

**Information Bulletin No. IB07-001****March 9, 2007**

## **Plant Process Safety Recommendations from the BP Texas City refinery catastrophe**

On March 23<sup>rd</sup>, 2005, the BP Texas City refinery experienced a catastrophic process accident. It was one of the most serious U.S. workplace disasters of the past two decades, resulting in 15 deaths and more than 170 injuries.

In the aftermath of the accident, BP formed an independent panel to conduct a review of the company's corporate safety culture, safety management systems, and corporate safety oversight at its U.S. refineries.

The Panel's findings were made available to the public in January, 2007. The 300 page report is probably one of the most thorough and significant public reviews of process safety that we have seen in a number of years and is unique in its subject matter, breadth and clarity.

A link to the report is posted on ABSA's Website as "The Baker Panel Report".

### **Key Message**

**ABSA recommends that owners of process pressure equipment thoroughly review the findings and commentary in the report at a senior level and give serious consideration to their application.**

ABSA believes that all companies in the refining, chemical and other process industries should give serious consideration to the Panel's recommendations and related commentary. While the Panel made no findings about companies other than BP, they state that they are under no illusion that the deficiencies in process safety culture, management, or corporate oversight identified in the Panel's report are limited to BP.

If refining and chemical and process companies understand the Panel's recommendations and related commentary and apply them to their own safety cultures, process safety management systems, and corporate oversight mechanisms, pressure equipment safety in Alberta will be greatly enhanced and lives will be saved.

For Alberta, this report reinforces the requirements established in Alberta legislation. The Safety Codes Act establishes the overall responsibility of the owner and the Pressure Equipment Safety Regulation requires that pressure equipment be in good working order and be operated safely within established safe operating limits; that there be adequate instructions for safe operation; and that the person operating be competent.

## Background

An independent 300 plus page report that some refer to as the Baker Panel Report was released in January 2007. The panel that released the report was headed by former U.S. Secretary of State James Baker.

The panel traveled to BP's five U.S. refineries, interviewed more than 700 employees and reviewed more than 340,000 pages of documents. The panel also surveyed about 7,500 employees and contract workers to assess their attitudes of BP's process safety culture.

The investigation found a significant safety culture breakdown existed throughout BP's U.S. refining network as the company emphasised personal safety but neglected process safety risks that could result in major accidents.

Process safety involves the prevention of leaks, spills, equipment malfunctions, over-pressures, excessive temperatures, corrosion, metal fatigue, and other similar conditions. Process safety programs focus on the design and engineering of facilities, hazard assessments, management of change, inspection, testing, and maintenance of equipment, effective alarms, effective process control, procedures, training of personnel, and human factors.

Process safety hazards can give rise to major accidents involving the release of potentially dangerous materials, the release of energy (such as fires and explosions), or both. Process safety incidents can have catastrophic effects and can result in multiple injuries and fatalities, as well as substantial economic, property, and environmental damage. Process safety refinery incidents can affect workers inside the refinery and members of the public nearby. The Texas City tragedy in March 2005 was a process safety accident.

The 2005 explosion has so far cost the company around \$2 billion in compensation payouts, repairs and lost profits. BP has settled hundreds of lawsuits related to the accident, putting aside \$1.6 billion just to resolve legal disputes.

BP's own December 2005 report blamed failures by management at the refinery, saying it didn't make safety a priority, tolerated risks and failed to communicate. BP Chief Executive John Browne said some of BP's problems were due to rapid growth, including a series of corporate mergers, and turnover in management. But when commenting on process safety, he said "it wasn't excellent enough, and the standard is excellence."