



# **Safety Culture**

## **Where does the buck stop?**



## **US EPA's Emergency Planning and Accidental Release Prevention Program**

**September 2013**



EPA Wesling



9/5/2013



# Confidential Business Information

**Avoid  
This!**





# **"Ammonia Kills Winery Worker"**

## **September 2012 Fresno Headline**



28-year-old Robert Munoz



# Objectives

- Overview of requirements
- Owner and operator defined
- The R-Word – Responsibility
- The L-Word – Liability
- The E-Word – Enforcement





# Federal Regulations

- **EPCRA** - Emergency Planning and Community Right to Know Act (aka SARA Title III or EPCRA 304, 311 and 312)
  - Submit chemical inventory amounts on HMBP (Tier II) and report releases to State and local agencies under EPCRA 304
- **CERCLA** – Comprehensive Environmental Response Compensation and Liability Act Section 103
  - Release Reporting to National Response Center (NRC)
- Clean Air Act CAA 112r Risk Management Program (**RMP**) and General Duty Clause (**GDC**)
  - Equivalent regulation in CA is California Accidental Release Prevention Program (Cal ARPP)



# Clean Air Act Amendments Accidental Release Prevention 1990



- Process Safety Management Standard – PSM (1992)
- Risk Management Program Regulation and General Duty Clause (1994-1996)
- U.S. Chemical Safety and Hazard Investigation Board – CSB (1998)

***RMP CAA 112(r)(7)***

***GDC CAA 112(r)(1)***



# CAA §112(r)(1) General Duty Clause



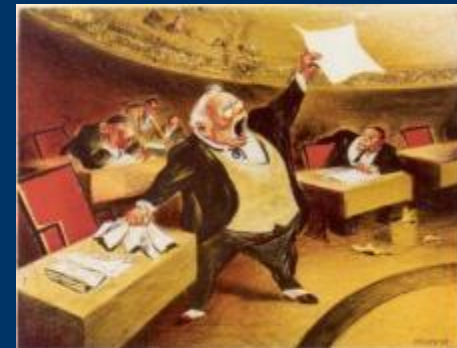
## Senate Report 101-228 12/20/89

The responsibility to prevent releases of these extremely hazardous substances is the general duty of the owners and operators of facilities producing, processing, handling or storing such substances, whether or not explicit requirements have been imposed under this section or other authorities.

**Contractors = Operators**

A general duty to:

- Prevent releases
- Whether or not explicit requirements imposed under any authority.







# Senate Report 101-228 12/20/89

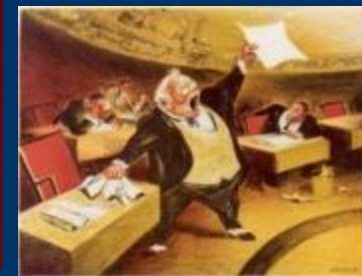


## OSHA GDC case settlement cited as standard:

1. The employer failed to render its workplace free of a hazard,
2. The hazard was recognized by employer or employee, as likely to cause harm, and
3. There was a feasible means by which employer could have eliminated or materially reduced the hazard.



# Senate Report 101-228 12/20/89



"Awareness" may be documented by:



"Existence of an industry code or consensus standard...which is used by others operating similar facilities within the industry."



Recognized and general accepted good engineering practice (RAGAGEP)

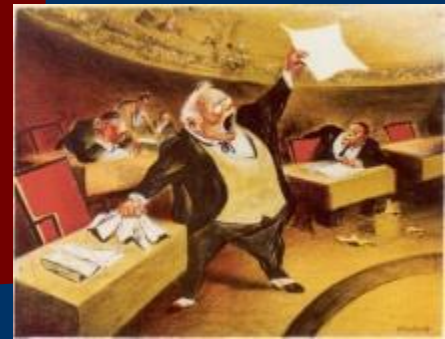


U.S. CHEMICAL SAFETY BOARD



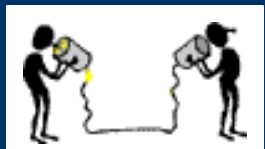


# Senate Report 101-228 12/20/89



**"Feasible means"** include:

- Prevention and mitigation measures to reduce likelihood or extent of a hazard onsite and off-site,
- Public warning (alert) and emergency response systems.





# Requirements

- ~~Offsite consequence analysis~~
- ~~Five-year accident history~~
- Risk Management Program
- Accident prevention program
- Emergency response program
- ~~Submit Summary of Plan to EPA~~







# "Management System"

THE BUCK  
STOPS HERE

## § 68.15 Management.

- (a) The owner or operator of a stationary source with processes subject to Program 2 or Program 3 shall develop a management system to oversee the implementation of the risk management program elements.



# "Management System"

## § 68.15 Management.

- (b) The owner or operator shall assign a qualified person or position that has the overall responsibility for the development, implementation, and integration of the risk management program elements.



# "Management System"

## § 68.15 Management.

- (c) When responsibility for implementing individual requirements of this part is assigned to persons other than the person identified under paragraph (b) of this section, the names or positions of these people shall be documented and the lines of authority defined through an organization chart or similar document.



# Chemical Safety Board On Safety Performance Indicators [csb.gov](http://csb.gov)

CSB Public Hearing, Houston, Tx, July 23-24, 2012

- "temporary fixes, out of service equipment"
- "alerts that process incidents might be more likely".
- "...valuable indicators of major hazard events center around organizational and human factors ..."
- Including "inspection and maintenance of control systems, alarm management, shift logging, shift hand-over procedures, and plant override behavior."





# Prevention Program RMP and GDC



- Process safety information
- Process hazard analysis
- Operating procedures
- Training
- Mechanical integrity
- Management of change
- Pre-startup review
- Compliance audits
- Incident Investigations
- Employee participation
- Hot work permit
- Contractor management





# Mechanical Integrity

- Manufacturer's recommendation
- Recognized and generally accepted good engineering practices (RAGAGEPs)
- Easily accessible and complete records of maintenance history (What was done, when was it due/done, who did it, etc.)

The background image shows industrial equipment, possibly a large storage tank or vessel, with a rusted and weathered surface. An orange rectangular overlay is positioned in the center-right of the image, containing the text "Confidential Business Information".

Confidential  
Business  
Information



# Accurate Process Safety Info?

**P & ID**

**Confidential  
Business  
Information**

**Materials of  
construction**

**Test  
Results**

**Design  
limits**



# Follow-up on Recommendations



- PHA, Compliance Audit, Incident Investigations and MOC recommendations
- Standard is set by Federal OSHA guidance for Process Hazard Analysis findings.
- Allows facility management to decline to adopt a recommendation, but only for specific circumstances.





# Criteria per OSHA

- The analysis upon which the recommendation is based contains factual errors.
- The recommendation is not necessary to protect the health and safety of employees and contractors. *(for RMP also offsite)*
- An alternative measure would provide a sufficient level of protection.
- The recommendation is not feasible.





# Emergency Response Plan



- Responding facility
- Non-responding facility
- Training, equipment maintenance
- COORDINATION with First Responders and Community....
- Address appropriate scenarios
- Assign responsibility
- Exercise!





# Have You Used Lessons Learned?



- Review lessons learned
- Take advantage of industry organization forums
- Standard-setting organizations
- Chemical Safety Board, National Transportation Safety Board Investigations, CalOSHA, Fed OSHA and US EPA



U.S. CHEMICAL SAFETY BOARD





# After the Inspection.....

*Congratulations or Enforcement?*





# If we find violations....

- Provide all requested information.
- Ask questions if you don't understand the finding.
- Identify how and when you will fix the problem
- Be cooperative!!





# Enforcement Options

- Judicial referrals (BIG \$\$ and time)
- Administrative penalty orders
- Expedited Settlement Agreement (ESA) with reduced penalty for a limited universe of cases







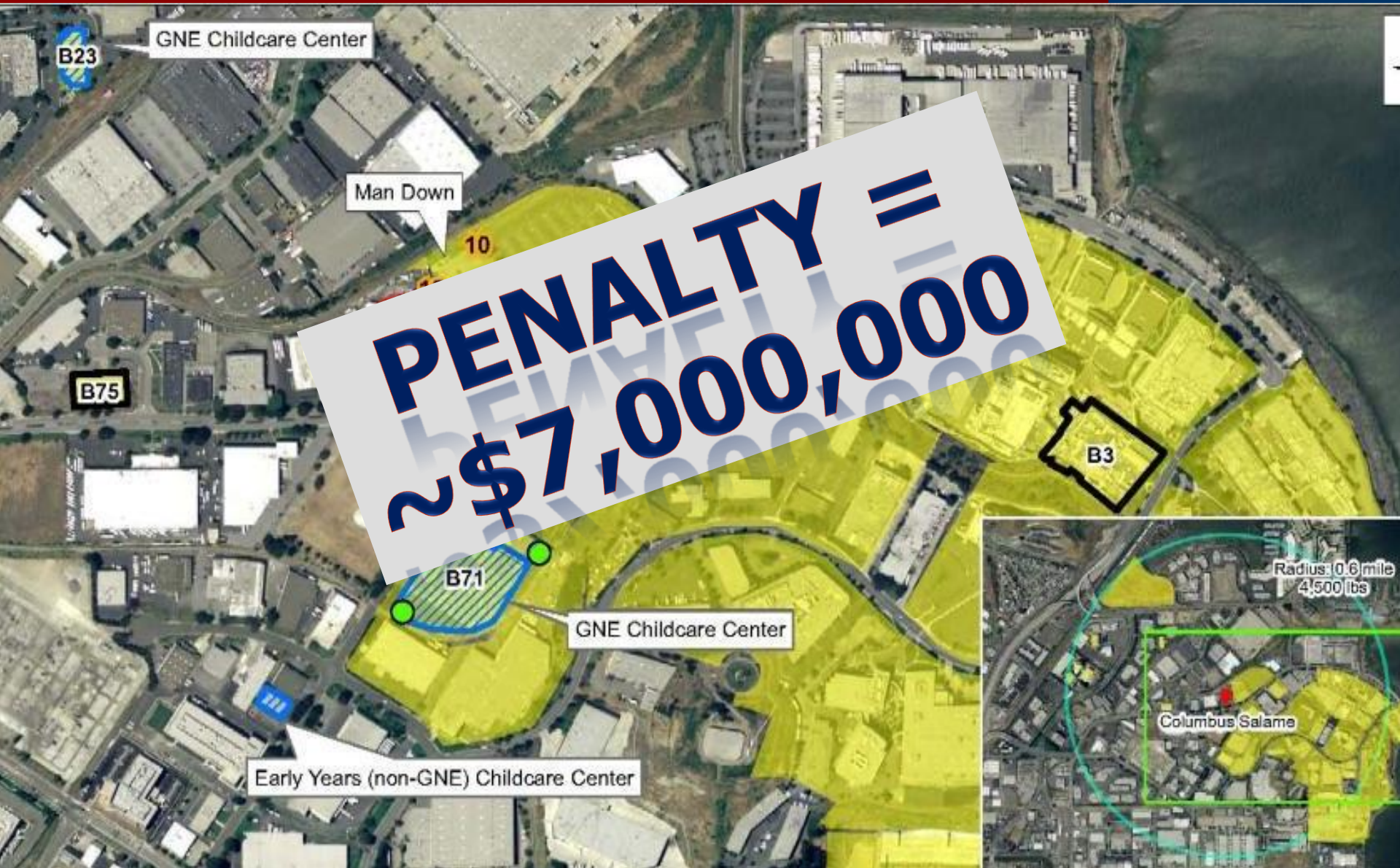
# Enforcement



- Penalties go up to \$37,500 per day, per violation.
- Criminal action possible for release reporting violations with penalties of up to \$37,500 per day, 3 years in prison, or both
- Citizens suits



# Columbus Manufacturing





# **Chevron Richmond, 8/6/2012**

## **Enforcement Confidential**

- Failure to communicate hazards accurately to responders;
- Failure to follow emergency shutdown procedures;
- Failure to implement pre-entry safety plan;
- Failure to EVACUATE personnel prior to start of hazardous operation.
- Failure to implement MI Procedures
- Etc..... More will be part of EPA's case
- EPA's Penalty – yet to be determined.....

08/13/2012 13:49

- County community and industry supported alert system;
- Shelter-in-place training and other outreach;
- Medical emergency response plan coordinated and exercised;





# For More Information:

[www.epa.gov/compliance/resources/policies/civil](http://www.epa.gov/compliance/resources/policies/civil)







# Got Questions?

- **RCRA, Superfund & EPCRA Call Center**

Phone: (800) 424-9346

When: Monday - Friday, 9:00 am - 5:00 pm est

Closed Federal Holidays

Email: [epacallcenter@bah.com](mailto:epacallcenter@bah.com)

- Office of Emergency Management (OEM) website:  
<http://www.epa.gov/emergencies>

- Mary Wesling, US EPA Region 9  
[wesling.mary@epa.gov](mailto:wesling.mary@epa.gov)