Industrial Safety
Ordinance Annual Report

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Accidental Release Prevention Engineer
Supervisor

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Chief Hazardous Materials Programs
and Environmental Health Officer

March 7, 2017
Presentation Discussion Points

- Industrial Safety Ordinance (ISO) brief History
- Written report:
  - Contains all of the information required by ISO
- Accident history (MCAR):
  - Major Chemical Accidents or Releases level
- Updates to ISO
- Annual report - Matrices
- Updates to California Accidental Release Prevention, Process Safety Management
- Work with other Agencies
Major Accidents in the County:
- Rhone Poulenc Fire 1992
- General Chemical Richmond Oleum Release 1993
- Unocal Catacarb® Release 1994
- Shell Cat Gas Fire 1996
- Tosco Hydrocracker Fire 1997
- Tosco Crude Unit Fire 1999
- Chevron Isomax Unit Fire 1999
- MBA Polymer Fire 2000
- Kinder Morgan Walnut Creek Pipeline Fire 2004
Industrial Safety Ordinance Adopted January 1999

Covered Facilities
- Phillips 66
- Shell
- Tesoro
- Air Products – Tesoro and Shell
- Air Liquide – Phillips 66

2001 City of Richmond Adopted the Industrial Safety Ordinance
- Chevron
- Chemtrade (General Chemical)

Amendments to County ISO in 2002 and 2006, 2014
Effectiveness of Program Implementation, including:

- Procedures for Records Management
- Number and Type of Audits and Inspections Conducted
- Number of Root Cause Analyses and/or Incident Investigations Conducted by Health Services
- Public Participation
- Public Information Bank
- Hazardous Materials Ombudsman
- Other Required Program Elements as necessary
Industrial Safety Ordinance
Written Report

Required Regulated Sources’ Information:
- Status of Safety Plans and Programs
- Locations of the Safety Plans
- Annual Submission of Accident History Report and Inherently Safer Systems Implemented
- Status of the Incident Investigation, Including the Root Cause Analyses Conducted Major Chemical Accidents and Releases
- Legal Enforcement Actions Initiated by Health Services
Major Chemical Accident or Release Definition

- Defined by the Ordinance

- Severity Levels
  - **Severity Type I** – A release where there was no or minor injuries, the release had no or slight impact to the community, or there was no or minor onsite damage
  - **Severity Type II** – An impact to the community occurred, or if the situation was slightly different the accident may have been considered major, or there is a recurring type of incident at that facility
  - **Severity Type III** – A fatality, serious injuries, or major onsite and/or offsite damage occurred
Major Chemical Accidents or Releases
Severity Type III (1990s – now)
County and Richmond ISO MCARs

- Severity Level III
- Severity Level II
- Severity Level I
- Total MCARs

Number of MCARs

Year

Contra Costa Health Services

March 7, 2017
County and the City of Richmond Industrial Safety Ordinances, weighted score:

- Severity Type III - 9 points
- Severity Type II - 3 points
- Severity Type I - 1 point
Audits Performed

- Air Product Shell—April 2015
- Air Products Tesoro—April 2015
- Shell Martinez Refinery—May 2015
- Air Liquide Large Industries—February 2016
- Chevron Richmond Refinery—August 2016
- Tesoro Golden Eagle Refinery—October 2016
Public Participation

Information Sharing at existing venues
- Air Products’ and Shell Martinez Refinery’s Safety Plan and Tesoro’s Audit Findings: Martinez, Earth Day, April 18, 2015
- Phillips 66 Refinery’s Audit Findings Crockett Community Foundation Community Event in Crockett on October 24, 2015 and Rodeo-Hercules Fire District Open House on October 10, 2015
- Shell Martinez Refinery’ and both Air Product’s Audit Findings: Martinez, Earth Day, April 23, 2016
- Chemtrade Richmond Works’ Safety Plan: Richmond Cinco de Mayo Festival, May 1, 2016.

Information Sharing (audit) with Community
- Tesoro Refinery’s Community Advisory Panels (CAP) May 27, 2015

Information on Web
- Most recent audit findings summarized in easy to read format in both English and Spanish
In response to U.S. Chemical Safety and Hazard Investigation Board 2012 recommendations:

- Added three definitions:
  - Layer of Protection Analysis
  - Process Hazard Analysis
  - Process Safety Performance Indicators

- Require Inherently Safer Systems Analysis for existing processes, as part of Management of Change and Incident Investigation
Updates to ISO/RISO (2014)

- Revised the requirement when to perform an Inherently Safer Systems Analysis
- Requires a Safeguard Protection Analysis
- Requirement to develop Process Safety Performance Indicators – Four common indicators
Updates to ISO/RISO (2014)

Requirement to develop Process Safety Performance Indicators:

- Overdue inspection for piping and pressure vessels
- Past due PHA recommended actions
- Past due investigation recommended actions
- American Petroleum Institute/American Chemistry Council Tier 1 and Tier 2 incidents
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*changed database and how they account for their inspections

March 7, 2017
### Indicators

#### Tier 1 LOPC

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## Tier 1 Incident Rate

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Proposed CalARP Program 4

- State is adopting the County’s Industrial Safety Ordinance for Petroleum Refineries with some modifications
  - Changes to the California Accidental Release Prevention Program (Program 4) - Local Unified Program Agencies
  - Added new Process Safety Management regulations for Petroleum Refineries – Cal/OSHA
Work with other agencies

- Participate in Inspections with Federal EPA and Cal/OSHA
- Attended Federal EPA and Cal/OSHA Training
- Work with City of Richmond
- Participated in meetings regarding regulation revisions to California Accident Release Prevention Program, Cal/OSHA Process Safety Management (PSM)
Hazardous Materials Programs:

- Safeguarding Our Communities
- Implementing the Industrial Safety Ordinance
- Responding to Emergencies