

## Chapter NR 132

### METALLIC MINERAL MINING

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**Note:** Chapter NR 132 as it existed on August 31, 1982 was repealed and a new chapter NR 132 was created effective September 1, 1982.

**NR 132.01 Purpose.** The purpose of this chapter is to establish procedures and standards for the comprehensive regulation of metallic mineral mining in this state and to coordinate and reconcile applicable state and federal statutes and regulations so as to facilitate the procedures by which department permits, licenses and approvals may be applied for, hearings may be held, and determinations may be made by the department in a coordinated and integrated manner.

**History:** Cr. Register, August, 1982, No. 320, eff. 9-1-82.

**NR 132.02 Applicability. (1)** The provisions of this chapter are applicable to all metallic mineral mining as defined by s. 293.01 (9), Stats., including the storage, handling, processing, transportation and disposal of all materials resulting from a mining operation except to the extent that mining wastes are regulated by ch. NR 182.

**(2)** Nothing herein shall require the amendment or modification of an application to mine, a mining plan or reclamation plan relating to a mining operation in existence on May 21, 1978 and for which a mining permit application approved by the department was on file on the date these rules became effective except to the extent there is a change in the mining operation requiring a modification of the mining permit under these rules.

**History:** Cr. Register, August, 1982, No. 320, eff. 9-1-82; **correction in (1) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 2000, No. 529.**

**NR 132.03 Definitions.** The following special definitions are applicable to the terms used in this chapter:

**(1)** "Abandonment of mining" means the cessation of mining, not set forth in an operator's mining or reclamation plans or by any other sufficient written or constructive notice, extending for more than 6 months. Abandonment of mining does not include the cessation of mining due either to labor strikes or the cessation of mining due to such unforeseen developments as adverse market conditions for a period not to exceed 5 years as determined by the department after consulting with the metallic mining council.

**(2)** "Applicant" means a person who has applied for a mining permit.

**(3)** "Baseline data" means the data collected by the applicant or the department which the department has accepted through the regulatory process of ss. NR 132.05 and 132.11, and s. 293.43, Stats., as representing the existing environmental conditions prior to the commencement of mining.

**(4)** "Concentrator" means a facility where ore is separated into values (concentrates) and rejects (tailings).

**(5)** "Department" means department of natural resources.

**(6)** "Forfeited any bond" means the forfeiture of any performance security occasioned by noncompliance with any mining laws or provisions of this chapter.

**(7)** "Materials" means all substances handled, processed, transported, stored or disposed of on the mining site during the mining, concentrating and reclamation operation, including merchantable by-product and other materials generated by the operation as well as those brought onto the mining site.

**(8)** "Merchantable by-product" means all waste soil, rock, mineral, liquid, vegetation and other material directly resulting from or displaced by the mining, cleaning or preparation of minerals during mining operations which are determined by the department to be marketable upon a showing of marketability made by the operator, accompanied by a verified statement by the operator of his or her intent to sell such material within 3 years from the time it results from or is displaced by mining. If after 3 years from the time merchantable by-product results from or is displaced by mining such material has not been transported off the mining site, it shall be considered and regulated as refuse unless removal is continuing at a rate of more than 12,000 cubic yards per year. Regardless of whether the material constitutes merchantable by-product, it shall be subject to the requirements of this chapter.

**(9)** "Metallic mineral" means a naturally occurring inorganic, metal-containing substance which is mined or proposed to be mined for the purpose of extracting a metal or metals which form all or a part of the chemical composition of the mineral. Such metals include but are not limited to iron, copper, zinc, lead, gold, silver, titanium, vanadium, nickel, cadmium, molybdenum, chromium, manganese, cobalt, zirconium, beryllium, thorium, and uranium.

**(10)** "Mill" means a concentrator.

**(11)** "Mining" or "mining operation" means all or part of the process in the mining of metallic minerals other than for exploration or prospecting, including commercial extraction, agglomeration, beneficiation, construction of roads, removal of overburden and the production of refuse.

**(12)** "Mining permit" means the permit which is required of all operators as a condition precedent to commencing mining at a mining site.

**(13)** "Mining plan" means the proposal for the mining of the mining site which shall be approved by the department under s. 293.49, Stats., prior to the issuance of the mining permit.

**(14)** "Mining site" means the surface area disturbed by a mining operation, including the surface area from which the minerals or refuse or both have been removed, the surface area covered by refuse, all lands disturbed by the construction or improvement of haulageways, pipelines and pipeline corridors, and any surface areas in which structures, equipment, materials and any other things used in the mining operation are situated.

**(15)** "Monitoring data" means the data collected by the operator or the department after the commencement of mining.

**(16)** "Operator" means any person who is engaged in, or who has applied for or holds a permit to engage in mining, whether

individually, jointly or through subsidiaries, agents, employees or contractors.

(17) "Ore" means a naturally occurring material from which metallic minerals may be recovered at a profit.

(18) "Overburden" means any unconsolidated material that overlies bedrock.

(19) "Person" means any individual, corporation, cooperative-owner, lessee, syndicate, partnership, firm, association, trust, estate, public or private institution, political subdivision of the state of Wisconsin, any state agency, or any legal successor, representative, agent or agency of the foregoing.

(20) "Principal shareholder" means any person who owns at least 10% of the beneficial ownership of an operator.

(21) "Reclamation" means the process by which an area physically or environmentally affected by mining is rehabilitated to either its original state or, if this is shown to be physically or economically impracticable or environmentally or socially undesirable, to a state that provides long-term environmental stability. Reclamation shall provide the greatest feasible protection to the environment and shall include, but is not limited to, the criteria for reclamation set forth in s. 293.13 (2) (c), Stats., and the closure and long-term care requirements of ch. NR 182 for facilities licensed pursuant to that chapter.

(22) "Reclamation plan" means the proposal for the reclamation of the mining site which must be approved by the department under s. 293.49, Stats., prior to the issuance of the mining permit, and includes the closure and long-term care requirements of ch. NR 182 for facilities licensed pursuant to that chapter.

(23) "Refuse" means all waste soil, rock, mineral, liquid, vegetation and other material, except merchantable by-products, directly resulting from or displaced by the mining, and from the cleaning or preparation of minerals during mining operations, and shall include all waste materials deposited on or in the mining site from other sources and mining waste as defined in s. NR 182.04.

(24) "Tailings" means waste material resulting from the beneficiation of crushed ore at a concentrator.

(25) "Unsuitability" means that the land proposed for surface mining is not suitable for such activity because the surface mining activity itself may reasonably be expected to destroy or irreparably damage either of the following:

(a) Habitat required for survival of species of vegetation or wildlife as designated in ch. NR 27, if such endangered species cannot be firmly reestablished elsewhere.

(b) Unique features of the land, as determined by state or federal designation as any of the following, which cannot have their unique characteristic preserved by relocation or replacement elsewhere:

1. Wilderness areas designated by statute or administrative rule.

2. Wild and scenic rivers designated by statute or administrative rule.

3. National or state parks designated by statute or administrative rule.

4. Wildlife refuges and areas designated by statute or administrative rule.

5. Historical landmarks, sites and archaeological areas designated by the state historical society.

6. Scientific areas as follows:

- a. Abelman's Gorge
- ab. Abraham's Woods
- ac. Apple River Canyon
- ad. Audubon Goose Pond
- ae. Aurora Lake
- af. Avoca Prairie-Savanna
- ag. Avon Bottoms
- b. Bark Bay Slough

- ba. Baxter's Hollow
- bb. Bean Lake
- bc. Bear Creek Cave
- bd. Belmont Mound Woods
- be. Beulah Bog
- bf. Big Bay Sand Spit and Bog
- bg. Bittersweet Lakes
- bh. Blackhawk Island
- bi. Black Tern Bog
- c. Blue Hills Felsenmeer
- ca. Blue River Sand Barrens
- cb. Bois Brule Conifer Bog
- cc. Bose Lake Hemlock-Hardwoods
- cd. Brady's Bluff Prairie
- ce. Brant Book Pines and Hardwoods
- cf. Browntown Oak Forest
- cg. Buena Vista Prairie Chicken Meadow
- ch. Buena Vista Quarry Prairie
- d. Castle Mound Pine Forest
- da. Cedarburg Beech Woods
- db. Cedarburg Bog
- dc. Cedar Grove Hawk Research Station
- dd. Charles Pond
- de. Cherokee Marsh
- df. Cherry Lake Sedge Meadow
- e. Chiwaukee Prairie
- ea. Comstock Bog - Meadow
- eb. Council Grounds Pine Forest
- ec. Crex Sand Prairie
- ed. Dalles of the St. Croix River
- ee. Dells of the Eau Claire River
- ef. Devil's Lake Oak Forest
- eg. Dewey Heights Prairie
- f. Dory's Bog
- fa. Dunbar Barrens
- fb. Durst Rockshelter
- fc. Eagle Oak Opening
- fd. East Branch Milwaukee River
- fe. Ekdall Brook Conifer Swamp
- ff. Ennis Lake - Muir Park
- fg. Escanaba Lake Hemlocks
- g. Fairy Chasm
- ga. Faville Prairie
- gb. Finerud Pine Forest
- gc. Five-Mile Bluff Prairie
- gd. Flambeau River Hardwoods Forest
- ge. Flora Spring Pond
- gf. Fountain Creek Wet Prairie
- gg. Fourmile Island Rookery
- h. Genesee Oak Opening and Fen
- ha. Giant White Pine Grove
- hb. Gibraltar Rock
- hc. Gobler Lake
- hd. Gullickson's Glen
- i. Haskell Noyes Memorial Woods
- ia. High Lake Spruce-Balsam Forest
- ib. Holmboe Conifer Forest
- ic. Honey Creek
- id. Hub City Bog
- ie. Interstate Lowland Forest
- if. Jackson Harbor Ridges

- j. Johnson Lake Barrens
- ja. Jung Hemlock–Beech Forest
- jb. Karcher Springs
- jc. Keller Whitcomb Creek Woods
- jd. Kettle Moraine Low Prairie
- je. Kewaskum Maple–Oak Woods
- jf. Kinnickinnic River Gorge and Delta
- jg. Kohler Park Dunes
- k. Kohler Park Pines
- ka. Kohler–Peat Swamp Hardwoods
- kb. Koshawago Springs
- kc. Kurtz Woods
- kd. Lake of the Pines Conifer–Hardwoods
- ke. Lampson Moraine Pines
- kf. Lawrence Creek
- kg. Lodde’s Mill Bluff
- kh. Lulu Lake Fen
- ki. Maribel Caves
- kj. Marinette County Beech Forest
- L. Mayville Ledge Beech – Maple Woods
- La. Mazomanie Bottoms
- Lb. Midway Railroad Prairie
- Lc. Milwaukee River
- Ld. Miscauno Cedar Swamp
- Le. Moose Lake Hemlocks
- m. Moquah Barrens
- ma. Mt. Pisgah Hemlock–Hardwoods
- mb. Mud Lake
- mc. Mud Lake–Bog
- md. Mukwa Bottomland Forest
- me. Muralt Bluff Prairie
- mf. Muskego Park Hardwoods
- mg. Natural Bridge and Rockshelter
- n. Necedah Oak–Pine Forest
- na. Necedah Oak–Pine Savanna
- nb. Neda Mine
- nc. Nelson–Trevino Bottoms
- nd. Newark Road Prairie
- ne. New Munster Bog Island
- nf. New Observatory Woods
- o. Newport Conifer–Hardwoods
- oa. Oliver Prairie
- ob. Olson Oak Woods
- oc. Oshkosh–Larsen Trail Prairies
- od. Ottawa Lake Fen
- oe. Oxbow Rapids
- of. Parfrey’s Glen
- og. Peat Lake
- oh. Peninsula Park Beech Forest
- p. Peninsula Park White Cedar Forest
- pa. Pine Cliff
- pb. Pine Glen
- pc. Pine Hollow
- pd. Plagge Woods
- pe. Plum Lake Hemlock Forest
- q. Point Beach Ridges
- qa. Poppy’s Rock
- qb. Port Wing Boreal Forest
- qc. Powers Bluff Maple Woods
- qd. Puchyan Prairie

- qe. Putnam Park
- qf. Renak–Polak Maple–Beech Woods
- qg. Rice Lake–Thunder Lake Marsh
- qh. Ridges Sanctuary
- r. Ripon Prairie
- ra. Rush Creek
- rb. St. Croix River Barrens and Cedar Swamp
- rc. St. Croix River Swamp Hardwoods
- rd. Sajdak Springs
- re. Sander’s Park Hardwoods
- rf. Schmidt Maple Woods
- rg. Scott Lake–Shelp Lake Natural Area
- rh. Scuppernong Prairie
- ri. Seagull Bar
- s. Silver Lake Bog
- sa. Sister Islands
- sb. Snapper Prairie
- sc. Sohlberg Silver Lake
- sd. Solon Springs Sharptail Barrens
- se. South Waubesa Wetlands
- sf. Spring Green Reserve
- sg. Spring Lake
- sh. Spruce Lake Bog
- si. Sterling Barrens
- sj. Summerton Bog
- sk. Swenson Wet Prairie
- t. Tamarack Creek Bog
- ta. Tellock’s Hill Woods
- tb. Tiffany Bottoms
- tc. Toft Point
- td. Totogatic Highland Hemlocks
- te. Tower Hill Bottoms
- tf. Trenton Bluff Prairie
- u. Trout Lake Conifer Swamp
- ua. Two Creeks Buried Forest
- ub. Upper Brule River
- uc. VanderBloemen Bog
- ud. Waterloo Fen and Springs
- v. Waupun Park Maple Forest
- va. Westport Drumlin Prairie
- vb. Wilderness Ridge
- vc. Wyalusing Hardwood Forest
- vd. Wyalusing Walnut Forest
- ve. Young Prairie

7. Other areas of a type designated as unique or unsuitable for surface mining.

(26) “Waste rock” means consolidated material which has been excavated during the mining process but is not of sufficient value to constitute ore.

(27) “Wetlands” means an area where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation and which has soils indicative of wet conditions.

**History:** Cr. Register, August, 1982, No. 320, eff. 9–1–82; corrections in (3), (13), (21) and (22) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 2000, No. 529.

**NR 132.05 Notification of intent to collect data.**

(1) Any person intending to submit an application for a mining permit shall notify the department by registered mail prior to the collection of data or information intended to be used to support the permit application.

(2) The notice shall contain the following information:

(a) The name, address and telephone number of the person submitting the notice of intent.

(b) A map showing the approximate location of the mining site.

(c) The expected date when a mining permit application may be submitted pursuant to s. NR 132.06.

(d) Specific environmental data which were obtained, collected or generated prior to the notice of intent to collect data together with any substantiating background information which would assist the department in establishing the validity of the data. The substantiating background information shall include but not be limited to the following:

1. Date obtained and methods employed.
2. Persons obtaining, collecting and generating the data and their qualifications.
3. Permits, licenses and approvals that were in effect when the data and information were obtained, collected and generated prior to the notice of intent to collect data.

(e) A preliminary project description addressing the following:

1. A topographic map showing the location of the ore body.
2. A description of the ore body including available details on size, shape, and mineralogic composition.
3. To the extent possible, a description of the anticipated mining and processing methods and wastes expected to be generated.
4. An estimate of the project schedule.
5. If applicant so desires, a proposed scope of study including such information as required under sub. (7) (a), if such information is available to the applicant.
6. Other pertinent information as requested by the department.

(f) Quality assurance program employed in obtaining, collecting, generating and evaluating all baseline data.

**(3)** Within 10 days of receipt of the notification under this section, the department shall give notice of a public informational hearing to be held not less than 45 nor more than 90 days after the notice is given. This notice shall be given by mail to the applicant, to any known state agency required to issue a permit for the proposed operation, to the regional planning commission for the affected areas, to the county, city, village, town and tribal government within which any part of the affected area lies and to all persons who have requested such notice. The hearing shall be a public informational hearing to solicit public comments on the following:

- (a) Anticipated environmental impacts and desired baseline studies to be conducted by the applicant or the department in order to evaluate the anticipated environmental impacts;
- (b) Information and data needed for a mining permit application and an environmental impact report, if required;
- (c) Information the department may seek through independent studies and verification;
- (d) A list of persons desiring to receive notification of any departmental actions with regard to the proposed mining project;
- (e) Verification procedures to be employed by the department;
- (f) Quality assurance procedures to be employed by the applicant; and
- (g) Anticipated permits, approvals, certifications and licenses for the proposed mining project required by federal, state and local agencies.

**(4)** After review of the notice of intent and the oral and written testimony given during and after the public hearing, the department shall, within 90 days of the close of the public hearing, advise the person giving the notice of the following:

(a) Specific informational and quality assurance requirements that the person must provide for a mining permit application and an environmental impact report, if such a report is required, the methodology and quality assurance procedures to be used in gathering information, and specifically the type and quantity of information on the characteristics of natural resources including groundwater in the proposed mining site and a timely application date for all necessary approvals, licenses and permits.

(b) The department shall accept general environmental data or information such as soil characteristics, hydrologic conditions and air and water data contained in publications, maps, documents, studies, reports and similar sources, whether public or private, not prepared by or for the person. The department shall accept the data which is otherwise admissible that is collected prior to notification for purposes of evaluating another site or sites and which is not collected with intent to evade the provisions of this chapter. The department shall inform the person giving notice if the data will or will not be accepted by the department. The department shall state in writing the reasons for not accepting all the data or portions thereof. The acceptance of the data by the department shall not attest to the validity of the data.

(c) Preliminary verification procedures to be conducted by the department.

**(5)** All information gathered by a person giving notice shall be submitted to the department as soon as it is in final form. The department may revise or modify the requirements regarding information which must be gathered and submitted. The department shall notify the person by registered mail of the revisions or modifications of its requirements and the reasons therefor, and if a scope of study pursuant to sub. (7) will be required.

**(6)** A county, town, village, city or tribal government in which a proposed mining site is to be located or which is likely to be substantially affected by the proposed mining operation shall be provided copies by the department of its response pursuant to sub. (4) and of any scope of study and department comments provided to the same resulting from sub. (7). The department shall, upon the establishment of a local impact committee by any of the above groups, pursuant to s. 293.33, Stats., send copies of such documents to the local impact committee rather than directly to the county, town, village, city or tribal government.

**(7) (a)** If requested by the department, the applicant shall develop a scope of study designed to comply with the department's informational requirements for departmental approval. The scope of study shall include the following:

1. Identification of data requirements specified by the department;
2. Specific methodologies to be utilized in data collection, data processing, laboratory work and analysis;
3. Description of the format in which the data will be presented in the environmental impact report, if such report is required;
4. Tentative schedule for collection of field data;
5. Names, addresses and qualifications of persons who will be responsible for data collection, laboratory work and impact analysis; and
6. An updated quality assurance program as previously submitted pursuant to sub. (2) (f).

(b) The scope of study shall be submitted to the department within 120 days after the date of the department's request for the study.

(c) The department shall review the proposed scope of study and shall accept, reject or make modifications in the scope of study within 60 days of its receipt. In reviewing the proposed scope of study, the department shall reconsider all comments made at the informational hearing held pursuant to sub. (3).

(d) The department may require the person to submit any or all raw field data collected either by or for it by a consultant.

(e) The department shall develop studies and quality assurance and verification programs in a manner consistent with future monitoring requirements.

**History:** Cr. Register, August, 1982, No. 320, eff. 9-1-82; correction in (6) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 2000, No. 529.

**NR 132.06 Application to mine. (1)** No person may engage in mining or reclamation at any mining site that is not covered by a mining permit and a written authorization to mine as provided in s. NR 132.09 (3).

**(2)** Any person wishing to engage in mining shall file an application in reproducible form and 25 copies thereof with the department upon forms prepared and furnished by the department. A mining permit application shall be submitted for each mining site. No application for surface mining will be entertained by the department if within the previous 5 years the applicant, or a different person who had received a prospecting permit for a site had certified under s. 293.35 (1), Stats., that he or she would not subsequently make application for a permit to conduct surface mining at the site. Copies of the application shall be distributed to the clerk of any county, city, village or town with zoning jurisdiction over the proposed site, to the clerk of any county, city, village or town within whose boundaries any portion of the proposed site will be located, and to the main public library of each county or municipality with zoning jurisdiction over the proposed site within whose boundaries any portion of the proposed site will be located.

**(3)** The application shall be accompanied by the following:

(a) A fee of \$10,000 to cover the estimated cost of evaluating the operator's mining permit application. Upon completion of its evaluation, the department shall adjust this fee to reflect the actual cost of evaluation less any fees paid for the same services to satisfy other requirements. Evaluation of a mining permit application shall be complete upon the issuance of an order to grant or deny a mining permit.

(b) A mining plan in accordance with s. NR 132.07.

(c) A reclamation plan in accordance with s. NR 132.08.

(d) A proposed monitoring and quality assurance plan consistent with the requirements of this chapter, ch. NR 182 and s. 1.11, Stats. The proposed monitoring plan shall be considered at the s. 293.43, Stats., hearing.

(e) A list of names and addresses of each owner of land within the mining site and each person known by the applicant to hold any option or lease on land within the mining site and all prospecting and mining permits in this state held by the applicant.

(f) Evidence satisfactory to the department that the applicant has applied for necessary approvals and permits under all applicable zoning ordinances and that the applicant has applied for all necessary approvals, licenses or permits required by the department.

(g) Information as to whether the applicant, its parent, its principal shareholders, subsidiaries or affiliates in which it owns more than a 40% interest, has forfeited any mining bonds in other states within the past 20 years, and the dates and locations, if any.

(h) Information relating to whether unsuitability may exist for surface mining to the extent not fully considered in s. 293.45, Stats.

(i) An itemized statement showing the estimation of the cost to the state of reclamation.

(j) Descriptions of land contiguous to the proposed mining site which the applicant owns, leases or has an option to purchase or lease.

(k) Other information or documentation that the department may require.

**(4)** The department has been directed, pursuant to ch. 421, laws of 1977, to assure that mining activities conducted in this

state result in a minimization of disturbance to wetlands. The legislature has also directed, in ch. 377, laws of 1977, that department rules relating to metallic mining wastes take into consideration the special requirements of metallic mining operations in the location, design, construction, operation and maintenance of sites and facilities for the disposal of such wastes as well as any special environmental concerns that will arise as a result of the disposal of the same. The department has established, in s. NR 1.95 an overall framework for its decisions affecting wetlands. It is, therefore, the intent of this subsection to implement these directives recognizing that, depending on the location and site conditions involved in a particular case, it may be relatively easy to avoid entirely the use of wetlands in some cases while being virtually impossible to avoid their limited and carefully contemplated use in others and that the goal of the siting process shall be the selection of sites that are most favorable taking into account all pertinent factors. For purposes, therefore, of administering these directives and rules and acting on permits, licenses and approvals, the following standards shall be applied:

(a) The objective of the applicant's site selection process for mining facilities, and for the disposal or storage of wastes or materials produced by such activities, shall be the selection of a viable site that would result in the least overall adverse environmental impact.

(b) The applicant's site selection process shall include the identification and analysis of various alternatives so that a legitimate comparison between the most viable sites can be made by the department, realizing that a comparison will be made between several sites, all of which may have some imperfections with regard to environmental acceptability and none of which, in some cases, may be found to be environmentally acceptable as a result of compliance with s. 1.11, Stats., and other applicable Wisconsin laws.

(c) To ensure compliance with the requirement to minimize the disturbance of wetlands, the applicant shall identify and the department shall analyze viable sites which would result in the least overall adverse environmental impact and which would also avoid the use of any wetlands. If such sites avoiding the use of wetlands cannot be identified pursuant to the standards in this subsection, then the applicant shall identify and the department shall analyze those viable sites which would result in the least overall adverse environmental impact and which would also utilize, consistent with minimizing total environmental impacts, the least acreage and the least valuable wetlands directly and which would cause the least adverse impact on the wetlands and waters of the state outside the proposed area of use.

(d) The use of wetlands for mining activities, including the disposal or storage of mining wastes or materials, or the use of other lands for such uses which would have a significant adverse effect on wetlands, are presumed to be unnecessary unless the applicant demonstrates, taking into account economic, environmental, technical, recreational and aesthetic factors, that the site proposed for use:

1. Constitutes a viable site;
2. Is the alternative which causes the least overall adverse environmental impact; and

3. Will be used in a manner so as to minimize the loss of wetlands functions which those wetlands may serve with respect to related wetlands or other waters of the state, or both, outside the proposed area of use. As used in this paragraph, a presumption shall not be construed to be a prohibition, but rather the creating of a burden of proof on the applicant to demonstrate by the preponderance of evidence that it has complied with all the siting principles and standards of this subsection. As used in this section, viable means technically and economically feasible.

(e) With respect to mining activities sited, in whole or in part, in wetlands and predating these rules as well as ch. 377, laws of 1977, the use of such wetlands for such activities shall be deemed

necessary hereunder and the site of such use shall be deemed a viable site. The standards of minimization herein established to the extent applicable to such preexisting activities by reason of s. 293.13 (2) (c) 8., Stats., shall be so applicable only to the extent specified in s. 293.91 (2), Stats. Furthermore, any additional activities undertaken in wetlands by an applicant subsequent to the effective date of these rules, which additional activities are undertaken to bring activities of the applicant, which were sited in wetlands prior to these rules, into prompt compliance with chs. 30, 281 and 283, Stats., as well as regulations, orders and decisions thereunder, shall be deemed to be necessary so long as the applicant demonstrates that, taking into account economic, environmental, technical, recreational and aesthetic factors, the site proposed for use by such additional activities will be used in a manner so as to minimize the loss of wetlands and the net loss of functions which those wetlands may serve with respect to related wetlands or other waters of the state, or both, outside the proposed area of use.

(f) The department shall give special consideration to a site where it finds that the degree of necessary improvement is of such extent and expense that compliance cannot be accomplished without affecting wetlands.

(g) The applicant shall assist in the evaluation of environmental impacts as mandated herein. All of the applicable following wetlands functions and values shall be considered except as provided in par. (h):

1. Biological functions. Wetlands are environments in which a variety of biological functions occur. In many cases, wetlands are very productive ecosystems which support a wide diversity of aquatic and terrestrial organisms. Many wetland areas are vital spawning, breeding, nursery or feeding grounds for a variety of indigenous species. Wetlands are sometimes the habitats for state or federally designated rare, threatened or endangered species. Evaluation of the biological functions should include consideration of the kinds, numbers and relative abundance and distribution of plant and animal species supported by the area, net primary productivity of plant communities, wildlife production and use, and the kinds and amount of organic material transported to other aquatic systems as a potential energy source for consumer organisms in those systems. Habitat evaluation should consider the short- and long-term importance of the wetlands to both aquatic and terrestrial species. In addition, the evaluation should include any specialized wetland functions essential for an organism to complete its life cycle requirements such as cover, spawning, feeding and the like. Each wetland under consideration should be evaluated on a site specific basis.

2. Watershed functions. In addition to their biological functions, wetlands may serve important physical and chemical functions with respect to other wetlands and waters of the state. A specific wetland, or set of wetlands, may play a critical role in maintaining the stability of the entire system to which it is physically and functionally related. This functional role may include the maintenance of both the hydrologic patterns and the physical and chemical processes of related wetlands and other related waters of the state. Evaluation of wetland functions requires a thorough analysis of the manner and extent to which the wetland serves to maintain the hydrologic, physical and chemical processes of the larger ecosystem to which it belongs. Factors to be considered in the evaluation process are discussed below. The use of non-wetland areas may alter the hydrologic, chemical and physical processes of wetlands outside the proposed area of use. The possibility of such impacts from the use area into wetlands and other waters of the state outside the proposed area of use should be carefully considered.

2c. Hydrologic support functions. A particular wetland may function to maintain the hydrologic characteristics, and thereby the physical and chemical integrity of an entire aquatic ecosystem. Assessment of the hydrologic support function shall consider the effects that modifications of a particular area could have on the

hydrologic relations to the whole wetland or aquatic ecosystem, and on the cumulative effects of piecemeal alterations. Evaluation of wetlands hydrologic functions shall include consideration of the wetland's location and topographic position, the areal extent of the wetland within the associated system, the degree of connection with other wetlands and waters of the state, and the hydrologic regime. Hydrologic regime refers to the hydrologic characteristics of a wetland such as the source of the water, its velocity, depth and fluctuation, renewal rate and temporal patterns on timing. The water source determines ionic composition, oxygen saturation, and potential pollutant load. Velocity affects turbulence and the ability of the water to carry suspended particulate matter. Water depth and fluctuation patterns have a critical influence on the vegetation, wildlife, and physical-chemical properties of the sediments and overlying waters. Renewal rate describes the frequency of replacement of the water which depends on water depth and volume, frequency of inundation and velocity. The temporal pattern refers to the frequency of inundation and its regularity or predictability. The hydrologic regime of a wetland influences the biological availability and transport of nutrients, detritus and other organic and inorganic constituents between the particular wetland and other water bodies. Other facets of the hydrologic regime may be considered in specific cases. The location and topographic position of any particular wetland in relation to other water systems determine in part the degree to which they are hydrologically connected. The strongest hydrologic connections are likely to occur between wetlands and other water systems which exchange water frequently and/or are nearest to each other. The areal extent of any particular wetland in relation to the total area of the surrounding watershed is an important criterion in evaluating the hydrologic support function. This includes the relative spatial relationships between specific areas under study and the total area of the adjacent wetland and any open water areas in the watershed.

2f. Groundwater function. Groundwater may discharge to a wetland, recharge from a wetland to another area, evaporate from, and/or flow through a wetland. The direction and rate of groundwater flow in a given wetland may change. The criteria that should be considered for their influence on the recharge potential include the total areal extent of wetlands and other waters in the particular drainage basin, and the hydrologic characteristics of the associated aquifer or aquifers including porosity, permeability and transmissivity.

2i. Storm and flood water storage. Some wetlands may be important for storing water and retarding flow during periods of flood or storm discharge. Even wetlands without surface water connections to other water bodies may serve this function. Such wetlands can reduce or at least modify the potentially damaging effects of floods by intercepting and retaining water which might otherwise be channelled through open flow systems. The importance of a given wetland for storm and flood water storage may be modified by the cumulative effects of the proposed activities and previous activities within the watershed. The flood storage capacity of a particular wetland is primarily a function of its area, basin shape, substrate texture and previous degree of saturation. In general, the greater the area of the wetland and the coarser the texture of the substrate, the greater the potential for flood water storage, given unsaturated field conditions. Similarly, wetland vegetation is an important factor in reducing the energy of flood or storm water.

2m. Shoreline protection. Wetlands also function to dissipate the energy of wave motion and runoff surges from storms and snowmelt, and thus lessen the effects of shoreline erosion. Wave action shielding by wetlands is not only important in preserving shorelines and channels, but also in protecting valuable residential, commercial and industrial acreage located adjacent to the aquatic ecosystems. The capacity of a particular wetland to act as an erosional buffer for a shoreline depends on such factors as the vegetation characteristics, the shape and size of the wetland and

the adjacent shoreline morphology. The protection of shorelines by wetlands depends primarily on the floristic composition, structure and density of the plant community. Shoreline morphology along with fetch, adjacent bottom topography and wetland vegetation are important considerations in evaluating a wetland for its shoreline protection functions. Wetlands along shorelines with long fetches are likely to be associated with major waters of the state and shall not be considered for use.

2p. Other watershed functions. A wetland may perform a variety of other important functions within a watershed. Wetlands may degrade, inactivate, or store materials such as heavy metals, sediments, nutrients, and organic compounds that would otherwise drain into waterways. However, wetlands may subsequently release potentially harmful materials if the wetland soil is disturbed or its oxidation–reduction conditions altered. Potential alterations of these processes must be considered in the analysis, especially with regard to impacts on wetlands outside the proposed area of use. In assessing the importance of a particular wetland to the performance of watershed functions which influence the physical, chemical and biological properties of related waters, the following shall be considered:

- a. Density and distribution of plants;
- b. Area, depth and basin shape;
- c. Hydrologic regime;
- d. Physical, chemical and biological properties of the water and soil;
- e. Relationship of wetland size to watershed size;
- f. The number and size of other wetlands remaining in that watershed;
- g. Topography of the watershed;
- h. Position of the wetland within the watershed relative to springs, lakes, rivers and other waters;
- i. Land use practices and trends within the watershed, or the likelihood of nutrient, sediment or toxin loads increasing.

3. Recreational, cultural and economic value. Some wetlands are particularly valuable in meeting the demand for recreational areas, directly or indirectly, by helping to maintain water quality and providing wildlife habitat. Examples of recreational uses include: hunting, canoeing, hiking, snowshoeing, and nature study. To some people and cultures certain wetlands provide an important part of their economic base and/or contribute to their cultural heritage. In assessing the recreational, cultural and economic potential of a particular wetland, the following should be considered:

- a. Wetland type;
- b. Size;
- c. Suitability and compatibility for the different types of recreational uses;
- d. Legal access.
- e. Accessibility without damage to other wetland values or functions;
- f. Proximity to users;
- g. Position in relation to lakes, rivers and other waters;
- h. Whether it provides habitat for or produces species of recreational, cultural or economic interest; and
- i. Whether the products of some wetlands species (e.g., wild rice, furbearers, fish) have special cultural value and/or provide a significant portion of the economic base for the people of a region.

4. Scarcity of wetland type. Certain wetland types (e.g., fens, wild rice lakes) which are statewide or regionally scarce possess special resource significance. Scarcity or rareness depends on the frequency of occurrence of the type, the area of the type in existence prior to settlement, the historical conversion of the type and its resultant degree of destruction, and the amount of similar habitat in the present landscape of the region. In assessing the scarcity of a particular wetland, a comparative measure of the common-

ness among all wetland types and the degree to which wetlands of all types occur in the surrounding landscape should be considered.

5. Aquatic study areas, sanctuaries and refuges. Through various local, state and federal actions, large areas of the nation's wetlands have been designated and preserved by public agencies for scientific study, and the protection of aquatic and terrestrial habitats. Many public and private groups have also established sanctuaries and refuges in wetlands. Wetland areas that are legally and/or administratively controlled as such, or that are included or nominated for inclusion in the national register of natural landmarks, could be comparatively important. Wetland areas of significant social, cultural, or historic value, such as known landmarks, are considered important.

6. The ecosystem concept in a regional context. The previous subsections suggest that wetlands may not only have important functions within their boundaries, but may also interact with ecosystems of the surrounding region. The potential impact of wetland modification may influence distant wetlands if they are structurally and functionally related in the region. Similarly, the functions and values of any wetland may be affected by other existing and potential water resource activities in the region. Therefore, consideration should be given to those impacts which are shown to be of regional concern.

(h) All wetlands which are to be used by the proposed activity shall be inventoried and analyzed pursuant to this chapter. The use of such wetlands shall be de minimis and, therefore, exempt from further application of this section, if the applicant demonstrates the following by a preponderance of evidence:

1. The wetlands to be used are or can be made to be sufficiently hydrologically isolated from the surface and underground waters of the state so that no violations of applicable laws and regulations would result;
2. The wetlands are not special or unique utilizing the result of the analysis made pursuant to this chapter; and
3. The area of wetlands to be used shall not exceed 5 acres.

(5) The burden of proof to establish compliance with the requirements of this chapter shall be on the operator.

(6) The hearing procedure outlined in s. 293.43, Stats., shall govern all hearings on the operator's mining permit application.

**History:** Cr. Register, August, 1982, No. 320, eff. 9–1–82; correction in (4) (g) made under s. 13.93 (2m) (b) 1., Stats., Register, September, 1995, No. 477; corrections in (2), (3) (d) and (g), (4) (e) and (6) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 2000, No. 529.

**NR 132.07 Mining plan.** The mining plan shall include the following:

- (1) A detailed map of the proposed mining site in accordance with s. 293.37 (2) (a), Stats.
- (2) Details of the nature, extent and final configuration of the proposed excavation and mining site including location and total production of tailings and other mining refuse, and nature and depth of overburden.
- (3) Details of the proposed operating procedures, which may be furnished by reference to documents submitted pursuant to ch. NR 182 including:
  - (a) Mining operation sequence.
  - (b) Handling of overburden materials.
  - (c) Tailings production, handling and final disposition.
  - (d) Ore processing including milling, concentrating, refining, etc.
  - (e) Storage, loading and transportation of final product.
  - (f) Ground and surface water management techniques including provisions for erosion prevention and drainage control and a detailed water management plan showing source, flow paths and rates, storage volumes and release points.
  - (g) Plans for collection, treatment and discharge of any water resulting from the operation.
  - (h) Plans for air quality protection pursuant to ch. 285, Stats.

(i) The applicant shall prepare a risk assessment of possible accidental health and environmental hazards potentially associated with the mine operation. Contingency measures with respect to these risks and hazards, and the assumptions in this assessment, shall be explicitly stated.

(j) Measures for notifying the public and responsible governmental agencies of potentially hazardous conditions including the movement or accumulation of toxic wastes in ground and surface water, soils and vegetation and other consequences of the operation of importance to public health, safety and welfare.

(k) Description of all surface facilities associated with the mining site.

(L) Description of all geological/geotechnical investigations and drilling programs.

**(4)** Evidence satisfactory to the department that the proposed mining operation will be consistent with the reclamation plan and will comply with the following minimum standards:

(a) Grading and stabilization of excavation, sides and benches to conform with state and federal environmental and safety requirements and to prevent erosion and environmental pollution.

(b) Grading and stabilization of deposits of mining refuse in conformance with state and federal environmental and safety requirements and solid waste laws and regulations.

(c) Stabilization of merchantable by-products.

(d) Adequate diversion and drainage of water from the mining site to prevent erosion and contamination of surface and groundwaters.

(e) Notwithstanding the provisions of s. NR 812.20, the backfilling of excavations where such procedure will not interfere with the mining operation and will not:

1. Cause an exceedance of any groundwater quality standard, including any drinking water standard, implemented under this chapter in accordance with the provisions of ch. NR 182, or

2. Adversely affect public health or welfare.

(f) Handling and storage of all materials on the mining site in an environmentally sound manner as determined by the department. Materials not licensed pursuant to ch. NR 182 but deemed by the department to present a potential threat to the environment shall be subject to the waste characterization analysis procedures set forth in s. NR 182.08 (2) (b).

(g) Removal and stockpiling, or other measures to protect topsoils consistent with environmental considerations and reclamation, prior to mining unless the department determines that such action will be environmentally undesirable.

(h) Maintenance of adequate vegetative cover where feasible to prevent erosion.

(i) Impoundment of water where necessary in a safe and environmentally acceptable manner.

(j) Adequate planning of the site to achieve the aesthetic standards for the entire mine site described in ss. NR 132.17 and 132.18 (5).

(k) Identification and prevention of pollution as defined in s. 281.01 (10), Stats., resulting from leaching of waste materials, in accordance with state and federal solid waste laws and regulations.

(L) Identification and prevention of significant environmental pollution as defined in s. 293.01 (4), Stats.

(m) Maintenance of appropriate emergency procedures to minimize damage to public health, safety and welfare and the environment from events described under sub. (3) (i).

**(5)** Submission of a plan for a preblasting survey, such survey being completed and submitted to the department prior to any blasting.

**History:** Cr. Register, August, 1982, No. 320, eff. 9-1-82; r. and recr. (4) (e), Register, December, 1986, No. 372, eff. 1-1-87; correction in (4) (e) (intro.) made under s. 13.93 (2m) (b) 7., Stats., Register, September, 1995, No. 477; **corrections in (1),**

**(3) (h), (4) (k) and (L) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 2000, No. 529.**

**NR 132.08 Reclamation plan.** The reclamation plan for the mining site shall include the following:

**(1)** Detailed information and maps on reclamation procedures including:

(a) Manner, location, sequence and anticipated duration of reclamation.

(b) Ongoing reclamation procedures during mining operations.

(c) Proposed interim and final topography and slope stabilization.

(d) Proposed final land use and relationship to surrounding land and land use.

(e) Plans for long-term maintenance of mining site including:

1. Monitoring of wastes and ground and surface water quality.

2. Names of persons legally and operationally responsible for long-term maintenance.

(f) Projected costs of reclamation including estimated cost to the state of fulfilling the reclamation plan.

**(2)** Evidence satisfactory to the department that the proposed reclamation will conform with the following minimum standards:

(a) All toxic and hazardous wastes, refuse, tailings and other solid waste shall be disposed of in conformance with applicable state and federal statutes or regulations.

(b) All tunnels, shafts or other underground openings shall be sealed in a manner which will prevent seepage of water in amounts which may be expected to create a safety, health or environmental hazard, unless the applicant can demonstrate alternative uses which do not endanger public health and safety and which conform to applicable environmental protection and mine safety laws and rules.

(c) All underground and surface runoff waters from mining sites shall be managed, impounded or treated so as to prevent soil erosion to the extent practicable, flooding, damage to agricultural lands or livestock, damage to wild animals, pollution of ground or surface waters, damage to public health or threats to public safety.

(d) All surface structures constructed as a part of the mining activities shall be removed, unless they are converted to an acceptable alternate use.

(e) Adequate measures shall be taken to prevent significant surface subsidence, but if such subsidence does occur, the affected area shall be reclaimed.

(f) All topsoil from surface areas disturbed by the mining operation shall be removed and stored in an environmentally acceptable manner for use in reclamation.

(g) All disturbed surface areas shall be revegetated as soon as practicable after the disturbance to stabilize slopes and prevent air and water pollution, with the objective of reestablishing a variety of plants and animals indigenous to the area immediately prior to mining, unless such reestablishment is inconsistent with the provisions of s. 293.01 (23), Stats. Plant species not indigenous to the area may be used if necessary to provide rapid stabilization of slopes and prevention of erosion, if such species are acceptable to the department, but the ultimate goal of reestablishment of indigenous species shall be maintained.

**(3)** If it is physically or economically impracticable or environmentally or socially undesirable for the reclamation process to return the affected area to its original state, the reasons therefor and a discussion of alternative conditions and uses to which the affected area can be put.

**(4)** If the anticipated life and total area of the mineral deposit are of sufficient magnitude as determined by the department, a comprehensive long-term plan showing, in detail satisfactory to the department, the manner, location and estimated sequential timetable for reclamation of the entire area of contiguous land



which will be affected by mining and which is owned, leased or under option for purchase or lease by the operator at the time of application. When a mineral deposit lies on or under the lands of more than one operator, the department shall require the operators to submit mutually consistent comprehensive plans.

**History:** Cr. Register, August, 1982, No. 320, eff. 9-1-82; correction in (2) (g) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 2000, No. 529.

**NR 132.085 Irrevocable trust agreement.** (1) This section applies to a mining permit application for which the permit has not been issued on February 1, 2000. Notwithstanding s. NR 132.19, no exemption may be granted to the provisions of this section.

(2) An applicant for a mining permit, as part of the permit application, shall propose an irrevocable trust agreement or arrangement which shall include a description of the investment strategy and detailed information concerning the level of funding and proposed payment schedule necessary to comply with this section.

(3) (a) The purpose of the trust fund shall be to assure adequate funds to undertake the preventive and remedial activities listed in sub. (4). The trust documentation shall designate the department as sole beneficiary. The trustee shall be a public entity, bank or other financial institution located within the state of Wisconsin which has the authority to act as a trustee, or in the case of a public entity has equivalent powers. The trust documentation shall specify the manner of payment into the fund and the trustee's powers to invest the trust corpus and income. The trustee shall exercise prudent investment strategies consistent with the purpose of the trust fund. All income shall accumulate in the account and be reinvested. No withdrawal may be made from the trust fund except as authorized in writing by the department.

(b) Following issuance of a certificate of completion of reclamation for the entire mining site or upon permit revocation, the trust corpus shall consist of cash, certificates of deposit, or U.S. government securities. A total of no more than \$100,000 in cash and certificates of deposit may be placed in the trust account; U.S. government securities shall be used for amounts in excess of \$100,000.

(4) The trust fund shall be created and maintained in perpetuity with funds adequate for the following activities:

(a) Remedial action required as the result of spills of hazardous substances, as defined in s. 292.01 (5), Stats., at the mining site.

(b) Remedial action to mitigate any hazardous substances that escape from the mine workings into the surrounding environment after the mining operation has ceased.

(c) Remedial action required as the result of failure of a mining waste facility to contain the waste.

(d) Provision of a replacement water supply as required under s. 293.65 (4) (d), Stats.

(e) Preventive measures taken to avoid adverse environmental consequences, including measures such as replacement of components of waste disposal facilities. However, if the measures relate to closure or long-term care, financial responsibility for the associated costs shall be covered in accordance with ss. NR 182.16 and 182.17, respectively.

(5) Funding of the trust fund shall be determined at the hearing conducted under s. 293.43, Stats., and shall be incorporated into the mining permit issued under s. 293.49, Stats., as follows:

(a) A schedule of payment into the trust fund, during mining operations, shall be established which takes into account a reasonable projection of exposure. Preventive or remedial measures which could be needed early in the mining operation shall be fully funded prior to the commencement of mining. Those preventive or remedial measures which could be needed only later in the operation, or after mining has ceased, may rely on income from the trust and periodic payments into the principal by the permittee.

(b) In establishing the level of funding, the department shall evaluate the likelihood of the need for preventive or remedial measures based on reasonable and conservative risk considerations. In addition to the risk considerations, the department shall evaluate the range of costs of the preventive and remedial measures that might be necessary in response to the risks. The level of funding shall be sufficient to cover the costs of all preventive and remedial measures needed to correct all reasonably possible occurrences. Costs for worst case preventive or remedial measures shall be used when the measures are shown to have a reasonable possibility of being necessary. Opportunity shall be provided at the hearing conducted under s. 293.43, Stats., for testimony that the worst case preventive or remedial measures have a reasonable possibility of being necessary.

(c) In determining costs associated with the preventive or remedial measures identified in sub. (4), consideration shall be given to the risk assessment submitted pursuant to s. NR 132.07 (3) (i), the contingency plan submitted pursuant to ch. NR 182, risks and impacts identified in the environmental impact statement and the measures reasonably anticipated necessary to address those risks and impacts.

(d) To the extent the trust fund relies on accrued income to pay for future preventive or remedial measures, the conservative projection of earnings above inflation shall be used.

(e) The funding of the trust fund for activities identified in sub. (4) shall consider the existence of other binding, guaranteed sources of funds from the permittee which address the same preventive and remedial measures and the financial ability of the permittee to comply with legal obligations for necessary remedial activities during the operation. It is the intent of this section that the trust fund not duplicate similar financial obligations under other applicable provisions of law or administrative codes.

(6) Principal and income accrued from the trust fund may be used to pay for activities identified in sub. (4), only if:

(a) The mine permittee is not obligated by law or conditions of other obligations, such as the provision of a bond under s. 293.51, Stats., to pay for the activities, or

(b) The mine permittee is financially incapable of paying for the costs of the activities regardless of legal obligations to do so.

(7) Notwithstanding sub. (6), principal and income from the trust fund may be used to pay for activities identified in sub. (4), which require immediate attention while issues of financial responsibility are resolved. Should the permittee, a successor in interest to the permittee or another party be determined to be financially responsible for the costs of the activities, the reimbursement monies obtained from those entities shall be deposited in the trust account.

(8) Activities identified under sub. (4) shall be undertaken by private entities under contract with the department and the trustee. The department shall determine when preventive or remedial activities to be funded by the trust fund need to be undertaken. It shall identify the scope of work, choose the entity to perform the work, and monitor compliance with the contract. The contract shall state that, upon satisfactory performance of work as determined by the department, the trustee shall pay to the contracting entity the amounts provided for by the contract. The contract may allow for interim payments.

(9) Periodic reevaluation of the funding the trust account shall be undertaken as follows:

(a) The department shall review the funding of the trust account, once every 5 years after issuance of the mining permit, or when the department determines there has been a significant event or changed circumstances. The review shall include the propriety of the assumptions made in the initial determination of funding, findings from previous reviews, as well as the adequacy of the funding in the trust account. The determination may include a requirement for additional payment of principal by the permit-

tee, or, in the case of a determination of over-funding, reimbursement to the permittee of a portion of the funds in the trust account.

(b) The permittee, any municipality within whose boundaries the mining site is located, any Native American community that has tribal lands within such municipality, or 5 or more interested parties may request a review independent from the review provided for in par. (a). The department shall grant the request upon a showing by the proponent for the review that there has been a significant event or changed circumstances since the last review, and that these changed circumstances warrant reevaluation prior to the next 5-year review.

(c) The department shall provide a notice of its determination under pars. (a) and (b) in the same manner as specified under s. 293.43 (3) (b) 1. and 2., Stats. If the determination involves any modifications to the funding of the trust fund, the notice shall include a detailed summary of the proposed changes and provide for provision of the complete proposed set of changes upon written request.

(d) If the department determines a modification to the funding of the trust is warranted, and if the permittee, any municipality within whose boundaries the mining site is located, any Native American community that has tribal lands within such municipality, or 5 or more interested parties requests a hearing with 30 days of notice, a contested case hearing shall be conducted under ch. 227, Stats.

**(10)** (a) During the period of scheduled payments into the trust fund, the permittee shall establish and maintain a separate performance bond or satisfactory insurance coverage in an amount adequate to cover all risks and associated remedial and preventive measures identified under sub. (5) (b).

(b) The performance bond or insurance shall remain in effect until issuance of a certificate of completion of reclamation for the entire mining site.

(c) The performance bond or insurance shall be issued by a company licensed to do business in the state of Wisconsin and shall be subject to the termination and replacement requirements specified in s. NR 132.09 (2) (a) 2. and 3.

(d) If implementation of remedial or preventive measures under sub. (4) is needed prior to issuance of a certificate of completion of reclamation for the entire mining site, the performance bond or insurance shall only be used to fund the necessary actions in the event the trust fund is not sufficient to cover the entire costs of remediation or prevention.

**History:** Cr. Register, January, 2000, No. 529, eff. 2-1-00.

**NR 132.09 Issuance. (1)** Unless denied pursuant to s. NR 132.10, the department shall issue a mining permit to the applicant within 90 days following completion of the public hearing record.

**(2)** After issuance of the permit but prior to commencing mining, the operator shall file with the department the following:

(a) As required by s. 293.51, Stats., a bond or other security payable to the department conditioned upon faithful performance of all requirements of ch. 293, Stats., and the provisions of this chapter.

1. The amount of the bond or other security required shall be equal to the estimated cost to the state of fulfilling the reclamation plan, in relation to that portion of the site that will be disturbed by the end of the following year. The estimated cost of reclamation shall be determined by the department on the basis of those factors listed in s. NR 132.07. In lieu of a bond, the operator may deposit cash, certificates of deposit or government securities with the department. Interest received on certificates of deposit and government securities shall be paid to the operator. The department may increase the amount of the bond, cash, certificates of deposit or government security in lieu of the procedures contained in s.

NR 132.12 (2), in order to assure adequate financing for the reclamation plan.

2. The bond shall be issued by a surety company licensed to do business in Wisconsin. If the surety company's license to do business is revoked or suspended, the operator, within 30 days after receiving written notice thereof from the department, shall substitute surety underwritten by a surety company licensed to do business in Wisconsin. Upon failure of the operator to make a substitution, the department shall suspend the operator's mining permit until substitution has been made.

3. Each bond shall provide that the bond shall not be canceled by the surety, except after not less than 90 days notice to the department in writing by registered or certified mail. Not less than 30 days prior to the expiration of the 90-day notice of cancellation, the operator shall deliver to the department a replacement bond in the absence of which all mining shall cease.

(b) A certificate of insurance certifying that the operator has in force a liability insurance policy issued by an insurance company authorized to do business in this state or in lieu of a certificate of insurance, evidence that the operator has satisfied state or federal self-insurance requirements covering all mining of the operator in this state and affording personal injury and property damage protection in a total amount deemed adequate by the department but not less than \$50,000.

**(3)** Upon receipt of a satisfactory reclamation bond, the certificate of insurance and evidence of the establishment of the necessary trust fund and associated performance bond or insurance in accordance with s. NR 132.085, the department shall give written authorization to the operator to commence mining in accordance with the mining and reclamation plans.

**History:** Cr. Register, August, 1982, No. 320, eff. 9-1-82; am. (3), Register, January, 2000, No. 529, eff. 2-1-00; corrections in (2) (a) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 2000, No. 529.

**NR 132.10 Denial. (1)** The department shall deny a mining permit if it finds any of the following:

(a) The mining plan and reclamation plan will not result in reclamation of the mining site consistent with ch. 293, Stats., and the provisions of this chapter.

(b) The proposed operation will not comply with all applicable air, ground and surface water and solid and toxic waste disposal laws and rules of the department.

(c) In the case of a surface mine, the site is unsuitable for surface mining.

(d) The proposed mine will endanger public health, safety or welfare.

(e) The proposed mine will result in a net substantial adverse economic impact in the area reasonably expected to be most impacted by the mining activity.

(f) The proposed mining operation does not conform with all applicable zoning ordinances.

(g) The applicant is in violation of ch. 293, Stats., and the provisions of this chapter.

(h) The applicant has within the previous 20 years forfeited any bond posted in accordance with mining activities in this state unless by mutual agreement with the state.

(i) Any officer or director of the applicant, while employed by the applicant, the applicant's parent corporation, any of the applicant's principal shareholders or any of the applicant's subsidiaries or affiliates in which the applicant owns more than a 40% interest, has within the previous 20 years forfeited any bond posted in accordance with mining activities in this state, unless by mutual agreement with the state.

(j) The proposed mining activity may reasonably be expected to create the following situations:

1. Landslides or substantial deposition from the proposed operation in stream or lake beds which cannot be feasibly prevented.

2. Significant surface subsidence which cannot be reclaimed because of the geologic characteristics present at the proposed site.

3. Hazards resulting in irreparable damage to any of the following, which cannot be prevented under the requirements of ch. 293, Stats., avoided to the extent applicable by removal from the area of hazard or mitigated by purchase or by obtaining the consent of the owner:

- a. Dwelling houses.
- b. Public buildings.
- c. Schools.
- d. Churches.
- e. Cemeteries.
- f. Commercial or institutional buildings.
- g. Public roads.
- h. Other public property designated by the department.

4. Irreparable environmental damage to lake or stream bodies despite adherence to the requirements of ch. 293, Stats. This subdivision does not apply to an activity which the department has authorized pursuant to statute, except that the destruction or filling in of a lake bed shall not be authorized notwithstanding any other provision of law.

(2) If an application for a mining permit is denied, the department within 90 days of completion of the hearing record shall furnish the operator findings of fact, conclusions of law and order setting forth the reasons for denial.

**History:** Cr. Register, August, 1982, No. 320, eff. 9-1-82; **corrections in (1) (a), (g), (j) 3. and 4. made under s. 13.93 (2m) (b) 7., Stats., Register, January, 2000, No. 529.**

**NR 132.11 Monitoring. (1)** The operator shall monitor the mining site in accordance with the monitoring plan contained in the mining permit. The department may require the operator to perform additional monitoring of environmental changes during the course of the permitted activity and for such additional periods of time as is necessary to satisfactorily complete reclamation.

(2) The department may monitor environmental changes concurrently with the operator as stated in sub. (1) and for an additional period of time after the full bond is released pursuant to s. 293.63, Stats.

(3) (a) Baseline data and monitoring data including the monitoring plan shall be reviewed at the time of annual permit review, or at such time as the operator requests any modification of the mining permit or reclamation plan.

(b) Baseline data and monitoring data shall be considered by the department in all enforcement actions including issuance of a stop order to an operator, requiring an immediate cessation of mining, in whole or in part, at any time that the department determines that there exists an immediate substantial threat to public health and safety or the environment.

(c) If the analyses of samples indicate that the quality of the groundwater is statistically significantly different from either baseline or background, the owner shall notify the department immediately.

(4) Any request for modification of the monitoring plan contained in the mining permit shall comply with the procedures in s. NR 131.12.

(5) Bacteriological analyses of water samples, and all radiological analyses, shall be performed by the state laboratory of hygiene or at a laboratory certified or approved by the department of health and social services. Other laboratory test results submitted to the department under this chapter shall be performed by a laboratory certified or registered under ch. NR 149. The following tests are excluded from this requirement:

- (a) Physical testing of soil,
- (b) Air quality tests,
- (c) pH,
- (d) Chlorine residual,
- (e) Temperature.

**Note:** The requirement in this section to submit data from a certified or registered laboratory is effective on August 28, 1986.

**History:** Cr. Register, August, 1982, No. 320, eff. 9-1-82; cr. (5), Register, April, 1986, No. 364, eff. 8-28-86; **correction in (2) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 2000, No. 529.**

**NR 132.12 Permit review and modification. (1)** The department shall review the mining and reclamation plans annually after the date of the mining permit issuance or a review as provided in s. NR 132.11 (2).

(2) If the department finds that because of changing conditions, including but not limited to changes in reclamation costs, reclamation technology, minimum standards in s. 293.13 (2) (c), Stats., or government land use plans, the reclamation plan for a mining site is no longer sufficient to reasonably provide for reclamation of the mining site consistent with ch. 293, Stats., and the provisions of this chapter, the department shall require the applicant to submit amended mining and reclamation plans which shall be processed in the same manner as an application for an original mining permit. The applicant shall be deemed to hold a temporary mining permit which shall be effective until the amended mining permit is issued or denied.

(3) (a) If an operator desires to amend or cancel a permit, mining plan or reclamation plan, an amended application shall be submitted to the department on forms provided by the department. An application for an increase or decrease in the area of a mining site or for a change in the mining or reclamation plans shall be processed in the same manner as an original application for a mining permit. If 5 or more interested persons do not request a hearing in writing within 30 days of notice under s. 293.43 (3), Stats., no hearing need be held on the modification.

(b) If the amended application is to cancel any or all of a mining site where no mining has taken place, the department shall order the release of the bond or security or portions thereof posted on the land being removed from the mining site and cancel or amend the operator's written authorization to conduct mining on the mining site.

**History:** Cr. Register, August, 1982, No. 320, eff. 9-1-82; **corrections in (2) and (3) (a) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 2000, No. 529.**

**NR 132.13 Certificates of completion and bond release. (1)** Not less than 4 years after notification to the department of completion of the reclamation plan, the operator may petition the department to reduce the amount of the bond. After public hearing conducted pursuant to s. 293.43, Stats., the department shall issue a certificate of completion provided the operator has fulfilled its duties under the reclamation plan.

(2) Upon issuance of a certificate of completion, the department shall reduce the amount of the bond or security to an amount equal to the estimated cost of reclamation of the portion of the mining site for which a certificate of completion has not been issued.

(3) Upon issuance of a certificate or certificates of completion of reclamation for the entire mining site, the department shall require the operator to maintain a bond equal to at least 10% of the cost to the state of reclaiming the entire mining site if mining of the site was wholly underground or at least 20% of the cost to the state of reclamation of the entire mining site if any surface mining was conducted.

(4) After 20 years after issuance of the latest certificate or certificates of completion for the mining site, the department shall

release the bond or security if the department determines that the operator has complied with the reclamation plan.

**History:** Cr. Register, August, 1982, No. 320, eff. 9-1-82; correction in (1) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 2000, No. 529; **correction in (1) made under s. 13.93 (2m) (b) 7., Stats.**

**NR 132.14 Inspections. (1)** Any duly authorized officer, employee or representative of the department may enter and inspect any property, premises or place on or at a mining site at any reasonable time for the purpose of ascertaining the state of compliance with this chapter and ch. 293, Stats.

**(2)** No operator may refuse entry or access to any authorized representative of the department who requests entry for purposes of inspection and who presents appropriate credentials.

**(3)** No person may obstruct, hamper or interfere with any such inspection.

**History:** Cr. Register, August, 1982, No. 320, eff. 9-1-82; **correction in (1) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 2000, No. 529.**

**NR 132.15 Confidentiality.** All data submitted by an applicant for a mining permit as an operator shall be considered a public record unless confidential status is granted to such data pursuant to s. NR 2.19.

**History:** Cr. Register, August, 1982, No. 320, eff. 9-1-82.

**NR 132.16 Enforcement. (1)** (a) The department shall hold a public hearing related to alleged or potential environmental pollution upon the verified complaint of 6 or more citizens filed with the department. The complaint shall state the name and address of a person within the state authorized to receive service of answer and other papers in behalf of complainants.

(b) The department may order the complainants to file security for costs in a sum deemed to be adequate but not to exceed \$100 within 20 days after the service upon them of a copy of such order and all proceedings on the part of such complainants shall be stayed until security is filed.

(c) The department shall serve a copy of the complaint and notice of the hearing upon the alleged or potential polluter either personally or by registered mail directed to his or her last known post office address at least 20 days prior to the time set for the hearing which shall be held not later than 90 days from the filing of the complaint.

(d) The respondent shall file his or her verified answer to the complaint with the department and serve a copy on the person so designated by the complainants not later than 5 days prior to the date set for the hearing, unless the time for answering is extended by the department for cause shown.

(e) For purposes of any hearing under this chapter, the secretary may issue subpoenas and administer oaths.

(f) Within 90 days after the closing of the hearing, the department shall make and file its findings of fact, conclusions of law and order, which shall be subject to review under ch. 227, Stats. If the department determines that any complaint has been filed maliciously or in bad faith it shall so find, and the person complained against shall be entitled to recover his or her expenses on the hearing in civil action.

(g) Any situation, project or activity which upon continuance or implementation would cause, beyond reasonable doubt, a degree of pollution that normally would require a clean-up action if it already existed, shall be considered potential environmental pollution.

**(2)** (a) The department may issue a stop order to an operator, requiring an immediate cessation of mining, in whole or in part, at any time that the department determines that there exists an immediate and substantial threat to public health and safety or the environment.

(b) The department shall schedule a hearing on the stop order, to be held within 5 days of issuance of the order, and shall incorporate notice of the hearing in the copy of the order served upon the

operator. Notice shall also be given to any other persons who have previously requested notice of such proceedings.

(c) Within 72 hours after commencement of the hearing, unless waived by agreement of the parties, the department shall issue a decision affirming, modifying or setting aside the stop order. The department may apply to the circuit court for an order extending the time, for not more than 10 days, within which the stop order must be affirmed, modified or set aside.

(d) The department shall set aside the stop order at any time, with adequate notice to the parties, upon a showing by the operator that the conditions upon which the order was based no longer exist.

**History:** Cr. Register, August, 1982, No. 320, eff. 9-1-82.

**NR 132.17 Minimum design and operation requirements.** In addition to all other requirements of this chapter, no person shall construct, establish, operate or maintain a mine site except in conformance with the conditions attached to approval of the mining permit at the s. 293.43, Stats., hearing and the following requirements:

**(1)** To the extent practicable, and consistent with protection of the environment and requirements of necessary department approvals:

(a) Site elements should be placed where least observable from off the premises in any season.

(b) Site elements should be placed within the area of the overall site which is most visually compatible in respect to building shape.

(c) Site elements should be painted and maintained in a manner which is visually compatible with the associated vegetational and earth conditions.

(d) Site elements which cannot be visually mitigated using the techniques in pars. (b) and (c) should be made as visually inconspicuous as is practical.

**(2)** Effective means shall be taken to limit access to the site so as to minimize exposure of the public to hazards.

**(3)** Mine-mill chemicals and processing reagent wastes shall be governed as followed:

(a) Reagents shall not be used in a manner that will result in any substantial harm to public health and safety or to the environment.

(b) Any considerations of whether substantial harm to public health and safety or to the environment will occur shall consider the total effect of the proposed reagents on the receiving water-course. Reagent characteristics to investigate include chemical oxygen demand, biochemical oxygen demand, biodegradability, effects on local aquatic life (plant and animal), and effects on the total dissolved solids concentration and hardness of the receiving stream.

(c) Reagents that consist of or contain water soluble salts or metals shall not be used if their use results in a discharge to the waters of the state not in compliance with chs. 281 and 283, Stats.

(d) Adequate treatment as required pursuant to chs. 281 and 283, Stats., shall be provided for reagents which are biological nutrients so as not to result in excessive eutrophication of aquatic ecosystems.

(e) Reagents shall not be used or stored on the mine site if they are not approved in the plan of operation pursuant to s. NR 182.09 or the mining plan pursuant to s. NR 132.07, except for reagents for laboratory or testing, research or experimental purposes.

**(4)** Every reasonable effort should be made to reduce and control the production of contaminated water.

**(5)** Contaminated water, including liquid effluents, from whatever source associated with the project should be collected, stored, recycled or treated to the maximum extent practicable.

**(6)** Contaminated nonpoint source runoff from disturbed areas within the mining site should be collected and treated in a

manner which facilitates monitoring, maximum practicable recycling reuse and consumption within the mining operation. Non-point sources of water pollution should be minimized to the extent practicable. Also to the extent practicable, the frequency and need for point source discharges of waste water to surface waters of the state shall be regulated pursuant to ch. 283, Stats.

(7) Provisions for critical back-up equipment in the event of operation equipment breakdown shall be made.

(8) Design and operation specifications for mine site facilities should include contingencies for emergency conditions. Such contingencies may include emergency power supplies, equipment redundancies or temporary holding facilities.

(9) Any mine site permitted pursuant to this chapter shall be designed, constructed, maintained, operated and reclaimed in such a manner so as to protect groundwater quality and quantity in accordance with the standards of ch. NR 182.

(10) Waste containing potentially harmful concentrations of acid generating material should not be used for purposes such as the construction of parking lots or roads in mine sites.

(11) Mine site facilities should be designed to minimize surface area disturbance.

(12) Where practicable, elevation differences in water-based transport systems should be utilized for gravity flows to minimize pumping facilities and pressures.

(13) Tailings transport systems, if not buried, should be designed to provide for emergency tailings conveyance or storage should a pipeline break, plug, freeze or require repairs and be made accessible for inspection, emergency repair and maintenance. Location of emergency spill areas must be consistent with the prevention of environmental pollution of surface waters and with the standards of ss. NR 182.07 (2), 132.06 (4) and 132.19. In the event of a power failure, tailing pipelines should be self draining to the tailings area or to an emergency spill area or standby pumps and pipelines or standby power should be provided. In some cases (e.g., a long pipeline over rough country), several spill areas may have to be provided.

(14) If practicable, all liquid effluents from a mine waste facility should be directed to a common point (for treatment if necessary) before discharge to a natural watercourse. If practicable, treated wastes should not be directed to more than one watershed.

(15) In general, sanitary wastes should not be directed to a mill tailings control area without appropriate treatment.

(16) With the exception of subs. (2) through (5), (10) and (15), the provisions of this section shall not apply to a mining operation in existence on May 21, 1978 and for which a mining permit application approved by the department was on file on the date these rules became effective, except to the extent there is a change in the mining operation requiring a modification of the mining permit under these rules.

**History:** Cr. Register, August, 1982, No. 320, eff. 9-1-82; **corrections in (intro.), (3) (c) and (d) and (6) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 2000, No. 529.**

**NR 132.18 Location criteria and environmental standards.** (1) To the extent practicable no person shall establish, construct, operate or maintain the use of property for any mining related buildings, roads, ponds, or other construction within the following areas, except pursuant to an exemption granted under s. NR 132.19:

- (a) Within areas identified as unsuitable, in s. NR 132.03 (25).
- (b) Within 1,000 feet of any navigable lake, pond or flowage.
- (c) Within 300 feet of a navigable river or stream.
- (d) Within a floodplain.
- (e) Within 1,000 feet of the nearest edge of the right-of-way of any of the following: any state trunk highway, interstate or federal primary highway; the boundary of a state public park; the boundary of a scenic easement purchased by the department or the

department of transportation; the boundary of a designated scenic or wild river; a scenic overlook designated by the department by rule; or a bike or hiking trail designated by the United States congress or the state legislature; unless, regardless of season, the site is visually inconspicuous due to screening or being visually absorbed due to natural objects, compatible natural plantings, earth berm or other appropriate means, or unless, regardless of season, the site is screened so as to be aesthetically pleasing and inconspicuous as is feasible.

(f) Within wetlands, except pursuant to the criteria established in s. NR 132.06 (4).

(g) Within areas so that noncompliance will result with other applicable federal and state laws and regulations.

(2) This section shall not apply to a mining operation in existence on May 21, 1978, and for which a mining permit application approved by the department was on file on the date these rules became effective.

**History:** Cr. Register, August, 1982, No. 320, eff. 9-1-82.

**NR 132.19 Exemptions.** (1) The department may grant exemptions from the requirements of this chapter, if such exemptions are consistent with the purposes of this chapter and will not violate any applicable federal or state environmental law or rule.

(2) (a) All requests for exemptions by the applicant shall be made at least 90 days before the hearing under s. 293.43, Stats., unless the condition which is the basis for the requested exemption is unknown to the applicant prior to that time or for good cause shown.

(b) If an applicant applies for an exemption less than 90 days before the hearing, the portion of the hearing concerning that exemption request shall be held no earlier than 90 days after receipt of the application for the exemption.

(c) Requests for exemptions may be made by any party to the hearing other than the applicant up to 30 days before the hearing. Any request for exemption made prior to the hearing shall be determined as part of that proceeding.

(3) The burden of proof for seeking an exemption is upon the person seeking it.

(4) Any party to the hearing may request more stringent standards or requirements for any provision of this chapter.

(5) Any application for an exemption made after the hearing shall be determined by the following procedure:

(a) The application shall be in writing and shall include documentation justifying the need for the exemption, describing the alternatives and explaining why the exemption was not sought before the hearing.

(b) If the application does not involve an exemption from a requirement of this chapter the department shall issue a decision on the application within 15 days of receipt of the application.

(c) 1. If the application involves an exemption from a requirement of this chapter, within 10 days of the application the department shall publish a class 1 notice under ch. 985, Stats., in the official newspaper designated under s. 985.04 or 985.05, Stats., or, if none exists in a newspaper likely to give notice in the area of the proposed modification. The notice shall invite the submission of written comments by any person within 10 days from the time the notice is published, and shall describe the method by which a hearing may be demanded. Notice shall also be given by mail as provided in s. 293.43 (3) (b) 1., Stats.

2. Within 30 days after the notice is published, a written demand for a hearing on the matter may be filed by any county, city, village, town, tribal government or by any 6 persons. The demand shall indicate the interest of the municipality or persons who file it and state the reasons why the hearing is demanded.

3. A hearing demanded under this paragraph shall be held within 60 days after the deadline for demanding a hearing, and shall be conducted as a class 1 proceeding under s. 227.01 (3) (a),

Stats. The hearing shall be held in an appropriate place designated by the department in one of the counties, cities, villages or towns which are substantially affected by the operation of the facility.

4. Within 45 days after giving notice or within 30 days after any hearing is adjourned, whichever is later, the department shall determine whether the exemption shall be granted.

**History:** Cr. Register, August, 1982, No. 320, eff. 9-1-82; corrections in (2) (a), (5) (c) 1. and 3. made under s. 13.93 (2m) (b) 7., Stats., Register, January, 2000, No. 529.