

Strength to Deliver

Focusing On Process Safety

A 2008 – 2009 Feature Story

At Petro-Canada, the safety of our employees, contractors and neighbours is our first concern. Our focus on process safety is one way we protect the people we work with and the communities we work in.

A tragic explosion and fire at BP's Texas City Refinery rocked the oil and gas industry in 2005 and prompted many companies to look carefully at their own process safety practices. At Petro-Canada, process safety became the number one Total Loss Management (TLM) focus and continues to be a top priority today.



As the director of process, technology and reliability for Petro-Canada's Downstream, and leader of the process safety project team and steering committee, Doug Evans is the Company's subject matter expert. Evans describes process safety management as the prevention of leaks, spills, equipment malfunctions, excessive temperatures, corrosion and other similar conditions that could result in a catastrophic event.

"Process safety is about protecting people and property from a potentially disastrous incident," says Evans. "Even a seemingly small deviation in hazardous materials containment can have devastating consequences – it's not something we take lightly."

In the case of BP's Texas City Refinery, the main cause of the incident was cited as flaws in process safety management. The result was an explosion that killed 15 people, injured many others and cost the company millions of dollars.

The industry continues to examine and learn from this unfortunate incident. For Petro-Canada, setting process safety as a top priority was an obvious response – process safety falls under TLM, the Company's system for managing risk, and aligns to the Company's Zero-Harm philosophy to reduce all injuries to zero.

ASSESSING OUR PRACTICES

"We identified there were opportunities to create more consistent standards and enhance process safety execution across Petro-Canada," says Evans. "With this program, we aimed to visibly increase our efforts beyond compliance and adapt many industry best practices with the goal of no tragic consequences resulting from loss of containment."

Reporting to Boris Jackman, executive vice-president of the Downstream and executive sponsor of the project, Evans established a project team and steering committee to support and sustain the project over the long term.

"The stakes are too high in process safety to make a mistake or to miss something fundamental," says Jackman. "In this industry, you aren't solely managing financial risk – you are dealing with risk that could endanger peoples' lives if mismanaged."

With this in mind, Petro-Canada conducted an in-depth review of process safety management in each business unit and compared various practices against industry benchmarks. Third-party consultants were also involved in the assessment to provide insight into best practices.

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The review revealed that Petro-Canada was focused and proactive in managing personnel, but would need clearer roles, more appropriate performance metrics, enhanced management of change processes and a comprehensive network of experts to build a stronger process safety management system.

ENHANCING OUR STRATEGY

After a thorough internal review of findings, the project team developed the process safety enhancement strategy with input from the business units. The strategy is defined by five focus areas: establishing organizational clarity to ensure that all employees and contractors understand their roles and responsibilities; standardizing key processes such as management of change; measuring and communicating performance; building knowledge by improving audit processes, investigating incidents more thoroughly and sharing learnings; and creating sustainability.

Two new standards were also established at Petro-Canada as a result of the review – process safety knowledge and competency, and management of change.

The process safety knowledge and competency standard is designed to ensure all leaders understand and are accountable for having reasonable provisions in place to minimize the risk to process safety. The management of change standard ensures that any changes to equipment, procedure, technology or organization (i.e. people) go through a structured process of risk assessments, reviews, appropriate approvals, and are documented and communicated prior to proceeding.

The strategy was rolled out to each business unit in 2008 through a series of orientations and focus groups to ensure the strategy and new standards were understood and supported.

“It was very important that we put the time and effort into helping the business units understand the enhanced strategy and what was expected of them,” says Evans. “Their commitment to consistent execution of the strategy is critical to our ability to be successful in process safety and avoid preventable incidents.”

MAKING PROGRESS

The project team made a great deal of progress in 2007 and throughout 2008 and continues to work with the business units to help leaders close gaps in process safety.

Joe Vetrone, general manager, lubricants, has already seen the positive impact. “At the Lubricants plant, we’ve always worked hard to maintain safe and reliable operations, but now I have a clear understanding of how our teams can improve process safety and be consistent with the rest of Petro-Canada.” Vetrone says in 2009 the plant is focusing on human factors and operational excellence as critical elements of improving its process safety management systems.

Evans explains that one cannot overestimate the importance of establishing and maintaining a thorough and effective process safety management system.

Process safety management is an ongoing priority without a completion date. The process safety steering team, comprised of senior representatives from each business unit along with representatives from the Company’s corporate Environment, Safety and Social Responsibility department, will work to ensure Petro-Canada continues to focus on all aspects of process safety and constantly looks for opportunities to learn and improve.