



Sunshine Act Meeting

Horizon Room

Ronald Reagan Building and International Trade Center

July 25, 2013



Opening Remarks: Chairperson and Board Members



Morning Session

9:30- 9:50 am:	Opening remarks
9:50- 10:35 am:	Staff presentations
10:35-11:05 am:	OSHA Comments
11:05-11:25 am:	Public Comments
11:25-12:00 pm	Board Deliberations
12:00 pm:	Break for Lunch/Media
1:30 pm:	Afternoon session begins



Public Comment Session

- Sign-up to speak, or
- E-mail questions and comments to comments@csb.gov.



Introductory Remarks:

Manuel Gomez, Director

Office of Recommendations



Staff Evaluation:
Recommendation No.
2001-5-I-DE-R1

***Re: PSM coverage for
atmospheric storage tanks***



Motiva Delaware City refinery

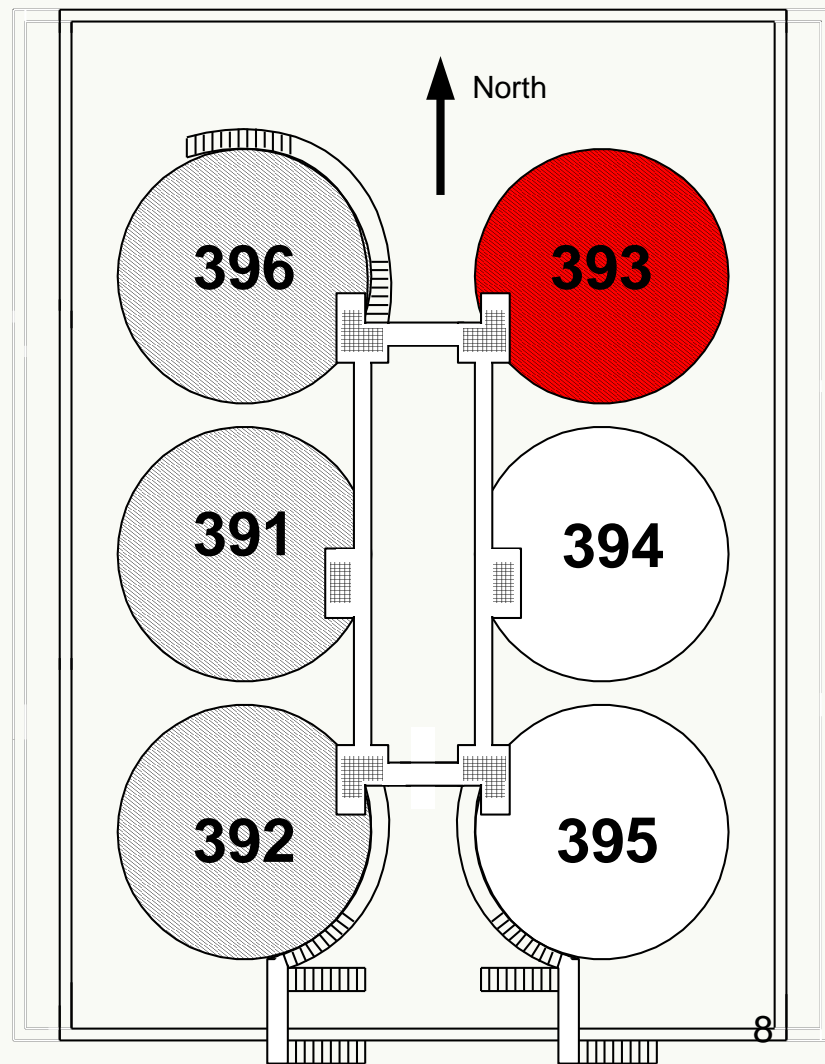
- July 17, 2001
- Explosion and fire
- Tank separated from its floor, contents released
- Other nearby tanks also released their contents
- One contract maintenance worker killed, eight others injured
- Sulfuric acid spill reached Delaware River causing damage to aquatic life





Motiva Sulfuric Acid Tank Farm

- Tank farm held two fresh (e.g., 394 & 395) and four spent sulfuric acid solution tanks in common diked area
- Only spent acid tanks had flammables
- Catwalk being repaired
- Sparks from welding torch ignited flammable vapors inside tank 393





Video Animation



OSHA Process Safety Management Standard -- Application

The standard applies to:

- 1) A process which involves a chemical at or above the specified threshold quantities listed in Appendix A
- 2) A process which involves a flammable liquid or gas on site and in one location, in a quantity of 10,000 pounds or more
- 3) Manufacture of explosives and pyrotechnics in any quantity



PSM Application to Motiva

- Sulfuric acid is not listed in Appendix A
- The amount of flammables in the alkylation process exceeded the PSM 10,000 pound threshold
- The amount of flammables in the spent sulfuric acid solution tanks could not be conclusively determined, but they were interconnected to the alkylation process



PSM Process Definition

“Any activity involving a highly hazardous chemical including any use, storage, manufacturing, handling or on-site movement of such chemicals, or combination of these activities. For the purposes of this definition, any group of vessels which are interconnected and separate vessels which are located such that a highly hazardous chemical could be involved in a potential release shall be considered a single process.”



PSM Exemption for Atmospheric Tanks Storing Flammables

“Flammable liquids stored in atmospheric tanks or transferred which are kept below their normal boiling point without benefit of chilling or refrigeration.”



PSM Application to Motiva

- In 1995, an administrative law judge ruled* that PSM coverage does not extend to stored flammables in atmospheric tanks even if connected to a process
 - OSHA did not challenge this decision
- Motiva did not include the spent sulfuric acid tanks in their PSM program based on the standard's exemption and the court decision
 - OSHA did not cite Motiva for violations of PSM in its citations following this incident

* *Secretary of Labor v. Meer Corporation*, OSHRC Decision 95-0341



If PSM Had Been Properly Applied

The following PSM elements would have been required:

- Ensuring mechanical integrity of equipment
- Applying consistent management of change procedures for equipment changes
- Controlling hot work in the presence of flammables



CSB Final Report Recommendation September 2002

“Ensure coverage under the Process Safety Management Standard of atmospheric storage tanks that could be involved in a potential atmospheric release as a result of being interconnected to a process with more than 10,000 pounds of flammable substance.”



OSHA Response to Recommendation

April 2003

- OSHA advised CSB that the spent sulfuric acid solution tanks in the Motiva incident were not exempt from PSM because they were process vessels, not storage tanks
- OSHA proposed to address the CSB recommendation by clarifying this distinction in a compliance directive
- No timetable was provided for when the directive would be issued



OSHA Response to Recommendation

April 2004

- CSB wrote to OSHA to ask the agency to clarify its position on storage tanks attached to PSM-covered processes

June 2004

- OSHA responded that it intends to address both issues in a compliance directive to be issued within the next 6 to 9 months



OSHA Response to Recommendation

December 2011

- CSB wrote to OSHA again asking for a update on the status of this recommendation

August 2012

- OSHA replied that it was still committed to issuing a compliance directive
- Estimated agency review would be completed on 9 months.
- To date, CSB has not received a revised compliance directive



Staff Recommendation to the Board

- Over ten years have passed
- No revised compliance directive
- No rulemaking to clarify coverage
- Both CSB Recommendations and Investigations staff urge the Board to change the classification of this recommendation to:

Open – Unacceptable Response



Staff Evaluation:
Recommendation No.
2005-5-I-TX-R9

***Re: PSM coverage for
managing organizational
changes***



BP Texas City Refinery

- March 23, 2005
- Explosions and fires
- 15 deaths and 180 injuries
- Raffinate splitter tower in isomerization unit overfilled
- Safety relief valves opened dumped flammables into blowdown drum with stack
- Blowdown drum overflows releasing flammables from stack
- Vapor cloud formed and ignited





Root and Contributing Causes

Poorly managed corporate mergers, leadership and organizational changes and budget cuts greatly increased the risk of catastrophic incidents at the site

- Merger of BP and Amoco led to a lack of focus on process safety
- Texas City site reorganizations reduced organizational stability and the prominence of the PSM function
- Policy changes, such as budget cuts and bonus plan revisions, eliminated PSM metrics thus impairing process safety performance



Organizational Change

Good Guideline Practices

- Center for Chemical Process Safety (1992)
- American Chemistry Council (1998)
- UK Health and Safety Executive (2003)
- Canadian Society for Chemical Engineering (2004)
- Contra Costa County, California (1999)



Organizational Change Published Survey Results (2002)

Organizational change was only being addressed in the management of change programs in 44 percent of chemical processing companies

Keen, West and Mannan

Process Safety Progress, Volume 21, No.2



OSHA PSM Standard, Subsection (I) Management of Change

“The employer shall establish and implement written procedures to manage changes (except for ‘replacements in kind’) to process chemicals, technology, equipment, procedures; and changes to facilities that affect a covered process.”



CSB Final Report Recommendation

March 2007

“Amend the OSHA PSM Standard to require that a Management of Change (MOC) review be conducted for organizational changes that may impact process safety including:

- a) Major organizational changes such as mergers, acquisitions, or reorganizations
- b) Personnel changes, including changes in staffing levels or staff experience, and
- c) Policy changes, such as budget cutting.”



OSHA Response to Recommendation

First Response, December 2007

- Agreed that organizational changes can affect safety at plant level
- Disagreed that a regulatory change was needed
- Proposed modifying PSM compliance directive to provide guidance
- No timetable for changing directive provided



OSHA Response to Recommendation

Second Response, November 2009

- Reiterated previous position that regulatory change is not needed
- Issued memorandum (3/2009) to Regional Administrators to provide guidance
 - List of organizational changes that need to be considered under Management of Change
 - Example of an organizational and budget change
 - Decision making flow chart
 - Suggestions for citations
- Asked CSB to close Recommendation



CSB Evaluation of OSHA Response

- Simple guidance memo could be changed or rescinded by subsequent administration
- Asked OSHA for examples of citations where organizational change was cited under this new policy, none provided to date
- Reviewed recent ALJ and Review Commission decisions, no cases found
- Reviewed regulatory text, compliance guidance and preamble of PSM regulation and noted that the concept of organization change is not defined, mentioned or even discussed
- Concern that courts will not give deference to agency's new policy memo because regulation itself fails to give fair warning of conduct it requires



Staff Recommendation to the Board

Based on the previous analysis and text of the actual recommendation, both Recommendations and Investigations Staff urge the Board to change the classification to:

Open – Unacceptable Response



Staff Evaluation:
Recommendation No.
2010-07-I-CT-UR1

***Re: Fuel Gas Safety
Standard***



ConAgra: June 8, 2009

- Workers installing industrial water heater
- Purged gas line inside facility
- No gas detectors used
- Gas accumulated, ignited and exploded
- 4 deaths and at least 67 injuries, some serious
- Facility severely damaged





Kleen Energy: February 7, 2010

- Cleaning newly installed fuel gas piping using natural gas
- Gas and debris released to atmosphere
- Gas accumulated and exploded
- 6 killed, at least 50 injured
- Plant construction significantly delayed



Kleen and ConAgra Incidents

- Resulted from planned work activities that released large quantities of flammable gas in the presence of workers and ignition sources.
- Caused loss of life, serious injuries, property damage, and economic impact



Recommendation 2010-07-I-CT-UR1:

Promulgate regulations that address fuel gas safety for both construction and general industry. At a minimum:

- a. Prohibit the release of flammable gas to the atmosphere for the purpose of cleaning fuel gas piping.
- b. Prohibit flammable gas venting or purging indoors. Prohibit venting or purging outdoors where fuel gas may form a flammable atmosphere in the vicinity of workers and/or ignition sources.



Promulgate regulations that address fuel gas safety for both construction and general industry. At a minimum:

- c. Prohibit any work activity in areas where the concentration of flammable gas exceeds a fixed low percentage of the lower explosive limit (LEL) determined by appropriate combustible gas monitoring.
- d. Require that companies develop flammable gas safety procedures and training that involves contractors, workers, and their representatives in decision-making



Fuel gas standard is needed

- OSHA has standards for other flammable gases such as hydrogen, acetylene, and LPGs
- Use of natural gas in U.S. exceeds use of all of these combined
- 80% of natural gas used is in sectors covered by OSHA
- Yet *OSHA has no standard for fuel gas safety*



OSHA's December 2010 response

- Described non-regulatory actions taken concerning unsafe pipe cleaning operations:
 - Significant penalties for Kleen incident
 - Strongly-worded letter to power plants to commission new turbines
- Did not address hazards of purging operations
- Stated only that OSHA would “consider” rulemaking



OSHA's March 2012 response

- Agency will *not* commence rulemaking at this time
- Agency will monitor adoption of NFPA standards, evaluate their effectiveness in addressing hazards, and determine if rulemaking is still needed



Staff Evaluation

- State/local adoptions of voluntary consensus standards insufficient to address hazard
- Voluntary consensus standards cannot substitute for needed federal regulation on fuel gas safety
- Staff recommend Board designate this recommendation with status **“Open-Unacceptable Response”**



OSHA Remarks



Public Comment Session



Board Deliberations



Conclusion of Morning Session

*Meeting will resume at
1:30 PM EDT*