

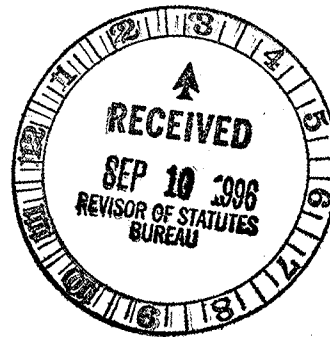
State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor
George E. Meyer, Secretary

Box 7921
101 South Webster Street
Madison, Wisconsin 53707-7921
TELEPHONE 608-266-2621
FAX 608-267-3579
TDD 608-267-6897

STATE OF WISCONSIN)
)
DEPARTMENT OF NATURAL RESOURCES)

SS



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-12-96 was duly approved and adopted by this Department on June 26, 1996. 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 7th day of September, 1996.

George E. Meyer
George E. Meyer, Secretary

(SEAL)



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

The Wisconsin Natural Resources Board proposes an order to renumber NR 724.13 (3) (e); renumber and amend NR 726.05 (2); amend NR 140.24 (2) (intro.) and (4) and Table 5, 140.26 (2) (a) and Table 6, 724.05 (2) (a), 724.13 (3) (a) 1, 2 and 3, 726.05 (4) (d) and 726.05 (8) (b) (note); and create NR 140.05 (14m), 700.03 (38m) and (45m), 722.07 (2) (note), 724.13 (3) (e), 724.17 (3) (a) 3, 726.05 (2) (b) and (c), and 726.05 (8) (am), relating to the closure of hazardous substance spill cases where the department has determined that naturally occurring physical, chemical or biological processes will restore groundwater quality within a reasonable period of time.

SW-12-96

Analysis Prepared by the Department of Natural Resources

Statutory authority: ss. 144.442, 144.76, 160.21 and 227.11, Stats.

Statutes interpreted: ss. 144.442, 144.76, Stats., and ch. 160, Stats.

A site or facility with groundwater contamination that exceeds ch. NR 140 enforcement standards ("ESs") requires a response under s. NR 140.26 and is currently not eligible for "case closure" under ch. NR 726 until contaminant concentrations are below preventive action limits ("PALs") or, with an exemption granted under s. NR 140.28, between the PAL and the ES. Under the existing ch. NR 726, when active remedial measures are no longer effective in reducing the concentration of contaminants in groundwater and where ch. NR 140 ESs are still exceeded, the case may not be closed, even when the Department has approved turning off the active remedial measure.

The proposed amendments to ch. NR 726 will allow for case closure at certain hazardous substance spill sites with ES exceedances on the condition that a groundwater use restriction is recorded at the County Register of Deeds Office. (This conditional closure option will not apply to facilities, such as landfills, with a design management zone ("DMZ") that has been established under s. NR 140.22.) To qualify for this conditional closure option, the responsible party would be required to demonstrate that: (1) There are naturally occurring physical, chemical or biological processes ("natural attenuation") occurring on the property or properties in question which will restore groundwater quality to ch. NR 140 groundwater quality standards within a reasonable period of time; (2) Groundwater contamination will remain within the boundaries of the property or properties for which groundwater use restrictions have been recorded; and (3) There are no threats to human health or the environment posed by relying on natural attenuation as long as the required groundwater use restrictions are enforced.

After a spill case has been closed with a groundwater use restriction recorded at the County Register of Deeds Office, the responsible party may, at any time after groundwater contaminant concentrations fall below ch. NR 140 PALs, apply for unconditional closeout and request that the Department record an affidavit at the County Register of Deeds Office which gives notice that the previously recorded groundwater use restriction is no longer required. The responsible party may also apply for an exemption under s. NR 140.28 if concentrations fall below ch. NR 140 ESs and appropriate criteria under s. NR 140.28 are met. Once an exemption is granted under s. NR 140.28, the responsible party may apply for unconditional case closure and may request that the department record an affidavit at the county register of deeds office which gives notice that an exemption has been granted under s. NR 140.28 and that the previously recorded groundwater use restriction is no longer required.

Changes to several related administrative rules are also proposed as part of this rule package. Amendments to chs. NR 140, 722 and 724 are proposed:

(1) To provide that relying on naturally occurring physical, chemical or biological processes ("natural attenuation") is an acceptable response under ss. NR 140.24 and 140.26 in instances where the Department has determined that adequate source control measures have been implemented and ch. NR 140 ESS or PALs will be attained within a reasonable period of time without the installation or further operation of an active groundwater remediation system; (2) To specify criteria that are to be considered in determining what is a reasonable period of time to achieve ch. NR 140 groundwater quality standards; (3) To suggest that responsible parties and environmental consultants refer to U.S. EPA guidance on the selection of remedial actions for sites with petroleum contamination as part of their evaluation of proposed engineered remedial systems; and (4) To require environmental consultants to document, in the progress reports that are required under s. NR 724.13, their evaluation of the effectiveness of active remediation systems (to determine when active systems can be turned off and natural attenuation can be relied upon to achieve ch. NR 140 groundwater quality standards within a reasonable period of time).

SECTION 1. NR 140.05 (14m) is created to read:

NR 140.05 (14m) "Natural attenuation" means the reduction in the concentration and mass of a substance and its breakdown products in groundwater, due to naturally occurring physical, chemical, and biological processes without human intervention or enhancement. These processes include, but are not limited to, dispersion, diffusion, sorption and retardation, and degradation processes such as biodegradation, abiotic degradation and radioactive decay.

SECTION 2. NR 140.24 (2) (intro.) is amended to read:

NR 140.24 (2) RESPONSE OBJECTIVES. (intro.) Based on its evaluation of the report required under sub. (1), and the assessment criteria of sub. (1) (c), the department shall specify the responses to be implemented by the owner or operator of the facility, practice or activity designed to the extent technically and economically feasible to prevent any new releases of the substance from traveling beyond the design management zone or other applicable points of standards application described in s. NR 140.22 and restore contaminated groundwater within a reasonable period of time, considering the criteria specified in s. NR 722.07. Both the source control and the groundwater restoration components of the response shall be designed and implemented to:

SECTION 3. NR 140.24 (4) and Table 5 are amended to read:

NR 140.24 (4) RANGE OF RESPONSES FOR SUBSTANCES OF PUBLIC HEALTH OR WELFARE CONCERN. The range of responses which the department may take or may require the owner or operator of a facility, practice or activity to take if a preventive action limit for a substance of health or welfare concern has been attained or exceeded are listed in Table 5. More than one response may be taken or required by the department.

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. ~~Sample wells or require sampling of wells~~ 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).

SECTION 4. NR 140.26 (2) (a) and Table 6 are amended to read:

NR 140.26 (2) REGULATORY RESPONSES. (a) If a facility, activity or practice is regulated under subch. IV of ch. 144 or 147, Stats., the department shall require responses as necessary, based on the evaluation of the increased concentration as outlined in sub. (1), to prevent any new releases of the substance from traveling beyond the design management zone or other applicable point of standards application described in s. NR 140.22 and restore contaminated groundwater within a reasonable period of time, considering the criteria specified in s. NR 722.07. Both the source control and the groundwater restoration components of the response shall be designed to achieve compliance with the enforcement standard at the point of standards application and to achieve compliance with the preventive action limit at the point of standards application unless compliance with the preventive action limit is not technically and economically feasible. The range of responses which the department may take or may require the owner or operator of a facility, practice or activity to take if an enforcement standard for a substance of public health or welfare concern has been attained or exceeded at a point of standards application is listed in

Table 6. More than one response listed in Table 6 may be required by the department. In addition, the department may take or may require the owner or operator of a facility, practice or activity to take one or more responses from Table 5, except response number one.

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 5. NR 700.03 (38m) is created to read:

NR 700.03 (38m) "Natural attenuation" means the reduction in the concentration and mass of a substance and its breakdown products in groundwater, due to naturally occurring physical, chemical, and biological processes without human intervention or enhancement. These processes include, but are not limited to, dispersion, diffusion, sorption and retardation, and degradation processes such as biodegradation, abiotic degradation and radioactive decay.

SECTION 6. NR 700.03 (45m) is created to read:

NR 700.03 (45m) "Property boundary" means the boundary of the total contiguous parcel of land owned or leased by a common owner or lessor, regardless of whether public or private roads run through the parcel.

SECTION 7. NR 722.07 (2) (note) is created to read:

Note: The department suggests that responsible parties and their consultants should refer to the following U.S. EPA guidance document as part of their evaluation of remedial action options for sites with petroleum contamination: "How to Evaluate Alternative Cleanup Technologies for Underground Storage Tank Sites," May 1995. (U.S. EPA 510-B-95-007) which may be obtained from: Superintendent of Documents, U.S. Government Printing Office, P.O. Box 371945, Pittsburgh, PA 15250-7954, Stock Number 055-000-00499-4.

SECTION 8. NR 724.05 (2) (a) is amended to read:

NR 724.05 (2) (a) The plans, reports and specifications required by ss. NR 724.09, 724.11, 724.13(2) and 724.17(2) shall be submitted simultaneously and may be combined in a single report.

SECTION 9. NR 724.13 (3) (a) 1., 2. and 3. are amended to read:

NR 724.13 (3) (a) 1. As applicable to the site or facility, total contaminant extraction and destruction to date in pounds of contaminant removed₇.

2. A discussion of any system operational problems, periods of shutdown, equipment malfunctions and any potential problems₇.

3. An overall evaluation of the effectiveness of the system, including an evaluation of whether or not any active remediation should be modified or turned off, based upon actual and projected contaminant destruction data, whether or not natural attenuation can be relied upon to effectively complete the remediation, whether or not natural attenuation monitoring will be required, and whether or not the site or facility is ready to apply for case closure under ch. NR 726₇ and

SECTION 10. NR 724.13 (3) (e) is renumbered NR 724.13 (3) (f).

SECTION 11. NR 724.13 (3) (e) is created to read:

NR 724.13 (3) (e) A completed remediation system operation and maintenance reporting form supplied by the department, to be submitted semi-annually for those sites or facilities with active engineered remediation systems or annually for those sites or facilities with passive remediation systems.

Note: Copies of remediation system operation and maintenance reporting forms may be obtained from any regional office of the department, or by writing to the Department of Natural Resources, Bureau for Remediation and Redevelopment, P.O. Box 7921, Madison, Wisconsin 53707.

SECTION 12. NR 724.17 (3) (a) 3 (note) is created to read:

Note: Long term monitoring for groundwater includes groundwater table elevation data. This data is used for the system effectiveness reporting required by s. NR 724.13 as well as for the assessment used to determine what attenuation processes are occurring at the site.

SECTION 13. NR 726.05(2) is renumbered NR 726.05(2)(a) and is amended to read:

NR 726.05(2)(a) A request for case closure shall be submitted in writing on a close out form supplied by the department and shall be accompanied by a report ~~demonstrating~~ documenting that the applicable public health and environmental laws, including chs. NR 700 to 724 where applicable, have been complied with, or, where ch. NR 140 enforcement standards or preventive action limits are exceeded, that the criteria in par. (b) are satisfied. ~~The department may require that the case closure report be summarized in a format supplied by the department.~~

Note: Copies of close out forms may be obtained from any regional office of the department, or by writing to the Department of Natural Resources, Bureau for Remediation and Redevelopment, P.O. Box 7921, Madison, Wisconsin 53707.

SECTION 14. NR 726.05(2)(b) and (c) are created to read:

NR 726.05(2)(b) For hazardous substance discharge sites with groundwater contamination that exceeds ch. NR 140 enforcement standards or preventive action limits, the responsible party may request case closure, and the department may grant the request under this section, if the responsible party submits supporting documentation to the department and the department determines that all of the following criteria are satisfied:

1. Adequate source control measures have been taken which include all of the following:
 - a. Whether regulated or registered under ch. ILHR 10 or not, all existing underground storage tanks have been removed, permanently closed or upgraded to prevent new discharges of hazardous substances to the groundwater that would violate ch. NR 140. The same requirement applies to all new and replacement underground storage tanks not regulated under ch. ILHR 10.
 - b. All new and replacement underground storage tanks regulated under ch. ILHR 10 have been constructed and are being monitored in accordance with ch. ILHR 10.
 - c. All other existing tanks, pipes, barrels or other containers which may discharge a hazardous substance have been removed, contained or controlled

to prevent, to the maximum extent practicable, new discharges of hazardous substances to the groundwater that would violated ch. NR 140.

d. Where applicable, immediate and interim actions have been taken in accordance with ch. NR 708 to protect public health, safety and welfare and the environment.

e. Free product has been removed in accordance with the criteria in s. NR 708.13.

f. The concentration or mass, or both, of a substance and its breakdown products existing in soil or groundwater, or both, have been reduced if the actions are deemed necessary to restore groundwater within a reasonable period of time, to adequately protect public health and the environment, or to prevent groundwater contamination from migrating beyond the boundaries of the property or properties for which groundwater use restrictions have been recorded.

2. Natural attenuation will bring the groundwater into compliance with ch. NR 140 groundwater quality standards within a reasonable period of time, considering the criteria in s. NR 722.07.

3. Groundwater contamination exceeding ch. NR 140 preventive action limits will not migrate beyond the boundaries of the property or properties for which groundwater use restrictions have been recorded.

4. If there are ch. NR 140 enforcement standard exceedances on the property or properties, a groundwater use restriction which satisfies the requirements of sub. (8) (am) has been recorded at the county register of deeds office for each property.

5. There is no existing or anticipated threat to public health, safety or welfare, or the environment., ~~as long as any required groundwater use restrictions are enforced~~

(c) For cases that have been closed conditioned upon the recording of a groundwater use restriction pursuant to par. (b), the responsible party may, at any time after groundwater contaminant concentrations fall below ch. NR 140 preventive action limits, apply for unconditional case closure and may request that the department record an affidavit at the county register of deeds office which gives notice that the previously recorded groundwater use restriction is

no longer required. The responsible party may also apply for an exemption under s. NR 140.28 if concentrations fall below ch. NR 140 enforcement standards and the appropriate criteria under s. NR 140.28 are met. Once an exemption is granted under s. NR 140.28, the responsible party may apply for unconditional case closure and may request that the department record an affidavit at the county register of deeds office which gives notice that an exemption has been granted under s. NR 140.28 and that the previously recorded groundwater use restriction is no longer required.

SECTION 15. NR 726.05(4)(b) is amended to read:

NR 726.05(4)(b) Cause a violation of ch. NR 140 groundwater quality enforcement standards at any applicable point of standards application, except where the department has granted an exemption under s. NR 140.28 for a specific hazardous substance or the criteria under s. NR 726.05(2)(b) are met.

SECTION 16. NR 726.05(4)(d) is amended to read:

NR 726.05(4)(d) Cause a violation of air quality standards contained in chs. NR 400 to 499 ~~to be attained or exceeded.~~

SECTION 17. NR 726.05(8)(am) is created to read:

NR 726.05(8)(am) That the property owner record a groundwater use restriction for the property at the county register of deeds office which specifies the legal description of the property, the location, type and concentration of the contaminants and includes the following standard language: "Natural attenuation has been approved by the Department of Natural Resources to remediate groundwater exceeding ch. NR 140 groundwater standards within the boundaries of this property. Construction of wells where the water quality exceeds the drinking water standards in ch. NR 809 is restricted by ch. NR 811 and ch. NR 812. Special well construction standards or water treatment requirements, or both, or well construction prohibitions may apply. Anyone who proposes to construct or reconstruct a well on this property is required to contact the Department of Natural Resources' Bureau of Drinking Water and

Groundwater to determine what specific requirements are applicable prior to constructing or reconstructing a well on this property."

SECTION 18. NR 726.05 (8) (b) (note) is amended to read:

NR 726.05 (8) (b) Note: The restrictions imposed on a property by a deed restriction required under s. NR 726.05 (8) (a) or (am) may be modified with the approval of the department if circumstances change. In this case, an affidavit may be recorded at the register of deeds office for the county in which the property is located to update or modify a restriction required under s. NR 726.05 (8) (a) or (am) or an affidavit required under s. NR 726.05 (8) (b).

The foregoing rule was approved and adopted by the State of Wisconsin Natural Resources Board on June 26, 1996.

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

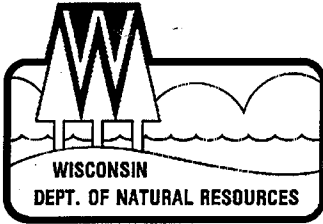
September 7, 1996

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By

George E. Meyer
George E. Meyer, Secretary

(SEAL)



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

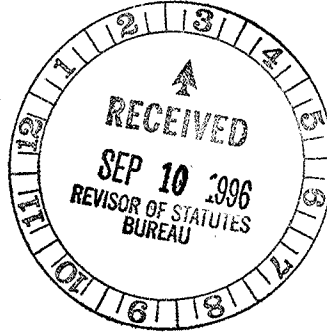
Tommy G. Thompson, Governor
George E. Meyer, Secretary

Box 7921
101 South Webster Street
Madison, Wisconsin 53707-7921
TELEPHONE 608-266-2621
FAX 608-267-3579
TDD 608-267-6897

September 4, 1996

IN REPLY REFER TO:

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-12-96. These rules were reviewed by the Assembly Committee on Natural Resources and the Senate Committee on Environmental Resources and Urban Affairs 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
Secretary

Enc.