I. POLICY

It is the policy of the Quinnesec Mill to obtain an excavation permit prior to beginning any excavation or ground penetration on the Quinnesec Mill site and to follow the requirements of this mill Excavation Policy.

Note that a minimum prior notice of 24 hours of excavation activity must be provided in order to process the excavation permit.

II. PURPOSE

The purpose of this policy is to prevent injury to workers involved in or working near any excavation activity. The policy is designed to provide requirements for safe excavation practices. 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.

III. DEFINITIONS

Acceptable Practice - A practice which meets the minimum MIOSHA requirements found in R 408.40901 (Part 9: Excavation, Trenching, and Shorting)

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).

Approximate Location - The approximate location is a strip of land at least 36 inches wide, but not wider than the width of the marked utility plus 18 inches on either side of the utility marks.

Benching - means a method of protecting employees from cave-ins by excavating the sides of an excavation to form one or a series of horizontal levels or steps, usually with vertical or near-vertical surfaces between levels.

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

Caution Zone - The Caution Zone is the area within 48 inches of either side of the utility marks provided by Quinnesec Utility Locator.

Confined Space - Any space which meets all of 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***.***

Contractor Competent Person (CCP) - This person is typically an employee of the contractor and is certified per **OSHA 29 CFR Part 1926, Subpart P** and qualified per **MiOSHA Part 9 Construction Standards** and who, 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, and 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.

Excavation - Any man-made cavity or depression in the earth's surface, 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: Any ground disruption. All drilling (both vertical and horizontal), pile driving, ground rod driving, and all other types of ground penetration.

Miss Dig - No-cost service that will field mark underground utility owned lines (800 482-7171).

Permit Requisitioner - Person requesting a permit.

Quinnesec Utility Locator (QUL) – A mill member who has been trained to locate and identify mill site utilities.

Responsible Quinnesec Member (RQM) An Engineering department member who's role requires coordination of a project involving ground-breaking work. The RQM will receive initial training for issuing a permit by the Trenching & Excavation Permit Coordinator at the time of initial request. Further permit requests may only require a brief verbal review of permitting process and accountabilities.

Shoring Systems - Structural systems supporting the walls of excavations. Commonly constructed of timbers or aluminum, these systems are designed to press against the face of the trench to prevent cave-in from occurring in the first place.

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

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.

Trenching & Excavation Permit Coordinator – Mill CAD department member who's role includes documentation of permits and drawings, provides initial training to RQMs and provides practical input for this policy.

Trench Shield (or Trench Box) - A system composed of steel plates and bracing, welded or bolted together, which can be moved along as work progresses and protects the workers in the event of a cave-in.

IV. PROCEDURES / PRACTICES

A. Prior to beginning any excavation or ground penetration, the Permit Requisitioner or the project's RQM is to obtain and initiate a Permit form. **Part I** of an excavation permit is to be filled out and signed by the Contractor Competent Person (CCP). Unless it is an emergency situation, this request for a permit must be submitted a minimum of 24 hours in advance. The contractor is responsible for design, planning, and execution of all excavation work per this policy and MIOSHA and established mill requirements. The CCP is responsible for the Job Site Inspections, safety of all persons involved with the excavation, and completion and return of permit form upon project completion. All excavations must be inspected daily by the CCP and more often if weather or other conditions dictate. After the ground-work is completed, the CCP will sign and return the permit and any as-constructed or as-found documents relating to excavation work area to the RQM. The original returned permit will be signed and submitted by RQM to CAD Office for updating site drawings pertaining to the excavation, and permit documentation.

B. The Quinnesec Utility Locator (QUL) receives the initiated Permit from RQM and then proceeds to locate 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, paint, or additional documents included with permit indicating their location prior to the excavation beginning. The Quinnesec Mill has no control over depth variations caused by human interference, weather, or other circumstances. As a result, Quinnesec Mill will only mark the approximate location, and not the depth of buried utilities. Locating is not an exact science, therefore, the actual location of the utility could vary from the position of the marks. Act-174 of 2013 460.725 Sec 5(5) states that: "For excavations in a caution zone parallel to facility, an excavator shall use soft excavation at intervals as often as reasonably necessary to establish the precise location of the facility. An excavator may use power tools and power equipment in a caution zone only after the facilities are exposed or the precise location of the facilities is established."

C. The RQM initially 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. In addition, the RQM determines the need for system lock out to protect excavation activities. Once excavation work is completed, RQM signs permit for completion and returns with marked drawings to CAD office.

V. Following are additional requirements for excavation on the Quinnesec Mill site, but are not intended to supersede MiOSHA requirements.

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

B. The bottom of the shielding system cannot be positioned higher than 2 ft. above the bottom of the excavation.

C. Anyone in an excavation cannot be more that 25 feet from a ladder or other acceptable means of escape.

D. In any excavation greater than 4 ft. in depth, the potential for the accumulation of hazardous gases or vapors must be evaluated.

E. A confined space permit will be required if the excavation meets the definition of a confined space.

F. Excavated areas will be clearly marked. Lights and barricades are required if an excavation is left open overnight.

G. Hand-digging is mandatory when digging within two feet of exposing existing utilities.

H. Hydro-blasting is required when utility is present, but unable to locate accurately for a variety of reasons. Spotter to be used when using power equipment when approaching the buried utility. When hydro-blasting is unavailable, hand digging may be utilized.

I. Excavated spoils, equipment and other materials must be stored not less than two feet from the edge of the excavation. If the site does not allow a 2 foot setback, arrange for spoils to be temporarily hauled to another location.

J. Special consideration (i.e. structural integrity, vibration, traffic flow) should be given to any excavations in close proximity to roads, railroad tracks, buildings, footings, light poles, etc.

K. If any unforeseen events occur, the work should stop immediately and the RQM should be contacted.

L. The contractor CCP must perform an ongoing inspection of an excavation site or trench each workday (if not backfilled).

M. You may not stand or pass under the elevated portion of any equipment, regardless of whether it is loaded or empty.

N. Shoring, bracing or underpinning will be used to ensure the stability of nearby structures, like buildings, walls, sidewalks or pavement.

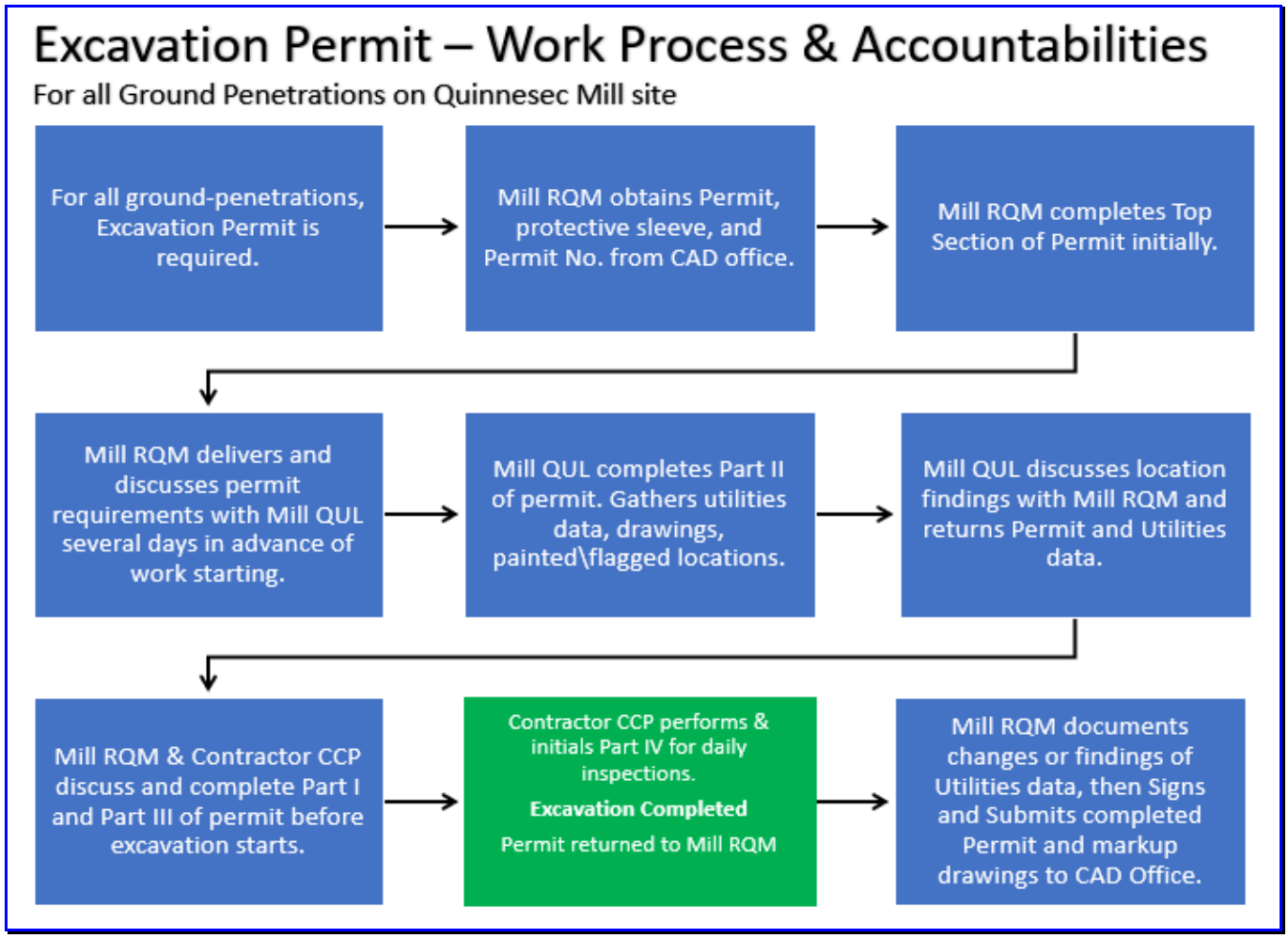
O. There will be no excavating below the level of the base of any foundation or retaining wall unless there is an adequate support system.

VII RESPONSIBILITIES

A. The RQM will review the Permit with CCP and provide a hard copy of this Policy to CCP. RQM will assure CCP confirms policy receipt by checking #5 in Part I of permit.

B. Trenching & Excavation Permit Coordinator is responsible for training designated personnel to become a Responsible Quinnesec Member (RQM) as outlined in this policy.

C. Work Process and Accountabilities: (diagram)



Permit No. _____

TRENCHING / EXCAVATION PERMIT

For all ground penetrations at Quinnesec Mill

DATE(S):_____ TO _____ LOCATION: _____

DESCRIPTION OF WORK: _____

_____

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

PERMIT REQUISITIONER: _____ PHONE: _____

CONTRACTOR COMPETENT PERSON (CCP): _____ PHONE: _____

RESPONSIBLE QUINNESEC MEMBER (RQM): _____ PHONE: _____

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

1) Type of Operation:
   [ ] New Construction
   [ ] Point Repair
   [ ] Other

2) Excavation supporting method(s) for Soil Types: [ ]"A" [ ]"B" [ ]"C"
   [ ] Sloping
   Design: _____
   [ ] Shoring
   Design: _____
   [ ] Benching
   [ ] Trench Shield/Box

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

   If yes, describe plan: _____

4) RQM provided a copy of mill's Excavation Policy to Contractor CCP ? [ ] YES [ ] NO

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 Quinnesec Mill Excavation Policy and that I am responsible for the safety of all persons involved in this excavation until completion. I will record undocumented findings on Mill provided drawings and report them immediately to RQM.

_____ _____ _____

Print name Signature (CCP) Date

PART II – Location of Underground Utilities: Completed by Quinnesec Utility Locator **(QUL)**

1. Underground utilities present: [ ] YES [ ] No

Type	Comments	Type	Comments
[ ] Gas	_____	[ ] Telephone	_____
[ ] Electric	_____	[ ] Cable	_____
[ ] Water	_____	[ ] Ground Wire	_____
[ ] Air Lines	_____	[ ] Sewer	_____

2. Mechanism for utility location: _____

3. Contact Miss Dig (1-800-482-7171): [ ] NO [ ] YES, Ticket # _____

4. Additional considerations: _____

Quinnesec Utility Locator **(QUL):**

_____ _____ _____

Print name Signature (QUL) Date

PART III – Review and Authorization: Completed by Responsible Quinnesec Member **(RQM)**

[ ] 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.
[ ] Lighting has been arranged.
[ ] The Quinnesec Mill Operating Department has been notified.

Is a Confined Space Permit Required? Yes _____ No _____

Is ZES/Lockout Required? Yes _____ No _____

Other special instructions or requirements _____

Responsible Quinnesec Member (RQM): I authorize excavation to begin as described in this Permit.

_____ _____ _____

Print name Signature (RQM) Date

PART IV – Job Site Daily Inspections(OSHA 1926.651) (Initials & Dates): by Contractor **(CCP)**

_____ _____ _____ _____

_____ _____ _____ _____

[ ] I have recorded undocumented findings on Mill-provided drawings.

Completion (RQM): _____ _____

Signature Date

RETURN PERMIT AND ALL APPLICABLE NOTES/SKETCHES TO CAD office. PERMIT RETURN DATE _____