

Safety: Beyond Just Keeping Workers Safe

RESEARCH BRIEF

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SITUATION OVERVIEW

The unprecedented amount of new, untrained workers operating in a potentially hazardous environment is creating an increased need for the Exploration and Production (E&P) industry to implement effective safety programs and training. Shortages in labour are only expected to continue and stakeholders are concerned about expansion plans, causing producers to further elevate their focus on safety - beyond workers' well-being.

Hiring and retaining workers is a major challenge for E&P companies. Any lost-time accident compounds labour shortages. The additional workload from investigations exacerbates the affect of accidents. Lost revenue results from interruptions to existing production or delays in bringing new flows on-line when workers and materials must be diverted for repairs. Safety costs are very real.

Producers want to ensure that they can continue to expand production to profit from demand. Stakeholder concurrence with expansion plans is a vital consideration. Safety related incidents have a major impact on stakeholders' opinion of expansion. The financial impact of a hazardous material release has an impact on stakeholder relations, and the industry is acting on this basis.

The industry is demonstrating its concern. In 2005, six leading Canadian upstream petroleum industry trade associations combined their two safety focused organizations, the Petroleum Industry Training Service (PITS) and the Canadian Petroleum Safety Council (CPSC), into Enform. Enform has become one of the major training, certification and health and safety services providers for the Canadian E&P industry.

RESEARCH FINDINGS AND STRATEGIES

Vague requirements are still a major concern for Canadian E&P companies. Remarkably the industry has been able to reach a level of self regulation that is unique in developed countries. Canadian firms have taken a cooperative approach in regard to safety, with industry organizations fulfilling many of the functions covered by government organizations in other countries.

Safety is an important consideration in corporate level strategy. Some firms, especially in service and supply, focus on their safety initiatives as a way to create competitive advantage. Actions that improve safety are understood to be a good guide to overall efficiency. Typical considerations for a comprehensive safety program (see Figure 1) include organizational capabilities, risks, and goals. Executive commitment and leadership is a key factor.

FIGURE 1

Typical Safety Process Management



Source: Energy Insights, 2006

Canadian E&P companies are deploying a broad range of strategies to manage safety. These include:

- **Using training to drive business growth, productivity, and worker retention.** While a few firms view training as a way to meet compliance and certification requirements, most companies view training as a key strategy to address their most pressing challenges. It can:
 - Bring new workers up to speed quickly so firms can meet opportunities with an acceptable level of risk.
 - Improve existing workers' skills so that they can perform new tasks safely.
 - Help maintain workers' focus on safety so that they don't lapse into dangerous habits when handling repetitive tasks.
- **Using Health, Safety, and Environmental Compliance as a strategic advantage.** While some companies choose to just meet HSE standards, many companies go beyond this. Exceeding requirements can have financial benefits. A strong compliance program can lead to less lost time accidents, preservation of physical assets, higher customer satisfaction and greater competitiveness. Producers can overcome the HSE deficiencies of some Service and Supply (S&S) firms with targeted supervision and other supplemental programs. Producers' labour shortages and concerns about stakeholder relations do tend to make them prefer to work with S&S firms with superior HSE records.
- **Improving Stakeholder Relations.** Positive stakeholder relations can ease producers' proposals for increasing production. Effective communication with stakeholders on safety related issues as early and as completely as possible is a key task in facilitating expansion plans. Common actions intended to improve stakeholder relations include providing more opportunities for input, more effectively using information provided to producers, and timely communications.
- **Expanding the scope of safety considerations.** Security of assets has taken on greater importance. Post September 11th considerations include increased attention to securing critical physical infrastructures and information technology vulnerabilities.

RECOMMENDATIONS

Deploying and managing safety initiatives typically requires significant human resources. The creative use of information technology can improve safety without impacting labour requirements. Based on the research findings, Energy Insights recommends:

- **Using advanced training systems to meet safety goals.** Training programs should use computer-based programs, distance learning, and other methods of facilitating access at any time, in any location. We recommend looking at all providers to create a comprehensive program to meet company goals. Total needs must be balanced. Classroom sessions are an ideal forum for remote workers to share ideas to improve safety; this is facilitated when workers train together.
- **Linking advanced communications capability with worker, equipment and environmental monitoring.** To improve operational efficiency, we recommend that producers focus on the integration of monitoring and communications systems. Advanced integration should be considered in several areas:
 - Personnel monitoring systems can be used to support other types of communications including peer-to-peer knowledge sharing for improved performance. Balancing privacy considerations is needed to ensure high acceptance by the workforce.
 - Vehicle position monitoring with GPS systems should be used as an adjunct to worker safety monitoring and to optimize scheduling efficiency.
 - Wellhead, pipeline and plant monitoring with SCADA systems should be used to provide predictive information to personnel that may be entering dangerous environments.
 - Video monitoring of critical assets should be incorporated into overall monitoring strategies to maintain security.
 - Emergency Management Systems (EMS) should be in place to facilitate coordinated response and rapid notification. Automated EMS is becoming an industry norm. The needs of the public, media, government, mutual aid and industry groups are all served in sophisticated EMS. System design should also address post-incident reporting needs.
- **Investing in document and content management systems.** Document management should be a key focus. Tracking certifications, permits, field tickets and other operational

information for use internally and with clients, regulatory bodies and other stakeholders will boost efficiency in safety related work. Document management projects should focus on automating document creation, management, and providing broad access. Advanced levels of security are to be embedded in document management solutions to handle risk while facilitating legitimate access.

- **Implementing enterprise risk management solutions.** Enterprise risk management solutions can help E&P companies reduce their exposure to risk associated with accidents and injuries, fatalities, losses to plant and equipment, and spillages while maintaining regulatory compliance. These software applications provide capabilities for operations planning, incident assessment, environmental management and regulatory compliance monitoring.

NEXT STEPS

To become part of this research study and benchmark your organization against others in the study group, please contact TELUS Business Solutions at www.telus.com/energysector.

METHODOLOGY

TELUS Business Solutions sponsored this research study. Nine executive interviews, conducted in November and December 2005, were with executives at Canadian E&P companies in positions primarily responsible for safety. Respondents were screened and qualified based on decision-making authority and the scope of activity within their organizations. Filigree Consulting, on behalf of Energy Insights, conducted the telephone interviews.

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