

***20 Years
of Ammonia Safety Training***

***How a Public/Private Partnership
Helped Lower Risk and Increase
Safety in***

Monterey County

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Monterey County Environmental Health Bureau

2013 Salinas Valley Ammonia Safety Day

A stylized silhouette of a mountain range in shades of brown and tan, positioned at the bottom of the slide against a light blue background.

Our Vision:



2013 Salinas Valley Ammonia Safety Day

Synergy

The interaction of two or more agents or forces so that their combined effect is greater than the sum of their individual effects.

*A mutually advantageous conjunction where the **whole is greater than the sum of the parts.***



2001 Ammonia Safety Day
Hartnell Community
College



2013 Salinas Valley Ammonia Safety Day



2003 Ammonia Safety Day
Hartnell Community
College



2013 Salinas Valley Ammonia Safety Day



2003 Ammonia Safety Day
Hartnell Community
College

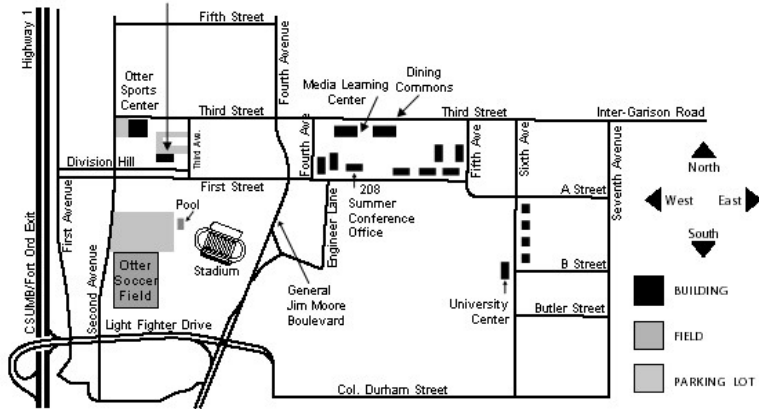


2013 Salinas Valley Ammonia Safety Day



CALIFORNIA STATE UNIVERSITY Monterey Bay

Conference and Events Services
Summer Conferences 2004



2005 Ammonia Safety Day California State University Monterey Bay



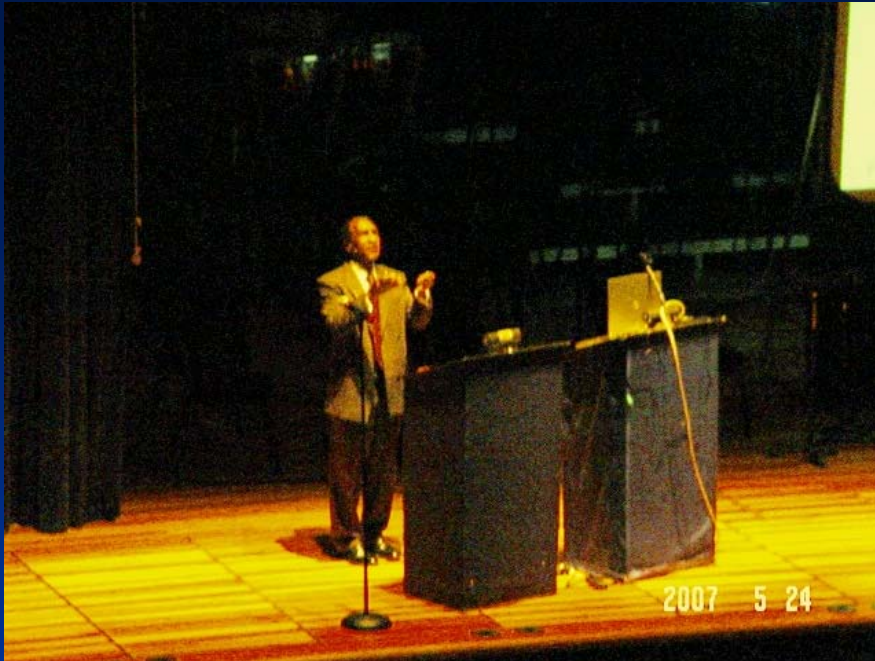
2013 Salinas Valley Ammonia Safety Day

2006 Ammonia Safety Day
Santa Cruz County
Fairgrounds, Watsonville



2013 Salinas Valley Ammonia Safety Day

2007 Ammonia Safety Day
Salinas Community Center



2013 Salinas Valley Ammonia Safety Day



2013 Salinas Valley Ammonia Safety Day

Our Vision:



2013 Salinas Valley Ammonia Safety Day

Our Goals:

- **Protect the Public Health & Safety**
- **Protect Worker Health & Safety**
- **Protect the Environment**
- **Train & Educate Workers & Regulators**
- **Enhance & Support Economic Health**

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Our Vision:

**Government and Industry
can achieve these goals
more effectively
working as partners
than as
adversaries.**

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The Theory:

Benefits to Government

Increase Efficiency “Do More With Less”

**by increasing training & education
opportunities
in safety and environmental compliance**



***Get Better Compliance and
Fewer Violations***

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The Theory:

Benefits to Government

Better Compliance and Fewer Violations



*Fewer Resources needed to
Administer Programs*

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The Theory:

Benefits to Industry

Better Educated and Trained Regulators



*More Reasonable & Intelligent
Interpretation & Application of Laws and
Regulations*

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The Theory:

Benefits to Industry

Better Educated and Trained Workers



*Better Compliance, Fewer Injuries and
Fewer Violations*

&

*Safer, Happier and More Productive
Workers*

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The Theory:

Benefits to Industry

**Safer, Happier and More Productive
Workers**

&

**Better Compliance, Fewer Injuries and
Fewer Violations**



Enhanced Economic Competitiveness

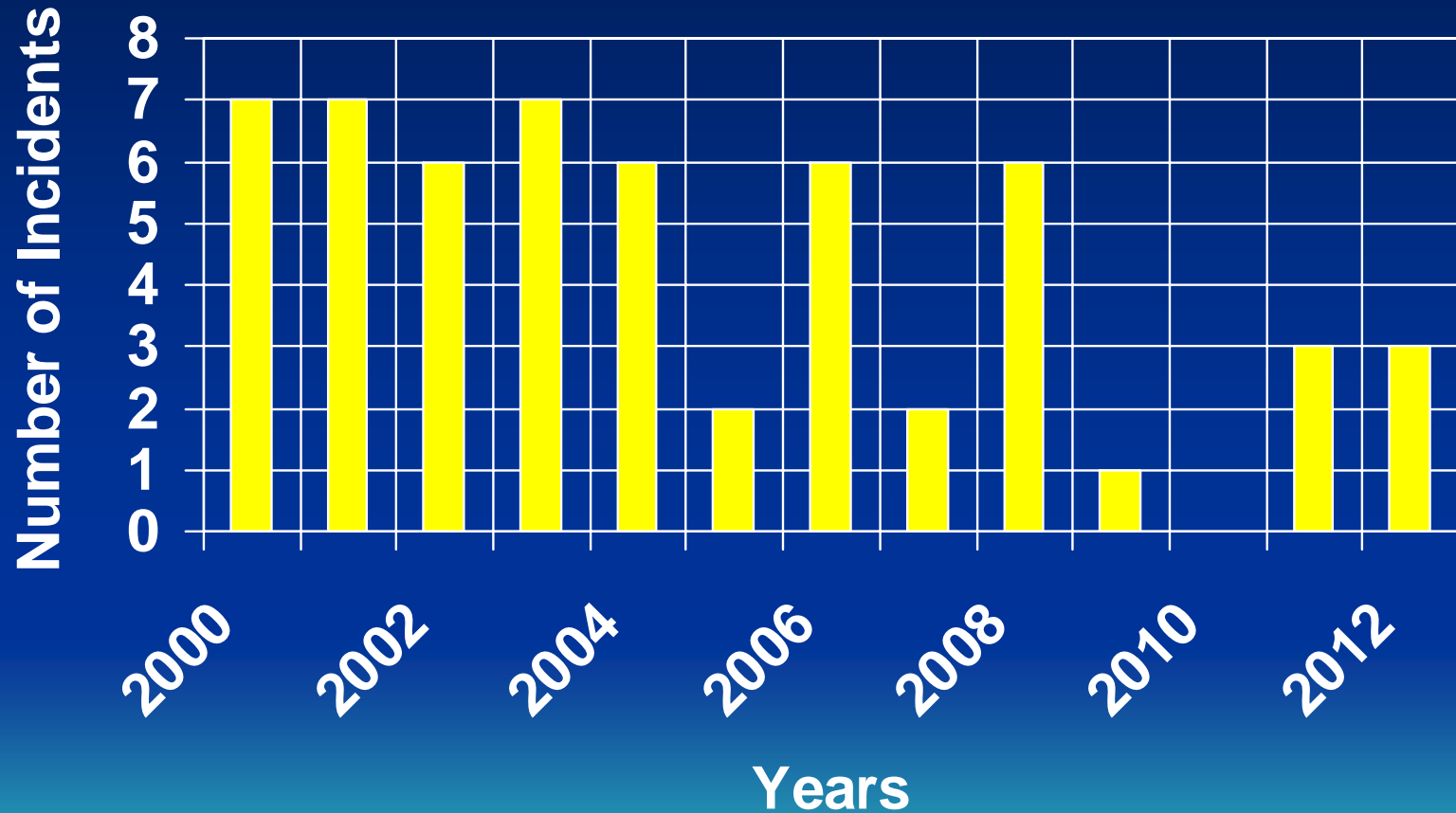
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Ammonia Release Incidents, City of Salinas, 2000 - 2012



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Ammonia Release Incidents Monterey County, 2000 - 2012



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The Results:

Monterey County

- Development of Pressure Relief Valve (PRV) capture system including testing and acceptance by all regional Fire Marshals (Salinas, Salinas Rural, North County)
- Continuing work on the design and acceptance (by industry and regulatory agencies) of seismic protection systems for portable refrigeration equipment.

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The Results:

Monterey County

- Zero-tolerance policy for ammonia releases in Monterey County – leading to use of water tanks to capture ammonia during routine maintenance
- Extensive use of spring loaded or “dead-man” valves on oil draining locations

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The Results:

Monterey County

- Continuing agency participation in facility Process hazard Analyses (PHAs) and Haz-Op (Hazard and Operability) studies required for Risk Management Plans and Process Safety Management Plans.
- Creation of funding mechanism for Area Hazardous Materials Response Team and extensive training with ASTI to develop better responses to ammonia release incidents.

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The Future:

1. Enhanced and improved partnerships between industry and government in other regions and states.
2. Risk-Based Inspections – to focus inspection and enforcement efforts on high risk facilities with poor record of compliance
3. Improved procedures for preparation and emergency response to ammonia release incidents
4. New refrigeration system technologies to enhance safety and energy efficiency.

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Conclusion:

Partnerships Work!

Education is Key to Understanding

**Regulation is Balance of
Education & Enforcement**

Economic Vitality is Important to All

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