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# Review of BP Texas City Incident - March 2005

**RESPONSIBLE CARE PROCESS  
SAFETY WORKSHOP – MARCH  
2010**

**NEELS KORF – DOW SA**





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# Review of BP Texas City Incident

## Agenda

- **CSB Video - 10 min**
- **Break-out groups discussion - 20 min**
  - **Discuss root causes of the incident and possible corrective actions**
- **Feedback session – 20 min**
  - **Findings will be discussed and summarized within the larger group**
- **Wrap-up presentation – 10 min**

# Notes regarding the Incident:

**The CSB conducted an extensive Investigation, the final report was issued 2 years after the incident.**

**Findings and recommendations is relevant to and impacts the entire petrochemical industry.**

**Incident information and final reports and recommendations are available at:**

**[www.csb.gov](http://www.csb.gov)**

# **Break-out groups discussion - 20 min**

- Divide into 3 to 4 groups**
  
- Choose a team leader to give feedback**
  - Brainstorm possible causes of the incident**
  - Consult printed description of the incident**
  - Make a list of root causes and a list of possible corrective actions to prevent a similar incident from occurring**

# **Feedback Session - 20 min**

- Reconvene in larger group**
- Post Flipchart pages from each group**
- Discuss each page and mark likely root causes agreed by larger group**

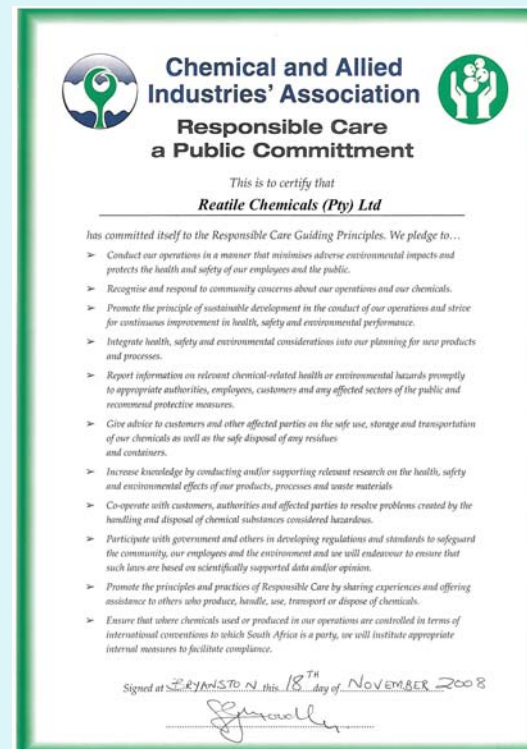


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# It all starts when the CEO of the company signs the Responsible Care Public Commitment



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# Wrap-up

## Root Cause Investigation Process (RCI)



# Root Causes (CSB Final Investigation Report 3/20/2007)

**BP Group Board did not provide effective oversight of the company's safety culture and major accident prevention programs.**

## **Senior executives:**

- 1. Inadequately addressed controlling major hazard risks. Personal safety was measured, rewarded, and the primary focus, but the same emphasis was not put on improving process safety performance.**
- 2. Did not provide effective safety culture leadership and oversight to prevent catastrophic accidents.**

## Root Causes (continued)

3. Ineffectively ensured that the safety implications of major organizational, personnel, and policy changes were evaluated.
4. Did not provide adequate resources to prevent major accidents; budget cuts impaired process safety performance at the Texas City refinery.

### **BP Texas City Managers did not:**

5. Create an effective reporting and learning culture; reporting bad news was not encouraged. Incidents were often ineffectively investigated and appropriate corrective actions not taken.
6. Ensure that supervisors and management modeled and enforced use of up-to-date plant policies and procedures.

# Root Causes (continued)

5. **Incorporate good practice design in the operation of the ISOM unit. Examples of these failures include:**
  - **no flare to safely combust flammables entering the blowdown system;**
  - **lack of automated controls in the splitter tower triggered by high-level, which would have prevented the unsafe level;**
  - **and inadequate instrumentation to warn of overfilling in the splitter tower.**
  
6. **Ensure that operators were supervised and supported by experienced, technically trained personnel during unit startup, an especially hazardous phase of operation; or that**
  
7. **Effectively incorporated human factor considerations in its training, staffing, and work schedule for operations personnel.**

# Contributing Causes (CSB Final Report)

## **BP Texas City managers:**

- 1. Lacked an effective mechanical integrity program to maintain instruments and process equipment. For example, malfunctioning instruments and equipment were not repaired prior to startup.**
- 2. Did not have an effective vehicle traffic policy to control vehicle traffic into hazardous process areas or to establish safe distances from process unit boundaries.**
- 3. Ineffectively implemented their Pre-Startup Safety Review policy; nonessential personnel were not removed from areas in and around process units during the hazardous unit startup.**
- 4. Lacked a policy for siting trailers that was sufficiently protective of trailer occupants .**

**THANK YOU**

**QUESTIONS??**

