

## Chapter Ind 2

### QUARRIES AND PITS

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**History:** Ind 2.01 to Ind 2.20 inclusive, (1-2-56) were repealed, and Ind 2.01 to Ind 2.09 inclusive and Ind 2.11 to Ind 2.14 inclusive, were created, Register, April, 1958, No. 28, eff. 5-1-58.

**Ind 2.01 Application.** The provisions of this chapter shall apply to all quarries and pits in the state of Wisconsin.

**History:** 1-2-56; r. and recr. Register, April, 1958, No. 28, eff. 5-1-58.

**Ind 2.02 Definitions.** (1) The term "quarry" or "pit" is a place from which stone, rock, sand, gravel, or any other material is removed from open face workings.

(2) The term "superintendent" is the person having general supervision of a quarry or pit.

(3) The term "foreman" is the person who has immediate responsibility for the direction of a quarry or pit.

(4) The term "approved" shall mean approved by the industrial commission.

**History:** 1-2-56; r. and recr. Register, April, 1958, No. 28, eff. 5-1-58.

**Ind 2.03 General safety rules.** (1) The employer and superintendent shall use every reasonable precaution to insure the safety of workmen, whether or not such precautions are specified in these rules.

(2) All defects in or damage to machinery, timbering, apparatus, or equipment and all unsafe or dangerous conditions even though not resulting in personal injury shall be promptly reported and corrected.

(3) The employer shall direct and explain the general and special rules in this code to all employes.

(4) All shops, storage rooms, passageways, and working areas, shall be kept clear and unobstructed to provide reasonably secure footing according to the needs of the operation. Materials for distribution and use shall be piled and stacked as safely as circumstances of the work will permit.

(5) Hanging scaffolds shall be constructed in such a manner that no part is overstressed. They shall be equipped with standard guard rails. Suspension shall be by means of sound chains or cables.

(6) All parts of hanging scaffolding or equipment shall be effectively secured to prevent accidental release or unhooking.

(7) Men working on hanging scaffolding or equipment shall be secured by means of an approved safety belt and a ½ inch (or equivalent) life line independently anchored to prevent free fall. The use of the safety belt and life line shall be enforced.

**History:** 1-2-56; r. and recr. Register, April, 1958, No. 28, eff. 5-1-58.

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**Ind 2.04 Tunnels in quarry.** All tunnel work in connection with quarry operations shall comply with the provisions of the safety rules for mines, chapter Ind 3, Wis. Adm. Code or any amendments thereto.

**History:** 1-2-56; r. and recr. Register, April, 1958, No. 28, eff. 5-1-58.

**Ind 2.05 Explosives in quarry.** The handling, transportation and storage of explosives shall comply with the safety rules on explosives, chapter Ind 5, Wis. Adm. Code or any amendments thereto.

**History:** 1-2-56; r. and recr. Register, April, 1958, No. 28, eff. 5-1-58.

**Ind 2.06 Personnel care and protection.** (1) An approved supply of first aid material shall be kept and maintained at all times in a dust and moisture-proof box.

(2) A basket stretcher and a woolen blanket shall be provided in all quarries where the means of access is by ladder or stairway.

(3) Eye protection shall be provided for all employes exposed to hazards which may reasonably be expected to cause injury to the eyes. When the hazard is flying particles from drilling, sledging, or stone dressing caused by the employe's own work and not from any adjacent hazard, the minimum acceptable eye protection shall be the spectacle-type safety goggles.

*Note:* Protective footwear. It is recommended that all employes who are exposed to toe injury hazards wear approved hard-toed or safety-type footwear.

*Note:* Protective hats. It is recommended that all employes wear approved protective hats or caps when exposed to hazards of falling objects.

**History:** 1-2-56; r. and recr. Register, April, 1958, No. 28, eff. 5-1-58.

**Ind 2.07 Passageways, trestles, railings, ladders.** (1) Passageways under conveyors that are regularly used by employes shall be planked overhead, or the conveyor manway shall be made solid and provided with toeboards, or the exposed area shall be barricaded or fenced.

(2) Trestles used for dumping shall be provided with walkways and standard guard rails on each side.

(3) Hoppers under trestles or roadways shall be protected by a grizzly screen or guard rail.

(4) Excavations and ledges shall be provided with railings or barricades where men are regularly employed, or where roadways, tracks, or buildings adjoin such excavations. Exceptions may be made during stripping, drilling, and shot loading operations.

(5) Stairs and ladders of standard construction secured at the top or bottom shall be provided for access to quarries having nearly vertical walls unless an access road is provided.

(6) Wooden rails of quarry ladders shall be notched or cleated to fit rungs. All ladders shall be kept in good repair.

(7) Ladder side rails shall extend at least 42 inches above top landing unless handholds are provided above the ladder.

(8) All portable ladders shall be equipped with non-slip bases except those used in granite quarries.

**History:** 1-2-56; r. and recr. Register, April, 1958, No. 28, eff. 5-1-58.

**Ind 2.08 Haulage.** (1) Quarry cars shall be inspected weekly and all defects promptly repaired.

(2) Rocker or cradle type boulder cars shall be equipped with an approved locking device.

(3) The high end of the track on boulder (grout) piles shall be provided with a bumper stop. The low end of the track shall be pro-

vided with both a bumper stop and a barricade when employes may be endangered by runaway cars.

**History:** 1-2-56; r. and recr. Register, April, 1958, No. 28, eff. 5-1-58.

**Ind 2.09 Sand and gravel excavations.** (1) **SLOPE.** Sand and gravel excavations shall be kept sloped at all times when the bank is a hazard to employes. The banks shall be caved when the angle to the horizontal approaches 60°.

(2) **OVERHANGS.** Overhangs at the top of the banks shall be barred or shot down as they develop.

(3) **MECHANIZED EQUIPMENT.** (a) The bank shall not be worked to a height greater than twice the horizontal reach of mechanical shovels or loaders measured from the operator's platform unless the bank is caved to reduce its slope.

(b) The bank shall not be worked to a height greater than twice the length of the boom when a clam bucket or a dragline is used unless the bank is caved to reduce its slope.

(c) No employe shall be permitted to work or travel adjacent to a bank unless it has been sloped to an angle of 60° to the horizontal.

**History:** 1-2-56; r. and recr. Register, April, 1958, No. 28, eff. 5-1-58.

**Ind. 2.10 History:** 1-2-56; r. Register, April, 1958, No. 28, eff. 5-1-58.

**Ind 2.11 Quarry overburden.** (1) Where men are regularly employed, the top soil or overburden of the quarry shall not be continuous with the quarry face and shall be protected by either of the following methods:

(a) The overburden shall be stripped to bed rock to provide a bench equal in width to the thickness of the overburden.

(b) The overburden shall be kept sloped 45° and a fence, wall, or cribbing shall be constructed to catch rolling stones or slides of material.

(2) Employes shall not be permitted to work where falls of overburden may cause injury.

*Note:* An exception to Ind 2.11 may be made where the slope of the overburden has been stabilized and is retained by vegetation or trees.

**History:** 1-2-56; r. and recr. Register, April, 1958, No. 28, eff. 5-1-58.

**Ind 2.12 Inspection of quarry face.** (1) The superintendent, foreman, or other competent person shall inspect the face of the quarry and the overburden where men are employed and shall dislodge any slabs or boulders on the face that may be dangerous after blasting and before horizontal drilling, after heavy rains, freezing and thawing, and monthly in sections used as travelways.

(2) Dangerous, uninspected, and untrimmed sections shall be barricaded.

(3) During thawing and freezing periods, employes shall not be permitted to work adjacent to vertical or steeply inclined ledges unless:

(a) Watchmen are stationed at work places to warn employes when loose rocks are about to fall.

(b) Material has been blasted clear of the base of the ledge beyond the hazard of falling rock.

(c) Ledges are smooth with little or no fracturing and not subject to open joints or the presence of clay seams or inferior rock.

(d) Past experience has proven that alternate thawing and freezing does not cause rock falls.

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(4) Employees engaged in trimming down loose scale and loose rock from high and steeply inclined ledges shall be provided with and shall use safety belts and safety ropes secured above or be supported by mechanical means and equipment if approved by the industrial commission in writing prior to its use.

**History:** 1-2-56; r. and recr. Register, April, 1958, No. 28, eff. 5-1-58.

**Ind 2.13 Hoisting practice.** (1) A hoist shall not be used to transport persons in or out of a quarry except in cases of emergency.

(2) Hoists designed to carry passengers shall be approved by the Industrial Commission.

(3) Employees shall not be permitted to ride on conveyor or elevator belts.

(4) When blocks of stone or loaded grout pans are being hoisted out of the quarry, the foreman shall require that all employes in the danger zone retire to a place of safety until the load has reached the surface.

(5) Hoisted material, or other loose material from the quarry shall be deposited not less than 10 feet from the edge of the excavation and secured in such a manner that there is no possibility of the material falling back into the quarry.

**History:** 1-2-56; r. and recr. Register, April, 1958, No. 28, eff. 5-1-58.

**Ind 2.14 Hoisting equipment.** (1) Wire rope slings, grab hooks or chains shall be used to attach blocks of stone to the hoisting equipment except for finishing operations in granite quarries.

(2) All ropes, chains, cables, slings, sheaves, gears and other parts of derricks and hoisting equipment in use shall be carefully examined once each week. All defective parts shall be promptly reported and repaired.

(3) The wire rope supporting the mast of the derrick shall be inspected once each month while in use and shall be kept in good condition.

(4) Cables and sheaves which are located at a walkway or working place shall be guarded.

**History:** 1-2-56; r. and recr. Register, April, 1958, No. 28, eff. 5-1-58.

**Ind 2.15 History:** 1-2-56; r. Register, April, 1958, No. 28, eff. 5-1-58.

**Ind 2.16 History:** 1-2-56; r. Register, April, 1958, No. 28, eff. 5-1-58.

**Ind 2.17 History:** 1-2-56; r. Register, April, 1958, No. 28, eff. 5-1-58.

**Ind 2.18 History:** 1-2-56; r. Register, April, 1958, No. 28, eff. 5-1-58.

**Ind 2.19 History:** 1-2-56; r. Register, April, 1958, No. 28, eff. 5-1-58.

**Ind 2.20 History:** 1-2-56; r. Register, April, 1958, No. 28, eff. 5-1-58.