

***INDUSTRIAL SAFETY
ORDINANCE
ANNUAL PERFORMANCE REVIEW AND
EVALUATION REPORT***

October 19, 2004



By Contra Costa Health Services Hazardous Materials Programs

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Contra Costa Health Services completed and issued the Contra Costa County Safety Program Guidance Document on January 15, 2000.

Introduction

The Board of Supervisors passed the Industrial Safety Ordinance because of accidents that have occurred at the oil refineries and chemical plants in Contra Costa County. The effective date of the Industrial Safety Ordinance 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 a program level 3 stationary source as defined by the California Accidental Release Prevention (CalARP) Program.

The ordinance specifies the following:

- Stationary sources had one year to submit a Safety Plan to Contra Costa Health Services stating how the stationary source is complying with the ordinance, except the Human Factors portion (January 15, 2000)
- Contra Costa Health Services develop a Human Factors Guidance Document
- Stationary sources had one year to comply with the requirements of the Human Factor Guidance Document that was developed by Contra Costa Health Services (January 15, 2001)
- For major chemical accidents or releases, the stationary sources are required to perform a root cause analysis as part of their incident investigations
- Contra Costa Health Services may perform it's own incident investigation, including a root cause analysis

- All of the processes at the stationary source are covered as program level 3 processes as defined by the California Accidental Release Prevention Program
- The stationary sources are required to consider Inherently Safer Systems for new processes or facilities or for mitigations resulting from a process hazard analysis
- Contra Costa Health Services will review all of the submitted Safety Plans and audit/inspect all of the stationary source's Safety Programs within one year of the receipt of the Safety Plans (January 15, 2001) and every three years after the initial audit/inspection
- Contra Costa Health Services will give an annual performance review and evaluation report to the Board of Supervisors

Seven stationary sources that are covered by the Industrial Safety Ordinance are:

- Air Products at the Shell Martinez Refining Company
- Air Products at the Tesoro Golden Eagle Refinery
- Shell Martinez Refining Company
- General Chemical West in Bay Point
- Polychemie
- ConocoPhillips Rodeo Refinery
- Tesoro Golden Eagle Refinery

Contra Costa Health Services completed and issued the Contra Costa County Safety Program Guidance Document on January 15, 2000. The stationary sources were required to comply with the Human Factors section of this guidance document by January 15, 2001.

Contra Costa Health Services has reviewed all of the Safety Plans submitted to the department and has completed two audits and inspections for all of the stationary sources as required by the ordinance. In addition, Contra Costa Health Services has performed a specialized audit for all the stationary sources for their human factors programs and for Inherently Safer Systems. The status of the reviews and audits are discussed within the report.

Annual Performance Review and Evaluation Report

The Industrial Safety Ordinance specified that the contents of the annual performance review and evaluation report contain the following:

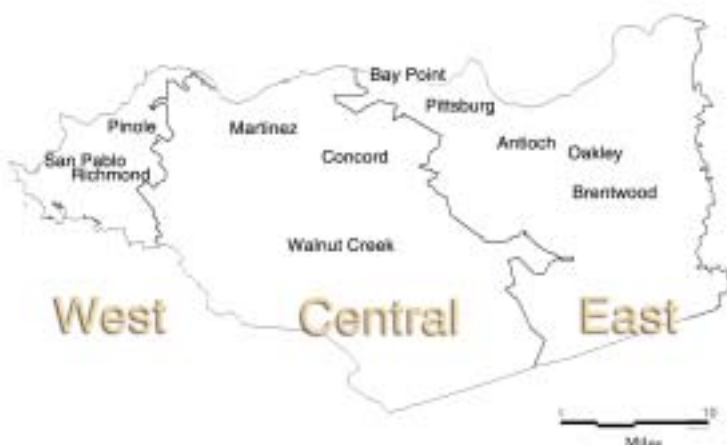
- 1) A brief description of how Health Services is meeting the requirements of the ordinance as follows:
 - a) Effectiveness of the Department's program to ensure stationary source's compliance with the ordinance
 - b) Effectiveness of the procedures for records management
 - c) Number and type of audits and inspections conducted by Health Services as required by the ordinance
 - d) Number of root cause analyses and/or incident investigations conducted by Health Services
 - e) Health Services process for public participation
 - f) Effectiveness of the Public Information Bank
 - g) Effectiveness of the Hazardous Materials Ombudsperson
 - h) Other required program elements necessary to implement and manage the ordinance
- 2) A listing of stationary sources covered by the ordinance, including for each:
 - a) The status of the stationary source's Safety Plan and Program
 - b) A summary of all stationary sources' Safety Plan updates and a listing of where the Safety Plans are publicly available
 - c) The annual accident history report submitted by the regulated stationary sources and required by the ordinance
 - d) A summary, including the status, of any root cause analyses and incident investigations conducted or being conducted by the stationary sources and required by the ordinance, including the status of implementation of recommendations
 - e) A summary, including the status, of any audits, inspections, root cause analyses and/or incident investigations conducted by Health Services, including the status for implementing the recommendations

- f) Description of inherently safety systems implemented by the regulated stationary source
- g) Legal enforcement actions initiated by Health Services, including administrative, civil, and criminal actions
- 3) Total penalties assessed as a result of enforcement of the ordinance
- 4) Total fees, service charges, and other assessments collected specifically for the support of the ordinance
- 5) Total personnel and personnel years used by the jurisdiction to directly implement or administer the ordinance
- 6) Comments from interested parties regarding the effectiveness of the local program that raise public safety issues
- 7) The impact of the ordinance in improving industrial safety

Effectiveness of Contra Costa Health Services' Implementation of the Industrial Safety Ordinance

Health Services has developed policies, procedures, protocols, and questionnaires to implement both the California Accidental Release Prevention Program and the Industrial Safety Ordinance. These policies, procedures, protocols, and questionnaires for these programs are listed below:

- Audits/Inspections Policy
- Conducting the RMP/Safety Plan Completeness Review Protocol
- RMP 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
- Public Participation Policy
- Dispute Resolution Policy
- Reclassification Policy
- Covered Process Modification 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



Guidance documents can be downloaded through Health Services Website: cchealth.org.

Health Services has developed the *Contra Costa County CalARP Program Guidance Document* and the *Contra Costa County Safety Program Guidance Document*. These documents give guidance to the stationary sources for complying with the Industrial Safety Ordinance. The policies, procedures, protocols, and questionnaires, are available through Health Services. The guidance documents can be downloaded through Health Services Website: cchealth.org.

Health Services hired a consultant to do public outreach and setup public meetings for the Industrial Safety Ordinance stationary sources that are located in Bay Point, Clyde, North Concord, Pacheco, and the Martinez areas of the County in 2003. Health Services again hired the consultant to do public outreach and setup public meeting for Richmond, North Richmond, Rodeo, and Crockett in 2004. The person hired to perform public outreach met with organizations and people in these communities. The purpose of the outreach is to help familiarize people that live and work close to the stationary sources that are subject to the Industrial Safety Ordinance on the ordinance and how they may be able to ask questions and comment on the stationary sources Safety Plans and Health Services Preliminary Audit Findings for these stationary sources. Four public meetings were held in 2004. Below is a listing of the different public meetings:

- June 22, 2004 in Rodeo for the

- ConocoPhillips Rodeo Refinery
- June 24, 2004 in Richmond for the ChevronTexaco Richmond Refinery and General Chemical West Richmond Works
- July 6, 2004 in North Richmond for the ChevronTexaco Richmond Refinery and General Chemical West Richmond Works
- July 8, 2004 in Crockett for the ConocoPhillips Rodeo Refinery

Attachment A is a report on the public outreach that was performed for the Industrial Safety Ordinance.

Effectiveness of the Procedures for Records Management

Health Services has setup hard copy and computer files for each of the stationary sources. The files include the following folders:

- Annual status reports
- Audits & Inspections
- Communications
- Completeness Review
- Emergency Response
- Incident Investigation
- Trade Secret Information

The paper files for the stationary sources are kept in a central location. The Accidental Release Prevention Program has a file setup on the Health Services Network where the files for each of the different stationary sources are found and are accessible to each of the Accidental Release Prevention Program Engineers. The Accidental Release Prevention Program files also contain regulations, policies, information from the U.S. EPA, the Governor's Office of Emergency Services, the Chemical Safety and

Hazards Investigation Board, and other information pertinent to the engineers. The risk management and safety plans received are kept at two different Health Services locations: the Hazardous Materials Program Offices and the Accidental Release Prevention Program Offices.

Health Services revised the existing database that is used to track the status of each of the stationary sources, including the status of each of their root cause analysis reports. This revision allows for easier access for inputting and reading the data that exists in the databases. Health Services has also expanded the amount of data that is kept through this database

Number and Type of Audits and Inspections Conducted

Health Services was required to audit and inspect all seven regulated stationary sources that are required to comply with the Industrial Safety Ordinance within one year after the initial submittal of their Safety Plans. Health Services reviewed all of the Safety Plans and audited/inspected all of the stationary sources' Safety Programs within that year (2000). Health Services performed focused audits of the stationary sources for their Human Factors Programs (this was not included in the original audit/inspection, since the stationary sources were not required to have their Human Factor Program in place until January 2001) and Inherently Safer Systems in 2001 and 2002. Additional focused

audits were performed to look at how two stationary sources would manage the organizational change in case there was a strike and non-striking personnel were used instead of the striking personnel (2002). Health Services has completed the second round of audits for all of the Industrial Safety Ordinance stationary sources in 2003 and 2004.

When Health Services reviews a Safety Plan, a Notice of Deficiencies is produced that documents what changes to their Safety Plan a stationary source are required to make before Health Services determines that the Safety Plan is complete. The stationary source has sixty to ninety days to respond to the Notice of Deficiencies. When the stationary source has responded to this Notice of Deficiencies, Health Services will review the response. Health Services will state that the Safety Plan is complete or will work with the stationary source, until the Safety Plan is determined to be complete. When the Safety Plan is complete, Health Services will open a public comment period on the Safety Plan and hold a public meeting. Health Services will respond to all written comments in writing and when appropriate use the comments in the audit/inspection of the regulated stationary sources.

Health Services will issue Preliminary Audit Findings after an audit/inspection is complete. The stationary source will have ninety days to respond to these findings. Health Services will review the response from the stationary source on the Preliminary Audit Findings. When the stationary source has developed an action plan to come into compliance with the regulations, Health Services will issue the Preliminary Audit Findings for public comment and will hold a

public meeting. Health Services will consider any public comments that were received during the public comment period and if appropriate will revise the Preliminary Audit Findings. When this is complete, Health Services will issue the Final Audit Findings and will respond in writing to any written public comments received. Table I lists the status of Health Services review of the different stationary sources Safety Plans and audit and inspections of their Safety Programs.

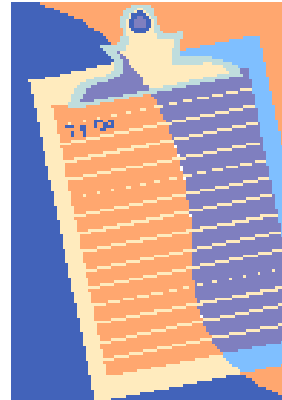


Table 1
ISO Stationary Source Status

BUS_NAME	Safety Plan (SP) Received	Notice of Deficiencies (NOD) Issued-SP	Safety Plan Complete	SP Public Meeting Date	Audit/ Inspection	Audit Public Meeting	Human Factors (HF) Update to SP	NOD Issued - HF SP	HF-SP Determined Complete	HF Audit/ Inspection	HF Audit Public Meeting
Air Products - Shell	1/14/2000	6/15/2000	8/30/2000	9/13/2000 5/8/2003	11/22/2000 2/27/2004	5/8/2003	1/16/2001	5/10/2001	6/19/2001	5/3/2002	5/8/2003
Air Products - Tesoro	1/14/2000	6/15/2000	8/30/2000	9/13/2000 5/6/2003	11/22/2000 2/27/2004	5/6/2003	1/16/2001	5/10/2001	6/19/2001	5/3/2002	5/6/2003
General Chemical/Bay	1/14/2000	6/12/2000	12/20/2000	1/2/2001 5/1/2003	8/11/2000 6/20/2003	5/1/2003	1/15/2001	7/23/2001	11/6/2001	5/20/2002	5/1/2003
ConocoPhillips - Rodeo	1/14/2000	3/14/2000	5/30/2000	6/15/2000 4/9/2002	6/30/2000 8/1/2003	4/9/2002 6/22/2004 7/8/2004	1/12/2001	9/10/2001	3/18/2002	11/5/2001	4/9/2002
Polychemie Incorporated	2/18/2000 8/19/2002	5/18/2000 2/4/2003	9/15/2000 7/3/2003	9/28/2000 5/1/2003	11/22/2000 12/19/2004	5/1/2003	1/12/2001	10/24/2001	1/25/2002	6/3/2002	5/1/2003
Shell Martinez Refinery	1/14/2000 7/22/2002	7/19/2000 3/21/2003	4/9/2001 9/15/2003	5/8/2003	10/31/2000 11/26/2004	5/8/2003	1/16/2001	11/9/2001	1/3/2002	4/29/2002	5/8/2003
Tesoro Golden Eagle Refinery	1/14/2000 6/17/2002	8/16/2000	1/31/2001	5/6/2003	9/15/2000 9/8/2003	5/6/2003	1/12/2001	9/18/2001	12/14/2001	12/3/2001	5/6/2003

Number of Root Cause Analyses and/or Incident Investigations Conducted by Health Services

Health Services has not performed any incident investigations, including a root cause analysis within the last year. Health Services has reviewed the reports submitted to the department and has commented and requested additional information on the stationary sources own incident investigations and root cause analyses for Major Chemical Accidents or Releases.

Health Services Process for Public Participation

Health Services hired a consultant to develop and implement a public outreach plan for the Richmond, North Richmond, Rodeo, and Crockett areas of the County. The plan included giving presentations to many organizations in these communities from May through June 2004. The consultant also arranged four public meetings on the County's audit findings for the following stationary sources:

- ConocoPhillips Rodeo Refinery
- General Chemical West Richmond Works
- ChevronTexaco Richmond Refinery

NOTE: The Richmond Industrial Safety Ordinance covers General Chemical West Richmond Works and ChevronTexaco Richmond Refinery.

The consultants report of the outreach efforts and results are included in ***Attachment A*** of this report.

Effectiveness of the Public Information Bank

The Hazardous Materials Programs section of Health Services Website has been greatly upgraded this year to include the following information:

- **Industrial Safety Ordinance**
 - Description of covered facilities
 - Risk Management Chapter Discussion
 - Copy of the ordinance
 - Land Use Permit Chapter Discussion
 - Copy of the ordinance
 - Safety Program Guidance Document
- **California Accidental Release Prevention (CalARP) Program**
 - Contra Costa County's California Accidental Release Prevention Program Guidance Document
 - Program Level description
 - Discussion on Public Participation for both CalARP Program and the Industrial Safety Ordinance
 - A map locating the facilities that are subject to the CalARP Program and are required to submit a Risk Management Plan to Health Services. The map links to a description of each of the facilities and the regulated substances handled.
- **Hazardous Materials Inventories and Emergency Response Program**
 - Descriptions
 - Forms

- **Hazardous Waste Generators**
 - Description of the program
 - Copies of the HazMat Recorder
- **Underground Storage Tanks**
 - Description of the program
 - Copies of the Underground Storage Tanks Health & Safety Code sections
 - Underground Storage Tanks Forms
- **Green Business Program**
 - Description of the Green Business Program with a link to ABAG's website on the Green Business Program
- **Hazardous Materials Incident Response Team**
 - Including information of the Major Chemical Accidents and Releases that have occurred
- **ConocoPhillips Rodeo Refinery Fenceline Monitors**
 - Link to Real-Time information
 - Historical information
 - Information on the chemicals
 - Links for more information
- **Description of the Unannounced Inspection Program**

Effectiveness of the Hazardous Materials Ombudsman

The Board of Supervisors created the Hazardous Materials Ombudsperson position in 1997. This position was filled in April 1998. The Board believed that the ombudsperson would be a conduit for the public to express their concerns about how Hazardous Materials Programs personnel

are performing their duties. Attachment B is a report from the Hazardous Materials Ombudsman on the effectiveness of the position.

Other Required Program Elements Necessary to Implement and Manage the Industrial Safety Ordinance

The California Accidental Release Prevention (CalARP) Program is administered by Contra Costa Health Services. The Industrial Safety Ordinance expands on this program. Stationary Sources are required to submit a Risk Management Plan to Health Services that is similar to the Safety Plans that are submitted. Health Services reviews these Risk Management Plans and performs the CalARP Program audit simultaneously with the Industrial Safety Ordinance audit.

Health Services performs Unannounced Inspections of the stationary sources that are part of the CalARP Program and are also required to submit a Risk Management Plan to the U.S. EPA. These inspections look at a focused portion of the CalARP Program or Industrial Safety Ordinance requirements, as well as elements from the other Hazardous Materials Programs.

Regulated Stationary Sources Listing

The Status of the Regulated Stationary Sources' Safety Plans and Programs

All of the stationary sources that are regulated by the Industrial Safety Ordinance were required to submit their Safety Plans to Health Services by January 15, 2000 and to have their Safety Programs completed and implemented. The stationary sources were also required to have a Human Factors Program in place that follows the County's Safety Program Guidance Document by January 15, 2001. The status of each of the regulated stationary sources is given in Table I and includes the following:

- When the Notice of Deficiencies were issued
- When the plan was determined to be complete by Health Services
- When the public meeting was held on the Safety Plan
- When the audits were complete
- When the public meetings were held on the preliminary audit findings
- When the Human Factors to the Safety Plan were revised
- When the Notice of Deficiencies were issued for the Human Factors revised Safety Plan
- When the Human Factors Safety Plan was determined to be complete
- When the Audit/Inspection was completed
- When the Human Factors Audit Findings Audit preliminary findings Public Meeting was held

Locations of the Regulated Stationary Sources Safety Plans

Each of the regulated stationary sources was required to submit their Safety Plan to Health Services on January 15, 2000 and an updated Safety Plan that includes the implementation of the stationary source's Human Factors Program by January 15, 2001. These plans are available for public review at the Hazardous Materials Programs Offices at 4333 Pacheco Blvd., Martinez. When Health Services determines that the Safety Plan is complete and prior to going out for a forty-five day public comment period, Health Services will place the plan in the library(ies) closest to the regulated stationary source. Below in Table II is a listing of the regulated stationary sources with the location of each of their Safety Plans.

- When the latest updated Safety Plan was submitted

Regulated Stationary Source	Location 1	Location 2	Location 3
Air Products at Shell	Hazardous Materials Programs Office	Martinez Public Library	
Air Products in Tesoro	Hazardous Materials Programs Office	Martinez Public Library	
Shell Martinez Refinery	Hazardous Materials Programs Office	Martinez Public Library	
General Chemical Bay Point	Hazardous Materials Programs Office	Bay Point Public Library	
Polychemic	Hazardous Materials Programs Office	Bay Point Public Library	
Conoco Phillips San Francisco Area	Hazardous Materials Programs Office	Rodeo Public Library	Crockett Public Library
Tesoro Golden Eagle Refinery	Hazardous Materials Programs Office	Martinez Public Library	

Table 2
Location of Safety Plans – Libraries

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

The Industrial Safety Ordinance requires the stationary sources to update the information on the accident history of the regulated stationary sources from their Safety Plans and how they have used inherently safer processes within the last year. Table III is a listing of some of the inherently safer systems that have been

Table 3
Inherently Safer Systems

Regulated Stationary Source	Inherently Safer System Implemented	Design Strategy	Category
Air Products at the Shell Martínez Refinery	No new inherently safer systems implemented this year		
Air Products – Tesoro	No new inherently safer systems implemented this year		
ConcocoPhillips Rodeo Refinery	Revised equipment design features (two separate times)	Passive	Simplify
	Revised equipment design features (five separate times)	Inherent	Simplify
	Simplifying the process (five separate times)	Inherent	Simplify
	Reduction of inventory (three separate times)	Inherent	Minimization
General Chemical – Bay Point	No new inherently safer systems implemented this year		
Polychemie	No new inherently safer systems implemented this year		
Shell Martínez Refinery	Closure of Lube Plant – reduction or elimination of regulated substances	Inherent	Minimization
	The project initially was to include a new column and associated equipment (pumps / compressors, etc.) to process vent gas from the crude unit. It was decided that we could accomplish this same processing by using existing equipment at the Delayed Coking unit. Thus, we opted to run some additional piping rather than the extensive (liquid containing) column and associated equipment.	Inherent	Minimization, Simplify
Tesoro Golden Eagle Refinery	Reduced the frequency of a hazard (five separate times)	Passive	Simplify
	Improved temperature design rating of equipment (two separate times)	Passive	Simplify
	Reduced inventory by the eliminating tankage or piping (eight separate times)	Inherent	Minimization

implemented by the different stationary sources during the same period.

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

The Industrial Safety Ordinance requires the regulated stationary sources to do an incident investigation with a root cause analysis for each of the major chemical accidents or releases as defined by the following: *“Major Chemical Accident or Release means an incident that meets the definition of a Level 3 or Level 2 incident in the Community Warning System incident level classification system defined in the September 27, 1997 Contra Costa County guideline for the Community Warning System as determined by Contra Costa Health Services; or results in the release including, but not limited to, air, water, or soil of a regulated substance and meets one or more of the following criteria:*

1. Results in one or more fatalities
2. Results in greater than 24 hours of hospital treatment of three or more persons
3. Causes on and/or off-site property damage (including clean-up 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 Health Service

4. Results in a flammable vapor cloud of more than 5,000 pounds

The regulated stationary source is required to submit a report to Health Services thirty days after the root cause analysis is complete. The record of the major chemical accidents or releases that have occurred within the last year and the status of each of these incidents investigations are included in Table IV.



Table 4
Major Chemical and Accidental Status

Regulated Source	Date MCAR Occurred	MCAR Description	Onsite Impact	Offsite Impact
Tesororo Golden Eagle Refinery	2/20/2004	Due to problems that occurred at the Foster Wheeler Cogeneration Facility, electrical power was lost at the Golden Eagle Refinery. The refinery shut down and depressed to the flare. This caused incomplete combustion of the flare and large amount of black smoke.	The refinery shut down due to the lack of power and sent large quantities of hydrocarbons to the flares.	The flare sn the commu part was gc smoke drift
Tesororo Golden Eagle Refinery	3/2/2004	Odor complaints were received at the Golden Eagle Refinery and recognized in the Vine Hill area the evening of March 1. The refinery receives additional odor complaints on March 2. Hundreds of odor complaints were received from Bay Point, Pittsburg, Concord, Pleasant Hill, Walnut Creek, Alamo, Danville, San Ramon, Dublin, and Pleasant. The odors seemed to have originated from the Golden Eagle Refinery. Tesoro was unable to locate the source of the odors. The odors could have originated from some of the areas doing special operations. Tesoro shut down the operations and odors were no longer noticeable.	No noticeable impact onsite.	Hundreds c throughout County fro County into odors were sulfur comp informatior from the o a person pa
General Chemical Bay Point Works	4/3/2004	Fire at a storage hangar near packaging building. The fire involved several pallets of chemicals (hydrogen peroxide-30%, nitric acid-69%, ammonium hydroxide-29%, misc. etchants), cased in one-gallon bottles, several 55-gallon drums and 8-pallets of empty bottles.	Facility was evacuated.	A plume of hours. Cor distributed
Tesororo Golden Eagle Refinery	7/4/2004	#5 boiler developed an internal water leak at app.1:42 p.m. and coker flue gas was then diverted directly to the stack.	#5 boiler shutdown, coker and crude rate reduced	Visible blac dust.
Tesororo Golden Eagle Refinery	9/16/2004	Spent Acid Tank fire. The alkylate in the spent acid tank ignited and fire burned for approximately seven hours. There was no immediate known impact of the smoke in the community.	Spent acid tank was destroyed. Piping and foundation work was damaged.	Fire and sn Measureme community to the comi

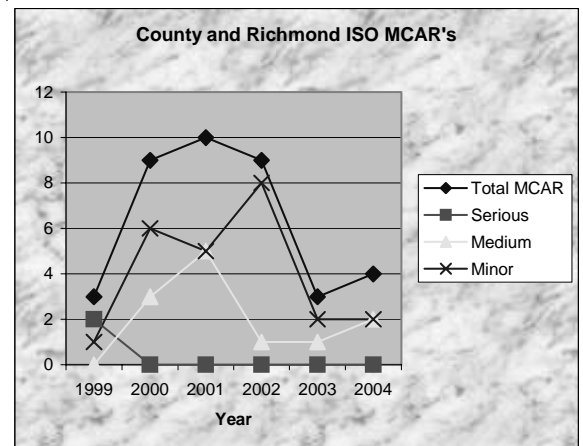
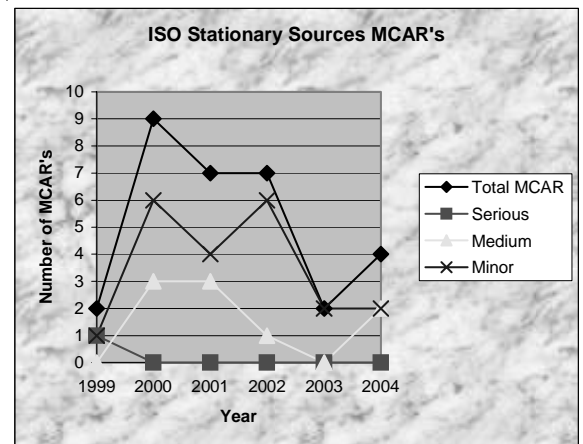
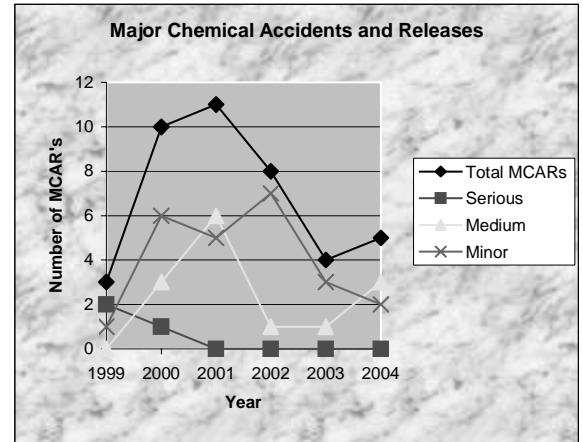
Major Chemical Accidents and Releases

Health Services has analyzed the Major Chemical Accidents and Releases (MCAR) that have occurred since the implementation of the Industrial Safety Ordinance. The analysis includes the number of MCAR's and the severity of the MCAR's. Three different levels of severity were assigned:

- Serious – A fatality, serious injuries, or major onsite and/or offsite damage occurred
- Medium – 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
- Minor – 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

Below are charts showing the number of MCAR's from January 1999 through September 2003 for all stationary sources in Contra Costa County MCAR's, the MCAR's that have occurred at the County Industrial Safety Ordinance stationary sources, and a chart showing the MCAR's that have occurred at the County and the City of Richmond Industrial Safety Ordinance stationary sources. The charts also show the number of serious, medium, and minor MCAR's for this period.

NOTE: The charts do not include any transportation MCAR's that have occurred.



Legal Enforcement Actions Initiated by Health Services

As part of the enforcement of the Industrial Safety Ordinance and the CalARP Program, Health Services issues Notice of Deficiencies on the Safety and Risk Management Plans and issues Audit Findings on what a stationary source is required to change to come into compliance with the regulations. The stationary sources are required to take actions for the out of compliance issues that are the results of the audits that are shown in Table I. Health Services has not taken any action through the District Attorney's Office for noncompliance with the requirements of the Industrial Safety Ordinance.

Penalties Assessed as a Result of Enforcement

No penalties have been assessed this year for noncompliance with the Industrial Safety Ordinance.


Total Fees, Service Charges, and Other Assessments Collected Specifically for the Industrial Safety Ordinance

The fees charged for the Industrial Safety Ordinance are to cover the time that the Accidental Release Prevention Engineer use to enforce the ordinance, the position of the Hazardous Materials Ombudsman, and to cover a portion of the overhead for the Hazardous Materials Programs. The fees charged for administering this ordinance for the fiscal year 2004 – 2005 is \$199,293.

Total Personnel and Personnel Years Used by Health Services to Implement the Industrial Safety Ordinance

The Accidental Release Prevention Programs Engineers have reviewed resubmitted Safety Plans, prepared and presented information for public meetings, worked with the consultant that was hired for public outreach on the ordinance, performed audits of the stationary sources for compliance with both the California Accidental Release Prevention Program and Industrial Safety Ordinance and did follow-up work after a Major Chemical Accident or Release. The following is a breakdown of the time that was spent on the Industrial Safety Ordinance:

- Accidental Release Prevention Programs Engineers Time: 853 personnel hours or 0.41 personnel years
- The audits take four weeks to perform for a total of 1000 hours. Approximately 1/3 of the time is dedicated to the Industrial Safety Ordinance for a total of 333 hours.
- Follow-up work to audits – 120 hours
- It took approximately four weeks (160 hours) of work for preparing and giving public presentation for the different Safety Plans and preliminary audit findings.
- Working with Community Development in preparation of EIR for proposed amendments to the Industrial Safety Ordinance and reviewing draft EIR for 60 hours.
- Preparing reports to the Board of Supervisors took approximately 40 hours.



Four programs are in place to reduce the potential of an accidental release from a regulated stationary source that could impact the surrounding community.

- Review and meeting with stationary sources on Root Cause Analysis Reports took approximately 20 hours.
- Reviewing information for the website 120 hours.
- Public consultant outreach and preparing for public meetings took 1200 hours.
- Total of 2053 hours is the approximate personnel time spent on the Industrial Safety Ordinance or 1.03 personnel years.

This is not including the ombudsman time spent helping prepare for the public meetings, working with the engineers on questions arising from the Industrial Safety Ordinance, and answering questions from the public on the Industrial Safety Ordinance.

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

Comments and questions were raised in the public meetings and from the public comment period. Some of the comments and questions were for stationary sources that are covered by the Richmond Industrial Safety Ordinance. Attachment C is a copy of the questions and comments that were received and Health Services response to these questions and comments.

The Impact of the Industrial Safety Ordinance on Improving Industrial Safety

Four programs are in place to reduce the potential of an accidental release from a regulated stationary source that could impact the surrounding community. The four 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 Health Services, and the Industrial Safety Ordinance administered by Health Services. Each of the programs is very similar with the Industrial Safety Ordinance being the most stringent. The prevention elements of the program level 3 regulated stationary sources under the federal Accidental Release Prevention Program is identical to the Process Safety Management Program. The main differences between the federal Accidental Release Prevention and the CalARP Programs are as follows:

- 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 in the Risk Management Plan
- Health Services is required to audit and inspect stationary sources at least once every three years
- The interaction required between the stationary source and Health Services.

The differences between the CalARP and the Industrial Safety Ordinance Safety Programs are as follows:

- 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 practices
- All of the process at the regulated stationary source are covered
- Managing changes in the organization for operations and emergency response
- The implementation of a Human Factors Programs

All of these requirements will and have made a change in the probability of an accident occurring.

General Chemical Richmond Works Safety Evaluation

The City of Richmond, Health Services, and the Board of Supervisors were concerned about the overall safety of the General Chemical Richmond Works facility and asked for a third-party safety evaluation of this site. General Chemical agreed to the safety evaluation. An oversight committee was formed consisting of General Chemical management, General Chemical employee union, the City of Richmond, Health Services, the Hazardous Materials Commission, and a representative from the community. The oversight committee developed the scope of work and a request for proposal and selected a third-party to perform the evaluation. MRS Environmental was hired as the third-party consultants to perform the safety evaluation.

MRS conducted a Safety Climate Survey that was developed by the Health and Safety Executive from the United Kingdom. They did an onsite evaluation, held two public meetings to receive comments and questions from the community, submitted a draft report and a final report, and made oral presentation to the Board of Supervisors and the Richmond City Council. General Chemical developed an action plan to address all of the recommendations and findings from the safety evaluation. MRS reviewed General Chemical's action plan to ensure that the actions being taken addresses the findings from the safety evaluation.

MRS was hired to oversee the implementation of the General Chemical action plan, perform a second Safety Climate Survey, and to do an onsite follow-up evaluation at General Chemical Richmond Works. The follow-up evaluation was completed and reports were made to the Board of Supervisors and the Richmond City Council.



Health Services Proposed Changes in the Risk Management Chapter of the Industrial Safety Ordinance

Health Services gave the following recommendations to the Board of Supervisors in a report on March 18, 2003 on proposed changes to the Industrial Safety Ordinance that would improve the overall prevention of accidental releases. Below is a recapping of the report that was given at that time on the proposed changes.

- **Expand the Human Factors section of the Industrial Safety Ordinance to include the following:**
 - Maintenance procedures
 - Management of Organizational Changes
 - Maintenance personnel
 - A job task analysis for each of the positions that work in operations, maintenance, emergency response and Health and Safety
 - Include temporary changes in the Management of Organizational Change
- **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 a Safety Culture Assessment**

These recommendations along with some housekeeping changes were included with the Environmental Impact Report (EIR) process for the Contractor Training proposed amendments to the Industrial Safety Ordinance.


Public Review Process for Proposed Changes

Public and Environmental Health Advisory Board (PEHAB) and the Hazardous Materials Commission reviewed the changes that were proposed by Health Services and approved recommending the changes to the Board of Supervisors in December 2003. The recommendations are now included as part of the EIR and the draft EIR has been submitted for public comment.

City of Richmond Industrial Safety Ordinance

The City of Richmond passed their version of the Industrial Safety Ordinance on December 18, 2001 that became effective on January 17, 2002. Richmond's Industrial Safety Ordinance mirrors the County's Industrial Safety Ordinance. Richmond's Industrial Safety Ordinance covers two stationary sources: Chevron and General Chemical Richmond Works.

ChevronTexaco and General Chemical West Richmond Works submitted their Safety Plans to Health Services, which have been reviewed by Health Services. The public comment period for these plans ended in January 2004. Public meetings held in North



Richmond and Richmond discussed ChevronTexaco's and General
Chemical West Richmond Works audit findings.

Health Services will submit an annual report on the Richmond Industrial
Safety Ordinance to the Richmond City Council in October .

