

WorkSafeBC Regulators Update Forum

The state of the O/G industry in BC

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Introduction

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Presentation Agenda

1. Improvements in the Oil and Gas Industry in 2015?
2. What are some of the issues of concern that have come up this past year?
3. Emerging issues for 2016
4. Changes
5. 2016 O&G Initiatives

What is the Oil and Gas sector doing well?

- **Large Project Planning:** In 2015, we have seen a significant improvement in the SMS planning and implementation.
- **Transportation of Workers:** Many employers have responded to the risk and have implemented programs by which workers are bussed to and from project worksites to camp and/or airports



Issues of Concern – Serious Crane Incidents

- Counter weights on large crane fell off unit during set up
- Dual crane lift to load pipe skid; both cranes overloaded - significant damage

Ensure:

- Crane operators are experienced in work being done; certified in BC
- Cranes are properly inspected & certified
- Crane properly set up and area is capable of supporting load
- All critical lifts have proper lifting plans and a hoisting supervisor

NEW: *Crane Inspection Checklist*



Issues of Concern – Flash Fires

Three significant flash fire incidents:

- 1) Plant turn around - 400 barrel tank had iron pyrites; atmosphere ignited and exploded
- 2) Workers entering bldg - leak detected; venting vapour into bldg w/ 600 w halogen light. Operator opened door, flash fire occurred; worker suffered 3rd degree burns
- 3) Workers cleaning tank truck, tank was steamed, vents opened inside bldg. Worker climbed on top of tank to inspect; flash fire occurred. Worker suffered 3rd degree burns & was thrown 20' in air landing on a floor



Issue: Failing to conduct adequate risk assessment to control ignition sources

Issues of Concern – H²S

Worker knocked down by H²S while performing maintenance on Glycol pump. System leaking, operator entered w/out masking up, knocked down; co-worker entered w/out masking up, dragged worker outside. Worker transported to hospital.



Issues: Site lacked adequate lockout procedures to properly isolate valves; inadequate engineering allowed system to back feed into pump due to lack of a check valve. Lack of adequate training & supv due to cut backs in safety programs

Note: Follow-up systems found cut backs on maintenance, i.e. failing to calibrate detection systems as required by Mfg's Specs

Issues of Concern – Falls From Elevation

At a Completions site - worker fell 4.5 ft off a platform on well testing unit. Worker fell backwards, landed on his buttocks. First Aid assessment noted tingling in worker's back & arms and difficulty in breathing; worker went to camp (thought to be only bruising) but later sent to hospital; had 4 broken vertebrae



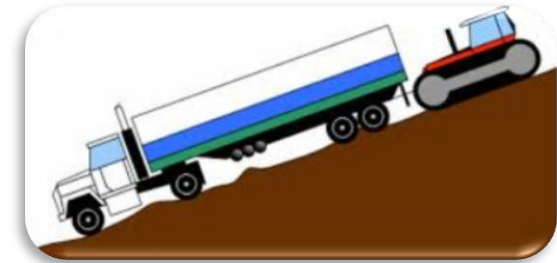
Issue: First aid attendant did not follow FA assessment guidelines; delay in treatment of serious injuries can have significant compounding impacts on a serious injury; employer failed to immediately report a reportable injury.

Issues of Concern – Towing Vehicles

Dozer Operator fell onto moving tracks of machine being dragged between machines tracks & unit's frame. Worker suffered fractured vertebrae, torn muscles, bruising.



Issue: Failure to assess risks, develop SWPs; ensure workers performing duties properly & are instructed & supervised.



Critical factors in SWP:

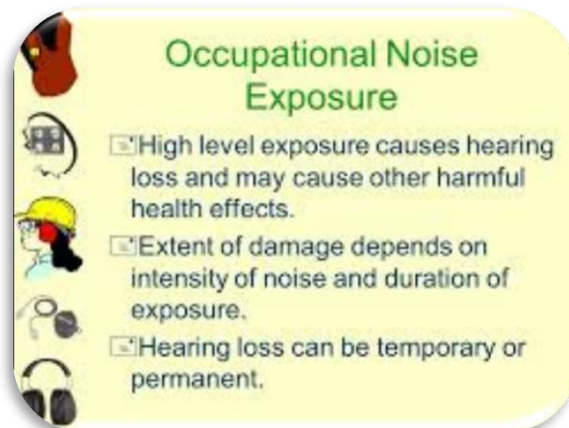
- Type, condition of slope surface, tire or track
- Engine operating angle limits
- Weight distribution
- Holding slope & stopping ability
- Choosing suitable assist vehicle
- Operator skill and training

Emerging Issues

Occupational Disease deaths – Of 122 accepted work-related deaths in 2015, 72 were the result of occupational disease

Response – Is occupational disease included in H&S Mgmt Plans? Survey work to determine areas of possible exposures? ECP's to eliminate or mitigate the risks associated with exposure?

ECP's for **NORMS**, **Silica**, Oil Based Drilling Fluids, Mercury and **Benzenes and Noise**



Occupational Noise Exposure

- High level exposure causes hearing loss and may cause other harmful health effects.
- Extent of damage depends on intensity of noise and duration of exposure.
- Hearing loss can be temporary or permanent.

The infographic includes icons for a red earplugs, a person wearing a yellow hard hat and earplugs, and a pair of black headphones.

Changes in 2016



Inquests into fire and explosions following Babine & Lakeland incidents generated changes to *WC Act* through Bill 35 and 9.

Bill 35 provides for changes in: Enhancing powers for Stop Work Orders, Compliance agreements, Employer Incident Investigations and Employer Citations.

Bill 9 provides for changes to: Employer immediate reporting of fires & explosions; WSBC enhanced involvement with JHSC

Changes in 2016



Additional Changes being reviewed:

- 11 areas of OHS Regulation including Part 23 line restraint
- WHMIS policies and regulations aligned to the GHS
- Exposure levels for Lead and Silica also being reviewed

Detailed information available at:

http://www.worksafebc.com/regulation_and_policy/default.asp

Oil and Gas Initiatives 2016



WSBC O/G Strategy - 4 key areas of Focus:

- 1. LNG** - 20 proposals for LNG facilities; LNG working group formed to ensure effective compliance response to projects
- 2. Drilling** - SWP for de-energization, lockout; appropriate documentation for the safe erection, dismantling and maintenance of drilling rigs and the ancillary equipment (CAODC Template)
- 3. Well Servicing** - Occupational overexposure to hazardous products including Silica during fracking operations (ECPs)
- 4. Well site Operations** – supervisors properly trained and providing oversight and direction to the work i.e. crane operations and critical lifts, ignition control, ECP's, etc

Thank you