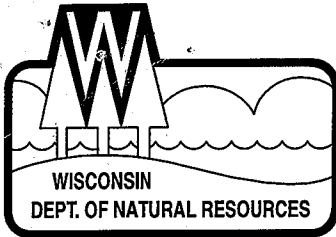


# Clearinghouse Rule 97-057

## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES



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STATE OF WISCONSIN )  
) ss  
DEPARTMENT OF NATURAL RESOURCES )

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, George E. Meyer, Secretary of the Department of Natural Resources and custodian of the official records of said Department, do hereby certify that the annexed copy of Natural Resources Board Order No. SW-21-97(B) was duly approved and adopted by this Department on December 3, 1997. I further certify that said copy has been compared by me with the original on file in this Department and that the same is a true copy thereof, and of the whole of such original.



IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the Department at the Natural Resources Building in the City of Madison, this 24 day of March 1998

*George E. Meyer*  
George E. Meyer, Secretary

(SEAL)

97-057

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD REPEALING, RENUMBERING  
AND AMENDING, AMENDING AND REPEALING AND RECREATING RULES

The Wisconsin Natural Resources Board proposes an order to repeal NR 182.075(intro.), (1g), (1m), (1p)(intro.) and (a) to (c)(intro.), (1r), and (1s)(c), renumber and amend NR 182.075(1p)(c)4., amend R 182.07(1)(j), NR 182.075(1s)(title) and (a), (1u)(a) to (e), and (1x)(a)(intro.), 182.08(2)(e)9. and 182.14(2)(e), and repeal and recreate NR 182.075(1) and (1s)(b) relating to regulation of groundwater quality at metallic mining sites.

Order SW-21-97(B)

Analysis prepared by the Department of Natural Resources

Statutory Authority: ss. 293.13, 293.15, and 227.11(2), Stats.  
Statutes Interpreted: ss. 293.13 and 293.15, Stats.

The proposed changes to Ch. NR 182 pertaining to groundwater quality protection basically serve to impose the requirements of Ch. NR 140 on prospecting and mining activities. Under the proposed rules, prospecting and mining operators would be subject to the same enforcement standards, preventive action limits and response procedures as other regulated facilities in the state. The proposed rule also would replace the current concept of a compliance boundary for prospecting and mining facilities with a design management zone and would establish the distance to the boundary of the design management zone for various facilities on metallic prospecting and mining sites. Specifically, the distance to the boundary of the design management zone for prospecting excavations, mines and mining waste facilities is proposed to be set at 1,200 feet from the outer waste limits or the edge of the facility, unless it has been reduced for reasons specified in Ch. NR 140, or at the property boundary, whichever distance is less. For all other facilities on a prospecting or mining site, the distance to the boundary of the design management zone is proposed to be 150 feet, unless expanded or reduced pursuant to Ch. NR 140, or at the property boundary, whichever distance is less. The rule also creates the concept of a mandatory intervention boundary, sets the mandatory intervention boundary at 150 feet from the facility, specifies that groundwater monitoring wells be located at the mandatory intervention boundary and requires that a response in accordance with ch. NR 140 be implemented if groundwater quality standards are reached or exceeded at the mandatory intervention boundary.

SECTION 1. NR 182.07(1)(j) is amended to read:

NR 182.07(1)(j) Within an area where the department ~~after investigation~~ finds ~~that there is a reasonable probability that disposal of solid mining waste within such an area will result in a violation of cause groundwater quality criteria and enforcement standards as to be attained or exceeded beyond the design management zone specified in this chapter s. NR 182.075.~~

SECTION 2. NR 182.075(intro.) is repealed.

SECTION 3. NR 182.075(1) is repealed and recreated to read:

NR 182.075(1) GROUNDWATER QUALITY. (a) Applicability. Notwithstanding the applicability provisions of s. NR 140.03, under the authority of s. 293.15(11), Stats., mining waste facilities regulated under this chapter and other facilities situated on a prospecting site regulated under ch. NR 131 or a mining site regulated under ch. NR 132, approved after the effective date of this rule ... [revisor insert date] shall comply with ch. NR 140.

(b) Design management zones. 1. The horizontal distance to the boundary of the design management zone for mining waste facilities regulated under this chapter shall be 1,200 feet from the outer waste boundary, unless reduced pursuant to s. NR 140.22(3), or at the boundary of property owned or leased by the applicant, whichever distance is less. The outer waste boundary shall be the outermost limit at which waste from a facility has been stored or disposed of, or permitted or approved for storage or disposal.

2. The horizontal distance to the boundary of the design management zone for a metallic mineral surface mine or surface prospecting excavation shall be 1,200 feet from the edge of the mine or prospecting excavation, unless reduced pursuant to s. NR 140.22(3), or at the boundary of property owned or leased by the applicant, whichever distance is less.

3. The horizontal distance to the boundary of the design management zone for an underground metallic mineral mine or prospecting excavation shall be 1,200 feet from the maximum outer edge of the underground prospecting or mine workings adjacent to the ore body as projected to the land surface, unless reduced pursuant to s. NR 140.22(3), or at the boundary of property owned or leased by the applicant, whichever distance is less.

4. The horizontal distance to the boundary of the design management zone for facilities, other than the prospecting excavation, mine and mining waste facility, situated on a prospecting site regulated under ch. NR 131 or a mining site regulated under ch. NR 132 shall be as specified in Table 4 of Ch. NR 140, if listed, or 150 feet from the edge of the facility, unless expanded or reduced pursuant to s. NR 140.22(3), or at the boundary of property owned or leased by the applicant, whichever distance is less.

(c) Mandatory intervention boundary. The horizontal distance to the mandatory intervention boundary for a metallic mining waste facility or a surface or underground metallic mineral mine or prospecting excavation shall be 150 feet from the outer waste boundary, the outer edge of the mine or prospecting excavation, or the outer edge of the underground workings as projected to the land surface, unless the boundary of the design management zone is within 300 feet of the outer waste boundary, mine, prospecting excavation, or underground prospecting or mine workings. In no case may the mandatory intervention boundary extend more than one half the distance from the outer waste boundary, mine, prospecting excavation, or underground prospecting or mine workings to the boundary of the design management zone. The mandatory intervention boundary shall apply as specified in s. NR 182.075(1s) and (1u).

SECTION 4. NR 182.075(1g) and (1m) are repealed.

SECTION 5. NR 182.075(1p) (intro.) and (a) to (c) (intro.) are repealed.

SECTION 6. NR 182.075(1p)(c)4. is renumbered 182.075(1p) and amended to read:

NR 182.075(1p) For any substance for which the department does not specify a groundwater quality standard pursuant to sub. (1m) there is not an enforcement standard and preventive action limit in ch. NR 140, the waste site, mine and other facilities on a mining site shall may not cause concentrations which have a substantial deleterious impact on a current beneficial use or on a significant future beneficial use of groundwater, such as drinking, irrigation, aquaculture, maintenance of livestock, or maintenance of aquatic and terrestrial ecosystems, as designated at a hearing held pursuant to s. 144.836 293.43, Stats. This section shall not be construed to require the department to designate uses of groundwater in order to act pursuant to subs. (1m) and (1p).

SECTION 7. NR 182.075(1r) is repealed.

SECTION 8. NR 182.075(1s)(title) and (a) are amended to read:

NR 182.075(1s)(title) CONTINGENCY PLAN. (a) At the hearing conducted under s. 144.836 293.43, Stats., the department shall require the applicant to submit a determine the adequacy of the contingency plan submitted by the applicant which specifies the remedial action and intervention which will be taken if an analysis of groundwater samples indicates with a reasonable probability that a violation of subs. (1) to (1r) will occur requires a response under s. NR 140.24 to 140.27 and 182.13(2)(g). The contingency plan shall provide that the response protocol include a comparison of the observed sampling results to the results of the original predictive modeling, completed as part of the mine permitting process, and updated predictive modeling performed subsequent to the start of operation. If the comparison indicates that the observed sampling results are consistent with the design and expected performance of the facility, and the sampling results indicate that an enforcement standard or a preventive action limit has not been exceeded beyond the mandatory intervention boundary, the operator may recommend a no response action in accordance with s. NR 140.24.

[Drafter's Note: The range of responses under Ch. NR 140 are contained in Tables 5 and 6 of that code. Tables 5 and 6 are reproduced here for information purposes only and will not be incorporated into Ch. NR 182.

Table 5

Range of Responses for Exceedances of a Preventive Action Limit for Indicator Parameters and Substances of Health or Welfare Concern

1. No action pursuant to s. NR 140.24 (5) and consistent with s. 160.23, Stats.
2. Require the installation and sampling of groundwater monitoring wells.
3. Require a change in the monitoring program, including increased monitoring.
4. Require an investigation of the extent of groundwater contamination.
5. Require a revision of the operational procedures at the facility, practice or activity.
6. Require a change in the design or construction of the facility, practice or activity.
7. Require an alternate method of waste treatment or disposal.
8. Require prohibition or closure and abandonment of a facility, practice or activity in accordance with sub. (6).
9. Require remedial action to renovate or restore groundwater quality.
10. Require remedial action to prevent or minimize the further discharge or release of the substance to groundwater.
11. Revise rules or criteria on facility design, location or management practices.
12. Require the collection and evaluation of data to determine whether natural attenuation can be effective to restore groundwater quality within a reasonable period of time, considering applicable criteria specified in ss. NR 140.24, 722.07 and 722.09 or 722.11, and require monitoring to determine whether or not natural attenuation is occurring in compliance with the response objectives in s. NR 140.24 (2).

Table 6  
Range of Responses for Exceedances of Enforcement Standards  
for Substances of Health or Welfare Concern

1. Require a revision of the operational procedures at a facility, practice or activity.
2. Require a change in the design or construction of the facility, practice or activity.
3. Require an alternate method of waste treatment or disposal.
4. Require prohibition or closure and abandonment of a facility, practice or activity.
5. Require remedial action to renovate or restore groundwater quality.
6. Require remedial action to prevent or minimize the further release of the substance to groundwater.
7. Revise rules or criteria on facility design, location or management practices.
8. Require the collection and evaluation of data to determine whether natural attenuation can be effective to restore groundwater quality within a reasonable period of time, considering applicable criteria specified in ss. NR 140.24, 722.07 and 722.09 or 722.11, and require monitoring to determine whether or not natural attenuation is occurring in compliance with the requirements of s. NR 140.26 (2) (a).]

Section 9. NR 182.075(1s) (b) is repealed and recreated to read:

NR 182.075(1s) (b)1. If a preventive action limit or an enforcement standard has been exceeded beyond the mandatory intervention boundary, the department shall require a response in accordance with s. NR 140.24, but may not approve a no action response under s. NR 140.24(5).

2. If a response under s. NR 140.24(5) has previously been taken, and if subsequent monitoring results are consistent with updated predictive modeling projections and indicate that the groundwater standards will not be attained or exceeded at the design management zone, the department may determine that no additional response is necessary.

3. Notwithstanding the provisions of s. NR 182.19, no exemption under s. NR 182.19 may be granted to subd. 1. of this subsection.

SECTION 10. NR 182.075(1s) (c) is repealed.

SECTION 11. NR 182.075(1u) (a) and (b) are amended to read:

NR 182.075(1u) (a) The operator of a waste prospecting or mining site shall monitor groundwater quality at locations approved by the department along the compliance- mandatory intervention boundary and the boundary of the design management zone.

(b) The operator of a waste prospecting or mining site shall monitor groundwater quality at locations approved by the department within the compliance mandatory intervention boundary and the design management zone.

SECTION 12. NR 182.075(1u) (c) is amended to read:

NR 182.075(1u) (c) Intervention by the operator in accordance with the provisions of the contingency plan, developed in accordance with s. NR 182.09 (2) (d) and approved in accordance with s. NR 182.08 (2) and 182.09 (1), shall be required, regardless of the holding of any hearing pursuant to sub. (1e), when analyses of samples from intermediate monitoring points within the design management zone or within the mandatory intervention boundary show a reasonable probability that, without intervention, there may be a violation of the established groundwater quality standards at the compliance boundary of the design management zone. Criteria against which "reasonable probability" shall be measured are the results of the predictive modeling submitted by the applicant as part of the feasibility report and other information available to the department.

SECTION 13. NR 182.075(1u)(d) and (e) are amended to read:

NR 182.075(1u)(d) Additional monitoring locations and tests may be specified by the department so that the actual effects of the waste mining site on groundwater quality may be compared with the effects projected in the feasibility report and the plan of operation, mining permit application and waste water engineering report.

(e) Groundwater shall be monitored at locations approved by the department in the vicinity of the waste prospecting or mining site on a monthly basis for at least 12 consecutive months prior to disposing of waste during the initial site preparation and construction phase at the prospecting or mining site to determine baseline water quality. Parameters analyzed shall include those substances identified in the state or national primary and secondary drinking water standards ch. NR 140 and specified by the department for monitoring, indicator parameters as specified by the department, parameters identified as important in the waste material, and any other parameters deemed appropriate by the department for the specific conditions of the waste site.

SECTION 14. NR 182.075(1x)(a)(intro.) is amended to read:

NR 182.075(1x)(a)(intro.) If the department has reason to believe that a site is not in compliance with the requirements of this section, or if the department ~~has good reason to project~~ projects with reasonable probability that a site will not achieve such compliance at the compliance boundary of the design management zone, it shall refer the matter to the department of justice pursuant to s. ~~144.98 293.95,~~ Stats., or hold a class 2 contested case hearing pursuant to s. ~~144.83(4) 293.15(1),~~ Stats., after giving 30 days notice to the persons identified in s. ~~144.836(3)(b) 293.43,~~ Stats. Notice to the operators shall include the specific information on which the department has based its determination. The purpose of the hearing shall be to determine the existence and extent of noncompliance or, if noncompliance does not exist, whether a site will not achieve compliance at the ~~compliance boundary of the design management zone.~~ Pursuant to ~~such~~ the hearing, the department:

SECTION 15. NR 182.08(2)(e)9. is amended to read:

NR 182.08(2)(e)9. The applicant shall ~~identify any changes in groundwater quality which may occur at or beyond the outer perimeter of the waste site~~ submit information based on predictive modeling to demonstrate there is a reasonable certainty that the facility will not result in a violation of the groundwater quality standards, specified in ch. NR 140, beyond the design management zone. If any statistically significant change in baseline groundwater quality is predicted, the applicant shall prepare a specific assessment of any adverse environmental impacts reasonably expected to result. If it is expected, with reasonable certainty, that a preventive action limit will be exceeded beyond the design management zone, the applicant shall request an exemption under s. NR 140.28 and 182.19 which shall include an assessment of why it is not technically and economically feasible to achieve the preventive action limit.

SECTION 16. NR 182.14(2)(e) is amended to read:

NR 182.14(2)(e) The owner shall submit an annual summary report containing statistical summaries of annual and cumulative project data. The data summaries shall be compared to waste characterization, leachate characterizations, effluent predictions, and baseline and background water quality data as contained in the feasibility report or plan of operation. The report shall also include the results of verification procedures and present the error associated with each parameter presented. Information from unimpacted control stations should include a discussion on whether the

baseline values should be modified due to natural variability and what the new values would be. At a frequency determined by the department, the report shall periodically include updated results of predictive groundwater modeling by incorporating currently available data into the original predictive model, submitted as part of the feasibility report.

The foregoing rule was approved and adopted by the State of Wisconsin Natural Resources Board on December 3, 1997.

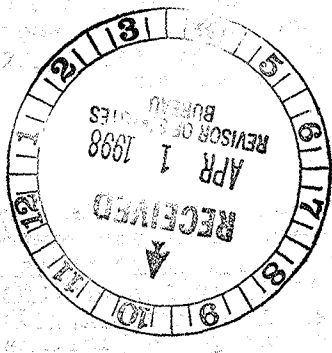
The rule shall take effect on the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22(2) (intro.), Stats.

Dated at Madison, Wisconsin March 24, 1998

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES

By George E. Meyer  
George E. Meyer, Secretary

(SEAL)





**State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES**

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George E. Meyer, Secretary

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March 24, 1998

Mr. Gary L. Poulson  
Assistant Revisor of Statutes  
131 West Wilson Street - Suite 800  
Madison, WI

Dear Mr. Poulson:

Enclosed are two copies, including one certified copy, of State of Wisconsin Natural Resources Board Order No. SW-21-97(B). These rules were reviewed by the Assembly Committee on Natural Resources and the Senate Committee on Agriculture and Environmental Resources pursuant to s. 227.19, Stats. Summaries of the final regulatory flexibility analysis and comments of the legislative review committees are also enclosed.

You will note that this order takes effect following publication. Kindly publish it in the Administrative Code accordingly.

Sincerely,

*George E. Meyer*  
George E. Meyer  
Secretary

Enc.

