environmental experts, and community stakeholders. The aim is to clarify regulatory processes to the community in a quick and transparent manner. By acting as a mediator, the Hazardous Materials Ombudsperson helps residents navigate complex information related to hazardous materials, providing guidance on safety measures and compliance standards. Ultimately, their goal is to enhance community trust and promote a safer environment through effective problem-solving.

The Hazardous Materials Ombudsperson receives a significant number of information requests via telephone and less through email. Most of these inquiries typically focus on various environmental issues, including home-related concerns such as hazardous waste disposal and contamination. The Hazardous Materials Ombudsperson strives to respond to telephone requests in approximately one business day. Some inquiries require additional research or written materials which may take a couple of days to compile. Responses are generally provided by telephone unless written information is necessary.

Participating in a Network of Environmental Programs for the Purpose of Providing Technical Assistance

Technical assistance means helping the public understand the regulatory, scientific, political, and legal aspects of issues. It also means helping them understand how to effectively communicate their concerns within these different arenas. This year, the Hazardous Materials Ombudsperson continued to staff a number of County programs and participate in other programs to be able to provide technical assistance to the participants and the public.

Climate Change Program - During this period the Hazardous Materials Ombudsperson provided technical assistance to the Public Health Department on a variety of climate change issues. The Ombudsperson participated in a Public Health workgoup to update the Climate Action Plan and the General Plan was part of the planning team for extreme weather events for the Office of Emergency Services and assisted in the development of Extreme Heat and Air Quality Response plans.

Health Careers Pathways – The Ombudsperson served as a mentor to High School Students as part of the Health Careers Pathways summer internship program. The Ombudsperson assisted the students in the development of their Capstone Project which was presented at a Hazardous Materials Commission meeting.

Martinez Refining Company Catalyst Release – The Ombudsperson facilitated community meetings associated with Contra Costa Health conducting third-party evaluations after a catalyst release impacted the community in November 2022.

The Hazardous Materials Ombudsperson also attended workshops, presentations, meetings and trainings on a variety of environmental issues to be better able to provide technical assistance to the public. Topics included Environmental Justice, Air Quality, water quality, toxic chemicals, and asthma.

Program Management

The Hazardous Material Ombudsperson reported to the Climate and Health Officer until he retired in March 2023. After that, the Ombudsperson reported to the Deputy Director of Contra Costa Health.

Goals for 2025

The Hazardous Materials Ombudsperson will continue to respond to questions and complaints about the actions of the Hazardous Materials Program; answer general questions that come from the public and assist them in understanding regulatory programs; continue to participate in the ISO amendment stakeholder meetings for Tank Terminals; continue

to provide support on the revised Hazardous Materials Incident Notification Policy as needed; update the Hazardous Materials Commission for sensitive community related events; support the Health Department on Health Emergency Response and Planning which may include climate change issues; and participate in the CAER Emergency Notification committee.

CONTRA COSTA HEALTH

ATTACHMENT B
HAZARDOUS MATERIALS
COUNTY REGULATED SOURCES
ANNUAL PERFORMANCE
July 1, 2023 – June 30, 2024

CONTRA COSTA HEALTH

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Industrial Safety Ordinance Annual Performance Review and Evaluation Submittal

June 30, 2024

*Attach additional pages as necessary

1. Name and address of Stationary Source:

   Air Liquide Rodeo Hydrogen Plant, 1391 San Pablo Ave, Rodeo, CA 94572

2. Contact name and telephone number (should CCHHMP have questions):

   Thomas Turner (225-270-7101)

3. Summarize the status of the Stationary Source's Safety Plan and Program (450-8.030(B)(2)(i)):

   This facility utilizes the programs and procedures identified in the ISO Safety Program/Plan. Additionally, the site is in regular communication with the county regarding action items, and any other updates in general.

4. Summarize Safety Plan updates (i.e., brief explanation of update and corresponding date) (450-8.030(B)(2)(ii)):

   RODEO HYDROGEN PRODUCTION FACILITY INDUSTRIAL SAFETY PLAN - Periodic review and updates made to suffice action item A26-02 from Contra Costa Audit 2022, RODEO SMR INHERENTLY SAFETY SYSTEMS POLICY - Additions include: ISS review needs to be done during development of PHA action items, ISS review to be completed during different phases of a project, ISS to be performed on any major change resulting from investigation of an incident that could have reasonably led to MCAR, to review if existing and new technologies previously not considered for a project could make it inherently safer, RODEO SMR EMERGENCY ACTION PLAN - Updated contact list in the EAP

5. List of locations where Safety Plans are/will be available for review, including contact telephone numbers if the source will provide individuals with copies of the document (450-8.030(B)(2)(ii)):

   CCHHMP Office at 4585 Pacheco Boulevard, Suite 100, Martinez; (Air Liquide) Library (libraries closest to the stationary source).

6. Provide any additions to the annual accident history reports (i.e. updates) submitted pursuant to Section 450-8.016(E)(2) of County Ordinance 98-48 (450-8.030(B)(2)(iii)) (i.e., provide information identified in Section 450-8.016(E)(1) for all major chemical accidents or releases occurring between the last annual performance review report and the current annual performance review and evaluation submittal (12-month history)):

   There were no major chemical accidents or releases in the past 12 months

7. Summary of each Root Cause Analysis (Section 450-8.016(C)) including the status of the analysis and the status of implementation of recommendations formulated during the analysis (450-8.030(B)(2)(iv)):

   There were no major chemical accidents or releases in the past 12 months

8. Summary of the status of implementation of recommendations formulated during audits, inspections, Root Cause Analyses, or Incident Investigations conducted by the Department (450-8.030(B)(2)(v)):

   There were no major chemical accidents or releases in the past 12 months

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9. Summary of inherently safer systems implemented by the source including but not limited to inventory reduction (i.e., intensification) and substitution (450-8.030(B)(2)(vi)):

   All MOCs are reviewed using ISS evaluation and change methodology.

10. Summarize the enforcement actions (including Notice of Deficiencies, Audit Reports, and any actions turned over to the *Contra Costa County District Attorney's Office*) taken with the Stationary Source pursuant to Section 450 -8.028 of County Ordinance 98-48 (450-8.030(B)(2)(vii)):

    There were no enforcement actions during this period.

11. Summarize total penalties assessed as a result of enforcement of this Chapter (450-8.030(3)):

    No penalties have been assessed against this facility.

12. Summarize the total fees, service charges, and other assessments collected specifically for the support of the ISO (450-8.030(B)(4)):

    The total CalARP Program fees for the six facilities subject to the Industrial Safety Ordinance were $758,387. The total Industrial Safety Ordinance program fees for these six facilities were - $601,809. (NOTE: These fees include those for the County and City of Richmond ISO facilities)

13. Summarize total personnel and personnel years utilized by the jurisdiction to directly implement or administer this Chapter (450-8.030(B)(5)):

    5550 hours were used to audit/inspect and issue reports on the Risk Management Chapter of the Industrial Safety Ordinance.

14. Copies of any comments received by the source (that may not have been received by the Department) regarding the effectiveness of the local program that raise public safety issues(450-8.030(B)(6)):

    None.

15. Summarize how this Chapter improves industrial safety at your stationary source (450-8.030(B)(7)):

    This chapter reinforces the need to maintain, follow and continuously improve our structured safety program to help ensure the safety of our employees and the communities in which we operate

16. List examples of changes made at your stationary source due to implementation of the Industrial Safety Ordinance (e.g., recommendations from PHA's, Compliance Audits, and Incident Investigations in units not subject to CalARP regulations; recommendations from RCA's) that significantly decrease the severity or likelihood of accidental releases:

    Human Factor review for SOPs were completed by December 2022, LCC reviews and Procedural HAZOPs were completed for selected SOPs in 2022.

17. Summarize the emergency response activities conducted at the source (e.g., CWS or TEN activation) in response to major chemical accidents or releases:

    Emergency Action Plan Drill to be scheduled in Q3 or Q4 of 2024 with Rodeo-Hercules Fire Dept, P66 Emergency Response, CCHS, Air Liquide HSE and Operational team. Fire Department batallions conducted training for their teams at our following the drill as well. Last drill conducted in November 2023 with previously mentioned parties.

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18. Date the last Safety Culture Assessment was completed March 20, 2024

19. Date the results of the Safety Culture Assessment were reported to the workforce and management April 2, 2024

20. Answer the following regarding the Safety Culture Evaluation Previous to the one listed in #18:
    - Survey method: 37 Question Survey with contractors and operations personnel
    - Areas of improvements being addressed: None based on the survey results. Following safe work culture is strongly exhibited at the Rodeo SMR
    - Action Plan made Progress on the identified areas of improvement?: ○ Yes ◉ No
        - If Yes, did the improvements meet the goals and if not was the action plan amended to address what is being done to meet the goals?

          N/A
        - If No, has a new action plan been developed to address the identified areas of improvement? ○ Yes ◉ No

21. Have milestones and metrics been developed to determine how the Safety Culture Assessment actions are being implemented? Yes or if not, Why not?

    Yes, metrics have been developed as a response to an action item from CCCHS.

22. Describe the process in place that includes employees and their representatives that will determine if the action items effectively changed the expected culture items:

    The processes include CCHS ISO & Safety Plan audits, the inclusion of LCC & ISS within the ISO program, and organizations PSM efforts internal to Air Liquide

23. Date of the mid-cycle progress evaluation: N/A
    - Did the action plan (for #18) make progress on the identified areas of improvement? ○ Yes or if not, has a new action pan been developed? ○ Yes ○ No

24. If a mid-cycle progress evaluation was performed during this reporting year, describe the process that included participation of employees or their representatives that determined whether the action items effectively changed the expected culture items:

    N/A

25. Common Process Safety Performance Indicators:

    a. Overdue inspection for piping and pressure vessels based on total number of circuits:

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Overdue	24	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	24	0	0	0	0	0	0	0	0	0	0	0	0

Total number of circuits: 187 Circuits, 38 vessels (2 x new instrument air drums)
Total number of annual planned circuit inspection:

12 circuits and 12 vessel inspections deferred till Q1 2024 due to Low risk of failure based on RBI study. The inspections have since been addressed.

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b. Past due PHA recommended actions, includes seismic and LCC recommended actions

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

c. Past due Investigation recommended actions for API/ACC Tier1 and Tier 2 incidents.

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

d. API/ACC Tier 1 and Tier 2 Incidents for the last 11 years

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
No. Tier 1 LOPC	0	0	0	0	0	0	0	0	0	0	0
Incident rate for Tier 1	0	0	0	0	0	0	0	0	0	0	0
Refinery or Industry Rate[1]	0	0	0	0	0	0	0	0	0	0	0
Refinery or Industry Mean [2]	0	0	0	0	0	0	0	0	0	0	0
Tier 2 LOPC	0	0	0	0	0	0	0	0	0	0	0
Incident rate for Tier 2	0	0	0	0	0	0	0	0	0	0	0
Refinery Rate [1]	0	0	0	0	0	0	0	0	0	0	0
Refinery Mean [2]	0	0	0	0	0	0	0	0	0	0	0

[1]Petroleum refineries to report publicly available refinery rate for API Tier 1 and Tier 2 classification. Chemical plants to report publicly available mean only for ACC Tier 1

[2]Petroleum refineries to report publicly available refinery mean for API Tier 1 and Tier 2 classification. Chemical plants to report publicly available mean only for ACC Tier 1

26. Process Safety Performance Indicators for refineries only:

I. Number of Major Incidents this reporting year: None

II. The number of temporary piping and equipment repairs that are installed on hydrocarbon and high energy utility systems that are past their date of replacement with a permanent repair:

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Total*	0	0	0	0	0	0	0	0	0	0	0	0	0
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

*the total number of temporary piping and equipment repairs installed on hydrocarbon and high energy utility systems.

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15. Summarize how this Chapter improves industrial safety at your stationary source (450-8.030(B)(7)):

    This chapter reinforces the need to maintain, follow and continuously improve our structured safety program to help ensure the safety of our employees and the communities in which we operate

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    Human Factor review for SOPs were completed by December 2022, LCC reviews and Procedural HAZOPs were completed for selected SOPs in 2022.

17. Summarize the emergency response activities conducted at the source (e.g., CWS or TEN activation) in response to major chemical accidents or releases:

    Emergency Action Plan Drill to be scheduled in Q3 or Q4 of 2024 with Rodeo-Hercules Fire Dept, P66 Emergency Response, CCHS, Air Liquide HSE and Operational team. Fire Department batallions conducted training for their teams at our following the drill as well. Last drill conducted in November 2023 with previously mentioned parties.

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    - Action Plan made Progress on the identified areas of improvement?: ○ Yes ○ No
        - If Yes, did the improvements meet the goals and if not was the action plan amended to address what is being done to meet the goals?

          N/A
        - If No, has a new action plan been developed to address the identified areas of improvement? ○ Yes ○ No

21. Have milestones and metrics been developed to determine how the Safety Culture Assessment actions are being implemented? Yes or if not, Why not?

    Yes, metrics have been developed as a response to an action item from CCCHS.

22. Describe the process in place that includes employees and their representatives that will determine if the action items effectively changed the expected culture items:

    The processes include CCHS ISO & Safety Plan audits, the inclusion of LCC & ISS within the ISO program, and organizations PSM efforts internal to Air Liquide

23. Date of the mid-cycle progress evaluation: N/A
    - Did the action plan (for #18) make progress on the identified areas of improvement? ◉ Yes or if not, has a new action pan been developed? ◉ Yes ◉ No

24. If a mid-cycle progress evaluation was performed during this reporting year, describe the process that included participation of employees or their representatives that determined whether the action items effectively changed the expected culture items:

    N/A

25. Common Process Safety Performance Indicators:

    a. Overdue inspection for piping and pressure vessels based on total number of circuits:

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Overdue	24	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	24	0	0	0	0	0	0	0	0	0	0	0	0

Total number of circuits: 187 Circuits, 38 vessels (2 x new instrument air drums)
Total number of annual planned circuit inspection:

12 circuits and 12 vessel inspections deferred till Q1 2024 due to Low risk of failure based on RBI study. The inspections have since been addressed.

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b. Past due PHA recommended actions, includes seismic and LCC recommended actions

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

c. Past due Investigation recommended actions for API/ACC Tier1 and Tier 2 incidents.

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

d. API/ACC Tier 1 and Tier 2 Incidents for the last 11 years

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
No. Tier 1 LOPC	0	0	0	0	0	0	0	0	0	0	0
Incident rate for Tier 1	0	0	0	0	0	0	0	0	0	0	0
Refinery or Industry Rate[1]	0	0	0	0	0	0	0	0	0	0	0
Refinery or Industry Mean [2]	0	0	0	0	0	0	0	0	0	0	0
Tier 2 LOPC	0	0	0	0	0	0	0	0	0	0	0
Incident rate for Tier 2	0	0	0	0	0	0	0	0	0	0	0
Refinery Rate [1]	0	0	0	0	0	0	0	0	0	0	0
Refinery Mean [2]	0	0	0	0	0	0	0	0	0	0	0

[1]Petroleum refineries to report publicly available refinery rate for API Tier 1 and Tier 2 classification. Chemical plants to report publicly available mean only for ACC Tier 1

[2]Petroleum refineries to report publicly available refinery mean for API Tier 1 and Tier 2 classification. Chemical plants to report publicly available mean only for ACC Tier 1

26. Process Safety Performance Indicators for refineries only:

I. Number of Major Incidents this reporting year: None

II. The number of temporary piping and equipment repairs that are installed on hydrocarbon and high energy utility systems that are past their date of replacement with a permanent repair:

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Total*	0	0	0	0	0	0	0	0	0	0	0	0	0
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

*the total number of temporary piping and equipment repairs installed on hydrocarbon and high energy utility systems.

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Industrial Safety Ordinance Annual Performance Review and Evaluation Submittal

June 30, 2024

*Attach additional pages as necessary

1. Name and address of Stationary Source:

   Air Liquide Rodeo Hydrogen Plant, 1391 San Pablo Ave, Rodeo, CA 94572

2. Contact name and telephone number (should CCHHMP have questions):

   Thomas Turner (225-270-7101)

3. Summarize the status of the Stationary Source's Safety Plan and Program (450-8.030(B)(2)(i)):

   This facility utilizes the programs and procedures identified in the ISO Safety Program/Plan. Additionally, the site is in regular communication with the county regarding action items, and any other updates in general.

4. Summarize Safety Plan updates (i.e., brief explanation of update and corresponding date) (450-8.030(B)(2)(ii)):

   RODEO HYDROGEN PRODUCTION FACILITY INDUSTRIAL SAFETY PLAN - Periodic review and updates made to suffice action item A26-02 from Contra Costa Audit 2022, RODEO SMR INHERENTLY SAFETY SYSTEMS POLICY - Additions include: ISS review needs to be done during development of PHA action items, ISS review to be completed during different phases of a project, ISS to be performed on any major change resulting from investigation of an incident that could have reasonably led to MCAR, to review if existing and new technologies previously not considered for a project could make it inherently safer, RODEO SMR EMERGENCY ACTION PLAN - Updated contact list in the EAP

5. List of locations where Safety Plans are/will be available for review, including contact telephone numbers if the source will provide individuals with copies of the document (450-8.030(B)(2)(ii)):

   CCHHMP Office at 4585 Pacheco Boulevard, Suite 100, Martinez; (Air Liquide) Library (libraries closest to the stationary source).

6. Provide any additions to the annual accident history reports (i.e. updates) submitted pursuant to Section 450-8.016(E)(2) of County Ordinance 98-48 (450-8.030(B)(2)(iii)) (i.e., provide information identified in Section 450-8.016(E)(1) for all major chemical accidents or releases occurring between the last annual performance review report and the current annual performance review and evaluation submittal (12-month history)):

   There were no major chemical accidents or releases in the past 12 months

7. Summary of each Root Cause Analysis (Section 450-8.016(C)) including the status of the analysis and the status of implementation of recommendations formulated during the analysis (450-8.030(B)(2)(iv)):

   There were no major chemical accidents or releases in the past 12 months

8. Summary of the status of implementation of recommendations formulated during audits, inspections, Root Cause Analyses, or Incident Investigations conducted by the Department (450-8.030(B)(2)(v)):

   There were no major chemical accidents or releases in the past 12 months

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9. Summary of inherently safer systems implemented by the source including but not limited to inventory reduction (i.e., intensification) and substitution (450-8.030(B)(2)(vi)):

   All MOCs are reviewed using ISS evaluation and change methodology.

10. Summarize the enforcement actions (including Notice of Deficiencies, Audit Reports, and any actions turned over to the *Contra Costa County District Attorney's Office*) taken with the Stationary Source pursuant to Section 450 -8.028 of County Ordinance 98-48 (450-8.030(B)(2)(vii)):

    There were no enforcement actions during this period.

11. Summarize total penalties assessed as a result of enforcement of this Chapter (450-8.030(3)):

    No penalties have been assessed against this facility.

12. Summarize the total fees, service charges, and other assessments collected specifically for the support of the ISO (450-8.030(B)(4)):

    The total CalARP Program fees for the six facilities subject to the Industrial Safety Ordinance were $758,387. The total Industrial Safety Ordinance program fees for these six facilities were - $601,809. (NOTE: These fees include those for the County and City of Richmond ISO facilities)

13. Summarize total personnel and personnel years utilized by the jurisdiction to directly implement or administer this Chapter (450-8.030(B)(5)):

    5550 hours were used to audit/inspect and issue reports on the Risk Management Chapter of the Industrial Safety Ordinance.

14. Copies of any comments received by the source (that may not have been received by the Department) regarding the effectiveness of the local program that raise public safety issues(450-8.030(B)(6)):

    None.

15. Summarize how this Chapter improves industrial safety at your stationary source (450-8.030(B)(7)):

    This chapter reinforces the need to maintain, follow and continuously improve our structured safety program to help ensure the safety of our employees and the communities in which we operate

16. List examples of changes made at your stationary source due to implementation of the Industrial Safety Ordinance (e.g., recommendations from PHA's, Compliance Audits, and Incident Investigations in units not subject to CalARP regulations; recommendations from RCA's) that significantly decrease the severity or likelihood of accidental releases:

    Human Factor review for SOPs were completed by December 2022, LCC reviews and Procedural HAZOPs were completed for selected SOPs in 2022.

17. Summarize the emergency response activities conducted at the source (e.g., CWS or TEN activation) in response to major chemical accidents or releases:

    Emergency Action Plan Drill to be scheduled in Q3 or Q4 of 2024 with Rodeo-Hercules Fire Dept, P66 Emergency Response, CCHS, Air Liquide HSE and Operational team. Fire Department batallions conducted training for their teams at our following the drill as well. Last drill conducted in November 2023 with previously mentioned parties.

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18. Date the last Safety Culture Assessment was completed March 20, 2024

19. Date the results of the Safety Culture Assessment were reported to the workforce and management April 2, 2024

20. Answer the following regarding the Safety Culture Evaluation Previous to the one listed in #18:
    - Survey method: 37 Question Survey with contractors and operations personnel
    - Areas of improvements being addressed: None based on the survey results. Following safe work culture is strongly exhibited at the Rodeo SMR
    - Action Plan made Progress on the identified areas of improvement?: ○ Yes ○ No
        - If Yes, did the improvements meet the goals and if not was the action plan amended to address what is being done to meet the goals?

          N/A
        - If No, has a new action plan been developed to address the identified areas of improvement? ○ Yes ○ No

21. Have milestones and metrics been developed to determine how the Safety Culture Assessment actions are being implemented? Yes or if not, Why not?

    Yes, metrics have been developed as a response to an action item from CCCHS.

22. Describe the process in place that includes employees and their representatives that will determine if the action items effectively changed the expected culture items:

    The processes include CCHS ISO & Safety Plan audits, the inclusion of LCC & ISS within the ISO program, and organizations PSM efforts internal to Air Liquide

23. Date of the mid-cycle progress evaluation: N/A
    - Did the action plan (for #18) make progress on the identified areas of improvement? ◉ Yes or if not, has a new action pan been developed? ◉ Yes ◉ No

24. If a mid-cycle progress evaluation was performed during this reporting year, describe the process that included participation of employees or their representatives that determined whether the action items effectively changed the expected culture items:

    N/A

25. Common Process Safety Performance Indicators:

    a. Overdue inspection for piping and pressure vessels based on total number of circuits:

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Overdue	24	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	24	0	0	0	0	0	0	0	0	0	0	0	0

Total number of circuits: 187 Circuits, 38 vessels (2 x new instrument air drums)
Total number of annual planned circuit inspection:

12 circuits and 12 vessel inspections deferred till Q1 2024 due to Low risk of failure based on RBI study. The inspections have since been addressed.

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b. Past due PHA recommended actions, includes seismic and LCC recommended actions

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

c. Past due Investigation recommended actions for API/ACC Tier1 and Tier 2 incidents.

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

d. API/ACC Tier 1 and Tier 2 Incidents for the last 11 years

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
No. Tier 1 LOPC	0	0	0	0	0	0	0	0	0	0	0
Incident rate for Tier 1	0	0	0	0	0	0	0	0	0	0	0
Refinery or Industry Rate[1]	0	0	0	0	0	0	0	0	0	0	0
Refinery or Industry Mean [2]	0	0	0	0	0	0	0	0	0	0	0
Tier 2 LOPC	0	0	0	0	0	0	0	0	0	0	0
Incident rate for Tier 2	0	0	0	0	0	0	0	0	0	0	0
Refinery Rate [1]	0	0	0	0	0	0	0	0	0	0	0
Refinery Mean [2]	0	0	0	0	0	0	0	0	0	0	0

[1]Petroleum refineries to report publicly available refinery rate for API Tier 1 and Tier 2 classification. Chemical plants to report publicly available mean only for ACC Tier 1

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I. Number of Major Incidents this reporting year: None

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Total*	0	0	0	0	0	0	0	0	0	0	0	0	0
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

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Industrial Safety Ordinance Annual Performance Review and Evaluation Submittal

June 30, 2024

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23. Date of the mid-cycle progress evaluation: N/A
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b. Past due PHA recommended actions, includes seismic and LCC recommended actions

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
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Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

c. Past due Investigation recommended actions for API/ACC Tier1 and Tier 2 incidents.

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

d. API/ACC Tier 1 and Tier 2 Incidents for the last 11 years

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
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Incident rate for Tier 1	0	0	0	0	0	0	0	0	0	0	0
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Refinery or Industry Mean [2]	0	0	0	0	0	0	0	0	0	0	0
Tier 2 LOPC	0	0	0	0	0	0	0	0	0	0	0
Incident rate for Tier 2	0	0	0	0	0	0	0	0	0	0	0
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Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Total*	0	0	0	0	0	0	0	0	0	0	0	0	0
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
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*the total number of temporary piping and equipment repairs installed on hydrocarbon and high energy utility systems.

Attachment 1: Inherently Safer Systems Implemented in 2023 (for 2024 ISO Annual Report)

Count	ISS Category/Approach	Description
1	Passive	Install a physical barrier between delivery truck area and FGBD V-13211. (FGBD)
2	Active	Configure a high flow alarm in ACM/UTL for existing indication 6TI9285. (CGH)
3	Active	Configure a high flow alarm in ACM/UTL for existing indication 7FI293. (ALKY)
4	Active	Configure a high level alarm on a Board other than the Dispatcher Board and in ACM/UTL for either the Inventory Management High Alarm or the Independent High Level Alarm for the following tanks: TK1046, TK1072, TK1134, TK1161, TK1332, TK1333, TK1334, TK1335, TK12467 and TK17095. (WHARF / AST)
5	Active	Configure a low flow alarm in ACM/UTL for existing indication 14FC1061. (KGP)
6	Active	Configure a low flow alarm in ACM/UTL for existing indication 14FC1122. (KGP)
7	Active	Configure a Low flow alarm in ACM/UTL for existing indication 14FC884. (KGP)
8	Active	Configure a low flow alarm in ACM/UTL for existing indication 14FC948. (KGP)
9	Active	Configure a low flow alarm in ACM/UTL for existing indication 16FI101. (KGP)
10	Active	Configure a low flow alarm in ACM/UTL for existing flow indication 8FI1075. (C3/C4 Treaters)
11	Active	Configure a low pressure alarm in ACM/UTL for existing indication 14PC920. (KGP)
12	Active	Configure an alarm in ACM/UTL for existing common trouble alarm 6UA372. (CFH)
13	Active	Configure an alarm in ACM/UTL for existing common trouble alarm 6UA557. (CFH)
14	Active	Configure low temperature alarms in ACM/UTL for existing indications 14TI1018 and 14TI1019. (KGP)
15	Active	Configure tandem seal common trouble alarm 7UA701. (ALKY)
16	Procedural	Add sample point to "H2S Sample BA Required" list (attachment to I(F)-39). (FGT)
17	Procedural	Label any pipelines that go underground that do not have labels. (ALKY)
18	Procedural	Label the V-15589 acid pump out valves. (ALKY)

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2. Contact name and telephone number (should CCHHMP have questions):

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3. Summarize the status of the Stationary Source's Safety Plan and Program (450-8.030(B)(2)(i)):

   This facility utilizes the programs and procedures identified in the ISO Safety Program/Plan. Additionally, the site is in regular communication with the county regarding action items, and any other updates in general.

4. Summarize Safety Plan updates (i.e., brief explanation of update and corresponding date) (450-8.030(B)(2)(ii)):

   RODEO HYDROGEN PRODUCTION FACILITY INDUSTRIAL SAFETY PLAN - Periodic review and updates made to suffice action item A26-02 from Contra Costa Audit 2022, RODEO SMR INHERENTLY SAFETY SYSTEMS POLICY - Additions include: ISS review needs to be done during development of PHA action items, ISS review to be completed during different phases of a project, ISS to be performed on any major change resulting from investigation of an incident that could have reasonably led to MCAR, to review if existing and new technologies previously not considered for a project could make it inherently safer, RODEO SMR EMERGENCY ACTION PLAN - Updated contact list in the EAP

5. List of locations where Safety Plans are/will be available for review, including contact telephone numbers if the source will provide individuals with copies of the document (450-8.030(B)(2)(ii)):

   CCHHMP Office at 4585 Pacheco Boulevard, Suite 100, Martinez; (Air Liquide) Library (libraries closest to the stationary source).

6. Provide any additions to the annual accident history reports (i.e. updates) submitted pursuant to Section 450-8.016(E)(2) of County Ordinance 98-48 (450-8.030(B)(2)(iii)) (i.e., provide information identified in Section 450-8.016(E)(1) for all major chemical accidents or releases occurring between the last annual performance review report and the current annual performance review and evaluation submittal (12-month history)):

   There were no major chemical accidents or releases in the past 12 months

7. Summary of each Root Cause Analysis (Section 450-8.016(C)) including the status of the analysis and the status of implementation of recommendations formulated during the analysis (450-8.030(B)(2)(iv)):

   There were no major chemical accidents or releases in the past 12 months

8. Summary of the status of implementation of recommendations formulated during audits, inspections, Root Cause Analyses, or Incident Investigations conducted by the Department (450-8.030(B)(2)(v)):

   There were no major chemical accidents or releases in the past 12 months

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9. Summary of inherently safer systems implemented by the source including but not limited to inventory reduction (i.e., intensification) and substitution (450-8.030(B)(2)(vi)):

   All MOCs are reviewed using ISS evaluation and change methodology.

10. Summarize the enforcement actions (including Notice of Deficiencies, Audit Reports, and any actions turned over to the *Contra Costa County District Attorney's Office*) taken with the Stationary Source pursuant to Section 450 -8.028 of County Ordinance 98-48 (450-8.030(B)(2)(vii)):

    There were no enforcement actions during this period.

11. Summarize total penalties assessed as a result of enforcement of this Chapter (450-8.030(3)):

    No penalties have been assessed against this facility.

12. Summarize the total fees, service charges, and other assessments collected specifically for the support of the ISO (450-8.030(B)(4)):

    The total CalARP Program fees for the six facilities subject to the Industrial Safety Ordinance were $758,387. The total Industrial Safety Ordinance program fees for these six facilities were - $601,809. (NOTE: These fees include those for the County and City of Richmond ISO facilities)

13. Summarize total personnel and personnel years utilized by the jurisdiction to directly implement or administer this Chapter (450-8.030(B)(5)):

    5550 hours were used to audit/inspect and issue reports on the Risk Management Chapter of the Industrial Safety Ordinance.

14. Copies of any comments received by the source (that may not have been received by the Department) regarding the effectiveness of the local program that raise public safety issues(450-8.030(B)(6)):

    None.

15. Summarize how this Chapter improves industrial safety at your stationary source (450-8.030(B)(7)):

    This chapter reinforces the need to maintain, follow and continuously improve our structured safety program to help ensure the safety of our employees and the communities in which we operate

16. List examples of changes made at your stationary source due to implementation of the Industrial Safety Ordinance (e.g., recommendations from PHA's, Compliance Audits, and Incident Investigations in units not subject to CalARP regulations; recommendations from RCA's) that significantly decrease the severity or likelihood of accidental releases:

    Human Factor review for SOPs were completed by December 2022, LCC reviews and Procedural HAZOPs were completed for selected SOPs in 2022.

17. Summarize the emergency response activities conducted at the source (e.g., CWS or TEN activation) in response to major chemical accidents or releases:

    Emergency Action Plan Drill to be scheduled in Q3 or Q4 of 2024 with Rodeo-Hercules Fire Dept, P66 Emergency Response, CCHS, Air Liquide HSE and Operational team. Fire Department batallions conducted training for their teams at our following the drill as well. Last drill conducted in November 2023 with previously mentioned parties.

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18. Date the last Safety Culture Assessment was completed March 20, 2024

19. Date the results of the Safety Culture Assessment were reported to the workforce and management April 2, 2024

20. Answer the following regarding the Safety Culture Evaluation Previous to the one listed in #18:
    - Survey method: 37 Question Survey with contractors and operations personnel
    - Areas of improvements being addressed: None based on the survey results. Following safe work culture is strongly exhibited at the Rodeo SMR
    - Action Plan made Progress on the identified areas of improvement?: ○ Yes ○ No
        - If Yes, did the improvements meet the goals and if not was the action plan amended to address what is being done to meet the goals?

          N/A
        - If No, has a new action plan been developed to address the identified areas of improvement? ○ Yes ○ No

21. Have milestones and metrics been developed to determine how the Safety Culture Assessment actions are being implemented? Yes or if not, Why not?

    Yes, metrics have been developed as a response to an action item from CCCHS.

22. Describe the process in place that includes employees and their representatives that will determine if the action items effectively changed the expected culture items:

    The processes include CCHS ISO & Safety Plan audits, the inclusion of LCC & ISS within the ISO program, and organizations PSM efforts internal to Air Liquide

23. Date of the mid-cycle progress evaluation: N/A
    - Did the action plan (for #18) make progress on the identified areas of improvement? ◉ Yes or if not, has a new action pan been developed? ◉ Yes ◉ No

24. If a mid-cycle progress evaluation was performed during this reporting year, describe the process that included participation of employees or their representatives that determined whether the action items effectively changed the expected culture items:

    N/A

25. Common Process Safety Performance Indicators:

    a. Overdue inspection for piping and pressure vessels based on total number of circuits:

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Overdue	24	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	24	0	0	0	0	0	0	0	0	0	0	0	0

Total number of circuits: 187 Circuits, 38 vessels (2 x new instrument air drums)
Total number of annual planned circuit inspection:

12 circuits and 12 vessel inspections deferred till Q1 2024 due to Low risk of failure based on RBI study. The inspections have since been addressed.

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b. Past due PHA recommended actions, includes seismic and LCC recommended actions

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

c. Past due Investigation recommended actions for API/ACC Tier1 and Tier 2 incidents.

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

d. API/ACC Tier 1 and Tier 2 Incidents for the last 11 years

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
No. Tier 1 LOPC	0	0	0	0	0	0	0	0	0	0	0
Incident rate for Tier 1	0	0	0	0	0	0	0	0	0	0	0
Refinery or Industry Rate[1]	0	0	0	0	0	0	0	0	0	0	0
Refinery or Industry Mean [2]	0	0	0	0	0	0	0	0	0	0	0
Tier 2 LOPC	0	0	0	0	0	0	0	0	0	0	0
Incident rate for Tier 2	0	0	0	0	0	0	0	0	0	0	0
Refinery Rate [1]	0	0	0	0	0	0	0	0	0	0	0
Refinery Mean [2]	0	0	0	0	0	0	0	0	0	0	0

[1]Petroleum refineries to report publicly available refinery rate for API Tier 1 and Tier 2 classification. Chemical plants to report publicly available mean only for ACC Tier 1

[2]Petroleum refineries to report publicly available refinery mean for API Tier 1 and Tier 2 classification. Chemical plants to report publicly available mean only for ACC Tier 1

26. Process Safety Performance Indicators for refineries only:

I. Number of Major Incidents this reporting year: None

II. The number of temporary piping and equipment repairs that are installed on hydrocarbon and high energy utility systems that are past their date of replacement with a permanent repair:

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Total*	0	0	0	0	0	0	0	0	0	0	0	0	0
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

*the total number of temporary piping and equipment repairs installed on hydrocarbon and high energy utility systems.

Attachment 1 - Inherently Safer Systems Implemented

Item Identifier	*Implementation Category*	*Risk Reduction Level*	*ISS Strategy*
MZ.200029-124775	Project	Inherent	Elimination – removal of the hazard by modifying physical conditions.
MZ.22130-133628	Project	Inherent	Substitution – mitigating the hazard by switching to a non-hazardous alternative option.
MZ.23003-138028	Project	Passive	Moderate – Modification of physical conditions to less hazardous conditions.
MZ.23003-230495	Project	Passive	Moderate – Modification of physical conditions to less hazardous conditions.
MZ.23020-297206	Incident Investigation	Passive	Moderate – Modification of physical conditions to less hazardous conditions.
MZ.23029-124869	Incident Investigation	Inherent	Substitution – mitigating the hazard by upgrading equipment to reduce the frequency of a consequence.
MZ.24018-140803	Incident Investigation	Inherent	Substitution – mitigating the hazard by upgrading equipment to reduce the frequency of a consequence.
MZ.24031-140807	Incident Investigation	Inherent	Substitution – mitigating the hazard by upgrading equipment to reduce the frequency of a consequence.
MZ.23111-130459	PHA	Inherent	Substitution – mitigating the hazard by upgrading equipment to reduce the frequency of a consequence.
MZ.24169-144090	PHA	Inherent	Substitution – mitigating the hazard by upgrading equipment to reduce the frequency of a consequence.

11/19/2023 00:21 AM: The Facility experienced a tube rupture in the F-20 Recycle Furnace resulting the 207,280-lb release of renewable diesel and 2,220-lb release of hydrogen. The released materials ignited inside the furnace and caused a fire. At the time of the incident, a Field Operator was in the process of removing fuel gas from the furnace burners, causing burn injuries due to being in the line of fire when the tube failed. The Field Operator exited the area and made his way to the Field Operator Shelter. The injured operator was life flighted to a nearby hospital for medical care. The Community Warning System (CWS) was activated, and notifications were made to Contra Costa Health Services (CCHS), Bay Area Air Quality Management District (BAAQMD), Contra Costa County Office of Emergency Services (CCOES), and Contra Costa Fire District. State notifications were made through CalOES to notify state agencies. The Chemical Safety Board (CSB), Cal/OSHA, and CCHS opened incident investigations for the furnace fire. The investigation team collaborated with CSB, Cal/OSHA, and CCHS on evidence collection, laboratory selection, and testing methodology. The weather was clear and dry. The average wind speed and direction during the incident was <10 mph and West-Northwest, respectively. The temperature was about 53 degrees F. The investigation determined that a convection tube located in the upper portion of the furnace overheated and ruptured, due to afterburn. Afterburn is a phenomenon that can occur when normal air-fuel ratio and distribution is destabilized, which can cause hot spots to form in unexpected locations. In this case, a Computational Fluid Dynamic (CFD) study determined that operating conditions in the furnace when the incident occurred distributed excess heat in the convection section of the furnace, where the tube failure was experienced. The tube failed catastrophically, resulting in the sudden release of renewable diesel and hydrogen, which then ignited and caused the fire that injured the operator attending the furnace during startup. The initiating event for this incident was a furnace tube failure that resulted in the release of flammable material, which immediately ignited upon contacting burner flames. Root Cause #1: Low flow due to startup line valve misalignment, which could create an unmeasured and undetectable bypass around the furnace. Root Cause #2: High temperature due to 2 burners being placed in service without removing the air register plates that were fastened to manage furnace stack NOx by reducing tramp air into the firebox. The following corrective actions are in the final stages of development at the time that this report is being submitted (June, 2024): Evaluate addressing the unmeasured bypass potential around F-20 by (1) removing the “B Valve”, (2) installing a check valve to prevent reverse flow bypassing the F-20, or (3) installing individual pass flow meters in F-20 and updating SIS to shutdown furnace if individual pass flows are low if installed; comply with MPC heater bypass line configuration standards to ensure adequate safeguards are in place to manage the bypasses in all phases of operations utilizing a review team consisting of the minimum core members of a normal PHA and create new recommendations where additional safeguards are necessary; and update 2HDO start-up procedures and clarify steps regarding the use of start-up line valves (These address Root Cause #1). Consider installing a laser analyzer for CO and methane at F-20, ensuring that the analyzer is conforms with SIS specified in MPC standards if installed; revise the F-20 startup procedure to include steps to remove the air register plates prior to lighting the burners; develop a management system or procedure to car seal or zip tie close the fuel gas valves to the burners when blanking plates are installed; add warning signs to all furnaces with air register plates that includes the step to light and the hazards of operation with air registers blocked; increase air register plate visibility by (1) painting the plates a high visible, high contrast color and (2) ensuring that air register plates are visible from the fuel gas valves; and

consider hanging sign plates at each burner for added visibility from the fuel gas valves (These address Root Cause #2).

Status of implementation of recommendations formulated during the analysis (450-8.030(B)(2)(iv)):

Incident: 11/19/2023 furnace tube rupture and fire in the #2 Hydrodeoxygenation (2HDO) Unit:

Recommendation No.	Due Date	Rec. Description	Current Stage
350946	11/1/2024	Increase visibility of the air register plates: • Paint the plates a high visible, high contrast color and • Ensure air register plates are visible from the fuel gas valves. Consider adding a hanging sign plates for added visibility from the fuel gas valves.	In Progress
350945	11/1/2024	Add warning signs to all furnaces with air register plates that includes the step to light and the hazards of operation with air registers blocked.	In Progress
350944	11/1/2024	Develop management system or procedure to ensure removal of air register plates prior to lighting burners, such as car seal or zip tie close the fuel gas valves to the burners when blanking plates are installed.	In Progress
350943	11/1/2024	Revise the 004-F-20 startup procedure to include steps to remove the air register plates prior to lighting the burners.	In Progress
350942	11/1/2024	Install a laser analyzer for CO and methane. Ensure the analyzer is incorporated into the SIS in conformance with RSP-1172-024 Heater Application Standard.	In Progress

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Industrial Safety Ordinance Annual Performance Review and Evaluation Submittal

June 30, 2024

*Attach additional pages as necessary

1. Name and address of Stationary Source:

   Air Liquide Rodeo Hydrogen Plant, 1391 San Pablo Ave, Rodeo, CA 94572

2. Contact name and telephone number (should CCHHMP have questions):

   Thomas Turner (225-270-7101)

3. Summarize the status of the Stationary Source's Safety Plan and Program (450-8.030(B)(2)(i)):

   This facility utilizes the programs and procedures identified in the ISO Safety Program/Plan. Additionally, the site is in regular communication with the county regarding action items, and any other updates in general.

4. Summarize Safety Plan updates (i.e., brief explanation of update and corresponding date) (450-8.030(B)(2)(ii)):

   RODEO HYDROGEN PRODUCTION FACILITY INDUSTRIAL SAFETY PLAN - Periodic review and updates made to suffice action item A26-02 from Contra Costa Audit 2022, RODEO SMR INHERENTLY SAFETY SYSTEMS POLICY - Additions include: ISS review needs to be done during development of PHA action items, ISS review to be completed during different phases of a project, ISS to be performed on any major change resulting from investigation of an incident that could have reasonably led to MCAR, to review if existing and new technologies previously not considered for a project could make it inherently safer, RODEO SMR EMERGENCY ACTION PLAN - Updated contact list in the EAP

5. List of locations where Safety Plans are/will be available for review, including contact telephone numbers if the source will provide individuals with copies of the document (450-8.030(B)(2)(ii)):

   CCHHMP Office at 4585 Pacheco Boulevard, Suite 100, Martinez; (Air Liquide) Library (libraries closest to the stationary source).

6. Provide any additions to the annual accident history reports (i.e. updates) submitted pursuant to Section 450-8.016(E)(2) of County Ordinance 98-48 (450-8.030(B)(2)(iii)) (i.e., provide information identified in Section 450-8.016(E)(1) for all major chemical accidents or releases occurring between the last annual performance review report and the current annual performance review and evaluation submittal (12-month history)):

   There were no major chemical accidents or releases in the past 12 months

7. Summary of each Root Cause Analysis (Section 450-8.016(C)) including the status of the analysis and the status of implementation of recommendations formulated during the analysis (450-8.030(B)(2)(iv)):

   There were no major chemical accidents or releases in the past 12 months

8. Summary of the status of implementation of recommendations formulated during audits, inspections, Root Cause Analyses, or Incident Investigations conducted by the Department (450-8.030(B)(2)(v)):

   There were no major chemical accidents or releases in the past 12 months

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9. Summary of inherently safer systems implemented by the source including but not limited to inventory reduction (i.e., intensification) and substitution (450-8.030(B)(2)(vi)):

   All MOCs are reviewed using ISS evaluation and change methodology.

10. Summarize the enforcement actions (including Notice of Deficiencies, Audit Reports, and any actions turned over to the *Contra Costa County District Attorney's Office*) taken with the Stationary Source pursuant to Section 450 -8.028 of County Ordinance 98-48 (450-8.030(B)(2)(vii)):

    There were no enforcement actions during this period.

11. Summarize total penalties assessed as a result of enforcement of this Chapter (450-8.030(3)):

    No penalties have been assessed against this facility.

12. Summarize the total fees, service charges, and other assessments collected specifically for the support of the ISO (450-8.030(B)(4)):

    The total CalARP Program fees for the six facilities subject to the Industrial Safety Ordinance were $758,387. The total Industrial Safety Ordinance program fees for these six facilities were - $601,809. (NOTE: These fees include those for the County and City of Richmond ISO facilities)

13. Summarize total personnel and personnel years utilized by the jurisdiction to directly implement or administer this Chapter (450-8.030(B)(5)):

    5550 hours were used to audit/inspect and issue reports on the Risk Management Chapter of the Industrial Safety Ordinance.

14. Copies of any comments received by the source (that may not have been received by the Department) regarding the effectiveness of the local program that raise public safety issues(450-8.030(B)(6)):

    None.

15. Summarize how this Chapter improves industrial safety at your stationary source (450-8.030(B)(7)):

    This chapter reinforces the need to maintain, follow and continuously improve our structured safety program to help ensure the safety of our employees and the communities in which we operate

16. List examples of changes made at your stationary source due to implementation of the Industrial Safety Ordinance (e.g., recommendations from PHA's, Compliance Audits, and Incident Investigations in units not subject to CalARP regulations; recommendations from RCA's) that significantly decrease the severity or likelihood of accidental releases:

    Human Factor review for SOPs were completed by December 2022, LCC reviews and Procedural HAZOPs were completed for selected SOPs in 2022.

17. Summarize the emergency response activities conducted at the source (e.g., CWS or TEN activation) in response to major chemical accidents or releases:

    Emergency Action Plan Drill to be scheduled in Q3 or Q4 of 2024 with Rodeo-Hercules Fire Dept, P66 Emergency Response, CCHS, Air Liquide HSE and Operational team. Fire Department batallions conducted training for their teams at our following the drill as well. Last drill conducted in November 2023 with previously mentioned parties.

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18. Date the last Safety Culture Assessment was completed March 20, 2024

19. Date the results of the Safety Culture Assessment were reported to the workforce and management April 2, 2024

20. Answer the following regarding the Safety Culture Evaluation Previous to the one listed in #18:
    - Survey method: 37 Question Survey with contractors and operations personnel
    - Areas of improvements being addressed: None based on the survey results. Following safe work culture is strongly exhibited at the Rodeo SMR
    - Action Plan made Progress on the identified areas of improvement?: ○ Yes ○ No
        - If Yes, did the improvements meet the goals and if not was the action plan amended to address what is being done to meet the goals?

          N/A
        - If No, has a new action plan been developed to address the identified areas of improvement? ○ Yes ○ No

21. Have milestones and metrics been developed to determine how the Safety Culture Assessment actions are being implemented? Yes or if not, Why not?

    Yes, metrics have been developed as a response to an action item from CCCHS.

22. Describe the process in place that includes employees and their representatives that will determine if the action items effectively changed the expected culture items:

    The processes include CCHS ISO & Safety Plan audits, the inclusion of LCC & ISS within the ISO program, and organizations PSM efforts internal to Air Liquide

23. Date of the mid-cycle progress evaluation: N/A
    - Did the action plan (for #18) make progress on the identified areas of improvement? ◉ Yes or if not, has a new action pan been developed? ◉ Yes ◉ No

24. If a mid-cycle progress evaluation was performed during this reporting year, describe the process that included participation of employees or their representatives that determined whether the action items effectively changed the expected culture items:

    N/A

25. Common Process Safety Performance Indicators:

    a. Overdue inspection for piping and pressure vessels based on total number of circuits:

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Overdue	24	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	24	0	0	0	0	0	0	0	0	0	0	0	0

Total number of circuits: 187 Circuits, 38 vessels (2 x new instrument air drums)
Total number of annual planned circuit inspection:

12 circuits and 12 vessel inspections deferred till Q1 2024 due to Low risk of failure based on RBI study. The inspections have since been addressed.

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b. Past due PHA recommended actions, includes seismic and LCC recommended actions

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

c. Past due Investigation recommended actions for API/ACC Tier1 and Tier 2 incidents.

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

d. API/ACC Tier 1 and Tier 2 Incidents for the last 11 years

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
No. Tier 1 LOPC	0	0	0	0	0	0	0	0	0	0	0
Incident rate for Tier 1	0	0	0	0	0	0	0	0	0	0	0
Refinery or Industry Rate[1]	0	0	0	0	0	0	0	0	0	0	0
Refinery or Industry Mean [2]	0	0	0	0	0	0	0	0	0	0	0
Tier 2 LOPC	0	0	0	0	0	0	0	0	0	0	0
Incident rate for Tier 2	0	0	0	0	0	0	0	0	0	0	0
Refinery Rate [1]	0	0	0	0	0	0	0	0	0	0	0
Refinery Mean [2]	0	0	0	0	0	0	0	0	0	0	0

[1]Petroleum refineries to report publicly available refinery rate for API Tier 1 and Tier 2 classification. Chemical plants to report publicly available mean only for ACC Tier 1

[2]Petroleum refineries to report publicly available refinery mean for API Tier 1 and Tier 2 classification. Chemical plants to report publicly available mean only for ACC Tier 1

26. Process Safety Performance Indicators for refineries only:

I. Number of Major Incidents this reporting year: None

II. The number of temporary piping and equipment repairs that are installed on hydrocarbon and high energy utility systems that are past their date of replacement with a permanent repair:

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Total*	0	0	0	0	0	0	0	0	0	0	0	0	0
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

*the total number of temporary piping and equipment repairs installed on hydrocarbon and high energy utility systems.

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ATTACHMENT 1

January 2023 – December 2023 ISS Improvements

Reference	ISS Category	ISS Approach	MOC Description
Pretreatment Unit (PTU) PHA Node 17.	Procedural	Moderate	Develop procedures to ensure the route to dumpster from Bleacher Filters is appropriately managed.
3705383	Active	Moderate	Install a high temperature alarm on TI-1512 or rerate E-239 for the appropriate MAWT.
3705466	Passive	Simplify	Upgrade 76:G-324 Seal prior to Unicracker startup
4121998	Active	Simplify	Update the GG-503 motor controls to modern equipment that is easier to troubleshoot and less likely to spuriously trip.
4122041	Passive	Simplify	Install a mechanical stop to prevent the valve from opening too far causing a heater trip on high fuel gas pressure.
4122058	Procedural	Moderate	Update procedure to ensure ammonia injection skid is pre-heated in advance of SCR temperature reaching 475 degrees.

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ATTACHMENT C
HAZARDOUS MATERIALS
RICHMOND REGULATED SOURCES
ANNUAL PERFORMANCE
July 1, 2023 – June 30, 2024

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Industrial Safety Ordinance Annual Performance Review and Evaluation Submittal

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3. Summarize the status of the Stationary Source's Safety Plan and Program (450-8.030(B)(2)(i)):

   This facility utilizes the programs and procedures identified in the ISO Safety Program/Plan. Additionally, the site is in regular communication with the county regarding action items, and any other updates in general.

4. Summarize Safety Plan updates (i.e., brief explanation of update and corresponding date) (450-8.030(B)(2)(ii)):

   RODEO HYDROGEN PRODUCTION FACILITY INDUSTRIAL SAFETY PLAN - Periodic review and updates made to suffice action item A26-02 from Contra Costa Audit 2022, RODEO SMR INHERENTLY SAFETY SYSTEMS POLICY - Additions include: ISS review needs to be done during development of PHA action items, ISS review to be completed during different phases of a project, ISS to be performed on any major change resulting from investigation of an incident that could have reasonably led to MCAR, to review if existing and new technologies previously not considered for a project could make it inherently safer, RODEO SMR EMERGENCY ACTION PLAN - Updated contact list in the EAP

5. List of locations where Safety Plans are/will be available for review, including contact telephone numbers if the source will provide individuals with copies of the document (450-8.030(B)(2)(ii)):

   CCHHMP Office at 4585 Pacheco Boulevard, Suite 100, Martinez; (Air Liquide) Library (libraries closest to the stationary source).

6. Provide any additions to the annual accident history reports (i.e. updates) submitted pursuant to Section 450-8.016(E)(2) of County Ordinance 98-48 (450-8.030(B)(2)(iii)) (i.e., provide information identified in Section 450-8.016(E)(1) for all major chemical accidents or releases occurring between the last annual performance review report and the current annual performance review and evaluation submittal (12-month history)):

   There were no major chemical accidents or releases in the past 12 months

7. Summary of each Root Cause Analysis (Section 450-8.016(C)) including the status of the analysis and the status of implementation of recommendations formulated during the analysis (450-8.030(B)(2)(iv)):

   There were no major chemical accidents or releases in the past 12 months

8. Summary of the status of implementation of recommendations formulated during audits, inspections, Root Cause Analyses, or Incident Investigations conducted by the Department (450-8.030(B)(2)(v)):

   There were no major chemical accidents or releases in the past 12 months

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9. Summary of inherently safer systems implemented by the source including but not limited to inventory reduction (i.e., intensification) and substitution (450-8.030(B)(2)(vi)):

   All MOCs are reviewed using ISS evaluation and change methodology.

10. Summarize the enforcement actions (including Notice of Deficiencies, Audit Reports, and any actions turned over to the *Contra Costa County District Attorney's Office*) taken with the Stationary Source pursuant to Section 450 -8.028 of County Ordinance 98-48 (450-8.030(B)(2)(vii)):

    There were no enforcement actions during this period.

11. Summarize total penalties assessed as a result of enforcement of this Chapter (450-8.030(3)):

    No penalties have been assessed against this facility.

12. Summarize the total fees, service charges, and other assessments collected specifically for the support of the ISO (450-8.030(B)(4)):

    The total CalARP Program fees for the six facilities subject to the Industrial Safety Ordinance were $758,387. The total Industrial Safety Ordinance program fees for these six facilities were - $601,809. (NOTE: These fees include those for the County and City of Richmond ISO facilities)

13. Summarize total personnel and personnel years utilized by the jurisdiction to directly implement or administer this Chapter (450-8.030(B)(5)):

    5550 hours were used to audit/inspect and issue reports on the Risk Management Chapter of the Industrial Safety Ordinance.

14. Copies of any comments received by the source (that may not have been received by the Department) regarding the effectiveness of the local program that raise public safety issues(450-8.030(B)(6)):

    None.

15. Summarize how this Chapter improves industrial safety at your stationary source (450-8.030(B)(7)):

    This chapter reinforces the need to maintain, follow and continuously improve our structured safety program to help ensure the safety of our employees and the communities in which we operate

16. List examples of changes made at your stationary source due to implementation of the Industrial Safety Ordinance (e.g., recommendations from PHA's, Compliance Audits, and Incident Investigations in units not subject to CalARP regulations; recommendations from RCA's) that significantly decrease the severity or likelihood of accidental releases:

    Human Factor review for SOPs were completed by December 2022, LCC reviews and Procedural HAZOPs were completed for selected SOPs in 2022.

17. Summarize the emergency response activities conducted at the source (e.g., CWS or TEN activation) in response to major chemical accidents or releases:

    Emergency Action Plan Drill to be scheduled in Q3 or Q4 of 2024 with Rodeo-Hercules Fire Dept, P66 Emergency Response, CCHS, Air Liquide HSE and Operational team. Fire Department batallions conducted training for their teams at our following the drill as well. Last drill conducted in November 2023 with previously mentioned parties.

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18. Date the last Safety Culture Assessment was completed March 20, 2024

19. Date the results of the Safety Culture Assessment were reported to the workforce and management April 2, 2024

20. Answer the following regarding the Safety Culture Evaluation Previous to the one listed in #18:
    - Survey method: 37 Question Survey with contractors and operations personnel
    - Areas of improvements being addressed: None based on the survey results. Following safe work culture is strongly exhibited at the Rodeo SMR
    - Action Plan made Progress on the identified areas of improvement?: ○ Yes ○ No
        - If Yes, did the improvements meet the goals and if not was the action plan amended to address what is being done to meet the goals?

          N/A
        - If No, has a new action plan been developed to address the identified areas of improvement? ○ Yes ○ No

21. Have milestones and metrics been developed to determine how the Safety Culture Assessment actions are being implemented? Yes or if not, Why not?

    Yes, metrics have been developed as a response to an action item from CCCHS.

22. Describe the process in place that includes employees and their representatives that will determine if the action items effectively changed the expected culture items:

    The processes include CCHS ISO & Safety Plan audits, the inclusion of LCC & ISS within the ISO program, and organizations PSM efforts internal to Air Liquide

23. Date of the mid-cycle progress evaluation: N/A
    - Did the action plan (for #18) make progress on the identified areas of improvement? ◉ Yes or if not, has a new action pan been developed? ◉ Yes ◉ No

24. If a mid-cycle progress evaluation was performed during this reporting year, describe the process that included participation of employees or their representatives that determined whether the action items effectively changed the expected culture items:

    N/A

25. Common Process Safety Performance Indicators:

    a. Overdue inspection for piping and pressure vessels based on total number of circuits:

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Overdue	24	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	24	0	0	0	0	0	0	0	0	0	0	0	0

Total number of circuits: 187 Circuits, 38 vessels (2 x new instrument air drums)
Total number of annual planned circuit inspection:

12 circuits and 12 vessel inspections deferred till Q1 2024 due to Low risk of failure based on RBI study. The inspections have since been addressed.

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b. Past due PHA recommended actions, includes seismic and LCC recommended actions

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

c. Past due Investigation recommended actions for API/ACC Tier1 and Tier 2 incidents.

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

d. API/ACC Tier 1 and Tier 2 Incidents for the last 11 years

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
No. Tier 1 LOPC	0	0	0	0	0	0	0	0	0	0	0
Incident rate for Tier 1	0	0	0	0	0	0	0	0	0	0	0
Refinery or Industry Rate[1]	0	0	0	0	0	0	0	0	0	0	0
Refinery or Industry Mean [2]	0	0	0	0	0	0	0	0	0	0	0
Tier 2 LOPC	0	0	0	0	0	0	0	0	0	0	0
Incident rate for Tier 2	0	0	0	0	0	0	0	0	0	0	0
Refinery Rate [1]	0	0	0	0	0	0	0	0	0	0	0
Refinery Mean [2]	0	0	0	0	0	0	0	0	0	0	0

[1]Petroleum refineries to report publicly available refinery rate for API Tier 1 and Tier 2 classification. Chemical plants to report publicly available mean only for ACC Tier 1

[2]Petroleum refineries to report publicly available refinery mean for API Tier 1 and Tier 2 classification. Chemical plants to report publicly available mean only for ACC Tier 1

26. Process Safety Performance Indicators for refineries only:

I. Number of Major Incidents this reporting year: None

II. The number of temporary piping and equipment repairs that are installed on hydrocarbon and high energy utility systems that are past their date of replacement with a permanent repair:

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Total*	0	0	0	0	0	0	0	0	0	0	0	0	0
Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0
Repeat	0	0	0	0	0	0	0	0	0	0	0	0	0

*the total number of temporary piping and equipment repairs installed on hydrocarbon and high energy utility systems.

Attachment 1 – Question 9

Question: Summary of inherently safer systems implemented by the source including but not limited to inventory reduction(i.e., intensification) and substitution (450-8.030(B)(2)(vi)):

Chevron Response:

Risk Reduction Category	**ISS Approach – for all but procedural & active**	**Description**
Inherent	Eliminate & Moderate	Upgrade centrifugal pump to dual seals to eliminate loss of containment resulting from seal failure.
Inherent	Moderate	Implemented multiple centrifugal pump seal upgrades to reduce loss of containment resulting from seal failures.
Passive	Moderate	A high pressure vessel was proactively replaced with upgraded metallurgy that will eliminate the HTHA damage mechanism altogether
Active	-	Recent H2 plant upgrades to instrumentation and control logic for improved reliability
Active	-	Implemented Burner Management System for burners in a unit.
Procedure	-	Replaced flow indicators with ones that provide readings that match those on the board, so the operator no longer required to perform mental math to determine the actual flow.

Attachment 2 – Question 16:
Question: List examples of changes made at your stationary source due to implementation of the Industrial Safety Ordinance (e.g., recommendations from PHA's, Compliance Audits, and Incident Investigations in units not subject to CalARP regulations; recommendations from RCA's) that significantly decrease the severity or likelihood of accidental releases:

Chevron Response: In addition to the Inherently Safer Systems implemented in Question 9, CUSA has also made other changes to the facility pursuant to the RISO and beyond to decrease the severity or likelihood of accidental releases. A few examples include the following:

- Changes implemented in these categories between June 2023 to June 2024.
  - Continued use of V&V tool to assess opportunities for learning around high risk activities.
  - Prioritized and focused reviews for high criticality procedures.
  - Continued effort to conduct procedural PHAs across refinery units to identify and mitigate potential human factors that may lead to loss of containment.
  - Continued implementation and assessment of overfill protection and backflow prevention systems during PHA-SPAs. Scope includes upgrades to instrumented systems.
  - Continued to optimize asset strategies based on inspection findings.
  - Periodic review of corrective actions and lessons learned from recent high consequence incident investigations as well as historical incidents.

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