Readoption: N.J.A.C. 12:185

Pits and Quarries


Adopted: April 25, 2014, by Harold J. Wirths, Commissioner, Department of Labor and Workforce Development.

Filed: April 25, 2014, as R.2014 d.094, without change.

Authority: N.J.S.A. 34:6-98.4.a.

Effective Date: April 25, 2014.

Expiration Date: April 25, 2021.

Summary of Hearing Officer's Recommendations and Agency's Response:

A public hearing regarding the proposed readoption was held on March 11, 2014, at the Department of Labor and Workforce Development. David Fish, Executive Director, Legal and Regulatory Services, was available to preside at the public hearing and to receive testimony regarding the readopted rules. There were no attendees at the public hearing and no written comments were submitted directly to the Office of Legal and Regulatory Services. Therefore, the hearing officer recommended that the Department proceed with the rules readopted without change.

Summary of Public Comment and Agency Response:

No comments were received.

Federal Standards Analysis

Following are instances where the readopted rules would appear to exceed Federal standards:

1. N.J.A.C. 12:185-1.1 and 3.1 indicate that the purpose of the chapter is not only to establish reasonable minimum standards for the construction, operation, and maintenance of pits and quarries in the interest of the life, health, and
safety of employees, but also "to provide for the protection of property." The stated purpose of the analogous Federal regulations at 30 CFR Part 56 is "the protection of life, the promotion of health and safety, and the prevention of accidents," through the establishment of, "mandatory safety and health standards for each surface metal or nonmetal mine, including open pit mines, subject to the Federal Mine Safety and Health Act of 1977." The Federal regulations make no mention of "the protection of property," within their discussion of purpose. In the interest of protecting property (and, in certain instances, also in the interest of protecting life and promoting health and safety), N.J.A.C. 12:185-10 contains standards pertaining to abandoned pit and quarry operations. 30 CFR Part 56, which is focused entirely on the protection of employees from occupational hazards, does not contain standards for abandoned pits and quarries. Following are the specific standards imposed by the State for abandoned pit and quarry operations, which standards are not found within 30 CFR Part 56:

i. Within one month after the abandonment of any quarry the employer shall file with the Commissioner an accurate plan showing the workings of the quarry up to the time of abandonment and the boundaries of the property in which these workings are situated. See N.J.A.C. 12:185-10.1.

ii. The plan filed under N.J.A.C. 12:185-10.1 must be preserved as a permanent record, but no persons except officials of the Department shall be permitted, without the consent of the owner, to see the plans so filed until after a lapse of 10 years abandonment, except when in the opinion of the Commissioner, it is necessary in the interests of safety to show the plan to the owner of the adjoining property or the owner of surface rights. See N.J.A.C. 12:185-10.2.

iii. The owner, agent, or lessee of any abandoned pit or quarry which is dangerous by reason of its depth or other conditions, shall place or cause to be placed "guardrails, fences or other approved means, sufficient to prevent any accidental fallings into any abandoned pit or quarry and shall keep them in good repair." See N.J.A.C. 12:185-10.3.

iv. The fence referred to in N.J.A.C. 12:185-10.3 shall not be less than six feet high and signs marked "Danger-Keep Out" shall be placed thereon or in the vicinity of any excavation. See N.J.A.C. 12:185-10.4.

v. When the Commissioner finds that any fencing or other safeguards are required in order to avoid danger to persons or property, he or she may cause the work to be done and all expenses incurred thereby shall be chargeable to and shall be paid by the owner, agent, or lessee. See N.J.A.C. 12:185-10.5.

The Department's regulation of abandoned pits and quarries is dictated by the New Jersey Mine Safety Act, N.J.S.A. 34:6-98.1 et seq. (the Act), which includes within its general safety requirements a number of provisions relating expressly to abandoned mines, pits, or quarries. Specifically, the Act requires that every operator abandoning or permanently discontinuing any mine, pit, or quarry shall notify the Commissioner and the local governing bodies involved prior to such abandonment or discontinuance; that the operator of an abandoned mine, pit, or quarry must post at the surface entrance, or around the surface extremities of the abandoned mine, pit, or quarry, appropriate, conspicuous, and readily legible warning notices of the existence and dangers of the abandoned mine, pit, or quarry and must also place or cause to be placed guardrails, fences, or "other approved means," sufficient to prevent accidental fallings; that where an abandoned mine, pit, or quarry constitutes an imminent hazard to persons and the order of the Commissioner to protect such mine, pit, or quarry has not been complied with in the time specified, the Commissioner is authorized to take such steps as may be necessary to eliminate the imminent hazard; and that the operator of the mine, pit, or quarry shall reimburse the Commissioner for the actual cost of whatever corrective measures have been employed in eliminating the imminent hazard. In order to meet its obligations under the Act, the Department must be aware of the existence of abandoned pits and quarries and must be aware of the nature of the abandoned operation; thus, the notification and plan filing requirements. The remainder of the requirements found within Subchapter 10 relating to abandoned pits and quarries - namely, the guardrail/fencing and sign posting requirements - are expressly dictated by the Act.

2. N.J.A.C. 12:185-7.1 states that no person under the age of 18 years shall be employed or permitted to be employed in or about any pit or quarry. 30 CFR Part 56 does not contain any age restriction for those working in or about a pit or quarry. The State rule is dictated by N.J.S.A. 34:6-98.6, which states, "[n]o minor under 18 years of age shall be employed, permitted or suffered to work in, or about, or in connection with any mine." Incidentally, the term "mine" is defined within N.J.S.A. 34:6-98.2 to "also include quarry, sand pit, gravel pit, clay pit and shale pit."

3. N.J.A.C. 12:185-9.1 states that whenever there has been a change of a name of the operating company, or a change of ownership of any pit or quarry, the successor employer shall immediately notify the Commissioner in writing, giving the name of the former employer and the name of the new employer, with its address and any change in the name of the pit or quarry. 30 CFR Part 56 does not appear to contain such a requirement regarding change in name or ownership of the operating company. Rather, 30 CFR 56.1000, entitled "Notification of commencement of operations and
closing of mines," states that the owner, operator, or person in charge of any metal and nonmetal mine shall notify the nearest Mine Safety and Health Administration (MSHA) Metal and Nonmetal Mine Safety and Health district office before starting operations, of the approximate or actual date mine operation will commence. The notification shall include the mine name, location, the company name, mailing address, person in charge, and whether operations will be continuous or intermittent. The Federal regulation also requires that when any mine is closed, the person in charge shall notify the nearest district office and indicate whether the closure is temporary or permanent. The New Jersey Mine Safety Act also requires the sort of notification covered by the Federal regulation (that is, notification of the commencement and termination of operations); however, the Department believes that in order to properly enforce the Act, it must also be made aware of changes in name/ownership of operators. The impact of this requirement upon operators is minimal, whereas the benefit to the Department in its effective enforcement of the Act is substantial.

4. N.J.A.C. 12:185-11.1 through 11.3 require:

i. That the employer at every quarry shall make and maintain or cause to be made and maintained a clear and accurate map or maps showing all workings of the quarry;

ii. That all such maps shall include a surface plan showing the boundaries of the property, the location of all plant buildings, railroads, roads, excavations, and elevations; and

iii. At least once every year, the employer shall cause to be shown clearly and accurately on each map of each quarry all the excavations made therein.

30 CFR Part 56 does not appear to contain any requirements pertaining to the creation and maintenance of such maps or plans. As with the name/ownership change requirement discussed earlier, the Department believes that in order to properly enforce the Act, it must ensure the availability for inspection by Department staff of the surface plan, property boundaries, plant building locations, railroad and road locations, excavations, and elevations, for each quarry operation in the State.

5. N.J.A.C. 12:185-13, Flammable Materials, contains among the following requirements:

i. That "petroleum products and other dangerous flammable materials" be stored at least 100 feet from other plant buildings and at least 300 feet from any explosives magazine;

ii. That when petroleum products are stored in a tank or tanks buried in the ground, the tank or tanks shall be provided with proper vents and shall be located at least 300 feet from any explosives magazine;

iii. That buildings used for the storage of flammable liquids shall be used for no other purpose, and shall be clearly marked by identifying their contents;

iv. That such buildings shall be of fire-resistant construction; and

v. That explosion proof electric lights shall be installed in order to "obviate the use of open lights in a building used for the storage of gasoline, distillates, oils or other flammable materials."

30 CFR Part 56 requires that an unburied, flammable storage tank or any group of containers used for storage of more than 60 gallons of flammable liquids not be located within 25 feet of where combustible materials are stored or allowed to accumulate; that storage buildings or storage rooms in which flammable or combustible liquids, including grease, are stored and that are within 100 feet of any person's work station shall be ventilated with a sufficient volume of air to prevent the accumulation of flammable vapors; that buildings or rooms used to store flammable or combustible liquids be constructed to meet a fire resistance rating of at least one hour, or be equipped with an automatic fire suppression system, or be equipped with an early warning fire detection device that will alert any person who could be endangered by a fire, provided that no person's working station is in the building; and adds that flammable or combustible liquids in use for day-to-day maintenance are not considered in storage under this standard.

Thus, whereas the State standard requires that flammable materials be stored in a building used solely for that purpose and requires further that such storage be at least 100 feet from other plant buildings, the Federal regulations permit flammable liquids to be stored in the same building as a person's work station, so long as where the work station is within 100 feet of the storage room, the storage room is ventilated with a sufficient volume of air to prevent the accumulation of flammable vapors. The Federal regulations also contain no "explosion proof electric light[ing]" requirement. However, the Federal regulations do state that "heat sources capable of producing combustion shall be separated from combustible materials if a fire hazard could be created." See 30 CFR 56.4500.
6. N.J.A.C. 12:185-15.3 states that in all pits or quarries employing less than 25 workers per shift there shall be at least one stretcher and two blankets and that if more than 25 workers are employed per shift an additional stretcher and blankets for each 25 workers or fraction thereof shall be provided. 30 CFR 56.15001, First-aid materials, states that adequate first aid materials, including stretchers and blankets, shall be provided at places convenient to all working areas. Thus, the State rule requires a specific stretcher/blanket-to-worker ratio, whereas the Federal regulations require simply that stretchers and blankets be provided at places convenient to all working areas.

7. N.J.A.C. 12:185-16, Sanitation, requires that one "water closet" shall be provided for every 20 persons per shift and one urinal shall be provided for every 50 persons per shift or portion thereof; that the operator of every pit or quarry employing 15 or more workers per shift shall provide a wash and change house at each and every place that necessitates employees changing from work clothes to other wearing apparel, or where the lack of such facilities constitute a hazard to health; that wash and change houses shall be available to the workers at all times when they are going on or coming off shift, and shall be equipped with washing and shower facilities; that for every 10 employees per shift there shall be at least one washing unit and for every 10 employees per shift there shall be at least one shower bath; and that pits or quarries that employ less than 10 workers per shift and have no suitable water available on the property for washing and bathing purposes shall be exempt from the shower bath requirement, but shall provide their employees with washing facilities that are reasonably clean and sanitary. 30 CFR 56.20008, Toilet facilities, states that toilet facilities shall be provided at locations that are compatible with the mine operation and that are readily accessible to mine personnel. The Federal regulations do not appear to contain any requirements regarding washing or shower facilities.

8. N.J.A.C. 12:185-18, Hand Tools, indicates that the employer is responsible for the safe condition of tools furnished to employees, and shall not permit the use of tools that are defective, nor permit the misuse of any tools; that tools, except when they are in actual use, shall at all times be kept in racks, boxes, kits, or "where they will not create a hazard by falling or a person tripping over them"; and that electric drills or other electrically operated rotating tools to be held in the hands shall have the electric switch constructed, so as to break the circuit when the hand releases the switch or shall be equipped with properly adjusted friction or safety clutches, and must be kept electrically grounded. 30 CFR 56.14116, Hand-held power tools, requires that power drills, disc sanders, grinders, and circular and chain saws, when used in hand-held mode shall be operated with controls which require constant hand or finger pressure. However, the Federal regulations do not appear to contain any of the other hand tool-specific requirements which appear within N.J.A.C. 12:185-18.

9. N.J.A.C. 12:185-19, Crushers, contains a host of requirements specific to the operation of crushers. For example, N.J.A.C. 12:185-19.1 states that every employee working at a crusher shall be protected from falling into the crusher by one of the following means: (a) adequately guarding the crusher opening where practical to do so; (b) use of a working platform with standard railing located in such position that material hung-up in the crusher can be safely dislodged by the employee on the platform; or (c) "other equally safe means." N.J.A.C. 12:185-19.2 states that any employee who may be required to work over or above the feed opening of a crusher shall use a safety belt and life line, adding that the life line shall be tied sufficiently short to prevent the employee from falling into the crusher. N.J.A.C. 12:185-19.6 states that crusher operators shall be required to wear goggles while the crusher is operating and when sledger oversize rock. N.J.A.C. 12:185-19.8 states that when repair work is being done on crushers, the control switches shall be locked and tagged in open position by the person or persons doing the work and that such locks shall not be removed until work is completed. 30 CFR Part 56 contains no standards specific to the safe operation of crushers; however, the Federal regulations do contain general standards regarding the use of guarding, safety belts, and life-lines, eye protection, and lock-out, tag-out procedures, which may encompass the crusher-specific requirements of N.J.A.C. 12:185-19.

10. N.J.A.C. 12:185-21.8, Design of guard rails, requires: (a) that guard rails be 42 inches in height and smooth surfaced, with mid-rail between top rails and floor, and of "substantial construction"; (b) that posts shall not be more than eight feet apart, are to be permanent and substantial, smooth, and free from protruding nails, bolts, and splinters; (c) that if made of pipe, posts shall be 11/4 inches in diameter, or larger; and (d) that toeboards shall be four inches or more in height and constructed of wood, metal, or of metal grill not exceeding one-inch mesh. 30 CFR 56.14112, Construction and maintenance of guards, states that guards shall be constructed and maintained to: (a) withstand vibration, shock, and wear to which they will be subjected during normal operation; and (b) not create a hazard in their use. This is another instance of the State standard containing specific dimension requirements (for example, posts eight feet apart, 11/4 inches in diameter), whereas the Federal regulations speak generally of being able to withstand vibration, shock, and wear, and of not creating "a hazard in their use." Similarly, N.J.A.C. 12:185-22.3, Hatch openings, states that "hatch openings shall be protected by standard railings and toeboards, hatch covers, or solid, slat, or grill gates 42 inches high. The Federal regulations do not appear to have any such 42-inch requirement.
11. N.J.A.C. 12:185-27.2, Railroad haulage, contains the following requirements regarding "minimum clearance for standard gauge tracks": (a) from the gauge line of the nearest rail to loading or unloading docks, walls of depressed tracks, and wheel-barrow platforms, there shall be a minimum clearance of three feet and four inches; (b) from the gauge line of the nearest rail to all stockyards, there shall be a minimum clearance of five feet on tangent track and five feet and six inches on curved track; (c) from the gauge line on the nearest rail to all other structures, there shall be a minimum clearance of six feet; and (d) the minimum distance between the nearest gauge lines of adjacent tracks shall be eight feet and six inches. N.J.A.C. 12:185-27.2 also contains the following requirements regarding "minimum overhead clearance": (a) from the top of the rail to [page=862] any structure other than overhead loading pockets, there shall be a minimum clearance of 22 feet; (b) from the top of the rail to any overhead power transmission line when men are permitted to ride on top of standard freight cars, there shall be a minimum clearance of 28 feet. The only railroad haulage clearance standards within 30 CFR Part 56 pertain to clearance on adjacent tracks (30 CFR 56.9103) and clearance for surface equipment (30 CFR 56.9330). The former standard states that, "railcars shall not be left on side tracks unless clearance is provided for traffic on adjacent tracks." The latter standard states that, "continuous clearance of at least 30 inches from the farthest projection of moving railroad equipment shall be provided on at least one side of the tracks at all locations where possible or the area shall be marked conspicuously."

12. N.J.A.C. 12:185-30.1(e) states that, "[t]he overburden in all quarries shall be stripped as close to bedrock as it is practicable to do, or to the top of the material being excavated for a distance of at least 15 feet back from the face, and shall then be sloped, where applicable, to its angle of repose for the entire length of the section of the quarry face which is being worked." 30 CFR 56.3131, Pit or quarry wall perimeter, states the following: "In places where persons work or travel in performing their assigned tasks, loose or unconsolidated material shall be sloped to the angle of repose or stripped back for at least 10 feet from the top of the pit or quarry wall. Other conditions at or near the perimeter of the pit or quarry wall which create a fall-of-material hazard shall be corrected." This is an instance where it would appear that the State standard exceeds the Federal standard in that under the State rule all of the overburden (rock and soil that lies above the bedrock) must be excavated for a distance of at least 15 feet back from the wall face, and shall then be sloped to its angle of repose for the entire length of the quarry face, which is being worked, whereas under the Federal regulation, only "in places where persons work or travel in performing their assigned tasks," loose or unconsolidated material (not necessarily all of the "overburden") must be sloped to the angle of repose or stripped back for at least 10 feet from the top of the pit or quarry wall.

13. N.J.A.C. 12:185-30.1(h) states that the employer or some competent employee designated by the employer, shall inspect the pit or quarry face for dangerously loose material after blasting, not less than once each day during thawing weather, after heavy rains or freezes and at least once every day in the working sections of the pit or quarry, including sections used as travel ways by persons and where trucks pass nearby. 30 CFR 56.3401, Examination of grounds, states that appropriate supervisors or other designated persons shall examine and, where applicable, test ground conditions in areas where work is to be performed prior to work commencing, after blasting, and as ground conditions warrant during the work shift. The Federal regulation also states that highwalls and banks adjoining travelways shall be examined weekly or more often if changing ground conditions warrant. Thus, the regular ground examination required by the Federal regulations (that is, apart from examination prior to commencement of work and after blasting) would be "as ground conditions warrant during the work shift," and as to highwalls and banks adjoining travelways, weekly or more often if changing ground conditions warrant; whereas the State rule requires an inspection of the pit or quarry face "at least once every day in the working sections of the pit or quarry." In a particular circumstance, examination of the pit or quarry face "as ground conditions warrant during the shift," might translate to a more frequent examination than "at least once every day." However, in general, the existence of a State standard that requires a particular frequency of inspection, could be read to exceed a corresponding Federal standard that contains an "as ground conditions warrant," inspection requirement.

14. N.J.A.C. 12:185-30.1(m) states that when the floor of any pit or quarry is below the natural ground level or a highway, the banks of the pit shall not be removed within 25 feet of the property line or the sideline of the highway, and the bank shall be left in such condition that sloughing of the bank will not cause the top of the bank to be less than 25 feet from the property line of the highway. N.J.A.C. 12:185-30.1(n) states that when the floor of any pit or quarry is more than five feet below the average grade of a highway at any point within 50 feet of the highway, an effective and approved barrier shall be erected by the employer along the property line nearest the highway for an approved distance to provide protection against the drop or fall of persons or vehicles. 30 CFR Part 56 does not appear to contain any such specific rules regarding proximity of pit or quarry operations to a highway. Rather, 30 CFR 56.3201, Location for performing scaling, states that scaling shall be performed from a location that will not expose persons to injury from falling material, or other protection from falling material shall be provided.
15. N.J.A.C. 12:185-30.3 states that all quarries shall work the face by a multiple bench method with the height of the face not exceeding 50 feet; provided, however, that in circumstances where the surface topography influences the height of the uppermost bench, the height shall not exceed 65 feet. 30 CFR 56.3130, Wall, bank and slope stability, states that mining methods shall be used that will maintain wall, bank, and slope stability in places where persons work or travel in performing their assigned tasks, adding that when benching is necessary, the width and height shall be based on the type of equipment used for cleaning of benches or for scaling of walls, banks, and slopes.

In the instances listed above where State standards exceed Federal standards, there may be a cost to pit/quarry operators associated with the heightened standard. As to the benefit of such State standards, the Department is committed to its mission of establishing reasonable minimum requirements for the construction, operation, and maintenance of pits and quarries in the interest of life, health, and safety of employees, as well as protection of property. Any standards that exceed Federal standards have been determined to be necessary toward achieving those dual objectives. That said, N.J.A.C. 12:185-1.3 allows for exceptions to the rules. Specifically, it states that in cases of "practical difficulty or unnecessary hardship," the Commissioner may grant exceptions from this chapter provided that a request for such exception has been made in writing. In those instances where State standards exceed Federal standards, petitioning the Commissioner for an exception under N.J.A.C. 12:185-1.3 may give the regulated community some relief, so long as the regulatory standard - "practical difficulty or unnecessary hardship" - is met.

Full text of the readopted rules can be found in the New Jersey Administrative Code at N.J.A.C. 12:185.