COMPLACENCY

5 KEY LESSONS
LEARNED FROM A
DECADE IN THE FIELD

COMPLACENT

PLEASED OR SATISFIED,

ESPECIALLY EXTREMELY SELF-SATISFIED

CASE STUDY #1

FOUR PEOPLE DIE IN 2006 AT THE SULLIVAN MINE, KIMBERLEY, BC

PEOPLE ARE GOVERNED BY SOCIAL MOTIVATIONS

1

<u>NOT</u> RULES AND REGULATIONS

PEOPLE STOP THINKING

2

BECAUSE THEY ARE AFRAID

3 PEOPLE BECOME DISENGAGED

BECAUSE THEIR HEAD IS NOT IN THE GAME

OVER TIME THEY GREW LAZY

THEY START TAKING SHORTCUTS

4

5

UNHAPPY AND DISGRUNTLED PEOPLE HAVE A POOR ATTITUDE

CASE STUDY #2

COLLISION BETWEEN A BUS AND TRACTOR TRAILER ON HWY 28, GIBBONS, AB

6 PEOPLE KILLED

24 PEOPLE INJURED


BUT WAIT...WHAT DOES THIS ALL MEAN?

HE SAYS...

CULTURE EATS STRATEGY FOR BREAKFAST

PETER DRUCKER


ERADICATE WEAK CULTURE

Case Study 1- Overview

KIMBERLEY -- When a mining contractor mysteriously disappeared at Teck Cominco's Sullivan mine, a second man was sent to look for him.

He found the contractor's body. The man led two other rescuers to the body. All three died. The contractor had gone for a routine monthly check on the quality of the water that was being collected from the decommissioned mine's waste rock pile.

To do that, he had to go into a small plywood shed that's about three metres by three metres by 21/2 metres high. In the shed, there's a sump pump and pipes coming in and going out. There's also a small reservoir or weir from which samples are taken to test the water's quality.

It was the contractor's job to monitor the quality of that water at each of the sheds along the pipeline that extends about a kilometre from the collection channels around the waste rock dumps to Teck Cominco's treatment plant.

The contractor did the sampling once a month. On a normal day, he would have made a notation and left.

Monday was not a normal day. Something had caused an oxygen deficiency and likely before he even knew what had happened, the contractor died.

But no alarm was raised until early Wednesday morning. The contractor's partner called Teck Cominco to report the man missing. Teck dispatched one of its employees to the shed. According to witnesses interviewed by the RCMP, the Teck employee got to the site, found the contractor's body and called 911.

The B.C. Ambulance Service dispatched one ambulance and called the Kimberley fire department. According to the RCMP, two paramedics -- Kim Weitzel, 35, and Shawn Currier, 21 -- met the Teck employee at the site and went to the shed. None of them came out.

Case Study 1- Resources

On Oct. 31, the day after the public release of the chief inspector of mines report on the Sullivan Mine deaths, Capilano College physics instructor Vernon Moen sent an e-mail to the inspector's office arguing that the design of the weir and sump beneath the fatal shed was faulty and may have been responsible for filling the sampling shed with lethal oxygen-depleted air:

"A sump is supposed to be designed to prevent the influx of gases. Think of a toilet bowl, or a sink trap. In this case the diagram indicates no outflow, and one inflow. By all accounts the inflow was not trapped by the water in the sump.

"There are only three possibilities, none of which were addressed by your ministry reports:

"1. If there was an outflow, then the inflow was not significantly below the outflow. This is a serious design flaw.

"2. The inflow was not at the bottom of the sump, thus not trapped by the water in the sump. This is a serious design flaw.

"3. The sump was dry. This is a serious design flaw, and is unlikely because the technician was down the sump sampling the water when he died. If a sump can be expected to become dry, then normal design requirements would impose special restrictions on the design of the inflow precisely to prevent gas migration. Toxic gas accumulation was an obvious hazard, given the location and purpose of the sump.

"The fact that the 'toxic gas' in this case was an oxygen-depleted atmosphere is irrelevant. It can be assumed that gases accumulated in close proximity to possible hazardous materials will not be fit for breathing. The gases should never have had direct access to the sump. If these gases had been trapped by water, no one would have died. These considerations have been around for centuries, and are not new to the design of sumps collecting waste water from a dump site. This sump was not engineered: it was built, and with tragic consequences."

Moen's argument is that the standard design for a sump includes putting the inflow or source of new fluid below the liquids in the sump to prevent any inflow of gas as liquids enter the sump, and placement of the outflow pipe above the point where new liquids enter to further guard against gas entering through the inflow pipe. And that neither of these standard precautions were in place in the design of the sump at the Sullivan Mine. Therefore, lack of compliance with these standard design requirements allowed the shed to fill with de-oxygenated air that entered through the improperly placed inflow pipe.

In a follow up e-mail Nov. 3, Moen told the inspector:

"After having seen the photos and diagram provided by Teck Cominco, it is obvious that if the bottom of the 'V' in the V-notch weir had been placed 12 inches higher no one would have died."

According to Moen, a dam-like structure built across the sump between the inflow pipe and the outflow pipe should have been placed at least a foot higher than it was in order to further guard against underground gases entering the sump.

Case Study 2 - Resources

A fatal bus crash north of Edmonton that killed four and left dozens injured elicited an expression of sympathy from the Queen, who is visiting the West. Four people died when a transport truck slammed into a bus carrying oil workers Friday morning in the town of Gibbons, Alta., about 60 kilometres north of Edmonton. RCMP identified the four dead men as Stephen Joseph Batherson, 56, of North Sydney, N.S., and William Carl Ingram, 53, John Daniel Hernon, 54, and Steve Raymond Wallis, 42 -- all of Edmonton. More than two dozen others were injured, eight critically.

RCMP say traffic had been backed up on Highway 28 because of another accident that occurred around midnight local time. "Apparently the driver of that bus became tired of waiting and wanted to seek a different route around the collision scene," Morinville RCMP Const. Laurel Kading told CTV Edmonton affiliate CFRN News. "So he attempted to move his bus and turn around on the top of this highway."

The narrow two-lane highway, however, had little shoulder room and the back wheels of the bus became stuck in a ditch. 'Everybody went flying' A number of the 43 passengers got off the bus while the group waited for crews to arrive to free the vehicle, which sat across the highway. "Emergency workers knew right away it was a mass-casualty incident because there were people pinned under the bus and people lying all over the highway," said local fire chief, Bart Clark.

"Horrific is a good way to describe it," he said.'' Passenger Hillery Scheidl told CFRN he remained on the bus, but decided after about 15 minutes to get some air. "That's when I heard the driver say, 'He's not slowing down, he's not slowing down'," said Sheidl, visibly shaken. Moments later, the southbound truck broadsided the bus.
"I looked up to see the semi coming. It just hit us. Everybody went flying everywhere. I couldn't believe what was happening," said Scheidl. "It just T-boned." The collision sent the bus spinning, and several passengers standing on the shoulder were struck. The four fatalities were from that group.

Kading said a number of the workers still on the bus were injured when they were thrown through the windshield. The chartered coach was carrying the contract workers from Syncrude's oil sands project near Fort McMurray to Edmonton. Syncrude spokesman Alain Moore said most of the workers are believed to be from Alberta, but some may come from other provinces.

Fifteen of them were taken to the community hall in Gibbons where they were given blankets and warm drinks before being sent home on another bus."They were interviewed by the RCMP," Gibbons Mayor Bill Nimmo told The Canadian Press. "Some of them were a little bit in shock.'' Capital Health region spokesman Charlie Fleet said all the injured were sent to Edmonton area hospitals. Reporting from the scene, CFRN reporter David Ewasuk told CTV Newsnet that helicopters were flown in to assist in transporting the critically injured.

"That should give us some indication that, sadly, the death toll may be even higher than the four deceased," he said. Giant tow trucks hitched up the dented vehicles to clear them off the road. The side of the bus, behind the driver's seat, was crushed. Two people who were on board the transport truck were not among the fatalities. "The driver suffered some injuries and he's in the hospital right now," said Bob Fenley, a spokesman for Diversified Transportation, the company responsible for the bus. The highway reopened later in the day.

* Final number of persons killed was 6.

THANKS.

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