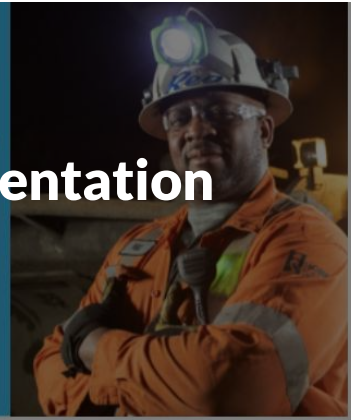


# Voisey's Bay Underground Visitor Orientation



Learning  
together



Hello, welcome to the Voisey's Bay Underground Visitor Orientation training course. This course will give visitors a basic overview of safe procedures that must be followed when visiting Voisey's Bay.

You must obtain a minimum score of 70% on the evaluation to complete this course.

**Welcome**

**Course Objectives**

**Safety at Voisey's Bay**

**Travelling Underground**

**Underground Emergencies**

**SCSR Units**

**\*Remember\***

**Quiz**

**Conclusion**

# Welcome

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Upon completion of each section of this module, you will be given an opportunity to submit questions to obtain clarification of any content you are not sure of.

**You will also be required to complete a brief survey designed to support continual improvement to your Vale learning experience.**

**Got a Question?**

Submit your question here using Valeforms. Be sure to include your first name, last name, & contact information.

[CLICK HERE!](#)

[CONTINUE](#)

# Course Objectives

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After completing this course, you will be able to:

- Explain Tag In, Tag Out procedures at Voisey's Bay
- Describe safety equipment and its usage at Voisey's Bay
- Describe safe travelling procedures at Voisey's Bay
- Describe the actions visitors need to take in the event of an emergency to **Get HomeSafe**
- Explain the proper usage of an SCSR unit



## Course Outline

The instructions and guidance contained within this course are comprehensive and follow safety standards which you will be required to observe on an ongoing basis.

It is recognized, however, that this course does not cover every circumstance that could arise, and for that reason, it is intended as a training aid only.



# Overview

The operation at any mine is subject to certain hazards that can only be protected against by following safe work procedures and practicing situational awareness.

That is, being aware of where you are, where you are supposed to be, and what is happening around you. More importantly, is there anyone or anything around you that can cause harm to you or others?

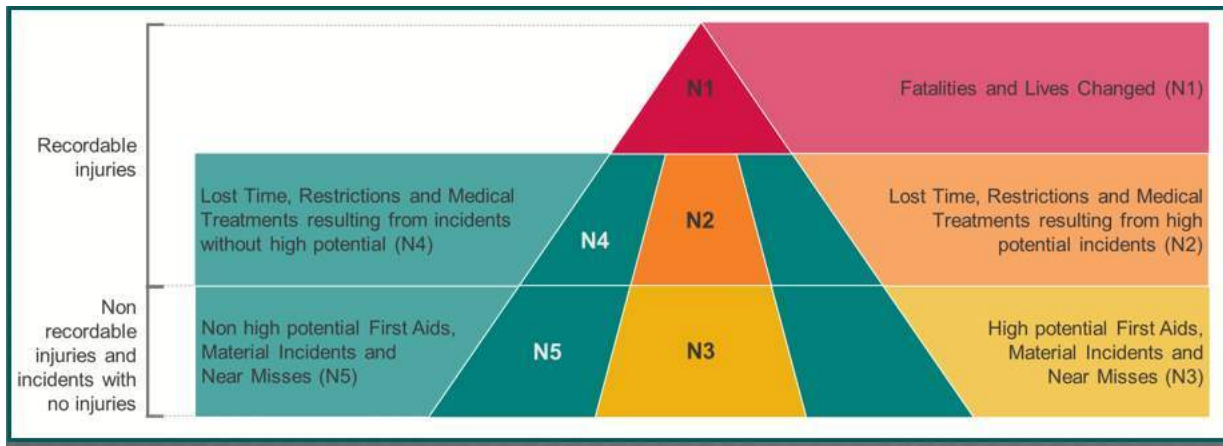


00:19

## Incident/Accident History

While the overall objective is to reduce or eliminate workplace hazards, it should be recognized that not all workplaces within Vale operations can be made free of all hazards.

Critical to safe operation is the ability to recognize and control hazards that may cause injuries, equipment damage, or even worse, fatalities.



Our injury and fatality index is updated monthly. It shows the numbers for Fatalities and Live Changed (N1), Recordable High-Potential Injuries (N2), Other High-Potential events (N3), Recordable Non-High Potential Injuries (N4), and Other Non-High Potential events (N5)

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00:18

### Got a Question?

Submit your question here using Valeforms. Be sure to include your first name, last name, & contact information.

[CLICK HERE!](#)



Complete the content above before moving on.



# Safety at Voisey's Bay

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## Objective

- Explain tag in, tag out procedures at Voisey's Bay
- Describe safety equipment and its usage at Voisey's Bay



00:10



## Tag In, Tag Out

All persons working underground shall “tag in” before entering the Underground Mines and “tag out” after exiting the Underground Mines. Additional procedures for tag in, tag out are:

▶ ● ————— 00:38

- At the end of each day or shift, the Supervisor in charge will check the tag board and visitor’s logbook to ensure that all persons are accounted for
- Only YOU can place or remove your tag from the underground tag board. At no time should an employee remove a co-worker's tag, even if they are sure the employee is accounted for and has left the underground area.
- No blasting is to take place without a clear tag board
- During surface blasting operations, the pit tag board must also be cleared



Complete the content above before moving on.

## Underground PPE Requirements

Any visitor entering the underground mine will have the appropriate personal and respiratory equipment they require to safely enter the mine area. Visitors should be aware that specialized training is required to know how to properly inspect and don their self-rescuer. Prior to entering the underground mine, visitors will be provided a practical demonstration on how to properly inspect and don the self-rescuer as well.

The following PPE must be worn underground:



00:26

- CSA Class E approved hard hat equipped with ear muffs, cap lamp, retroreflective striping on the front, back and sides, reflective halo band
- CSA-approved steel toe boots with internal metatarsal protection
- CSA Class 3 High Visibility Safety Apparel (i.e. Class 3 coveralls or combination Class 2, Level 2 jacket and Class 2, Level 2 pants)
- Self-rescuer (CSE SRLD SCSR)
- Ventis Pro (NO<sub>2</sub>/CO personal monitor)
- Half face respirator to be carried at all times (worn when necessary and personnel are to be clean shaven)
- Watch/Timepiece



Complete the content above before moving on.

## Cap Lamps



Noise associated with operating machinery underground can make verbal communication difficult.

Cap lamp light signals can be utilized to provide communication between people. Cap lamp signals should be utilized as a secondary means of communication after attempts to communicate verbally or through the Sonim phone have been exhausted and rendered impractical.

The three basic cap lamp signals used are:



- **No or Stop:** Move cap light back and forth horizontally
- **Back Away:** Move cap light up and down vertically
- **Come to Me:** Move cap lamp in a circle motion



Complete the content above before moving on.



## Respirator Protection



00:42

All personnel that enter the Underground will be required to attend a separate respiratory protection training session.

In addition to being clean-shaven for fit testing, to use respiratory protection, all individuals must continually comply with the following definition:



**“Facial hair:** Individuals shall present themselves for fit testing free from interference of hair where the respirator seals to the skin of the face or neck”

- Clean shaven defined: CSA Z94.4 – Selection, Use and Care of Respirators section 9.2.2

Any visitor who has been fit tested for a respirator must only don and wear the specific respirator they have been fit tested on. Additionally, if a visitor has facial hair that might impact their ability to maintain a

seal on their respirator, they should reach out to the Vale HSE Department for any questions or clarifications needed.

### **Got a Question?**

Submit your question here using Valeforms. Be sure to include your first name, last name, & contact information.

[CLICK HERE!](#)



Complete the content above before moving on.

# Travelling Underground

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## Objective

- Describe safe travelling procedures at Voisey's Bay



00:05

## Pedestrians



00:35

1

Pedestrians should never travel in front of equipment or vehicles when on a decline

2

Pedestrians should never travel behind equipment or vehicles when on an incline

3

Always walk on the operator's side of the mobile equipment



- 4 No one is to be between the face or tunnel wall and a moving piece of equipment
- 5 Get the operator's attention by shining your light quickly over the cab
- 6 When approaching any equipment, wait for the operator to acknowledge they have seen you before moving towards the vehicle
- 7 Pedestrians are to retreat to the nearest safety bay (located at least every 30 metres in main ramp) until the equipment has passed



Complete the content above before moving on.

## Travelling on a Ramp

Follow these procedures when walking or driving on a ramp:



- Communicate location on designated channel
- Announce when walking on ramp and ensure you have a Sonim phone
- Use safety bays. Equipment must stop to allow any pedestrian traffic to safely pass or enter a safety bay.
- Radio check and positive verification prior to entering portal
- Drive to conditions and follow all speed limits



- No pedestrians are allowed on the ramp when a piece of equipment is moving in the same location



Complete the content above before moving on.

## Light Vehicles & Personnel Transport

When transporting people in a light vehicle, you must ensure:



00:24

- All passengers are seated and wearing a seat belt
- The tag in and tag out procedure is followed each time you enter or exit underground
- Headlights are always turned on
- Revolving Beacon Light is always on when equipment is operating
- Unless otherwise instructed, light vehicles must give way to loaded vehicles, heavy vehicles, and mobile equipment





Complete the content above before moving on.

## Single vs. Double Barricades

The difference between the two barricade types is:



00:22

### Single Barricade

A single barricade is intended as a warning only.



Single Barricade



Double Barricade

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## Double Barricade

- Required when the hazard is considered to be life-threatening
- No person may pass through a double barricade without the accountable supervisor's permission
- Installation of all double barricades (and screen barricades where applicable) must be reported to the accountable supervisor



Complete the content above before moving on.



## Flashing Blue Light – Mucking in Progress



00:36

A blue flashing light indicates mucking is in progress. The magnetically held blue light is placed on the wall screen in the drift ahead of the location where mucking is occurring.

Anytime that trucks are being loaded or muck is being trammed to a remuck, the blue light will be turned on by the scoop operator prior to commencing the operation. When the light is flashing, all personnel must receive permission to enter from the scoop operator prior to entry. If unable to locate the scoop operator, contact the Underground Shift Supervisor.

Once mucking is complete, the scoop operator will turn off the light and permission is no longer required to enter.

Got a Question?

Submit your question here using Valeforms. Be sure to include your first name, last name, & contact information.

[CLICK HERE!](#)



Complete the content above before moving on.

# Underground Emergencies

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## Objective

- Describe the actions visitors need to take in the event of an emergency to **Get HomeSafe**



00:07



**In the event of an underground emergency of stench gas, loss of communication, or loss of ventilation, proceed to the nearest refuge station and wait for further instruction from your Vale Representative Escort.**



00:11



Complete the content above before moving on.



## Stench Gas Warning System



00:43

- **Ethyl mercaptan**, commonly known as **stench gas**, is used in the underground mining industry to alert mine workers during an emergency
- Stench gas is a foul-smelling gas with a characteristic odor similar to that of rotten eggs
- Stench gas is released into the ventilation system such that it spreads throughout the entire underground mine
- Upon smelling stench gas, workers are to immediately proceed to the nearest Refuge station

- Once an emergency has been rectified and it is safe to do so, or a false alarm has been confirmed, work will recommence
- It may take up to 45 minutes and possibly longer to flush all air
- Normal operations will not begin until the Stench Gas System has been recharged



Complete the content above before moving on.

## In the Event of an Emergency

If immediate assistance is required, use the Sonim phone or the ICE mobile app, channel 1.



00:27

- State in a Loud and Clear Voice “**CODE 1, CODE 1, CODE 1**”.
- Remain Calm
- Give the following information:
  - Nature of Emergency (i.e. fire, man down)
  - Your location/location of injury
  - Possible injuries suspected
  - Route of travel
  - Special equipment required
- Stay on the line – DO NOT hang up!



## On the Surface Procedure

If you are on the surface during an underground emergency:



00:24

- Go immediately to the surface tag-in board and report to the person recording names
- DO NOT REMOVE YOUR TAG!
- Give your name and identification number
- If the person recording names is not present:
  - Wait until one arrives
  - Further instructions will follow
  - Do not leave this site
- Normal operations may resume once the "ALL CLEAR" is given

### Got a Question?

Submit your question here using Valeforms. Be sure to include your first name, last name, & contact information.

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Complete the content above before moving on.



# SCSR Units

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## Objective

- Explain the proper usage of an SCSR unit



00:05

## What is an SCSR?



00:51

An SCSR, or self-contained self-rescuer, is a wearable, escape-breathing device. It recycles the user's exhaled breath by chemically removing carbon dioxide and adding oxygen. The system is simple to operate, it can be donned in seconds and is designed to be carried on a miner's belt.

Donning an SCSR provides the ability for one-time safe escape from carbon monoxide and other harmful gases emitted in underground mine fires or explosion. **They are not to be used for fighting fires underground, they are for escape only.**

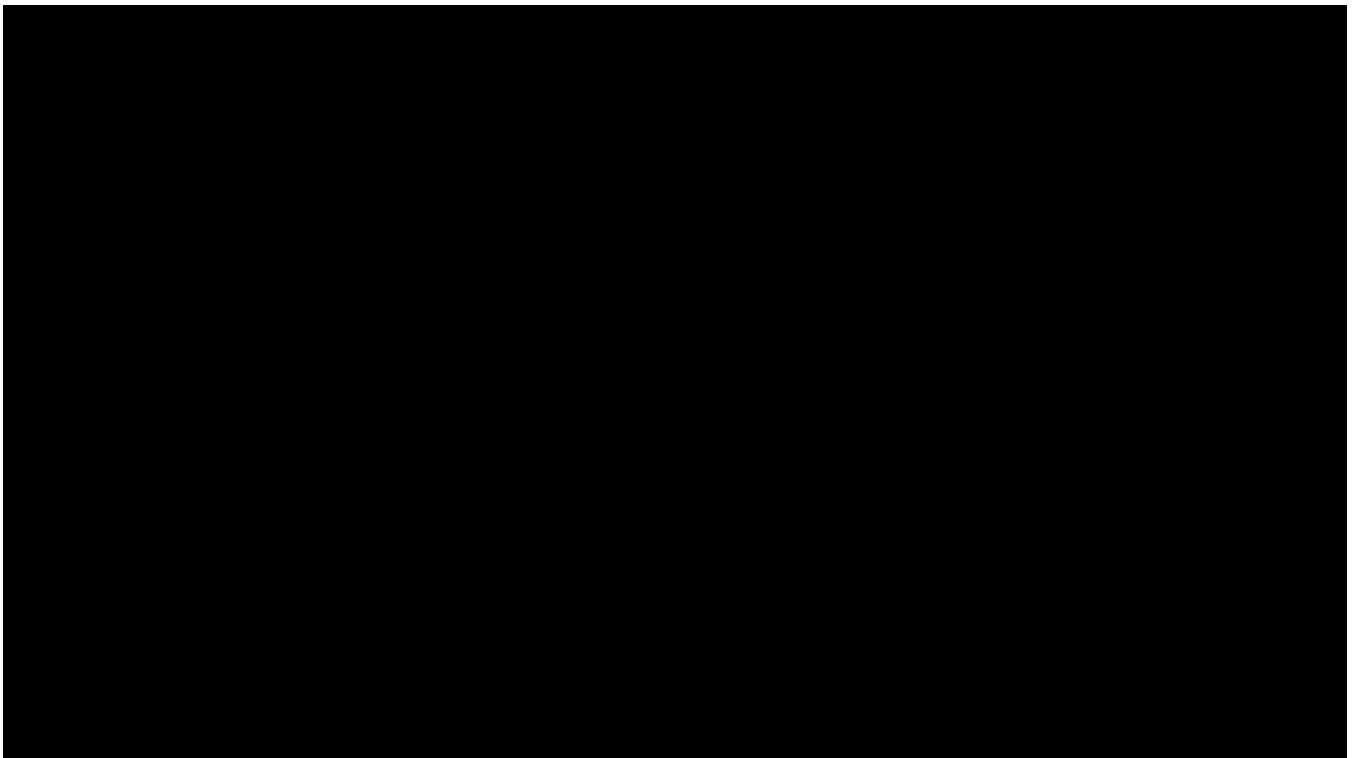
The SCSR is to be always carried with you unless working under an exemption to the North Atlantic Mines Technical Standard (NAMTS): The SCSR is required to be within 5 meters on your egress - only when working under an exemption.

Your Vale contact will review the steps to complete the pre-use inspection, the steps to don in an emergency, and a manual start.

## Using Your SCSR

### Inspecting Your SCSR

*Click the play button to learn more about inspecting your SCSR.*



## Inspect the:

- Pouch
- Fabric loop, security seal, and security band
- Manufacturing date
- Top and bottom moisture indicators
- Side temperature indicator
- External container for damage



Complete the content above before moving on.

## Donning and Starting Your SCSR

*Click the play button to learn more about donning and starting your SCSR.*



## Donning and Starting Procedure

- 1 Open your SCSR
- 2 Loop neck strap around neck. Keep plug in mouthpiece.
- 3 Grab starter tag hanging under SCSR. Pull down to fill bag.
- 4 Inhale one deep breath
- 5 Pull out mouthpiece plug and insert into mouth
- 6 Exhale into mouthpiece to activate oxygen
- 7 Clamp nose shut
- 8 Don safety goggles

9

Tighten neck strap and attach and tighten chest strap

10

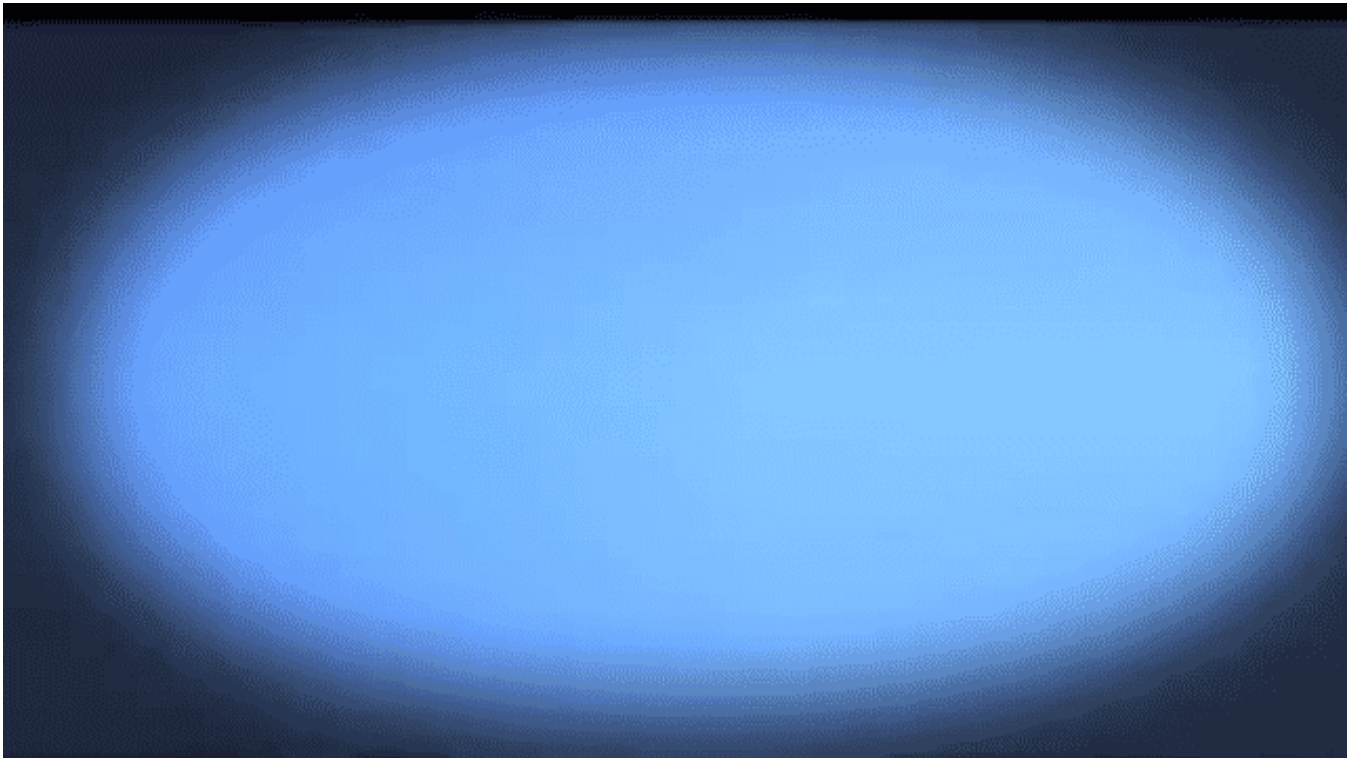
Proceed to nearest refuge station or exit



Complete the content above before moving on.

## Manual Start of Your SCSR

*Click the play button to learn more about manually starting the SCSR.*



## Manual Start Procedure

1

Clamp nose shut

- 2 Take mouthpiece out of mouth and inhale one deep breath
- 3 Put mouthpiece back in mouth and exhale into mouthpiece to activate oxygen
- 4 Repeat steps 2 and 3 until bag fills
- 5 Once bag is filled, keep mouthpiece in mouth
- 6 Don safety goggles
- 7 Tighten neck strap and attach and tighten chest strap
- 8 Proceed to nearest refuge station or exit

#### Got a Question?

Submit your question here using Valeforms. Be sure to include your first name, last name, & contact information.

[CLICK HERE!](#)



Complete the content above before moving on.



# \*Remember\*

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## Important Points to Remember



- Always Tag in prior to entering the Underground Mine and Tag out immediately after departing
- Only you can place and remove your Tag
- Always check ground conditions and ventilation
- Notify your escort if an Unsafe Condition exists that requires further attention
- Carry an approved respirator (clean shaven must be maintained)
- Absolutely **No Smoking** Underground!!!
- PPE is your last line of defense. Ensure your equipment is in working order and you clearly understand how to use it
- Know how to inspect, don, and start your self-rescuer

### Got a Question?

Submit your question here using Valeforms. Be sure to include your first name, last name, & contact information.

[CLICK HERE!](#)



Complete the content above before moving on.

# Conclusion

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## You should now be able to:

- Explain Tag In, Tag Out procedures at Voisey's Bay
- Describe safety equipment and its usage at Voisey's Bay
- Describe safe travelling procedures at Voisey's Bay
- Describe the actions visitors need to take in the event of an emergency to **Get HomeSafe**
- Explain the proper usage of an SCSR unit

If needed, you can review any part of this course again to gain a better understanding of these tasks.

