“Learning from CSB Investigations”
Mary Kay O’Connor Process Safety Center
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Disclaimer

The PowerPoint presentation given by John Bresland, Chairman, the United States Chemical Safety and Hazard Investigation Board to the Mary Kay O’Connor Process Safety Center is for general informational purposes only. The presentation represents the individual views of the Chairman and all references, conclusions or other statements regarding current ongoing CSB investigations are preliminary in nature and do not represent a formal adopted product of the Board. Users of this presentation should also note that the contents were compiled solely for this presentation. For specific and accurate information on completed investigations, please refer to the final printed version by going to the CSB website at www.csb.gov. and clicking on the specific report desired under completed investigations.
My agenda today

• My vision for the Chemical Safety Board

• Current Chemical Safety Board Investigations

• Lessons learned from Chemical Safety Board investigations

• Chemical process safety – the challenge for the industry
The Chemical Safety Board

- 1990 United States Clean Air Act
- Funded in 1998
- Located in Washington, DC
- Budget $9.2M per year
- Board members – 5
- Staff – 35
The Clean Air Act – Section 112 (r) 6 (C)

The Board shall:

• “Investigate ..... any accident release resulting in a fatality, serious injury or substantial property damages”

• “Establish by regulation requirements for reporting accidental releases into the ambient air”
In a typical year

- Incidents evaluated by the CSB – 800 to 900

- CSB Investigations – 8 to 12
The CSB Investigation Process

• We decide to investigate, the team deploys
• Interviews, document requests
• Findings, conclusions, written report
• CBI review by company, communication of recommendations
• Preparation of a video
• Public meeting and Board approval
• Follow-up on recommendations
My vision for the CSB

- Consistent
- Accurate
- Fair
- Efficient
- Communicative
What’s happening at the CSB?

• Regional office in Denver

• Clear-cut evaluations of chemical incidents – which ones do we investigate?

• Faster investigations

• Washington office organization

• Chemical accident reporting rule
My goals for the CSB

- Reduce the number of chemical process accidents
- More investigations
- No more combustible dust explosions
- Implementation of our recommendations
The Opportunities and Challenges facing the CSB

• Hiring the best people

• Changes in our Congressional authorization

• Increased budget for more investigations

• Move the industry to be high reliability organizations
Current CSB Investigations

• Imperial Sugar Refinery, Savannah, GA
• BP Texas City
• T2 Laboratories, Jacksonville, FL
• Xcel Energy, Georgetown, CO
• Packaging Corporation of America, Tomahawk, Wisconsin
• Bayer CropScience, Institute, West Virginia
• Mar Oil Company, La Rue, Ohio
• Indspec Chemical Corporation, Petrolia, PA
Imperial Sugar Company Refinery, Port Wentworth, Georgia
February 7, 2008
Bayer CropScience, Institute, West Virginia
Mar Oil Tank Explosion, La Rue, Ohio
The CSB’s most significant investigations

- BP Texas City – explosion and fire
- Imperial Sugar refinery – dust explosion
- Little General Store – propane explosion
- West Pharmaceutical – dust explosion
- DPC Enterprises – chlorine release
- Formosa Plastics – vinyl chloride explosion
- CAI Inc. and Arnel Co. – solvent explosion
Recommendations status
Total Recs. Issued and % Closed

Fiscal Year

# Recs Issued

% Recs Closed

Total Recs. Issued

Percent Closed

2008

2009
CSB Recommendations that have made a difference

• Safety culture recommendation to BP, resulting in the Baker Panel report

• Temporary trailer recommendation to API

• Refinery inspection recommendation to OSHA
Chemical Process Safety Issues in the years ahead

- More oversight of refineries and the chemical industry by OSHA and the U.S. Congress
- Expectation of increased executive leadership on process safety
- Leading and lagging indicators
Chemical Process Safety Issues in the years ahead

• Fatigue management

• Safety culture

• Can refinery/chemical plants achieve reliability equivalent to aviation or nuclear power?

• Chemical process safety in the developing economies
My message to the Chemical and Oil Refining Industries

• You operate processes that are very important to the United States and the world

• You have significant challenges: site security, process safety, hiring the best people, profitability, international competition
My message to the Chemical and Oil Refining Industries

• Lead your people from the top
• Lead your people by example
• Focus your efforts on process safety as well as personnel safety
• Don’t become complacent – it can (will) happen to you
• Visit our web page [www.csb.gov](http://www.csb.gov)