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Document: Excavation, Trenching, and Shoring Policy & Permit

PURPOSE

It is the policy of the Escanaba Mill to obtain an excavation permit prior to beginning any excavation or ground penetration on the Escanaba Mill site.

EXTENT

The purpose of this policy is to prevent injury to workers involved in or working near any excavation activity and to ensure environmental impacts are minimized and all applicable rules and regulations are complied with. Hazards addressed include protection from cave-ins, electrical hazards, hazardous atmospheres, means of safe egress, effects of changing weather, and safety of members operating in the excavation area. The policy also provides safeguards against damage to equipment, underground (U/G) utilities, buildings, and the prevention of unplanned downtime.

DEFINITIONS

Acceptable Practice: A practice which meets the minimum MIOSHA requirements found in R 408.40901.

Angle of Repose: The greatest angle above the horizontal plane at which a material will lie without sliding. (Angle of repose is not a unique soil property but is affected by a wide variety of environmental effects and other factors).

Boiling: Upward water flow into the bottom of an excavation.

Confined Space: Any space which meets all the following criteria: 1) Is large enough and so configured that a human can bodily enter and perform assigned work; and 2) Has limited or restricted means for entry or exit; and 3) Is not designed for continuous human occupancy.

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Excavation: Any cavity or depression in the earth's surface created by mechanical means, including its sides, walls, or faces, formed by earth removal, and producing unsupported earth conditions by reasons of the excavation.

Ground Penetration: Examples of ground penetration: All drilling (both vertical and horizontal), pile driving, ground rod driving, and all other types of ground penetration.

Contractor Competent Person (CCP): A person certified per OSHA 29 CFR Part 1926, Subpart P and MIOSHA Part 9 Construction standards. A person who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them. This person is typically an employee of the contractor.

Escanaba Qualified Persons (EQP): One who is by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems relating to the subject matter, the work, or the project.

Outside Utility Contractor: Any Outside Contractors specializing or knowledgeable in water, sewer, gas, electric, and telecommunication underground utilities.

Escanaba Utility Locator: An Escanaba Mill Employee who has been trained to locate and identify mill site utilities.

Shoring Systems: Structural systems supporting the walls of excavations.

Slope (noun): The acute angle formed by the side of an excavation and the horizontal plane; also, the inclined side of an excavation.

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Slope (verb): To incline the walls of an excavation to reduce the likelihood of cave-ins.

Spoil: Material taken from an excavation.

Trench: A narrow surface excavation where the depth is greater than the width, but the width of a trench is not greater than 15 feet.

Trench Shield: A shoring system composed of steel plates and bracing, welded, or bolted together, which support the walls of a trench from the ground level to the trench bottom and which can be moved along as work progresses.

Silt Fence: A silt fence, sometimes called a "filter fence," is a temporary sediment control device used on construction sites to protect water quality in nearby streams, rivers, lakes and seas from sediment in storm water runoff.

MISS DIG: MISS DIG 811 provides a free service to homeowners, excavators, municipalities, and utility companies. Call **811**, 248-370-6400, or 800-482-7171. The mission of MISS DIG System, Inc. is to safeguard the public, environment, property, and utility infrastructures and promote utility damage prevention through a quality, cost-effective process for our customers.

MISS DIG will not provide service on the Escanaba Mill Property.

Execution

- A. Soil disruption should be limited to business critical activities only.
- B. Prior to beginning any excavation or ground penetration, Part I of an excavation permit is to be filled out and signed by the Contractor Competent Person. The contractor is responsible for design, planning, and execution of all excavation work per this policy and MIOSHA

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requirements. The Contractor Competent Person is responsible for the Job Site Inspections and Safety of all persons involved with the excavation until completion. All excavations must be inspected daily by the Contractor Competent Person and more often if weather or other conditions dictate. After the permit is completed by all, the CCP will submit a copy to Safety, Environmental, and to the EQP. The original will remain in the CCP’s possession for the duration of the excavation. After the excavation is brought back to grade, the Contractor is to return the completed permit to the Safety Department (Mailbox 51).

- C. Please contact the Environmental Department, Charles Detiege, x3068, 906-233-3068 or Adam Becker, x2929, 906-233-2929. The Environmental Department will review permitting applicability for Wetlands, Soil & Sedimentation.
- D. The Escanaba Utility Locator- Locates all utilities on or near the excavation site by mean of drawings associated with the excavation, or locating device and completes Part II of the excavation permit. The Utility Locator will determine if underground utility lines are Mill owned or owned by others and contact Miss Dig if necessary. Existing lines and interference must be identified and marked with stakes indicating their location and depth, prior to the excavation beginning. Mill Drawing 32-01-2029 (G012029.dwg) “Underground Composite Drawings – Index” should be used to help locate any underground utilities before work begins.
- E. The Escanaba Qualified Person inspects the site and discusses the excavation with the CCP, assures that underground utilities are clearly flagged and authorizes the excavation by completing part III of the permit. Determines the need for system lock out to protect excavation activities.
- F. CN (Canadian National Railway Company) must be contacted if any work is to be performed under or near their Railways. Please send an email to cnsouth@cn.ca and CC Charles.Pope@cn.ca and Jon.Gendron@cn.ca. Depending on the Scope of Work CN may require a representative of theirs present while work is performed. Please allow for extra time in the Job Schedule/Planning Process for CN to reply.

GUIDELINES- The following are additional requirements for excavation on the Escanaba Mill site but are not intended to supersede MIOSHA requirements.

- A. Minimum sloping shall be 1 1/2: 1 (Horizontal/Vertical). Shoring is necessary if sloping is not attainable per MIOSHA requirements. If the soil classification is other than Type C, the type must be indicated in Section III of the Trenching/Excavation permit and be signed by a Qualified Person.

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- B. Anyone in an excavation cannot be more than 25 feet from a ladder or other acceptable means of escape.
- C. A confined space permit will be required if the excavation meets the definition of a confined space.
- D. Fit-tested N95 filtering-facepiece respirators should be worn when actively excavating where airborne dirt/dust particulate could be present. The excavation activities should be reviewed to determine need for additional PPE such as disposable coveralls/booties/hoods and gloves.
- E. Excavation materials should be wet down or covered to limit airborne dispersion.
- F. Silt Fence, Straw Bales, or other Erosion Control Measures may be required to protect water quality of any nearby streams, rivers, lakes from sediment or other contaminates.
- G. Excavated areas will be clearly marked. Lights and barricades are required if an excavation is left open overnight.
- H. Vacuum Truck Excavation is preferred when digging within two feet of exposing existing utilities. Hand-digging is mandatory if vacuum truck excavation is not possible when digging within two feet of exposing existing utilities.
- I. Excavated spoils and other materials must be stored a minimum of two feet from the edge of the excavation.
- J. Special consideration (i.e., structural integrity, traffic flow) should be given to any excavations in close proximity to railroad tracks, buildings, footings, light poles, etc.
- K. If any unforeseen events occur, the work should stop immediately, and the EQP should be contacted.
- L. Backfilling Trenches and Other Excavations: Backfilling is the process of putting the soil back into a trench or foundation once excavation has been completed. The backfill process requires skills as well as knowledge of the specifications, contract requirements, and soil conditions. Mill Personnel or Contractor performing the Backfill must be qualified to perform this work.
- M. After any excavation, restoration must be done to return the location back to original if not better condition.

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RESPONSIBILITIES

- A. Safety is responsible for periodically training selected personnel to become competent Escanaba Qualified Persons in the implementation of this policy.
- B. Environmental is responsible for reviewing permitting applicability for Wetlands, Soil & Sedimentation.
- C. Please Contact Rob Lee @ x3078 or robert.lee@billerud.com for any Document Additions, Changes, or Corrections.

Reference MIOSHA R 408.40901 or OSHA 2226-10R 2015

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Excavation, Trenching, and Shoring Permit

Billerud NA (Escanaba) Mill

DATE(S): _____ TO _____

LOCATION: _____

DESCRIPTION OF WORK:

Please provide Sketch or Drawing of work to be performed if requested by Owning Department.

P.O.# / W.O.#: _____ CONTRACTOR OR DEPT:

CONTRACTOR COMPETENT PERSON (CCP): _____ PHONE:

ESCANABA QUALIFIED PERSON (EQP): _____ PHONE:

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PART I – Pre-Excavation Plan: (CCP) Completed by Contractor Competent Person

- 1) Type of Operation:
- | | |
|---|---|
| <input type="checkbox"/> New Construction | <input type="checkbox"/> Point Repair |
| <input type="checkbox"/> Failure of previously placed component | <input type="checkbox"/> Design of Construction Error |
| <input type="checkbox"/> Other | |
- 2) Excavation supporting method(s):
- Sloping Design:



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Shoring
Design:

Benching
 Shield

3) Does the excavation include work near an existing structure? YES NO

If yes, describe plan:

Signature of Contractor Competent Person (CCP):

I certify that I am a Competent Person certified per OSHA Excavation standards 29 CFR Part 1926, Subpart P and a Qualified Person per MIOSHA Part 9 Construction Excavation standards. I certify that Part I of this permit is in conformance with OSHA and MIOSHA excavation provisions and the Escanaba Mill Excavation Policy and that I am responsible for the safety of all persons involved in this excavation until completion.

Print name Signature Date

PART II – Location of Underground Utilities: Completed by Escanaba Utility Locator

1. Underground utilities present: YES No

Type	Depth	Type	Depth
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<input type="checkbox"/> Gas	_____	<input type="checkbox"/> Telephone	_____

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- | | |
|--|--|
| <input type="checkbox"/> Electric _____ | <input type="checkbox"/> Cable _____ |
| <input type="checkbox"/> Water _____ | <input type="checkbox"/> Ground Wire _____ |
| <input type="checkbox"/> Air Lines _____ | <input type="checkbox"/> Sewer _____ |

2. Mechanism for utility location:

3. Contact CN @ cnsouth@cn.ca and CC Charles.Pope@cn.ca.

4. Contact MISS DIG (811 or 1-800-482-7171): YES NO (**MISS DIG will not come on Mill Property**)

Escanaba Utility Locator: I certify that all underground utilities noted above are located and flagged as required.

_____	_____	_____
Print name	Signature	Date

PART III – Review and Authorization: (EQP) Completed by Escanaba Qualified Person

I have reviewed the site with the CCP and approve the excavation plan described in Part I of this permit.

The underground utilities have been clearly flagged.

Barricading has been arranged. Including Silt Fence, Straw Bales, or other Erosion Control if required.

Lighting has been arranged.

The Escanaba Mill affected department has been notified: (Initial) _____

Environmental has been notified. (Charles Detiege x3068 or Adam Becker x2929): (Initial) _____

Is a Confined Space Permit Required? Yes _____ No _____

Is a ZES Lockout Permit Required? Yes _____ No _____



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Other special instructions or requirements including Respiratory PPE

Escanaba Qualified Person (EQP): I authorize excavation to begin as described in this Permit.

Print name	Signature	Date
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PART IV – (CCP) Daily Job Site Inspections (Initials & Date):

Completion (EQP): _____

Signature	Date
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