Tier 3: Tipple Orientation - 21

- 1. L&D_Orientation_PowerPointDesign_T3_Tailings
- 1.1 Central Tailings Area



1.2 Clarabelle Mill

Clarabelle Tipple Orientation

Tier Three – Site Specific Access

1.3 Disclaimer

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The information contained within this orientation is intended for controlled use within the Learning and Development Department for Ontario Operations. The content and structure of this orientation provides the learner with an overview of Sudbury Operations focusing

on HR policies, Health, Safety and Environment and Operational Controls. The information herein is intended as a training presentation and is not intended to be the sole source of reference information for this system.

The content of this document is current as of the latest release date. Any discrepancies found should be noted and reported to the Learning and Development Department for action.

1.4 Course Objectives

Course Objectives

Upon completion of this module as a worker you will be able to:

- Follow Plant Entry Procedure
- Identify Site Specific Hazards and Controls for the Tipple
- Follow Procedures in the event of:
 - 。 Equipment Damage
 - Personal Injury
 - Process Upset (Emergency Preparedness)
- Complete Plant Exit Procedure Checklist



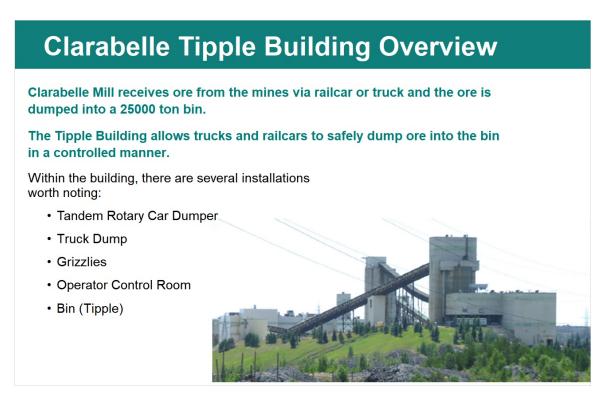
1.5 Introduction

Introduction

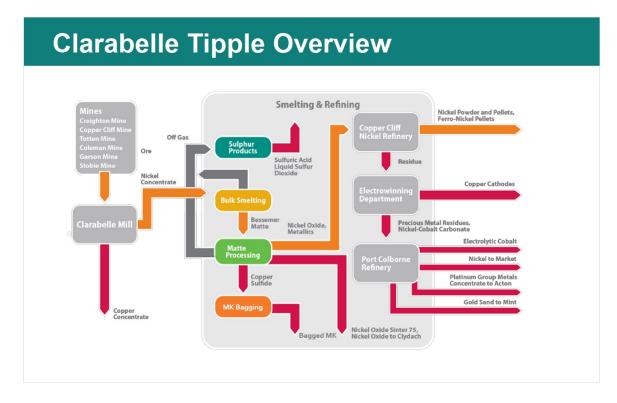
Tipple Overview

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1.6 Clarabelle Tipple Building Overview



1.7 Clarabelle Tipple Overview



1.8 Plant Entry



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1.9 Accessing the Tipple Building

Accessing the Tipple Building

Clarabelle Mill has two points of entry; from RR35 (*Gate 7*) and the town of Copper Cliff (*Gate 4*).

The Copper Cliff entrance has a gate that restricts access unless you have received authorization and have Lenel access.



1.10 Accessing the Tipple Building

Accessing the Tipple Building

The Tipple road entrance is located approximately 200 meters South of the main Clarabelle Mill entrance and has the following considerations:

There is a posted sign stating "Tipple Entrance".

There is no gate restricting access.

Truck drivers delivering ore to dump at the Tipple Building are not required to sign into the Clarabelle Mill area.

All drivers must be careful of mobile equipment in and around the Tipple Building.

This road is referred to *"Tipple Ore Haulage Entrance and Road"*.



1.11 Accessing the Tipple Building

Accessing the Tipple Building

In order to eliminate a number of stop signs that truckers needed to stop at from Clarabelle Road to the Tipple, a revised traffic flow route has been established to diminish the required number of stops from five to two.



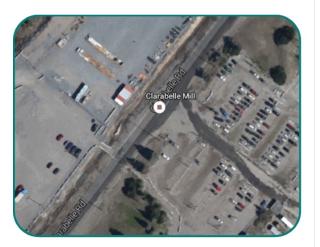
Stop sign remains to exit Mill **NEW** stop sign for secondary traffic only **Access** point blocked with Jersey barriers Stop sign remains for truck inspection **Access** point blocked with Jersey barriers

1.12 Parking

Parking

There is limited parking in the Tipple Building area as the main purpose is for haulage trucks to dump material into the ore bin.

If you are required to park in the Tipple area, park in front of trailers, out of the way of other haulage trucks coming into the area.



1.13 Parking

DCS Control Room

The DCS Control Room for the Clarabelle Mill is located on the 4th floor of the main building.

The Control Room can only be accessed with a Tier 3 orientation for Clarabelle Mill.

However, truck drivers may contact the Control Room if a truck driver needs information or action in response to an incident and is not able to locate their Vale Contact Person. Phone number for Clarabelle Control Room is 705-682-6659 1.14 Plant Hazards and Controls

Plant Hazards and Controls

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1.15 Site Specific Hazards

Site Specific Hazards

Using the tools that you learned in Tier 1 Orientation, ensure you apply the necessary operation controls to mitigate risk associated to the identified hazards.



Be Aware Be aware of your surroundings and the risks around you.



Follow Policies & Procedures

Our internal policies and procedures guide us in doing our work in a manner that reduces risk. The following section lists identified hazards that may be encountered in the work you're doing. Knowing if these hazards apply to your work can be found through:

- Vale Contact Person
- PHA/PHR (or other Risk Assessment Tools)
- SLAM

1.16 Site Specific Hazards

Site Specific Hazards



At the Tipple, workers need to be aware of site specific hazards and their related controls.

Hazards at the Tipple Building include but are not limited to:

- Overhead Doors
- Explosives
- Noise
- Mobile Equipment
- Warning Lights/Signs and
- Wet Muck



1.17 Overhead Doors - Hazard

Overhead Doors – Hazard

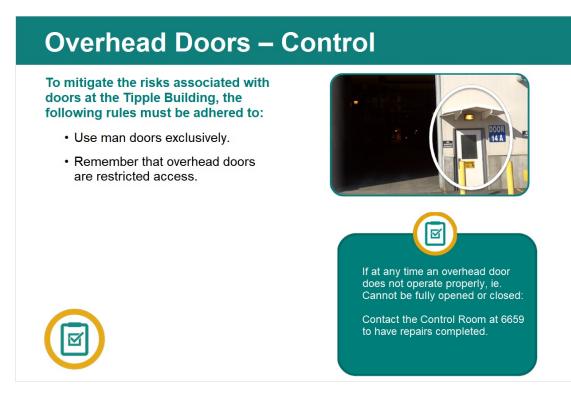


There are three overhead doors located at the Tipple Building and they pose a significant risk to drivers.

All three overhead doors are restricted as:

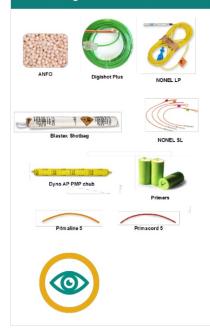
- Two overhead doors are located at the Tipple Building and are for rail car access only.
- A third overhead door is for truck dumping purposes only.
- The areas accessible by these doors have mobile hazards:
 - Train and rail activity.
 - Grizzlies that provide a screen for ore materials to pass through.

1.18 Overhead Doors - Control



1.19 Explosives - Hazard

Explosives – Hazard



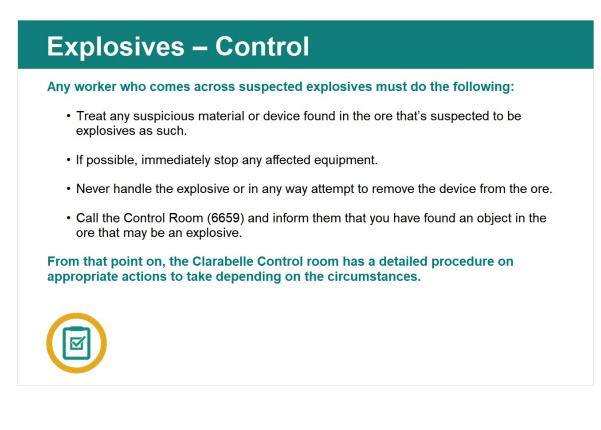
Because Clarabelle processes ore that comes directly from the mines, there exists the possibility that explosive materials may be found in the ore.

Posters identifying the *types of explosive* products are posted in the dumping area of the Tipple Building.

Familiarize yourself with the products in case you see one of these explosives in your truck bed.

Learn the procedures to enact should you encounter explosives.

1.20 Explosives - Control



1.21 Noise - Hazard

Noise – Hazard

When ore rail cars are being dumped, an excessive amount of noise is generated.

This is due to the size and weight of the chunks of ore being dumped into a bin at a height.





1.22 Noise - Control

Noise – Control

To control this hazard and protect the hearing of truck drivers, the area is a mandatory hearing protection area.

An additional control is implemented when drivers are dumping ore.

During this task, truck drivers are required to wear double hearing protection: ear plugs and ear muffs.







1.23 Mobile Equipment - Hazard

Mobile Equipment – Hazard

The Mill utilizes various pieces of mobile equipment to aid in the movement of materials or in the maintenance of Tipple and Mill.

Forklifts: transporting supplies and materials

Loaders: moving materials

<u>Elevated Work Platforms:</u> used to perform various maintenance activities

<u>Service Vehicles:</u> ½ ton trucks deliver small quantity goods to the building

Transport Trucks and Rail Cars: delivering ore





Mobile equipment presents several hazards including restricted visibility, limited clearance, shifting loads all leading to the possibility of collisions with pedestrians, machinery or other mobile equipment.

1.24 Mobile Equipment - Control

Mobile Equipment – Control

In addition the general controls associated with mobile equipment, the Mill has mandated to following controls applicable to mobile equipment in their area:

- The use of overhead doors is restricted to mobile equipment only.
- Pedestrians are only to use man-doors.
- Walk within designated walkways where available.







1.25 Tipple Pocket - Hazard

Tipple Pocket – Hazard





Mine ore that comes to Clarabelle Mill is dumped into the Tipple Bin; a bin that goes 250' underground and is pulled with six feeders and two conveyor belts.

When the bin is low, there's a greater chance of muck slide from the feeders below.

1.26 Tipple Pocket - Control

Tipple Pocket – Control





To maintain the safety of employees working in the tipple pocket, the following controls need to be adhered to:

- If the purple light above the Elevator Door in the Tipple Building is on, do not go down to the Tipple Pocket.
- If already in the area and the purple light in the Tipple Pocket activates, leave the area immediately.
- If the purple light in the incline area just below the Reel House is activated, do not go down to the Tipple Pocket.

1.27 Wet Muck - Hazard

Wet Muck – Hazard



Ore from all mines is delivered and dumped in the Tipple by truck and rail car to feed the Clarabelle Mill process.

Wet muck has excessive amounts of water in the ore and appears:

- Wet
- Soupy
- · Has a slurry type consistency
- Water is visibly draining from the ore material

O

1.28 Wet Muck - Control

Wet Muck – Hazard



Wet muck has the potential to create "run of muck" conditions and poses a significant risk to workers and equipment further down the process including:

- Uncontrolled movement of wet material
- Engulfment of workers
- Damage to equipment

O

1.29 Clarabelle Mill Ore

Clarabelle Mill Ore Truck Delivery Guidelines

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1.30 Authorization

Authorization
The delivery of ore to the Clarabelle Mill Tipple Building must be authorized by the Mills and Transportation Departments. In addition, all truck drivers must have:
 A Lenel Access Pass (approved by the Contractor's Vale Contact Person)
 Proper Personal Protective Equipment must be worn. The PPE will include:
。 Safety boots
 Safety glasses with side shields
 Hard hat with reflective stripes
。 Leather gloves
。 Hi - Vis clothing

1.31 Weighing

Weighing

All loads of ore for delivery to the Clarabelle Mill Tipple Truck Dump must be weighed at the Copper Cliff Mine scale prior to dumping.

- If the scale is unavailable, a manual ticket must be filled out with as much information as possible.
- Trucks must be tared daily.

1.32 Accessing Clarabelle Mill

Accessing Clarabelle Mill

All trucks delivering ore to the Clarabelle Mill Tipple Building Truck Dump will access the plant via the designated truck gate and are restricted to the designated Truck Dump route when proceeding to and from the Truck Dump.

- Trucks to have headlights on at all times to increase visibility.
- All trucks must be equipped with backup alarms.
- No cell phones or hand held radios are to be used while the driver is in control of a moving vehicle.
- Stop signs must be adhered to.
- Drivers must watch for vehicle and pedestrian traffic.
- · Pedestrians always have the right of way.
- · Speed limits must be followed.
- No passing is allowed at the plant entrance area.
- Traveling on company roadways with the truck box raised from the position of rest is expressly prohibited.



1.33 Accessing Clarabelle Mill Tipple Building

Accessing Clarabelle Mill Tipple Building The truck driver is responsible for the load in their truck and for the condition of their truck. Most notably: • Trucks are not to be overloaded so that ore can roll off of the truck box. • Truck Driver must do a daily visual inspection on box liners if applicable. • If the liner could become dislodged due to damage or wear, it must be repaired. • Any liners entering the ore flow stream can have serious consequences.

1.34 Truck Dump Procedures

Truck Dump Procedures

Before backing to the truck dump portal, the truck driver must check that the safety gate is open and that the truck dump overhead door is fully open.

If the door will not open, the truck driver is to contact the Mill control room operator at 682-6659.

Trucking company is responsible for maintaining a level area in front of the truck dump door.

Caution:

An Open Hole condition exists at the truck dump door when:

- the truck dump overhead door is left in the open position and no trucks are in line to dump, or
- the door is broken.

The Safety Gate at the truck dump entrance must be in place to guard against trucks from accidentally rolling over into the dump bin.

ON (Slide Layer)

Truck Dump Procedures

Before backing to the truck dump portal, the truck driver must check that the safety gate is open and that the truck dump overhead door is fully open.

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The Safety Gate at the truck dump entrance must be in place to guard against trucks from accidentally rolling over into the dump bin.

OFF (Slide Layer)

Truck Dump Procedures

Before backing to the truck dump portal, the truck driver must check that the safety gate is open and that the truck dump overhead door is fully open.

If the door will not open, the truck driver is to contact the Mill control room operator at 682-6659.

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- the truck dump overhead door is left in the open position and no trucks are in line to dump, or
- the door is broken.

The Safety Gate at the truck dump entrance must be in place to guard against trucks from accidentally rolling over into the dump bin.

1.35 Truck Dump Procedures

Truck Dump Procedures

There is a remote lockout selector switch that will keep the door from operating. If the door won't open, access the mandoor to visually confirm if the grizzlies are being cleaned with the ho-ram.

It will remain locked out until the work is complete and the ho-ram operator allows the door to be open again.

Under no circumstances are truck drivers permitted to enter the truck dump grizzly or dump side.

NOBODY is permitted in the area of a long box conventional dump truck when it is being dumped under load.

People should be far enough away to keep themselves out of danger if a failure occurs.

The truck driver is to ensure that nobody encroaches this area during dumping.

1.36 Truck Dump Procedures

Truck Dump Procedures

Truck drivers must exercise caution when backing to the truck dump portal and must have a vehicle alignment which will ensure bumper block contact, adequate clearance on the roll over protection, and minimum spillage.

Water sprays activate automatically when the truck is in position to dump.

1.37 Exiting Truck Dump

Exiting Truck Dump

On completion of dumping, the truck driver must ensure that the truck dump box is down before leaving the truck dump.

<u>The truck box must not come in contact with the overhead pipe trestles that span the truck dump roadway</u>.

A warning trip wire will set off an alarm before the truck box hits the trestle. Stop the truck immediately if an alarm is seen or heard.

At this time VALE personnel will have to reset the system. With the box fully down this should not be an issue.

On completion of dumping, the bumper block area must be checked for spillage. Spillage must be cleaned by the loader and can be arranged by contacting the loader operator (Day Construction).

1.38 Exiting Truck Dump

Exiting Truck Dump

On completion of dumping and clean up, the truck driver must close the truck dump overhead door if there is no other truck in line to dump.

The safety gate must be closed if the door is going to be in the open position. The truck driver must ensure that an open hole condition is not created at the truck dump.

Truck drivers are not permitted to clean out their boxes on Clarabelle property.

They are to proceed to their source or North Mine Stockpile area to clean out boxes if needed.

1.39 Communications

Communications

Whenever the truck dump door will not open, the truck driver must contact the Mill Shift Coordinator at 682-6659.

Any unusual conditions, damage, accident, or equipment failure associated with the delivery of ore to Clarabelle Mill must be reported by the truck driver to VALE supervision as soon as possible.

This includes whenever the alarm is activated for the protection of overhead trestles.

1.40 Equipment Damage

Equipment Damage

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1.41 Equipment Damage



1.42 Personal Injury

Personal Injury

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1.43 Personal Injury

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1.44 Emergency Preparedness



1.45 Emergency Preparedness

Emergency Preparedness

The Surface Tier 2 Orientation provided guidance on the application of Emergency Preparedness including activating an emergency and how to classify.

The following is how to respond to an emergency at the Clarabelle Mill Tipple Building.





1.46 Clarabelle Mill

Notification – Tipple Building

Before you begin work, find out:

- · Where the nearest phone is
- Where the emergency numbers are posted
- What the nearest door number is

All roads have signage.

All maps have routes.

Clarabelle Mill – Tipple Building Emergency Numbers

#1 First Aid	5738
Ambulance	6622
Fire	6622
Clarabelle Mill	
Control Room	6659

1.47 Accessing the Invac / Outvac Area - Tipple

Accessing the Invac / Outvac Area – Tipple

Those in the Tipple area report to the Tipple area lunchroom (invac) or the Tipple area parking lot (outvac), and account through the Clarabelle Control Room DCS.

In the case of an invac, there is a group call phone inside the tipple lunch room that will ring.

Pick up the phone when it rings and listen to the message.



1.48 Plant Exit



1.49 Plant Exit

Plant Exit

Good work practices dictate that you close the loop on work you were doing to avoid creating risks or hazards for other work groups, cross shifts, or other work in the area.

Here are some tasks to consider when getting ready to exit the plant to ensure the safety for yourself and those around you:

- Housekeeping Ensure no spillage and arrange clean up if there is.
- If there are no trucks in line to dump, the safety gate or the overhead door must be closed.
- Drive off the property according to the Tipple Access route.

1.50 Conclusion

Conclusion

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1.51 Conclusion

Conclusion

This concludes the material for the Clarabelle Tipple Orientation. You should now have a working knowledge and understanding of:

- Plant Entry
- Site Specific Hazards and Controls for Clarabelle Tipple.
- · Procedures in the event of:
 - 。 Equipment Damage
 - Personal Injury
 - Process Upset (Emergency Preparedness)
- Plant Exit Procedure

This Orientation provided information to access the Clarabelle Mill Tipple Area. In order to feel comfortable with the area, you may arrange a field visit with your Vale Contact Person to specifically identify procedures provided in the Orientation.

Additionally, depending on the site or work you're doing, you may require task-specific information through either the local Learning & Development Group or your Vale Contact Person.

1.52 Conclusion

Remember, At Vale we believe Life Matters Most and that no job is worth doing if it cannot be done safely.

Thank-you for your participation and your commitment to safety at Vale.





1.53 Start The Module Quiz

