

Guideline for External Reporting of Mining Incidents

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Revision History

Date	Rev.	Comments	Prepared By:	Checked By:	Approved By:
May 10th, 2023	3	Update to reflect OHS March 2023 Code Release	 Art Riendeau	 Larry Ritchat	 Wesley Meyerink

Purpose

The intent of this document is to provide AMSA Member organizations guidance on our interpretation of what is reportable to the Director of Mines as per Part 36 Section 544 of the Alberta OH&S Code and Section 33 of the Alberta OH&S Act.

To ensure the reporting of incidents is consistent, Member organizations are asked to review this document and as required, reference it in the event they are unsure whether an incident is reportable.

Scope

This document will apply to all AMSA Member organizations.

Definitions

Alberta OH&S – Alberta Occupational Health and Safety

As Soon As Possible – when referring to incident reporting means; report the incident as soon as immediate actions have been taken to secure, control and remediate the threat of harm. Do not wait for a completed investigation before reporting.

Director – means a person appointed under Section 26 of the Act as a Director

Employer means:

- (i) a person who is self-employed in an occupation,
- (ii) a person who employs or engages one or more workers, including a person who employs or engages workers from a temporary staffing agency,
- (iii) a person designated by an employer as the employer's representative, or
- (iv) a director or officer of a corporation or a person employed by the employer who oversees the occupational health and safety of the workers employed by the corporation or employer

Mine – A working, other than a drill hole made while exploring for a mineral, from which coal, metals, precious or semi-precious minerals, industrial minerals, oil sands or any other material could be extracted, and includes a quarry and a pit.

Mine Site - A location at which a facility for extracting a mineral by underground, strip, open pit, or quarry operations exists or is to be developed, and includes;

- (i) a mineral processing plant, storage facility or discard disposal facility that exists or is to be developed in connection with a mine, and
- (ii) all connected access roads

Mining Certificate - a certificate issued under Part 36

Prime Contractor- means the prime contractor for a work site referred to in Section 10 of the Act.

Vehicle - a device in, on or by which a person or thing may be transported or drawn and includes a combination of vehicles.

Relevant OHS (Alberta) Legislation

- [OHS Act, Regulation and Code | Alberta.ca](#) – Official on-line version of the Act, Regulation and Code.
- [Occupational Health and Safety Code and Explanation Guide | Alberta.ca](#)
- [Report serious injuries, illnesses or incidents | Alberta.ca](#)

Determining Reportability

- Section 33 - Serious Injuries, illnesses, incidents, and worker exposure to radiation under the AB OHS Act, and
- Part 36 Section 544 - Reporting dangerous occurrences under the AB OHS Code

Alberta Occupational Health and Safety Act – effective Nov 16, 2022

Reporting Criteria	AMSA Interpretation/Things to Consider
33(1) When an injury or incident described in subsection (2) occurs at a work site or an illness described in subsection (2) occurs in connection with a work site, the prime contractor or, if there is no prime contractor, the employer shall report the time, place, and nature of the injury, illness, or incident to a Director as soon as possible.	
2) The injuries, illnesses, and incidents to be reported under subsection (1) are	Self-explanatory. Report as soon as possible through OHS Contact Center.
(a) an injury, illness or incident that results in the death of a worker,	
(b) an injury, illness, or incident in which there is reason to believe the worker has been or will be admitted to a hospital beyond treatment in an emergency room or urgent care facility,	If due to the injury severity, it is recognized that the injured worker will be admitted to hospital, report as soon as possible through OHS Contact Center. If the injured worker is brought to the hospital but not admitted, once you are made aware that the worker will be admitted, report the incident. Note: regardless of report-ability, the scene should be internally frozen, and an investigation started.
(c) an unplanned or uncontrolled explosion, fire or flood that causes a serious injury or illness or that has the potential of causing a serious injury or illness	Incident is reportable if the explosion, fire, or flood caused or potentially could have caused a SERIOUS injury or illness. Refer to 544 (1) (g) below for a definition of serious injury. In other words, regardless of whether the explosion, fire or flood was planned/ controlled or unplanned/ uncontrolled, if the explosion, fire, or flood caused or could have caused a serious injury or illness, it needs to be reported as soon as possible through OHS Contact Center
(d) the collapse or upset of a crane, derrick, or hoist	Self-explanatory. Report as soon as possible through OHS Contact Center.
(e) the collapse or failure of any component of a building or structure necessary for the structural integrity of the building or structure.	Self-explanatory. Report as soon as possible through OHS Contact Center.

Supporting Safety Leadership in Alberta Mines

**Alberta Occupational Health and Safety Act
– effective Nov 16, 2022**

Reporting Criteria	AMSA Interpretation/Things to Consider
33(5) If an incident occurs where	
(a) the incident had a likelihood of causing a serious injury or illness, and	You can report a PSI incident after the investigations is complete or before for advance notification and then finalize after the investigation is complete [AR1][AR2] through OHS Portal.
(b) there is reasonable cause to believe that corrective action may need to be taken to prevent recurrence, the prime contractor or, if there is no prime contractor, the employer shall conduct an investigation in accordance with subsection (6).	

Alberta Occupational Health and Safety Code

Reporting Criteria	AMSA Interpretation/Things to Consider
<p>The following are incidents for the purposes of section 33(3) of the Act If an incident specified in the OHS Code occurs at a mine or mine site, the prime contractor or, if there is no prime contractor, the employer shall make a report to a Director of the time, place and nature of the incident as soon as possible. If you have an injury under Part 36 Section 544 use must report through the OHS Contact Center. If no injury occurred in general you can report through the OHS Portal.</p>	
<p>Part 36, Section 544 of the code: (a) an unexpected major ground fall or subsidence that endangers or may endanger workers, equipment or facilities</p>	<p>The inference here is in the word "unexpected". Unexpected means unplanned or did not occur at the planned time or in the correct sequence. Was there potential to endanger people or equipment? <i>(Excerpt from BC Chief Inspector's Directive)</i></p> <p>Report as soon as possible through OHS Portal.</p>
<p>b) an unplanned stoppage of the main underground ventilation system if it lasts more than 30 minutes</p>	<p>Specific to an "underground" mining. Self-explanatory.</p> <p>Report as soon as possible through OHS Portal.</p>
<p>a vehicle that goes out of control [AR3];</p> <p>This section was removed from the OHS Code released March 31st, 2023.</p> <p>A vehicle out of control, if it had the potential to be a potential serious incident (PSI) it would be reported as a PSI as done by other industries as defined in section 33(5) of the OHS Act (above)</p>	<p>It is our belief that a vehicle as related to mines is specific to rubber-tired, self-propelled machines that has a GVW of more than 32,000 kilograms as referenced in s573.</p> <p>In inclement weather, a vehicle that fishtails or locks a wheel under braking should not be reportable; however, a Leader should be watching these incidents to ensure that the road is maintained, that driver training is acceptable and that the rules of the road are being followed. This also refers to an incident where the operator is not in control (i.e., falls asleep), or if the operator cannot effectively steer or stop the vehicle. <i>(Excerpt from BC Chief Inspector's Directive).</i></p> <p>Report s soon as possible through OHS Portal:</p> <ul style="list-style-type: none"> • While operating a vehicle in a <u>mine site</u> and the operator loses control due to a failure of either the steering and or brake systems. • If an unmanned vehicle moves on its own accord and workers were either in the immediate area of an out-of-control vehicle or, workers were reasonably expected to be in the immediate area. • Equipment roll-away, roll-overs, tip overs.

Supporting Safety Leadership in Alberta Mines

Alberta Occupational Health and Safety Act/Code	
Reporting Criteria	AMSA Interpretation/Things to Consider
<p>(c) emergency conditions that result in workers being withdrawn from a hazardous location; [AR4]</p>	<p>The intent of this section is directed at underground mining operations and surface coal preparation plants. Underground mines and coal preparation plants fit the definition of a “Hazardous Location” because fire and explosion hazards may exist due to flammable gases or vapors and/or combustible dust. In the underground environment workers may need to be withdrawn (pulled out of or removed) from a hazardous location (the mine) under emergency conditions (such as the buildup of gas approaching or surpassing the lower explosive limit or the buildup of dust/gas). In coal preparation plants the buildup of dust may also initiate reporting under this section.</p> <p>Report as soon as possible through OHS Portal.</p>
<p>(d) electrical equipment failures or incidents that cause, or threaten to cause, injury to workers or damage to equipment or facilities;</p>	<p>Where electrical equipment is required to safeguard a worker fails (worker is at risk due to failure), such failures are reportable – as soon as possible through OHS Portal.</p> <p>Example: High voltage cables</p> <ul style="list-style-type: none"> • Where a live high voltage cable is inadvertently disconnected, causes an electric arc and workers are in the immediate vicinity, reportable. • Where a live high voltage cable is contacted and results in an arc flash, electric shock or a blown fuse and workers are in the immediate vicinity, reportable. • Where a live high voltage cable is contacted and results in an electric arc and workers are not in the immediate vicinity, not reportable. • Where a live high voltage cable is contacted by a “vehicle”, and the cable is inadvertently disconnected, causes an electric arc and the vehicle operator is protected by the vehicle, not reportable. <p>The key thing to consider in this section is whether a worker could be injured, or equipment damaged as a result of the contact. If there is a reasonable risk of serious injury it is reportable.</p>
<p>any other unusual incident or unexpected event that could have caused serious injury to a worker; [AR5]</p> <p>This section was removed from the OHS Code released March 31st, 2023.</p> <p>Keep in mind, if it had the potential to be a potential serious incident (PSI) it would be reported as a PSI as done by other industries as defined in section 33(5) of the OHS Act (above).</p>	<p>This section is used to capture incidents not specified under 544 (1) (a) - (f), (h) and (i). We suggest you use your internal risk methodology process and focus on injury severity potential. If severity potential is High to Extreme, reportable – as soon as possible through OHS Portal.</p> <p>A ‘serious injury’ may be defined as an acute trauma or exposure which resulted in, or had the potential to result in, significant temporary or permanent loss of function or disfigurement.</p> <p>Examples of acute trauma include, but are not limited to:</p> <ul style="list-style-type: none"> • Loss of consciousness • A fracture of any bone (except simple fracture of a finger or toe) • Injury to an internal organ (often caused by a direct blow) • Significant injury to soft tissue, such as nerves, muscles, or tendons (such as muscle rupture) • Loss of any member of the body • Second or third degree burns or burns affecting more than 5% of the body • Permanent impairment or loss of body function • Overexposure to infectious or toxic substances <p><i>(Excerpt from BC Chief Inspector’s Directive)</i></p>

Alberta Occupational Health and Safety Act/Code

Reporting Criteria	AMSA Interpretation/Things to Consider
(e) outbursts and inrushes;	<p>This is specific to underground mines. We are dealing with potential energy that can seriously injure anyone in its path. The word "inrush" means that the material came in an uncontrolled, unplanned manner. All such events must be addressed and reported. <i>(Excerpt from BC Chief Inspector's Directive)</i></p> <p>Report as soon as possible through OHS Portal.</p>
(f) an incident involving a hoist, sheave, hoisting rope, shaft conveyance, shaft, shaft timbering or headframe structure.	<p>This is specific to underground mines. Workers are transported in shaft conveyances or in close proximity to skips. A failure of a component of a shaft conveyance system can have catastrophic impacts on lives and the mine. <i>(Excerpt from BC Chief Inspector's Directive)</i></p> <p>Report as soon as possible through OHS Portal.</p>
<p>(g) the integrity of a dam or dike is affected by [AR6]</p> <ul style="list-style-type: none"> (i) cracking or evidence of weakening or subsidence of a dam or dike, (ii) unexpected seepage or the appearance of springs on the outer face of a dam or dike, (iii) the freeboard of a dam or dike being inadequate, or (iv) a washout or significant erosion to a dam or dike. 	<p>Dams or impoundment dykes contain a vast amount of potential energy that once released cannot be stopped. This means that action must be proactive and any changes in the dam, as noted in the code, must be reported, and dealt with immediately. <i>(Excerpt from BC Chief Inspector's Directive)</i></p> <p>Report as soon as possible through OHS Portal.</p>

Responsibilities

- Mine Operations Leaders and Safety personnel must read and understand this guideline to ensure consistency of reporting dangerous occurrences.
- Only authorized Mine Operations Leaders or delegates should make reports to OHS under Part 36 Section 544.
- Mine Operations Leaders should consult with Mine Safety when deciding whether an incident is reportable under Part 36, Section 544, now under the Act.
- Mine Operations Leaders will be responsible authorizing the release (unfreezing) of an incident scene once an initial investigation is complete, the scene is released by an OHS Officer and the incident is reported under Section 33 of the OH&S Act
- Mine operation leaders may authorize release of the scene for incidents reported under OH&S Code Part 36 section 544.

Sample Incidents

- 1) On Jan. 3rd, a shovel was digging adjacent to the loaded blast pattern. On January 4th, it was discovered that the dig face in the January 3rd dig location was over dug. This resulted in the dig face being too close and an unacceptable distance from 6 loaded holes. The closest hole was 0.1 meters away from the dig face crest. There were no injuries, equipment or environmental damage resulting. **Reportable.**
- 2) On March 30th, a pit utility worker was attempting to disconnect a non-energized drill cable that was attached to a locked-out switch shack. A second switch shack near the first was energized and feeding power to a shovel. The cables to both shacks lay near each other, and cable identification was complicated by a steep bank and a recent snowfall. The energized cable was disconnected in error which tripped power at the substation on a ground fault. Switch shack X did not trip power because the ground system at the substation detected a fault prior to the switch shack's fault detection system. During the disconnection process there was an arc flash attributable to phase to ground energy transfer. Of note, the energy generated from a phase to ground arc flash as experienced with this incident is less than a phase-to-phase arc flash. The ground fault system at CRO limits ground fault amperage to 15 amps whereas a phase-to-phase event could generate current up to 10,000 amps. **Reportable** due to worker proximity and resulting arc flash.
- 3) Worker was heading back to X near end of shift in LV1111 Service Truck on the Haul Road (left hand drive). Vehicle went across a cross drainage ditch near KM 8. Vehicle lost control and proceeded about 80m across the road where it contacted the right-side berm resulting in vehicle rollover. Side air bags deployed. Damage sustained to truck included the top passenger side of cab. Worker was found walking around vehicle and taken to hospital as a precaution. Released without restrictions. Mine Rescue was called out to respond, area was barricaded, and vehicle was sent off-site to have restraint module recovered. Recorded speed showed 1-2 seconds after the cross ditch and 5 seconds prior to the incident was 72 km/hr. Speed at start of rollover was 33 km/hr. The posted speed limit in this area is 70 km/hr. **Reportable** due to vehicle losing control and the resulting rollover.
- 4) On June 1st, an empty 830E haul truck was approaching the Gordie Howe Pit Intersection when the driver observed a light vehicle failing to stop and proceeding through intersection toward the path of the haul truck. Both drivers took evasive action and avoided contact. The haul truck operator parked the haul truck at the shovel bench and notified supervisor of the near hit. **Not reportable** as both drivers were aware of each other, and they had sufficient time to safely react.
- 5) The line crew was setting a three-pole structure for a new power line to cross the existing Chelios pit. The backhoe operator had just dug a hole approximately 6 feet deep for the pole and the line crew worker went to the edge to check the depth with a tape measure. The area was checked for cracks and was cleared safe. As worker was measuring another worker warned the top edge of the hole was starting to crack. The edge broke away before the worker could move back causing a fall into the hole approximately 4 feet along with the sloughed material. The employee landed with right foot bent in a forward direction causing a bone fracture. **Reportable** due to severity of injury.
- 6) A shovel was loading a haul truck on bench in the Lindros pit. The shovel put its first bucket in the truck and swung around to grab the second bucket, but material had sloughed off the wall in front of the shovel's right track. The shovel backed up approximately 6 feet to pick up the material and swung causing the counterweight to contact the passenger side mirror of the haul truck. **Not reportable** contact is minimal with little or no potential injury to either operator.

- 7) On June 1st at approximately 1400hrs, on the Gretzky Pit and surrounding area were to be cleared of personnel in preparation for KA-113 blast pattern as per the blast clearance procedure. After the blast detonation, the blasters were returning to the pit to inspect the blast and noticed a blast guard light vehicle with an occupant that was too close to the blast area. The pit supervisor was notified and proceeded to investigate. The investigation determined that the blast guard was 266m from the blast. Blast rock landed 86m away from the guard. **Reportable** as a worker was within blast zone.
- 8) The operator of an electric shovel was relocating the shovel without assistance. After picking up the cable the operator swung to one side catching the high voltage cable on the corner of the track. The track cut the cable and the cable arched and tripped the power off. **Not reportable** as there was no potential for injury to the shovel operator and there were no ground personnel in the area.
- 9) Dozer Operator was asked to move the trailing cable stands at Shovel 3200 and he chose, without ground person guidance, to back up to the stands to hook the ripper into a tow chain on the stands. In doing so, the dozer operator misjudged the distance to the cable stand and drove the dozer's right track onto the corner of the stand, catching the live shovel power cable. The contact with the power cable caused the power to be tripped. **Not reportable** as there was no potential for injury to the dozer operator or shovel operator.
- 10) A 777-haul truck returning empty to the pit contacted the roadside berm on the haul road located on the south high wall of the Norman pit. The operator decided to put the driver's side tires of the haul truck into the berm to slow down the truck and avoid contact with a light vehicle approaching from 150 m away. Prior to contacting the berm, the haul truck had reduced traction due to mud covering the road. The operator reported that he applied the service brakes just before contacting the berm. When the driver side front tire contacted the berm, the rear of the truck slid toward the center of the road causing the front left tire to ride up on the berm. The tire also contacted a trailing power cable placed along the road berm, but no damage was sustained to the cable. **Not reportable** as the berm contact was due to operator error not a vehicle out of control.

Incident Reporting – Table 1

Incident with:	When to Report	Report to	Freeze the Scene
Fatality or Hospitalization	As soon as possible ¹	OHS contact center	Yes
Injury or Illness without Hospitalization[AR7]	As soon as possible ¹	OHS contact center	For internal investigation
Section 544 Code with Injury	As soon as possible ¹	OHS contact center	For internal investigation
Section 544 Code without Injury	As soon as possible ¹	OHS Portal ²	For internal investigation
Section 33(5) PSI's No Injury or Illness	Before or [AR8]After investigation is complete ³	OHS Portal ²	For internal investigation

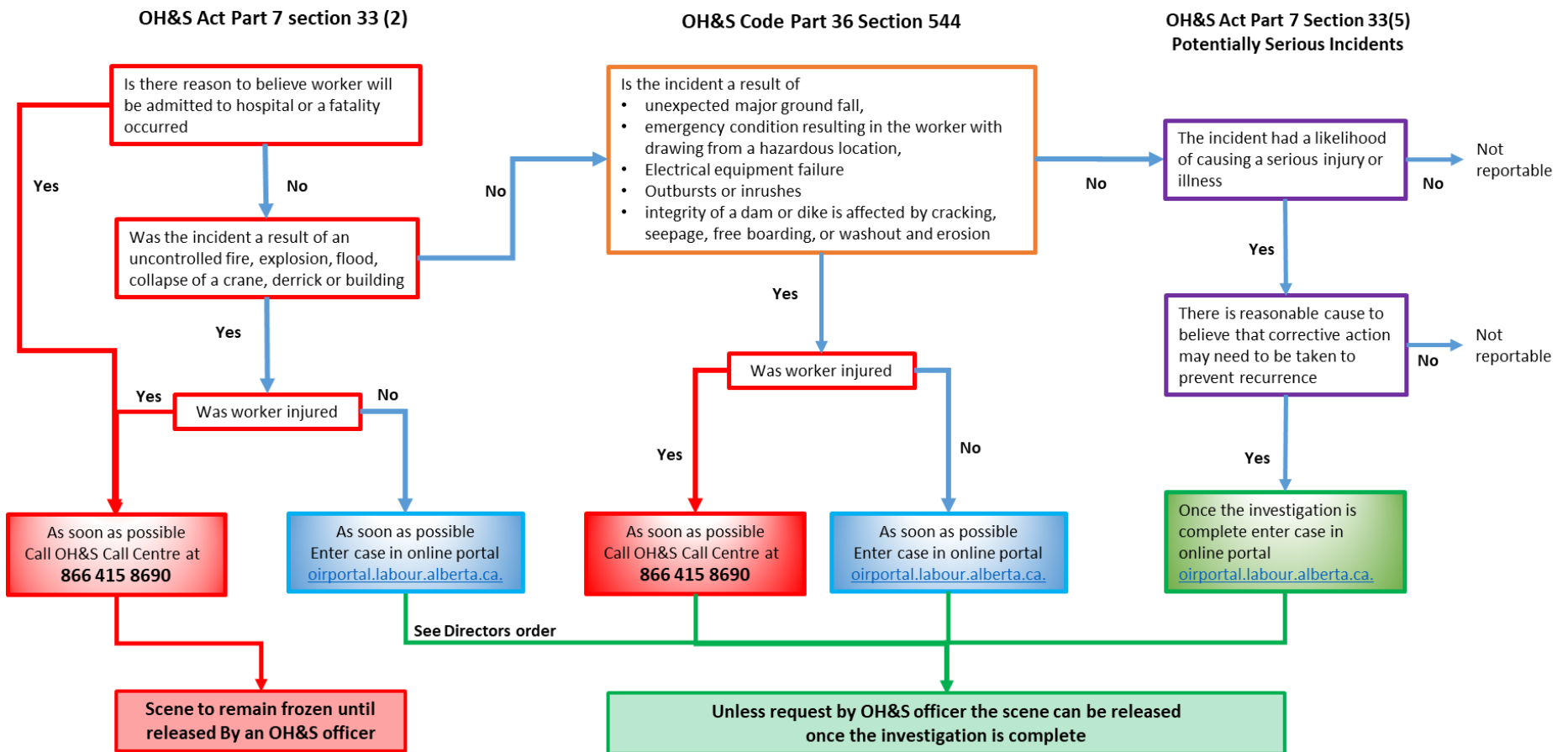
¹ – do not wait for a completed investigation to report

² – if you're notifying OHS about this type of incident on a weekend, statutory holiday, Government of Alberta closure day or on a weekday between 4:30 pm and 8:15 am, you must call the OHS Contact Centre rather than reporting online

³ – You can report a PSI incident before the investigations is complete for advance notification and then finalize after the investigation is complete[AR9][AR10]

Reportable Incident Occurrence Flow Chart

Reportable Incident Occurrence





Director of Occupational Health and
Safety
J.G. O' Donoghue Building
Main Floor, 7000 - 113 Street
Edmonton, Alberta T6H 5T6
www.alberta.ca

Director Order

I, Frank Smart, Director, duly appointed under section 26 of *the Occupational Health and Safety Act*, S.A. 2020, c-O.2.2 (OHS Act), hereby direct that the section 33(9) OHS Act prohibitions do not apply to any of the following incidents under section 33(2)(c),(d), or (e) OHS Act where no injury or illness occurred, except upon direction of an officer

- (c) an unplanned or uncontrolled explosion, fire or flood that causes a serious injury or illness or that has the potential of causing a serious injury or illness,
- (d) the collapse or upset of a crane, derrick or hoist, and
- (e) the collapse or failure of any component of a building or structure necessary for the structural integrity of the building or structure.

Please note that the s.33(9) OHS Act requirements still apply to any incident under s.33(2)(a) and (b) OHS Act or in any incident under s.33(2)(c),(d), and (e) OHS Act where an injury or illness did occur.

This direction may be suspended, amended, rescinded or revoked by the Director at any time.

This Direction comes into effect on December 1, 2021.

DATED at Calgary, Alberta this 26th day of November 2021.

Frank Smart

Frank Smart
Director, Occupational Health and Safety