



OVERALL EVENT PROGRESS

91 %

NITROGEN



In many areas, we are currently introducing Nitrogen to O2 free the units as part of the start up process.

Every year people are killed by breathing "air" that contains too little oxygen. Because 78% of the air we breathe is nitrogen gas, many people assume that nitrogen

is not harmful however it is only safe to breath when mixed with the appropriate amount of oxygen. Neither oxygen or nitrogen can be detected by the sense of smell.

A nitrogen enriched environment, which depletes oxygen, can be detected only with gas detection instruments. If the concentration of nitrogen is too high (and oxygen too low), the body becomes oxygen deprived and asphyxiation occurs. It should be noted that a person exposed to an atmosphere of less than 5% oxygen can go into a coma in 40 seconds.

At Shell Scotford, oxygen levels are considered normal between 20- 23% which exceeds Alberta OHS standards. Below 20%, the human body is adversely affected by lower concentrations.

The following taken from SWP 1103, Nitrogen, are the signs and symptoms of workers at rest will display when exposed to an atmosphere containing less than the normal oxygen content (23 to 23%)

Oxygen Content of Atmosphere, %	Signs and Symptoms
12 to 14	Respiration deeper. Pulse up. Coordination poor.
10 to 12	Respiration fast and shallow. Giddiness. Poor judgement. Blue lips.
8 to 10	Nausea. Vomiting. Unconsciousness. Ashen face.
6 to 8	6 minutes – 50% fatal. 8 minutes – 100% fatal.
4	4 to 5 minutes recovery with treatment. Coma in 40 seconds. Convulsions. Respiration ceases. Death.

Summary

As we prepare for start up, it is crucial to the health and safety of everyone is that you are aware of your surroundings, exercise caution, honor exclusion zones (flagging/tagging) and identify all potential hazards associated with the nitrogen purges.

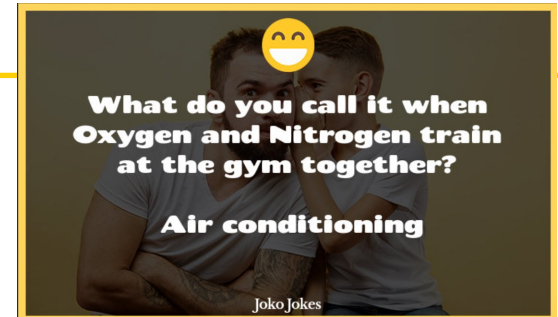
TURNAROUND STATS	LAST 24 HRS	OVER-ALL
No Treatment Case	0	2
Occupational Illness	0	1
First Aid	0	15
Medical Aid	0	0
Recordable	0	0
Life-Saving Rule Violation	0	7
Near Miss	0	7
Motor Vehicle Incident	0	7
Dropped Object	0	0
Hi Potential Incident	0	0
SIF	0	0
Env (Other/Spill)	0	6
LOPC (<100kg)	0	0
LOPC (>100kg)	0	0
Environmental Non-Comp.	0	0



A huge THANKYOU to Spartan who supported the control valves, isolation valves and the Bettis actuators that were on the Mogas valves. These fine folks are standing with PV-223903 ... the last TA valve.

Lessons Learned

Submissions for continual improvement.



GOAL ZERO CUP



"I would like to put forward a nomination for the Mammoet crane operators. From our experience with assistance with loading of catalyst, the crane operators are very diligent in understanding the scope of work and hazards associated with same. They take the time to communicate thoroughly with the various crews and spend time formulating a plan of attack.

Kudos to them and a job well done."

Dan Alton with Mammoet is true Goal Zero Hero!

Dan was working in his crane when he noticed smoke coming from inside the unit. He got on his radio and warned the TEAM workers he was working with ahead of any alarm and gave extra time for folks to radio ES and exit the unit.

Our crane operators have that "eye in the sky" view and Dan used it during the smoldering event to keep folks safe!



The TEAM mechanical guys are Awesome Goal Zero Heroes who take pride in the safe execution of all their tasks incident free.

"Great attitudes and tradecraft combined with a commitment to safety make the TEAM folks true Goal Zero Heroes!"

They are also a pretty fun bunch of Industrial Athletes!

STEP

Steady As We Go

Overwhelmingly safe behaviors in all observations for the last 24 hours. No significant trends or changes. Lots of moving parts and people, with congested work areas being a challenge.

Keep the communication and organizing / housekeeping as tight as possible.

