

### Chapter Ind 3

## MINES, PITS AND QUARRIES

Ind 3.001 Scope	Ind 3.10 Aerial tramways
Ind 3.01 Inspections	Ind 3.11 Travelways and escapeways
Ind 3.015 Notification to begin operation	Ind 3.12 Electricity
Ind 3.02 Definitions	Ind 3.13 Compressed air and boilers
Ind 3.03 Ground control	Ind 3.14 Use of equipment
Ind 3.04 Fire prevention and control	Ind 3.15 Personal protection
Ind 3.05 Air quality, ventilation and radiation	Ind 3.16 Materials storage and handling
Ind 3.06 Ventilation and radiation	Ind 3.17 Illumination
Ind 3.07 Drilling	Ind 3.18 Safety programs
Ind 3.08 Rotary jet piercing	Ind 3.19 Hoisting
Ind 3.09 Loading, hauling, dumping	Ind 3.21 Gassy mines
	Ind 3.23 Miscellaneous

**MINES, PITS AND QUARRIES, Ch. Ind 3, History:** Recreated, Register, April, 1972, No. 196, effective 5-1-72.

**Ind 3.001 Scope.** The provisions of this code shall apply to all openings or excavations in earth for the purpose of extracting minerals or other products, and equipment related to processing and/or manufacturing of ores, aggregates, cements, lime, clay, and silica sands.

**Note:** The following rules are based on those of Title 30—Mineral Resources, Chapter 1—Bureau of Mines, Department of the Interior, published in the Federal Register, Volume 34, No. 145, July 31, 1969.

**History:** Cr. Register, April, 1972, No. 196, eff. 5-1-72; renum. to be Ind 3.001, Register, April, 1973, No. 208, eff. 5-1-73.

**Ind 3.01 Inspections.** (1) The authorized inspectors of the department, upon presenting appropriate credentials to the owner, operator or agent in charge, are authorized—

(a) To enter without delay and at reasonable times any factory, plant, establishment, construction site, or other area, workplace or environment where work is performed by an employee of an employer; and

(b) To inspect and investigate during regular working hours and at other reasonable times, and within reasonable limits and in a reasonable manner, any such place of employment and all pertinent conditions, structures, machines, apparatus, devices, equipment, and materials therein, and to question privately any such employer, owner, operator, agent or employee.

(2) The inspector before making an inspection shall contact a representative of the employer and a representative authorized by the employees who shall be given an opportunity to accompany the inspector during the physical inspection of any workplace under sub. (1) for the purpose of aiding such inspection.

(a) Where there is no authorized employee representative, the inspector shall consult with a reasonable number of employees concerning matters of health and safety in the workplace.

**Note:** The department policy is not to give advance notice but in the scheduling and in the act of inspecting it may not always be possible to avoid advance notice or to obtain

Register, July, 1982, No. 319  
Mines, Pits and Quarries

Ind 3

accompaniment as, for example, inside boilers or in precarious locations of elevator installations, but otherwise these rules will be diligently observed.

**History:** Cr. Register, April, 1973, No. 208, eff. 5-1-73; am. (2) (intro.), Register, August, 1978, No. 272, eff. 9-1-78.

**Ind 3.015 Notification to begin operation.** (1) Each year before work is commenced in a pit or quarry, the pit or quarry operator shall complete and return to the department form SBD 6736, Notice to Begin Operation, for each pit or quarry. The notification shall be received by the department at least 10 days prior to the beginning of work in each pit or quarry.

**Note:** The notice is required from the operator for all pits and quarries where work is performed, whether or not the operator owns the pit or quarry.

**Note:** Copies of form SBD 6736 are available from the Division of Safety and Buildings, P.O. Box 7969, Madison, Wisconsin 53707.

(2) Each year before work is commenced in a pit or quarry, the pit or quarry operator shall notify the local sheriff and make arrangements for obtaining emergency medical assistance and transportation for injured persons.

**History:** Cr. Register, July, 1982, No. 319, eff. 8-1-82.

**Ind 3.02 Definitions.** (1) **ABANDONED MINE.** All work has stopped on the mine premises and an office with a responsible person in charge is no longer maintained at the mine.

(2) **ABANDONED WORKINGS.** Deserted mine areas in which further work is not intended.

(3) **ACTIVE WORKINGS.** Areas at, in, or around a mine or plant where persons work or travel.

(4) **ADVISORY.** A recommended safe practice as opposed to a mandatory rule. See Appendix A.

(5) **APPROVED.** Tested or accepted by the department of industry, labor and human relations for a specific purpose.

**Note:** The department may accept nationally recognized standards.

(6) **AUTHORIZED PERSON.** A person approved or assigned by management to perform a specific type of duty or duties or to be at a specific location.

(7) **AUXILIARY FAN.** A fan used to deliver air to a working place off the main airstream; generally used with ventilation tubing.

(8) **BARRICADED.** A means to prevent the passage of persons, vehicles, or flying material.

(9) **BERM.** A pile or mound of material capable of restraining a vehicle.

(10) **BOOSTER FAN.** A fan installed in the main airstream or a split of the main airstream to increase airflow through a section or sections of a mine.

(11) **COMBUSTIBLE.** Capable of being ignited and consumed by fire.

Register, July, 1982, No. 319  
Mines, Pits and Quarries

(12) **COMPANY OFFICIAL.** A member of the company supervisory or technical staff.

(13) **COMPETENT PERSON.** A person having abilities and experience that fully qualify him to perform the duty to which he is assigned.

(14) **DEPARTMENT.** The department of industry, labor and human relations.

(15) **DISTRIBUTION BOX.** A portable apparatus with an enclosure through which an electric circuit is carried to one or more cables from a single incoming feed line; each cable circuit being connected through individual overcurrent protective devices.

(16) **ELECTRIC GROUNDING.** To connect with the ground to make the earth part of the circuit.

(17) **EMPLOYEE.** A person who works for wages or salary in the service of an employer.

(18) **EMPLOYER.** A person or organization which hires one or more persons to work for wages or salary.

(19) **ESCAPEWAY.** A passageway by which persons may leave if the ordinary exit is obstructed.

(20) **EXPLOSIVE.** Any chemical compound, mixture, or device, the primary or common purpose of which is to function by explosion. Explosives include, but are not limited to black powder, dynamite, nitroglycerin, fulminate, ammonium nitrate when mixed with a hydrocarbon, and/or other blasting agents.

(21) **FACE OR BANK.** That part of any mine, pit, or quarry where excavating is progressing or was last done.

(22) **FLAMMABLE.** Capable of being easily ignited and of burning rapidly.

(23) **FLASH POINT.** The minimum temperature at which sufficient vapor is released by a liquid or solid to form a flammable vapor-air mixture at atmospheric pressure.

(24) **HIGHWAY.** Any public street, public alley, or public road.

(25) **HIGH POTENTIAL.** More than 650 volts.

(26) **HOIST.** A power-driven windlass or drum used for raising ore, rock, or other material from a mine, and for lowering or raising men and material.

(27) **LAY.** The distance parallel to the axis of the rope in which a strand makes one complete turn about the axis of the rope.

(28) **LOW POTENTIAL.** 650 volts or less.

(29) **MAIN FAN.** A fan that controls the entire airflow of the mine, or the airflow of one of the major air circuits.

(30) **MAJOR ELECTRICAL INSTALLATION.** An assemblage of stationary electrical equipment for the generation, transmission, distribution or conversion of electrical power.

Ind 3

(31) **MAN TRIP.** A trip on which persons are transported to and from a work area.

(32) **MILL.** Includes any ore mill, sampling works, concentrator, and any crushing, grinding, screening, or other preparation plant used at and in connection with an excavation, mine, pit or quarry.

(33) **MINE.** An opening or excavation in earth for the purpose of extracting minerals or other products.

(34) **MINE OPENING.** Any opening or entrance from the surface into the mine.

(34a) "Operator" means the person or firm that owns or is responsible for the crushing, screening or washing equipment.

(35) **OVERBURDEN.** Material of any nature, consolidated or unconsolidated, that overlies a deposit of useful products or ores that are to be mined.

(36) **PERMISSIBLE.** A machine, material, apparatus or device which has been investigated, tested, and approved by the department, and is maintained in permissible condition.

(37) **PIT.** See Mine.

(38) **POTABLE.** Fit for drinking.

(39) **QUARRY.** See Mine.

(40) **REVERSE-CURRENT PROTECTION.** A method or device used on direct-current circuits or equipment to prevent the flow of current in a reverse direction.

(41) **ROLL PROTECTION.** A framework, safety canopy or similar protection for the operator when equipment overturns.

(42) **SAFETY CAN.** An approved container, of not over 5 gallon capacity, having a spring-closing lid and spout cover.

(43) **SAFETY SWITCH.** A sectionalizing switch that also provides shunt protection in blasting circuits between the blasting switch and the shot area.

(44) **SCALING.** A removal of insecure material from a face or high wall.

(45) **SECONDARY SAFETY CONNECTION.** A second connection between a conveyance and rope, intended to prevent the conveyance from running away or falling in the event the primary connection fails.

(46) **SHAFT.** A vertical or inclined shaft; a slope, incline or winze.

(47) **SIGNS.** A means of communication conspicuously posted, legible, having contrasting background and legend composed of block letters.

(48) **SUBSTANTIAL CONSTRUCTION.** Construction of such strength, material and workmanship that the object will withstand all reasonable shock, wear and usage to which it will be subjected.

(49) **SUITABLE.** That which fits, and has the qualities or qualifications to meet a given purpose, occasion, condition, function or circumstance.

(50) **TRAVELWAY.** A passage, walk or way regularly used and designated for persons to go from one place to another.

(51) **TRIP LIGHT.** A light displayed on the opposite end of a train from the locomotive or engine.

(52) **WET DRILLING.** The continuous application of water through the central hole of hollow drill steel to the bottom of the drill hole.

(53) **WORKING PLACE.** Any place in or about a mine, pit or quarry where work is being performed.

**History:** Cr. Register, April, 1972, No. 196, eff. 5-1-72; am. (3) and (31), Register, August, 1978, No. 272, eff. 9-1-78; cr. (34a), Register, July, 1982, No. 319, eff. 8-1-82.

**Ind 3.03 Ground control.**

**SURFACE ONLY**

(1) Standards acceptable to the department for the safe control of pit walls, including the overall slope of the pit wall, shall be established and followed by the operator. Such standards shall be consistent with prudent engineering design, the nature of the ground and the kind of material and mineral mined, and the insuring of safe working conditions according to the degree of slope. Mining methods shall be selected which will insure wall and bank stability, including benching as necessary to obtain a safe overall slope.

**Next page is numbered 5**

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is essential for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent and reliable data collection processes to support informed decision-making.

3. The third part of the document focuses on the role of technology in modern data management. It discusses how advanced software solutions can streamline data collection, storage, and analysis, leading to more efficient and effective operations.

4. The fourth part of the document addresses the challenges associated with data security and privacy. It stresses the importance of implementing robust security measures to protect sensitive information from unauthorized access and breaches.

5. The fifth part of the document provides a detailed overview of the data analysis process. It explains how to identify key trends, patterns, and insights from the collected data, and how to use these insights to drive strategic initiatives and improve organizational performance.

6. The sixth part of the document discusses the importance of data governance and compliance. It outlines the necessary policies and procedures to ensure that data is managed in a responsible and ethical manner, in accordance with applicable laws and regulations.

7. The seventh part of the document concludes by summarizing the key findings and recommendations. It emphasizes the need for a data-driven culture and continuous improvement in data management practices to achieve long-term success.

(15) No person shall work from or travel on the bridge of an overhead crane unless the bridge is provided with substantial footwalks with toeboards and railings the length of the bridge.

(16) Forklift trucks shall be moved with the load in a low position and shall descend ramps with the load behind.

#### UNDERGROUND ONLY

(35) Chairs shall be used to land shaft conveyances when heavy supplies or equipment are being handled.

History: Cr. Register, April, 1972, No. 196 eff. 5-1-72; am. (9), (11) and (13), Register, August, 1978, No. 272, eff. 9-1-78.

#### Ind 3.17 Illumination.

#### SURFACE ONLY

(1) Illumination sufficient to provide safe working conditions shall be provided in and on all surface structures, paths, walkways, stairways, switch panels, loading and dumping sites and working areas.

(2) Active outdoor work areas shall have illumination of at least 5 footcandles. Special seeing tasks shall have illumination of at least 20 footcandles.

#### UNDERGROUND ONLY

(10) Individual lamps shall be carried for illumination by all persons underground.

History: Cr. Register, April, 1972, No. 196, eff. 5-1-72.

#### Ind 3.18 Safety programs.

#### GENERAL—SURFACE AND UNDERGROUND

(1) The employer shall establish a definite effective program and continually functioning safety program and make every attempt to prevent accidents and increase safety. Employees shall actively participate in the safety program.

(2) Advisory.

(3) Serious accidents shall be investigated to determine the cause and the means of preventing recurrence. Records of those investigations shall be kept and the information shall be made available to the employees.

(4) Company safety regulations pertinent to the various operations shall be published or posted for employee information.

(5) Advisory.

(6) New employees shall be indoctrinated in applicable safety rules and safe work procedures.

(7) Inexperienced employees shall be assigned to work with experienced persons until such employees have acquired the necessary skills to perform their duties safely.

## Ind 3

(8) Each working place shall be visited by a supervisor or a designated person at least once each shift and more frequently as necessary to insure that work is being done in a safe manner.

(9) An authorized person shall be in charge at all times when persons are working.

(10) Selected supervisors shall be trained in first aid. First-aid training shall be made available to all employes.

(11) All supervisors and employes shall be trained in accident prevention.

(12) Emergency telephone numbers shall be posted at appropriate locations.

(13) Where telephone service is not available, emergency communications shall be provided to the nearest point of assistance.

**SURFACE ONLY**

(20) No employe shall be assigned, or allowed, or be required to perform work alone in any area where hazardous conditions exist that would endanger his safety unless he can communicate with others, can be heard or can be seen.

**UNDERGROUND ONLY**

(25) No employe shall be assigned, or allowed, or be required to perform work alone in any area where hazardous conditions exist that would endanger the employe's safety unless a cry for help can be heard or the employe can be seen.

(26) Operations shall not be resumed in a mine following a mine disaster until such mine has been inspected and the mine is found to be in a safe condition to resume operations.

(27) An accurate record of the persons going in and out of the mine shall be kept on the surface.

History: Cr. Register, April, 1972, No. 196, eff. 5-1-72; am. (7), (9), (26) and (27); Register, August, 1978, No. 272, eff. 9-1-78; r. (14), Register, July, 1982, No. 319, eff. 8-1-82.

**Ind 3.19 Hoisting.**

Note: The hoisting standards in this section apply to those hoists and appurtenances used for hoisting persons. However, where persons may be endangered by hoists and appurtenances used solely for handling ore, rock and materials, the appropriate standards shall be applied.

**HOISTS**

(1) Hoists shall have rated capacities consistent with the loads handled and the recommended safety factors of the ropes used.

(2) Hoists shall be anchored securely.

(3) Belt, rope or chains shall not be used to connect driving mechanisms to man hoists.