CSB's Report on Deepwater Horizon Incident Addresses Safety Culture Issues

On April 20, 2010, control was lost on the Deepwater Horizon drilling rig in the Gulf of Mexico, resulting in the uncontrolled release of oil and gas, which then ignited. The resulting explosions and fire led to the deaths of 11 workers, serious physical injuries to 17 others, the evacuation of 115 individuals from the rig, the rig's sinking, and massive marine and coastal damage.

Several government agencies and the companies involved investigated the incident. Some subsequently released reports on the results of their investigations, including the US Coast Guard.

Most recently, on April 13, 2016, the US's Chemical Safety Board (CSB) released a report on its independent investigation of the Deepwater Horizon incident.

The CSB analyzed various aspects of the incident and factors that led to it, including the safety cultures of the two key companies involved: BP and Transocean.

The CSB found that the BP and Transocean organizational cultures didn't promote process safety. That is, both exhibited organizational behaviours and practices depicting an overarching focus on *personal* safety without equal attention to *process* safety and managing the barriers and control

systems for preventing major incidents.

In fact, to various degrees, both companies exhibited the following organizational behaviours that were detrimental to process safety:

- Poor adherence to their own corporate major hazard management policies, which contained more stringent risk reduction responsibilities than regulations stipulated;
- Inadequate consideration for human and organizational factors in work planning, risk assessment and incident investigations;
- Inadequate individual performance contracts and bonus structures with limited inclusion of process safety goals;
- Inadequate development and usage of relevant process safety performance indicators;
- Failed efforts aimed toward bridging major risks; and
- Boards of Directors not sufficiently engaged in process safety.

The CSB report also pointed out that a panel assessed BP's post-incident safety culture and made five fundamental observations, finding that BP hadn't:

1. Provided effective process safety leadership to establish a focus on process safety as a core value, rather emphasizing personal safety;
2. Established a positive, trusting and open environment with effective lines of communication;
3. Always ensured it identified and provided resources, both financial and human, required for strong process safety performance;
4. Effectively incorporated process safety consideration into management decisions; and
5. Instilled a common, unifying culture among its various refineries.

As the CSB report notes, a strong safety culture can't eliminate all incidents, especially in technologically complex and dynamic industries. There's *always* a risk that an incident will happen. However, strong safety cultures can reduce the likelihood of incidents and their severity should they occur.

The OHS Insider has articles, tools and other resources on safety culture, including:

- A safety culture assessment checklist
- How to convince management of the value of safety perception surveys
- A study that validates the importance of safety culture
- How your safety culture can impact your fine for an OHS offence
- How to use 'transformational learning' to improve your company's culture and its OHS program.