

FISCAL ESTIMATE WORKSHEET
 Detailed Estimate of Annual Fiscal Effect
 DOA-2047(R02/97)

ORIGINAL
 CORRECTED

UPDATED
 SUPPLEMENTAL

LRB or Bill No./Adm. Rule No.
 Comm 46

Amendment No.

Subject Petroleum Environmental Cleanup Fund Interagency Responsibilities

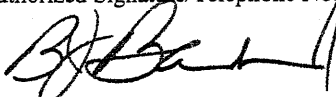
I. One-time Costs or Revenue Impacts for State and/or Local Government (do not include in annualized fiscal effect):

II. Annualized Costs:	Annualized Fiscal impact on State funds from:	
	Increased Costs	Decreased Costs
A. State Costs By Category		
State Operations - Salaries and Fringes	\$	\$ -
(FTE Position Changes)	(0 FTE)	(- 0 FTE)
State Operations - Other Costs		-
Local Assistance		-
Aids to Individuals or Organizations		-
TOTAL State Costs By Category	\$ 0	\$ - 0
B. State Costs By Source of Funds		
GPR	\$	\$ -
FED		-
PRO/PRS	0	- 0
SEG/SEG-S	0	- 0
III. State Revenues- Complete this only when proposal will increase or decrease state revenues (e.g., tax increase, decrease in license fee, etc.)		
GPR Taxes	\$	\$ -
GPR Earned		-
FED		-
PRO/PRS	0	- 0
SEG/SEG-S	0	- 0
TOTAL State Revenues	\$ 0	\$ - 0

NET ANNUALIZED FISCAL IMPACT

	STATE	LOCAL
NET CHANGE IN COSTS	\$ 0	\$ 0
NET CHANGE IN REVENUES	\$ 0	\$ 0

Agency/Prepared by: (Name & Phone No.)
 Bill Morrissey, 266-7605

Authorized Signature/Telephone No.


Date
 10/13/99

**ORDER OF THE STATE OF WISCONSIN
NATURAL RESOURCES BOARD
REPEALING AND RECREATING
RULES**

JUN 28 1999
JUN 28 REC'D

The Wisconsin Natural Resources Board proposes to jointly with the Department of Commerce repeal and recreate Comm 46 relating to sites contaminated with petroleum products from petroleum storage tanks.

RR-23-99 (E)

Analysis prepared by the Department of Natural Resources

Statutory authority: Section 227.11 (2)(a), 227.24 and 227.26 (2)(b), Stats.

Statutes interpreted: Sections 101.143, 101.144, 292.11 and 292.31 and ch. 160, Stats.

The proposed repealed and recreated Comm 46 is identical to the version of Comm 46 that is being promulgated by the Department of Commerce.

Chapter Comm 46 defines "high priority site", "medium priority site" and "low priority site", and provides that the Department of Natural Resources shall have authority for high priority sites and the Department of Commerce shall have authority for low and medium priority sites. If adopted by the Natural Resources Board, the rule will require the transfer of sites with petroleum contamination in the groundwater below the enforcement standard in ch. NR 140 from the Department of Natural Resources to the Department of Commerce.

Chapter Comm 46 requires the two agencies to work cooperatively to develop the following:

1. A system of joint decision-making for the selection of remedial bids and the setting of remediation targets for sites which are competitively bid or bundled with another site or sites.
2. An agreed-upon methodology for determining if there is evidence of an expanding plume and the actions to take if the data provided through the site investigation is not adequate.
3. A process for taking into account the impact of error of measurement, repeatability of results and statistical significance, when determining whether a site is above or below the enforcement standard or any other contaminant level or target.
4. A system for electronically tracking the achievement of remediation targets.
5. A reconciled list of sites in remediation.

Chapter Comm 46 also establishes procedures for transferring sites from one agency to the other when information relevant to their classification becomes available.

The amendments and new provisions that are proposed to be added to chs. NR 716, 720, 722 and 726, as part of this emergency rule package, consist of cross-references to Comm 46 that are proposed to be inserted in chs. NR 716 and 726, and exceptions to requirements that would conflict with the requirements in ch. Comm 46: that is, an exception to the soil cleanup standards in ch. NR 720 and the remedial action option evaluation requirements in ch. NR 722.

SECTION 1. Comm 46 is repealed and recreated to read:

CHAPTER Comm 46
PETROLEUM ENVIRONMENTAL CLEANUP FUND INTERAGENCY
RESPONSIBILITIES

Comm 46.01 Purpose. The purpose of this rule is to identify the roles, processes and procedures that guide the departments of commerce and natural resources in the administration of their respective responsibilities for high, medium and low priority petroleum-contaminated sites under ss. 101.143, 101.144, 292.11 and 292.31, and ch. 160, Stats. This rule codifies portions of a memorandum of understanding that has been signed by the two agencies, as required by s. 101.144 (3m), Stats.

Comm 46.02 Applicability. This chapter only applies to sites where petroleum products have discharged from petroleum storage tanks.

Comm 46.03 Definitions. In this chapter:

- (1) "Commerce" means the department of commerce.
- (2) "Discharge" has the meaning specified in s. 292.01 (3), Stats.

Note: Under s. 292.01 (3), Stats., "discharge" means, but is not limited to, "spilling, leaking, pumping, pouring, emitting, emptying or dumping."

- (3) "DNR" means the department of natural resources.
- (4) "Enforcement standard" means a numerical value expressing the concentration of a substance in groundwater which is adopted under s. 160.07, Stats., and s. NR 140.10 or s. 160.09, Stats., and s. NR 140.12.

(5) "Groundwater" has the meaning specified in s. 160.01 (4), Stats.

Note: Section 160.01 (4), Stats., defines "groundwater" to mean "any water of the state, as defined in s. 281.01 (18), occurring in a saturated subsurface geological formation of rock or soil. Section 281.01 (18), Stats., defines "waters of the state" to include "those portions of Lake Michigan and Lake Superior within the boundaries of this state, and all lakes, bays, rivers, streams, springs, ponds, wells, impounding reservoirs, marshes, watercourses, drainage systems and other surface water or groundwater, natural or artificial, public or private, within this state or its jurisdiction."

(6) "High priority site" means a site that is contaminated with a petroleum product and meets one or more of the following criteria:

(a) One or more hazardous substances other than petroleum products from a petroleum storage tank are present at the site.

(b) Contamination from the site discharges to a sensitive environment as defined in s. NR 700.03 (55).

Note: Section NR 700.03 (55) defines "sensitive environment" to mean "an area of exceptional environmental value, where a discharge could pose a greater threat than a discharge to other areas, including but not limited to: wetlands; habitat used by state or federally designated endangered or threatened species; national or state fish and wildlife refuges and fish and wildlife management areas; state and federal designated wild and scenic rivers, designated state riverways and state designated scenic urban waterways; riparian areas; rookeries; cold water communities as defined in s. NR 102.04 (3)(b), Lakes Superior and Michigan and the Mississippi river, environmentally sensitive areas and environmental corridors identified in area-wide water quality management plans, special area management plans, special wetland inventory studies, advanced delineation and identification studies and areas designated by the U.S. EPA under section 404 (c), 33 USC 1344 (c); calcareous fens; state forests, parks, trails and recreational areas; state and federal designated wilderness areas; designated or dedicated state natural areas established under ss. 23.27 to 23.29, Stats.; wild rice waters as listed in s. NR 19.09; and any other waters identified as outstanding or exceptional resource waters in ch. NR 102."

(c) Groundwater contamination that is equal to or greater than an enforcement standard has been confirmed at the site.

(7) "Low permeability material" means subsurface material above bedrock, as defined in s. NR 141.05 (5), that is saturated with groundwater and has a hydraulic conductivity less than or equal to 1×10^{-5} centimeters per second as determined by a method specified in s. Comm 46.05.

Note: Section NR 141.05 (5) defines “bedrock” to mean “ the solid rock underlying any loose surficial material such as soil, alluvium or glacial drift. Bedrock includes but is not limited to limestone, dolomite, sandstone, shale and igneous and metamorphic rock.”

(8) “Low priority site” means a site that is contaminated with a petroleum product and meets both of the following criteria:

(a) There is no confirmed petroleum product in groundwater equal to or greater than a preventive action limit, and

(b) There is no evidence of a hazardous substance on the site other than petroleum products that were discharged from a petroleum storage tank.

(9) “Medium priority site” means a site that is contaminated with a petroleum product and meets both of the following criteria:

(a) There is no evidence of a hazardous substance on the site other than petroleum products that were discharged from a petroleum storage tank; and

(b) There is no confirmed petroleum product in groundwater equal to or greater than an enforcement standard.

(10) “Monitoring well” means a groundwater monitoring well designed, installed, constructed and developed in accordance with the requirements of ch. NR 141, for the purpose of monitoring groundwater or obtaining geologic or groundwater related data. The term “monitoring well” includes piezometers and water table observation wells.

(11) “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.

(12) “Permeable material” means a subsurface material that is saturated with groundwater and that is not a low permeability material.

(13) “Petroleum product” has the meaning specified in s. 101.143 (1)(f), Stats.

Note: Section 101.143 (1)(f), Stats., defines “petroleum product” to mean “gasoline, gasoline alcohol fuel blends, kerosene, fuel oil, burner oil, diesel fuel or used motor oil.” The term “petroleum product” includes substances that are, or once were, constituents of a petroleum product.

(14) “Petroleum storage tank” has the meaning specified in s. 101.144(1)(bm), Stats.

Note: Section 101.144 (1)(bm), Stats., defines “petroleum storage tank” to mean “a storage tank that is used to store petroleum products together with any on-site integral piping or dispensing system.” The term “petroleum storage tank” does not include a pipeline facility.

(15) “Preventive action limit” means a numerical value expressing the concentration of a substance in groundwater which is adopted under s. 160.15, Stats., and s. NR 140.10 or 140.12.

(16) “Property boundary” has the meaning specified in s. 160.01(6m), Stats.

Note: Section 160.01(6m), Stats., defines “property boundary” to mean “the boundary of the total contiguous parcel of land owned by a common owner, regardless of whether public or private roads run through the parcel.”

(17) “Remedial action” means a response action taken to control, minimize or eliminate the discharge of petroleum products so that they do not present an actual or potential threat to public health, safety or welfare or the environment. The term “remedial action” includes actions taken to restore the environment to the extent practicable and to meet applicable environmental standards, and includes natural attenuation. Examples include containment, treatment, excavation, disposal, recycling or reuse, and any monitoring required to assure that such actions protect public health, safety and welfare and the environment.

(18) “Remediation target” means the contaminant concentration in groundwater or soil, or both, that must be achieved before a site can be granted, or is eligible for, closure under ch. NR 726.

(19) “Responsible person” has the meaning specified in s. 101.144(1)(d), Stats.

Note: Section 101.144(1)(d), Stats., defines “responsible person” to mean “a person who owns or operates a petroleum storage tank, a person who causes a discharge from a petroleum storage tank or a person on whose property a petroleum storage tank is located.”

(20) “Site” means any area where a petroleum product has discharged.

(21) “Site closure” or “site closed” means a determination made pursuant to ch. NR 726 that applicable groundwater quality standards in ch. NR 140 have been met or will be met by relying on natural attenuation and that applicable soil cleanup standards in ch. NR 720 have been met or will be met by relying on a remedial action performance standard.

(22) “Source control” means actions taken to remove or treat soil or groundwater contamination, or both, actions taken to minimize the leaching of soil contamination to groundwater, and actions taken to prevent the migration of groundwater contamination. The term “source control” includes tank removal, the removal of free product and contaminant hot spot removal or treatment.

Note: The term “source control” does not include groundwater monitoring, soil sampling, recycling or reuse of contaminants, reliance on natural attenuation to address residual contamination, or changes to a facility’s design, operation, construction or waste handling or disposal practices.

Comm 46.04 Site authority. (1) **GENERAL.** The assignment of administrative authority for high, medium and low priority petroleum contaminated sites shall be determined according to the following:

- (a) DNR shall have administrative authority for high priority sites.
- (b) Commerce shall have administrative authority for low and medium priority sites.

(2) **ADMINISTRATIVE AUTHORITY.** The administrative authority of Commerce and DNR for a site includes enforcement under ss. 101.02, 101.144 (2) or (3), or s. 292.11 (7), Stats., setting remediation targets, remediation supervision and direction, and decision making regarding granting or denying closure and deciding whether or not further remedial action is required.

(3) **JOINT DECISION-MAKING.** Commerce and DNR shall implement a system of joint decision-making for the setting of remediation targets for sites that are competitively bid or bundled with another site or sites pursuant to s. Comm 47.337 (4)(a)3. and 4., and the selection of remedial bids.

(4) **CLOSURE DECISIONS FOR SITES WITH GROUNDWATER CONTAMINATION.** At any time following completion of the site investigation, the following steps shall be taken for a site with confirmed groundwater contaminant levels equal to or greater than an enforcement standard:

(a) Where a closure request has been submitted by, or on behalf of, a responsible person with the appropriate fee, the DNR shall review the request, make a determination on closure, and if closure is granted, forward a copy of the closure determination to Commerce.

(b) Where a closure request has not been submitted, if Commerce or DNR identifies a site that either agency believes has met its remediation target, DNR may take action to solicit a closure request from the responsible person.

(5) **DISPUTE RESOLUTION.** Any disputes between Commerce and DNR under sub. (3) or (4) shall be subject to the following dispute resolution process:

(a) Project managers shall discuss their differences, and the basis for them, in an attempt to resolve the dispute.

(b) If the dispute is not resolved by the project managers, the decision shall be referred to the project managers' supervisors.

(c) If the dispute is not resolved by the project managers' supervisors, the decision shall be referred to the appropriate division administrators.

(d) If the dispute still remains unresolved at the division administrator level, the department secretaries shall be the final decision-makers.

Comm 46.05 Site investigation. (1) **GENERAL.** In conducting an investigation of petroleum contaminated sites, the responsible person or a consultant retained by the responsible person shall meet applicable ch. NR 716 requirements and minimize costs while providing sufficient data necessary for risk assessment screening and decision-making under this section and ss. Comm 46.06, 46.07, 47.337 and 47.339, and chs. NR 720, 722 and 726.

(2) **GROUNDWATER PLUME EXPANSION DETERMINATION.** Commerce and DNR shall develop an agreed upon methodology for determining if there is evidence of a groundwater-contaminant plume margin expansion and the actions to take if the data provided in the site investigation report are not adequate to make this determination. This methodology shall be utilized in the site investigation process.

(3) **LOW PERMEABILITY DETERMINATION.** (a) *General.* If groundwater is contaminated with petroleum products, the responsible person or a consultant retained by the responsible person shall determine, as part of the site investigation, if the contaminant plume is completely contained within low permeability materials and does not extend into deposits of laterally extensive permeable material, into a water line or sewer line trench or other utility corridor, into a fracture in clay, or into another feature that acts or is anticipated to act as a migration pathway for groundwater contamination.

(b) *Evaluation of existing site data.* Existing site data shall be used to make the determinations required under par. (a), if existing site data are sufficient to make these determinations. Existing site data may include, but are not limited to, monitoring well development data, monitoring well purging and sampling data, rising and falling head test data, yield test data, pump test data, monitoring well and boring logs, grain size analysis, local and regional geology, subsurface description, depositional environment, expected and actual degree and extent of contamination, or a combination of this data. If the responsible person's consultant finds groundwater contamination in low permeability materials, the responsible person or the consultant shall submit to the agency that has administrative authority for the site, for approval, the results of the evaluation of existing site data that is required by this paragraph, or an explanation of why the existing site data are not sufficient to make the determinations required in par. (a).

(c) *Standard hydraulic conductivity tests.* If the agency with administrative authority for the site determines that the existing site data are insufficient to make the determinations required

under par. (a), the responsible person, or a consultant retained by the responsible person, shall then determine the hydraulic conductivity of the saturated materials at the site utilizing a method described in Appendix A, or a method that has been approved under par. (d), in conformance with the following requirements:

1. Hydraulic conductivity shall be determined for at least one monitoring well within the contaminant plume unless subd. 2 is applicable.

2. Notwithstanding the requirements in subd. 1, the agency with administrative authority for the site may determine that hydraulic conductivity test results for one or more monitoring wells outside of the plume are representative of the hydraulic conductivity of the saturated materials within the plume, based upon a comparison of the monitoring well logs for monitoring wells installed inside and outside of the plume, and that it is not necessary to conduct a hydraulic conductivity test for a monitoring well within the plume.

(d) *Alternative methods for determining hydraulic conductivity.* The agency with administrative authority for the site may approve an alternative method for determining the hydraulic conductivity of the saturated materials at a site if the method meets the objectives of this section. The responsible person, or a consultant retained by the responsible person, shall obtain approval from the agency before using an alternative method. If the agency grants approval for use of the alternative method, the responsible person or the consultant shall submit site data and test results, to the agency with administrative authority for the site, documenting that the objectives of this section have been met.

(4) SUPPLEMENTAL SITE INVESTIGATION INFORMATION. If the site investigation report for the site was submitted prior to the effective date of this rule, supplemental site information, evaluating existing site data to make the determinations required under par. (a), may be required by Commerce or DNR to be included as part of a submittal for approval of a remedial action, setting remediation targets or approving or denying closure. If the agency with administrative authority for the site determines that the existing site data are insufficient to make the determinations required in sub. (3)(a), the responsible person or a consultant retained by the responsible person, shall then determine the hydraulic conductivity of the saturated materials at the site in compliance with the requirements of sub. (3)(c).

Comm 46.06 Risk assessment screening. (1) GENERAL. The risk criteria in sub. (2) for screening sites shall be used to measure the environmental, public health, safety and welfare risks associated with the discharge of petroleum products to determine whether a remedial action shall be required, which could include, but is not limited to, adequate source control and measures to address environmental factors listed in s. Comm 47.337 (3), to set remediation targets, and to determine whether the site may be closed as provided in s. Comm 46.07.

(2) RISK CRITERIA FOR SCREENING SITES. In making decisions under sub. (1), Commerce and DNR shall utilize, as provided in s. Comm 46.07, the following risk criteria for screening sites:

(a) None of the environmental factors as listed in s. Comm 47.337 (3) are present at the site at the time of the completion of the site investigation;

(b) There is no contaminant concentration in any groundwater that has migrated outside of the property boundary, of the property where the source of the contamination is or was located, that is equal to or greater than enforcement standards, except in a public road or street right of way;

(c) No soil contamination exists within 4 feet of the ground surface that exceeds the direct contact soil concentrations listed in Table 1;

(d) No groundwater contamination, in a water sample collected from a monitoring well in low permeability material, which has been identified using the methods specified in s. Comm 46.05, exceeds the groundwater concentrations listed in Table 1;

(e) 1. There is a vertical separation distance of 5 feet or more between any contaminants contained within low permeability material and any permeable material on the site, or the soil and groundwater contaminant concentrations are decreasing with depth within the low permeability material, and

2. No concentration of any contaminant in the groundwater contained within permeable material is equal to or greater than an enforcement standard;

(f) There is no impact to a water line or sewer line trench or other utility corridor along which vapors, free product or contaminated water may flow, or an interbedded permeable soil layer, and there is no impact or evidence of imminent impact to a basement;

(g) There is no enforcement standard exceedance in any groundwater within 1000 feet of a public well; and

(h) There is no enforcement standard exceedance in any groundwater within 100 feet of a private well.

Table 1

Substance	Direct-Contact Soil Contaminant Concentrations (Top 4 ft)	Basis	Contaminant Concentration in Groundwater within Low-Permeability Materials	Basis
	(mg/kg)		(µg/l)	
Benzene	1.10	Cancer risk	1,500.	Cleanup time
1,2-DCA	0.54	Cancer risk	1,500.	Cleanup time
Ethylbenzene	400.	Soil Saturation Limit	7,100.	Soil Saturation Limit
Toluene	670.	Soil Saturation Limit	20,000.	Soil Saturation Limit
Xylene	470.	Soil Saturation Limit	7,800.	Soil Saturation Limit

Comm 46.07 Site closure and approval and tracking of remedial actions. (1) **SITE CLOSURE DECISIONS.** Commerce and DNR shall make site closure decisions based upon the following requirements:

(a) Sites where contaminant concentrations are below the enforcement standards at every point on site at which groundwater is monitored, and where all of the risk criteria in s. Comm 46.06 (2) are satisfied, shall be closed without reimbursement from Commerce for additional remedial actions except for post closure costs that are otherwise eligible for reimbursement under ch. Comm 47.

(b) Sites where contaminant concentrations within permeable material outside of the property boundary, of the property where the source of the contamination is or was located, are below enforcement standards and where contaminant concentrations within low permeability material outside of the property boundary, of the property where the source of the contamination is or was located, are below the groundwater concentrations listed in Table 1, but where contaminant concentrations above enforcement standards exist within the property boundary, of the property where the source of the contamination is or was located, shall be offered closure with institutional controls that satisfy the requirements of ch. NR 726, if all of the risk criteria in s. Comm 46.06 (2), except ss. Comm 46.06 (2)(b) or 746.06 (2)(e)2., are satisfied. If the owners of all properties on the site with enforcement standard exceedances sign and record a groundwater use restriction, as required under s. NR 726.05 (2)(b)4., the site shall be closed. If the owner of any property on the site with an enforcement standard exceedance does not sign and record a groundwater use restriction, additional remedial action, other than the utilization of natural attenuation, may not be required for areas where all contaminant concentrations that are equal to or greater than enforcement standards are found in low permeability material, except in situations where a risk or potential risk exists to public health, safety or welfare or the

environment from the residual groundwater contamination in the low permeability material, and where a technically feasible and cost effective response is available. Funding under s. 101.143, Stats., shall be terminated by Commerce for sites that are offered closure under this paragraph, except for post closure costs that are otherwise eligible for reimbursement under ch. Comm 47.

Note: DNR is currently developing a geographic information system (GIS) registry as a means for tracking residual groundwater contamination which could replace the groundwater use restriction requirement in ch. NR 726. However, until the GIS registry is operable and ch. NR 726 is amended to allow registration on a GIS registry as a substitute for recording a groundwater use restriction, groundwater use restrictions will continue to be used as the method for notifying future property owners and other interested persons of the existence of the residual groundwater contamination.

(c) After an investigation that satisfies the requirements of ch. NR 716, the agency with administrative authority for the site may approve of site closure under ch. NR 726 for sites that do not meet all of the risk criteria in s. Comm 46.06(2) if the requirements of ch. NR 726 are satisfied, or may determine that additional remedial action other than reliance on natural attenuation is not required even though all of the requirements for closure in ch. NR 726 have not been satisfied, without reimbursement from Commerce for additional remedial actions except for post closure costs that are otherwise eligible for reimbursement under ch. Comm 47.

(d) If the agency with administrative authority for a site determines that pars. (a), (b) and (c) do not apply to the site, the responsible person shall be required to conduct a remedial action, and shall be entitled to reimbursement under ch. Comm 47 for all eligible costs of the remedial action.

Note: In compliance with s. 160.21(2)(a), Stats., s. NR 140.22(2)(b) establishes the point of standards application to determine whether an enforcement standard has been attained or exceeded, for facilities, practices or activities that do not have an established design management zone, as "any point of present groundwater use and any point beyond the boundary of the property on which the facility, practice or activity is located and s. NR 140.22 (2)(c) establishes a point of standards application for "discharges, releases, sites or facilities" regulated under s. 292.11 or 292.31, Stats. (among other statutes) as "every point at which groundwater is monitored." The environmental factors in s. Comm 47.337 (3) and the other risk criteria in s. Comm 46.06 (2) require an evaluation of groundwater contaminant concentrations at all of these points of standards application.

(2) CLOSURE BASED ON REMEDIATION TARGETS. When the remediation targets developed under s. Comm 46.04 (3) are achieved, the site shall be closed utilizing an institutional control that satisfies the requirements of ch. NR 726, if required, without reimbursement from Commerce for additional remedial actions except for post closure costs that are otherwise eligible for reimbursement under ch. Comm 47.

(3) DETERMINATION OF COMPLIANCE WITH ENFORCEMENT STANDARDS OR REMEDIATION TARGETS. When determining whether contaminant concentrations at a

site are above or below either an enforcement standard or a remediation target, recognition shall be made of the impact of error of measurement, repeatability of test results and statistical significance. Commerce and DNR shall develop, by June 30, 1999, a process for taking these considerations into account and then revise or adopt administrative rules as appropriate.

(4) TRACKING OF REMEDIATION PROGRESS. (a) Commerce and DNR shall establish a system for electronically tracking remediation progress and shall use the tracking system to determine if remediation funding under s. 101.143, Stats., should end or if a site closure request should be submitted.

(b) Commerce and DNR shall jointly require and enforce the use of the electronic reporting system by claimants for reimbursement under s. 101.143, Stats.

Comm 46.08 Transfer of sites. (1) GENERAL. Except as provided in sub. (2) or (3), DNR shall determine whether Commerce or DNR has administrative authority for a site. Until that determination is made, DNR has administrative authority for the site. DNR shall make this determination within 60 days after receipt by DNR of the site investigation report, unless any of the following apply:

(a) DNR has requested additional information from a responsible person or a consultant retained by the responsible person after reviewing the site investigation report and the requested information has not been submitted to DNR.

(b) The site is the subject of an enforcement action under s. 292.11, Stats., initiated by DNR.

(c) Other circumstances over which DNR has no control have prevented DNR from making a site classification determination.

(2) CONSULTANT DETERMINATION. Consultants performing site investigations may determine, as part of a joint agency site classification pilot, whether a site is high, medium or low priority and submit the investigation report directly to the agency they determine to have administrative authority under s. Comm 46.04 (1).

(3) CHANGES IN CLASSIFICATION. If a site is classified as high, medium or low priority, and DNR or Commerce determines that the classification is incorrect, the agency making the determination that a site has been incorrectly classified shall transfer the site file and all related data to the other agency within 14 days after making the determination, if the other agency has administrative authority for the reclassified site.

(4) LIST OF SITES IN REMEDIATION. Commerce and DNR shall develop and maintain a reconciled list of sites in remediation including data on remediation targets, risk criteria for screening sites, expected closure costs and other relevant data.

Appendix A

STANDARD METHODS FOR DETERMINING HYDRAULIC CONDUCTIVITY

(1) TRANSMISSIVITY TEST. (a) To conduct a transmissivity test, a volume of water is removed from a monitoring well and the water level recovery in the well is measured after a specified time has elapsed. The resultant data may be used to determine the hydraulic conductivity of the area surrounding the monitoring well.

(b) For transmissivity tests, groundwater may not be removed from the well 12 hours prior to beginning the test.

(c) Transmissivity tests shall be conducted in a monitoring well as follows:

1. If using a pump, set the pump intake in the lower half of the screen and allow sufficient time for the water level in the well to equilibrate.

2. Measure and record the initial depth to water and well depth. Subtract the difference to determine the saturated interval of the well, in feet.

3. Pump or bail 2 gallons of groundwater from the well within 2 to 3 minutes.

4. Record the start time and finish time to remove 2 gallons from the well.

5. Measure and record the water level in the well immediately after 2 gallons is removed from the well.

6. After the applicable time listed in Table A has elapsed, measure and record the water level in the well.

7. Calculate hydraulic conductivity utilizing Formula A.

TABLE A

Saturated Interval of Well (feet)	Time (minutes)
5	190
6	160
7	140
8	120
9	105
10	95

FORMULA A

Step 1: Calculate $T = q / 4 \pi s t$

Where: T = coefficient of transmissivity, in gallons per day per foot (gpd/ft)

q = volume of groundwater removed (2 gallons)

s = measured residual drawdown, in feet (water level at time in Table A minus initial depth to water in par. (c) 2., above)

t = time, in days, from Table A. (convert minutes to days by dividing by 1440)

Step 2: Convert T in gpd/ft to T in ft^2/sec by dividing by 646272.

Step 3: Calculate $K = T/b$

Where: K = hydraulic conductivity, in ft/sec

b = saturated interval of well, in feet, as measured in par. (c) 2., above.

Step 4: Convert K in ft/sec to K in cm/sec by multiplying by 30.48.

(2) RISING AND FALLING HEAD TEST. (a) To conduct a rising head test, a volume of groundwater is instantaneously removed from a well and the rate of water level recovery in the well is measured. To conduct a falling head test, a solid object is instantaneously inserted into a well and the rate at which groundwater flows out of the well is measured. The results of both tests may be used to determine the hydraulic conductivity of the area surrounding the well. Both tests shall be conducted in accordance with procedures specified by ASTM in guidance number D 4044-96 and D 5912-96, or their successor, and the relevant criteria in pars. (b) and (c) or (d).

Note: ASTM guidance number D 5912-96 is based on the Bouwer and Rice method. Rising head test is also referred to as bail-down test, slug-out test and slug extraction test. Falling head test is also referred to as slug-in test and slug injection test. The criteria listed under pars. (a) to (c) are intended for determining the hydraulic conductivity of low permeability materials. They may not be applicable to saturated materials having a hydraulic conductivity greater than 1×10^{-5} cm/sec.

(b) For both the rising and falling head tests, groundwater may not be removed from the well 12 hours prior to the test, the well shall have at least five feet of water within the well screen or well casing, or both, prior to each test, and the borehole diameter of the well shall be at least six inches.

(c) Hydraulic conductivity shall be determined only by rising head tests in wells where the water table intersects the well screen and shall be conducted in accordance with all of the following criteria:

1. Assume the filter pack's specific yield is 0.20 to 0.25, unless measured by the manufacturer.

2. Remove a minimum of 0.75 gallons and a maximum of 1.5 gallons during the test.
3. Each test shall continue for 150 minutes or more unless the test results clearly demonstrate that the hydraulic conductivity of the well is greater than 1×10^{-5} centimeters per second.
4. Determine if the hydraulic conductivity of the well is less than or equal to 1×10^{-5} centimeters per second based upon the test results.

(d) Both rising head and falling head tests may be conducted in piezometers and shall be conducted in accordance with all of the following criteria:

1. Remove a minimum of 0.75 gallons for the rising head test and add a slug with a volume equivalent to 0.75 gallons or more for the falling head test.
2. The volume of groundwater water removed from the well shall be less than the total volume of water within the well casing above the top of the well screen.
3. The sum of the filter pack length and the filter pack seal shall be used as the length of well screen when calculating hydraulic conductivity.
4. The drawdown in the well shall not exceed the top of the filter pack seal.
5. The length of well screen shall be at least four feet.
6. Each test shall continue for 45 minutes or more per well unless the test results clearly demonstrate that the hydraulic conductivity of the well is greater than 1×10^{-5} centimeters per second.
7. Determine if the hydraulic conductivity of the well is less than or equal to 1×10^{-5} centimeters per second based upon the test results.

FINDING OF EMERGENCY

The Wisconsin Natural Resources Board finds that an emergency exists and that the attached rule is necessary for the immediate preservation of the public peace, health, safety or welfare. A statement of the facts contributing to the emergency is: The Department of Commerce has adopted administrative rules under sections 101.143 and 101.144, Stats., to implement the Petroleum Environmental Cleanup Fund Act (PECFA). The purpose of PECFA is to reimburse responsible persons for the eligible costs incurred to investigate and remediate petroleum product discharges from a petroleum product storage system or home oil tank system. The attached emergency rule is being proposed in response to resolutions adopted by the Joint Committee for Review of Administrative Rules (JCRAR) which directed the Department of Commerce and the Department of Natural Resources to promulgate a joint emergency rule, incorporating parts of a Memorandum of Understanding between the two agencies that relates to the classification of contaminated sites. JCRAR has made it clear that the committee was prepared to suspend the Department of Commerce's PECFA rules if the agencies failed to adopt the emergency rule that JCRAR was directing them to adopt.

The foregoing emergency rule was approved and adopted by the State of Wisconsin Natural Resources Board on May 26, 1999.

This rule takes effect upon publication in the official state newspaper as provided in s. 227.24, Stats.

Dated at Madison, Wisconsin June 3, 1999

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By George E. Meyer
George E. Meyer, Secretary

(SEAL)

ORIGINAL UPDATED
 CORRECTED SUPPLEMENTAL

FISCAL ESTIMATE

DA-2048 N(R10/94)

Subject

Creation of NR 746 and revisions to NR 716, 720, 722 and 726

Fiscal Effect

State: No State Fiscal Effect

Check columns below only if bill makes a direct appropriation or affects a sum sufficient appropriation.

- Increase Existing Appropriation
- Decrease Existing Appropriation
- Create New Appropriation
- Increase Existing Revenues
- Decrease Existing Revenues

- Increase Costs - May be possible to Absorb Within Agency's Budget Yes No
- Decrease Costs

Local: No local government costs

- 1. Increase Costs
 Permissive Mandatory
- 2. Decrease Costs
 Permissive Mandatory

- 3. Increase Revenues
 Permissive Mandatory
- 4. Decrease Revenues
 Permissive Mandatory

5. Types of Local Government Units Affected:
- Towns Villages Cities
 - Counties WTCS Districts
 - School Districts Others

Fund Sources Affected

- GPR FED PRO PRS SEG SEG-S

Affected Ch. 20 Appropriations

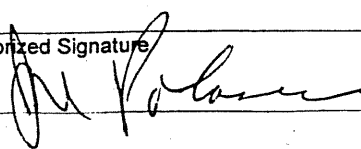
Assumptions Used in Arriving at Fiscal Estimate

SUMMARY OF BILL/RULE - Creation of NR 746 and related revisions to NR 716, Site Investigations; NR 720, Soil Standards; NR 722, Standards for Selection of Remedial Actions; and NR 726, Case Closure include new requirements for classification of sites, and create additional risk criteria to be used in selecting responses to contaminated sites. The changes also allow closure of clay-type sites after the investigation, if all the risk criteria are met, and all conditions of closure are met. This change is based on an assumption that natural attenuation will eventually reduce groundwater contamination below enforcement standards at clay-type sites, without any active remedies being implemented.

Long-Range Fiscal Implications

Contamination will remain at clay-type sites for decades before groundwater enforcement standards are met. State monies for cleanup may be needed later. In addition, further evaluation of the workload implications of the new rule will be needed to determine whether it is more or less labor intensive than current procedures for overseeing cleanups.

5

Agency	Prepared By	Phone No.	Authorized Signature	Phone No.	Date
DNR	Joe Polasek	(608) 266-2794		(608) 266-2794	05/05/1999

**ORDER OF THE STATE OF WISCONSIN
NATURAL RESOURCES BOARD
CREATING RULES**

The Wisconsin Natural Resources Board proposes an order to jointly create Comm 46 relating to the classification of petroleum contamination sites.

RR-61-98(E)

Analysis Prepared by the Department of Natural Resources

Statutory authority: Section 227.26(2)(b), Wis. Stats.

Statutes interpreted: Sections 292.11, 292.31 and s. 101.144, Wis. Stats.

The proposed rule is a joint administrative rule which is identical to the version of Comm 46 published by the Department of Commerce in the Wisconsin State Journal, the official state newspaper, on January 1, 1999.

Chapter Comm 46 defines "high priority site", "medium priority site" and "low priority site", and provides that the Department of Natural Resources shall have authority for high priority sites and the Department of Commerce shall have authority for low and medium priority sites. If adopted by the Natural Resources Board, the rule will require the transfer of sites with petroleum contamination in the groundwater below the enforcement standard in ch. NR 140 from the Department of Natural Resources to the Department of Commerce.

Chapter Comm 46 requires the two agencies to work cooperatively to develop the following:

1. A system of joint decision-making for the selection of remedial bids and the setting of remediation targets for sites which are competitively bid or bundled with another site or sites.
2. An agreed-upon methodology for determining if there is evidence of an expanding plume and the actions to take if the data provided through the site investigation is not adequate.
3. An agreed-upon risk assessment protocol to measure the environmental, safety and health risks associated with petroleum contamination and to determine a required action level.
4. A process for taking into account the impact of error of measurement, repeatability of results and statistical significance, when determining whether a site is above or below the enforcement standard or any other contaminant level or target.
5. A system for electronically tracking the achievement of remediation targets.
6. A reconciled list of sites in remediation.

Chapter Comm 46 also establishes procedures for transferring sites from one agency to the other when information relevant to their classification becomes available.

SECTION 1. Chapter Comm 46 is created to read:

CHAPTER COMM 46
PETROLEUM ENVIRONMENTAL CLEANUP FUND INTERAGENCY
RESPONSIBILITIES

Comm 46.01 Purpose. The purpose of this rule is to identify the roles, processes and procedures that guide the Departments of Commerce and Natural Resources in the administration of their respective responsibilities for high, medium and low priority petroleum contaminated sites. The requirement, which is the basis of this rule, was established in 1995 Act 27 and mandated that the two agencies determine the:

- (1) Respective functions of the two departments.
- (2) Procedures to ensure that remedial actions taken under this section are consistent with actions taken under s. 292.11, Stats.
- (3) Procedures, standards and schedules for determining whether the site of a discharge of a petroleum product from a petroleum storage tank is classified as high, medium or low priority.

Comm 46.02 Definitions. In this chapter:

- (1) "Commerce" means the Department of Commerce
- (2) "Discharge" means, but is not limited to, spilling, leaking, pumping, pouring, emitting, emptying or dumping.
- (3) "DNR" means the Department of Natural Resources.
- (4) "Enforcement standard" means a numerical value expressing the concentrations of a substance in groundwater which is adopted under s. 160.07, Stats., and s. NR 140.10 or s. 160.09, Stats., and s. NR 140.12.
- (5) "High priority site" means a remediation site that meets one or more of the following criteria:

(a) Presence of a hazardous substance other than petroleum from a petroleum product storage tank system.

(b) Contamination to an area of exceptional environmental value where the discharge would pose a greater than normal threat.

(c) Confirmed groundwater contamination where any compound detected is equal to or greater than an established enforcement standard.

(6) "Low priority site" means a remediation site where:

(a) There is only petroleum contamination and no threat to groundwater, and

(b) No evidence of a hazardous substance other than the petroleum product that was discharged from the petroleum product storage tank system.

(7) "Medium priority site" means a remediation site that meets the following criteria:

(a) No evidence of contamination by a hazardous substance other than the petroleum product, which was discharged from the petroleum storage tank system; and

(b) No confirmed groundwater contamination at or above the enforcement standard.

(8) "Remediation target" means the contamination concentration level(s) at which a site will be granted, or eligible for, closure utilizing an institutional control option, including a groundwater use restriction, or any other appropriate tool.

Comm 46.03 Site authority. (1) **GENERAL.** The assignment of authority for high, medium and low priority petroleum contaminated sites shall be determined according to the following:

(a) The DNR shall have authority for high priority sites.

(b) Commerce shall have authority for low and medium priority sites.

(2) **AUTHORITY.** The authority for a site falling under an agency's jurisdiction includes but is not limited to enforcement, remediation supervision and direction, referrals for legal action, and decision making regarding granting or denying closure or an approval for no further action.

(3) **JOINT ADMINISTRATION.** The departments of Commerce and DNR shall implement a system of joint decision making for:

(a) The selection of remedial bids.

- (b) The setting of remediation targets for sites which are competitively bid or bundled with another site(s).

Comm 46.04 Site investigation. (1) GENERAL. The investigation of petroleum contaminated sites shall be conducted in a manner designed to meet NR 716 and to minimize costs while providing sufficient data necessary for risk assessment and remediation decision making.

(2) The departments shall develop an agreed upon methodology for determining if there is evidence of an expanding plume and the actions to take if the data provided through the investigation is not adequate. This methodology will be part of the investigation process.

Comm 46.05 Risk Assessment. The departments shall develop, by April 15, 1999, an agreed upon risk assessment protocol to measure environmental, safety and health risks associated with petroleum contamination and to determine a required action level which could include, but not be limited to, adequate source control and measures to address environmental risk factors, or whether the site may be closed without additional action. Environmental risk factors include the possibility that groundwater at the site could be used for drinking, the extent to which petroleum is floating on the groundwater, the impact of contamination on surface waters or wetlands, expansion of a petroleum contamination off-site, and proximity of contamination to bedrock. The features of the protocol shall include:

- (a) Allowing sites, with contaminants above the enforcement standard on site and below the enforcement standard off site to be closed after investigation;
- (b) Allowing the joint setting of remediation target levels for sites that can not be closed at the end of the investigation stage, and
- (c) Determining the extent to which the protocol applies during the site investigation.

Comm 46.06 Site closure decisions. (1) GENERAL. The actions of the DNR and Commerce in making site closure or no further action decisions and in approving remedial actions on a site shall incorporate all of the following:

- (a) Sites where contamination is determined to be below the enforcement standard on site and below the enforcement standard off site shall be closed without requiring or reimbursing for additional remedial efforts.
- (b) Sites, which will be competitively bid or bundled with other sites shall have established, through joint agency decision-making, a remediation target at which point the site shall be closed without requiring or reimbursing for additional remedial efforts.

(c) Sites, for which the original remedial action plan is approved, shall have a jointly established remediation target at which point the site shall be closed without requiring or reimbursing for additional remedial efforts.

(2) JOINT CLOSURE DECISIONS. For any site with confirmed groundwater contamination equal to or greater than the enforcement standard following completion of the site investigation and for which a closure request has been submitted, the following steps will be taken:

- (a) A site closure request is prepared and submitted to DNR with the appropriate fee.
- (b) The DNR reviews the request and makes a determination on closure, either with or without institutional controls.
- (c) The DNR will forward a copy of all closure determinations to Commerce.
- (d) If Commerce identifies a site they believe has met the remediation target(s), they may request DNR take action to solicit a closure request from the site owner.
- (e) Any disputes between the agencies as to whether a site qualifies for closure under (d) will be subject to the following dispute resolution process. Project managers will discuss their differences, and the basis for them, in an attempt to resolve the dispute. If the dispute is not resolved, the decision will be referred to the appropriate Division Administrators; if the dispute still remains unresolved, the Department Secretaries shall be the final decision-makers.

(3) DETERMINATION OF COMPLIANCE WITH THE ENFORCEMENT STANDARD. When determining whether a site is above or below either the enforcement standard or any other contaminant level or target, recognition shall be made of the impact of error of measurement, repeatability of test results and statistical significance. The DNR and Commerce shall develop, by June 30, 1999, a process for taking these considerations into account and then revise and/or adopt administrative rules as appropriate.

(4) TRACKING OF REMEDIATION PROGRESS

- (a) The departments shall establish a system for electronically tracking the achievement of remediation targets. They shall use the tracking system to determine if remediation funding should end and if a site closure request should be submitted.
- (b) The departments shall jointly require and enforce the use of the electronic reporting system by claimants.

Comm 46.04 Transfer of sites. (1) GENERAL. The DNR will establish the responsibility of either Commerce or DNR for a site within 60 days of the receipt of the site investigation report, unless any of the following apply:

(a) The DNR has requested additional information after reviewing the site investigation report and the requested information has not been submitted.

(b) The site is the subject of an enforcement action initiated by the DNR.

(c) Other circumstances over which the DNR has no control have prevented the DNR from making a site classification determination.

(2) CONSULTANT DETERMINATION. Consultants performing site investigations may determine, as part of a joint agency site classification pilot, whether a site is high, medium or low priority and submit the investigation report directly to the agency they believe has jurisdiction.

(3) CHANGES IN CLASSIFICATION. If a site is classified as high, medium or low priority, and the DNR or Commerce determines that the classification is incorrect, that agency will transfer the site and all related data to the other agency within 14 days.

(4) LIST OF SITES IN REMEDIATION. The departments will develop and maintain a reconciled list of sites in remediation including data on target levels, risk factors, expected closure costs and other relevant data .

FINDING OF EMERGENCY

The Wisconsin Natural Resources Board finds that an emergency exists and that the attached rule is necessary for the immediate preservation of the public peace, health, safety or welfare. A statement of the fact contributing to the emergency is: The Department of Commerce has adopted administrative rules under sections 101.143 and 101.144, Stats., to implement the Petroleum Environmental Cleanup Fund Act (PECFA). The purpose of PECFA is to reimburse property owners for the eligible costs incurred to investigate and remediate petroleum product discharges from a petroleum storage system or home heating oil tank system. The attached rule is being proposed in response to resolutions adopted by the Joint Committee for Review of Administrative Rules (JCRAR) which directed the Department of Commerce and the Department of Natural Resources to promulgate a joint emergency rule, incorporating parts of a Memorandum of Understanding between the two agencies that relates to the classification of contaminated sites. JCRAR had made it clear that the committee was prepared to suspend the Department of Commerce's PECFA rules (which would have suspended further payments from the PECFA fund to reimburse property owners for eligible costs already incurred) if the agencies failed to adopt the emergency rule that JCRAR was directing them to adopt.

The foregoing emergency rule was approved and adopted by the State of Wisconsin Natural Resources Board on January 27, 1999.

This rule takes effect upon publication in the official state newspaper as provided in s. 227.24, Stats. This rule shall expire on May 31, 1999, unless an extension is granted under s. 227.24(2), Stats.

Dated at Madison, Wisconsin February 2nd, 1999

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By George E. Meyer
George E. Meyer, Secretary

(SEAL)

ORIGINAL <input type="checkbox"/> UPDATED FISCAL ESTIMATE <input type="checkbox"/> CORRECTED <input type="checkbox"/> SUPPLEMENTAL DOA-2048 N(R10/94)	LRB or Bill No./Adm. Rule No. COMM 46 Amendment No. if Applicable
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Subject
 Amendment to NR 718, to authorize the regulation of landspreading of contaminated soils.

Fiscal Effect
 State: No State Fiscal Effect
 Check columns below only if bill makes a direct appropriation or affects a sum sufficient appropriation.

<input type="checkbox"/> Increase Existing Appropriation <input type="checkbox"/> Increase Existing Revenues <input type="checkbox"/> Decrease Existing Appropriation <input type="checkbox"/> Decrease Existing Revenues <input type="checkbox"/> Create New Appropriation	<input type="checkbox"/> Increase Costs - May be possible to Absorb Within Agency's Budget <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Decrease Costs
---	--

Local: No local government costs

1. <input type="checkbox"/> Increase Costs <input type="checkbox"/> Permissive <input type="checkbox"/> Mandatory 2. <input type="checkbox"/> Decrease Costs <input type="checkbox"/> Permissive <input type="checkbox"/> Mandatory	3. <input type="checkbox"/> Increase Revenues <input type="checkbox"/> Permissive <input type="checkbox"/> Mandatory 4. <input type="checkbox"/> Decrease Revenues <input type="checkbox"/> Permissive <input type="checkbox"/> Mandatory	5. Types of Local Governmental Units Affected: <input type="checkbox"/> Towns <input type="checkbox"/> Villages <input type="checkbox"/> Cities <input type="checkbox"/> Counties <input type="checkbox"/> Others _____ <input type="checkbox"/> School Districts <input type="checkbox"/> WTCS Districts
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Fund Sources Affected <input type="checkbox"/> GPR <input type="checkbox"/> FED <input type="checkbox"/> PRO <input type="checkbox"/> PRS <input type="checkbox"/> SEG <input type="checkbox"/> SEG-S	Affected Ch. 20 Appropriations
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Assumptions Used in Arriving at Fiscal Estimate

Background
 1995 Act 27 divided the responsibility for overseeing the remediation of sites with petroleum contamination between the Department of Commerce (COM) and the Department of Natural Resources (DNR). This legislation gave jurisdiction for low and medium priority sites to COM and jurisdiction for high priority sites and those with other types of contamination to DNR. It also directed the agencies to enter into a Memorandum of Understanding (MOU) that establishes: 1) the respective functions of the two departments in administrating the remediation of these sites; 2) procedures to ensure that remedial actions for these sites are consistent with actions taken under the Spill Law; and 3) the procedures, standards and schedules for determining whether sites are classified as high, medium or low priority.

On September 16, 1998 the Joint Committee for Review of Administrative Rules (JCRAR) held a public hearing on a number of items, including implementation of the MOU between COM and DNR. At that hearing, JCRAR adopted a resolution directing COM and DNR to promulgate a Joint Emergency Rule, within 30 days, incorporating those portions of the MOU related to the classification of contaminated sites. Since this rule merely codifies existing procedures, no additional workload is created by its promulgation.

Fiscal Impact to State Government
 The creation of ch. COMM 46 does not create additional regulatory workload. No state fiscal impact is anticipated as a result of the creation of ch. COMM 46.

Long-Range Fiscal Implications

Agency/Prepared by: (Name & Phone No.) Joe Polasek, 266-2794	Authorized Signature/Telephone No. 	Date 1-15-98
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**ORDER OF THE STATE OF WISCONSIN
NATURAL RESOURCES BOARD
REPEALING AND RECREATING RULES**

The Wisconsin Natural Resources Board proposes an order to jointly repeal and recreate Comm 46 relating to the classification of petroleum contamination sites.

RR-19-99(E)

Analysis prepared by the Department of Natural Resources

Statutory authority: Section 227.26(2)(b), Wis. Stats.

Statutes interpreted: Sections 292.11, 292.31 and s. 101.144, Wis. Stats.

The proposed rule is a joint administrative rule which is identical to the version of Comm 46 being promulgated by the Department of Commerce.

Chapter Comm 46 defines “high priority site”, “medium priority site” and “low priority site”, and provides that the Department of Natural Resources shall have authority for high priority sites and the Department of Commerce shall have authority for low and medium priority sites. If adopted by the Natural Resources Board, the rule will require the transfer of sites with petroleum contamination in the groundwater below the enforcement standard in ch. NR 140 from the Department of Natural Resources to the Department of Commerce.

Chapter Comm 46 requires the two agencies to work cooperatively to develop the following:

1. A system of joint decision-making for the selection of remedial bids and the setting of remediation targets for sites which are competitively bid or bundled with another site or sites.
2. An agreed-upon methodology for determining if there is evidence of an expanding plume and the actions to take if the data provided through the site investigation is not adequate.
3. An agreed-upon risk assessment protocol to measure the environmental, safety and health risks associated with petroleum contamination and to determine a required action level.
4. A process for taking into account the impact of error of measurement, repeatability of results and statistical significance, when determining whether a site is above or below the enforcement standard or any other contaminant level or target.
5. A system for electronically tracking the achievement of remediation targets.
6. A reconciled list of sites in remediation.

Chapter Comm 46 also establishes procedures for transferring sites from one agency to the other when information relevant to their classification becomes available.

SECTION 1. Chapter Comm 46 is repealed and recreated to read:

CHAPTER Comm 46
PETROLEUM ENVIRONMENTAL CLEANUP FUND INTERAGENCY
RESPONSIBILITIES

Comm 46.01 Purpose. The purpose of this rule is to identify the roles, processes and procedures that guide the departments of commerce and natural resources in the administration of their respective responsibilities for high, medium and low priority petroleum contaminated sites. The requirement, which is the basis of this rule, was established in 1995 Act 27 and mandated that the two agencies determine the:

- (1) Respective functions of the two departments.
- (2) Procedures to ensure that remedial actions taken under this section are consistent with actions taken under s. 292.11, Stats.
- (3) Procedures, standards and schedules for determining whether the site of a discharge of a petroleum product from a petroleum storage tank is classified as high, medium or low priority.

Comm 46.02 Definitions. In this chapter:

- (1) "Commerce" means the department of commerce
- (2) "Discharge" means, but is not limited to, spilling, leaking, pumping, pouring, emitting, emptying or dumping.
- (3) "Developable groundwater" means a formation, excluding bedrock, that can yield 0.2 gallons per minute or more of groundwater, determined by an open bore hole.
- (4) "DNR" means the department of natural resources.
- (5) "Enforcement standard" means a numerical value expressing the concentrations of a substance in groundwater which is adopted under s. 160.07, Stats., and s. NR 140.10 or s. 160.09, Stats., and s. NR 140.12.
- (6) "High priority site" means a remediation site that meets one or more of the following criteria:

(a) Presence of a hazardous substance other than petroleum from a petroleum product storage tank system.

(b) Contamination to an area of exceptional environmental value where the discharge would pose a greater than normal threat.

(c) Confirmed groundwater contamination where any compound detected is equal to or greater than an established enforcement standard.

(7) "Low priority site" means a remediation site where:

(a) There is only petroleum contamination and no threat to groundwater , and

(b) No evidence of a hazardous substance other than the petroleum product that was discharged from the petroleum product storage tank system.

(8) "Medium priority site" means a remediation site that meets the following criteria:

(a) No evidence of contamination by a hazardous substance other than the petroleum product, which was discharged from the petroleum storage tank system; and

(b) No confirmed groundwater contamination at or above the enforcement standard.

(9) "Remediation target" means the contamination concentration level(s) at which a site will be granted, or eligible for, closure utilizing an institutional control option, including a groundwater use restriction, or any other appropriate tool.

Comm 46.03 Site authority. (1) GENERAL. The assignment of authority for high, medium and low priority petroleum contaminated sites shall be determined according to the following:

(a) The DNR shall have authority for high priority sites.

(b) Commerce shall have authority for low and medium priority sites.

(2) AUTHORITY. The authority for a site falling under an agency's jurisdiction includes but is not limited to enforcement, remediation supervision and direction, referrals for legal action, and decision making regarding granting or denying closure or an approval for no further action.

(3) JOINT ADMINISTRATION. The departments of Commerce and DNR shall implement a system of joint decision making for:

(a) The setting of remediation targets for sites that are competitively bid or bundled with another site(s). When the targets are achieved, the site shall be closed without requiring or reimbursing for additional remedial efforts except for otherwise eligible post closure costs.

(b) The selection of remedial bids.

(4) CLOSURE DECISIONS. For any site with confirmed groundwater contamination equal to or greater than the enforcement standard following completion of the site investigation and for which a closure request has been submitted, the following steps will be taken:

(a) A site closure request is prepared and submitted to DNR with the appropriate fee.

(b) The DNR reviews the request and makes a determination on closure, either with or without institutional controls or tools.

(c) The DNR will forward a copy of all closure determinations to Commerce.

(d) If Commerce identifies a site they believe has met its remediation target(s), but has not submitted a closure request, they may request DNR take action to solicit a closure request from the site owner.

(5) DISPUTE RESOLUTION. Any disputes between the agencies under subs. (3) or (4) will be subject to the following dispute resolution process. Project managers will discuss their differences, and the basis for them, in an attempt to resolve the dispute. If the dispute is not resolved, the decision will be referred to the appropriate division administrators; if the dispute still remains unresolved, the department Secretaries shall be the final decision-makers.

Comm 46.04 Site investigation. (1) GENERAL. The investigation of petroleum contaminated sites shall be conducted in a manner designed to meet ch. NR 716 and to minimize costs while providing sufficient data necessary for risk assessment and remediation decision making.

(2) The departments shall develop an agreed upon methodology for determining if there is evidence of an expanding plume and the actions to take if the data provided through the investigation is not adequate. This methodology will be part of the investigation process.

Comm 46.05 Risk Assessment. (1) GENERAL. Jointly created risk assessment protocols, shall be used to measure the environmental, safety and health risks associated with petroleum contaminations and to determine a required action level which could include, but not be limited to, adequate source control and measures to address environmental risk factors, or whether the site may be closed without additional action.

(2) RISK CRITERIA. Decisions regarding the remediation and closure of sites shall be based upon an application of risk criteria. The following risk criteria will be used in decision making:

- (a) No environmental factor(s), as defined in ch. Comm 47, exists;
- (b) Site closure may not take place until environmental factors, that are identified, are addressed;
- (c) Contamination in groundwater is below the enforcement standard off-site except in a public roadway or right of way;
- (d) No contamination above Table 46.05 values occurs within 4 feet of the ground surface;
- (e) On-site contamination, in a water sample from non-developable groundwater water, does not exceed 300 times the enforcement standard;
- (f) There is a separation distance between contamination and the developable groundwater of 5 feet or more, or the contamination is decreasing, in the soil, as it approaches the developable groundwater;
- (g) There is no impact or potential impact to a receptor of concern as defined by the departments;
- (h) There is no enforcement standard exceedance in any groundwater within 1000 feet of a public well;
- (i) There is no enforcement standard exceedance in any groundwater within 100 feet of a private well.

TABLE 46.05

Benzene	0.620 mg/kg
1,2 DCA	0.340 mg/kg
Ethylbenzene	230.0 mg/kg
Toluene	520.0 mg/kg
Xylene	860.0 mg/kg

Comm 46.06 Site closure. (1) GENERAL. The actions of the DNR and Commerce in making site closure or no further action decisions and in approving remedial actions on a site shall incorporate that:

(a) Sites where contamination is determined to be below the enforcement standard on site and below the enforcement standard off site, and no environmental factors exist, shall be closed without requiring or reimbursing for additional remedial efforts except for otherwise eligible post closure costs.

(b) Sites with contaminants above the enforcement standard on site but below the enforcement standard off site in the developable groundwater, and not greater than 300 times the enforcement standard in the non-developable groundwater, and no environmental factor(s) or requirement for source control, shall be offered closure with a groundwater use restriction or a GIS registration. Additional funding will not be provided except for otherwise eligible post closure costs. If the of site owner does not accept the GIS registration or the groundwater use restriction, additional funding will still not be provided except for otherwise eligible post closure costs and additional remedial efforts, beyond natural attenuation, will not be required.

(c) Sites that meet the criteria of s. Comm 46.05 (2) will be closed after investigation without requiring or reimbursing for additional remedial efforts except for otherwise eligible post closure costs.

(d) Sites that do not meet all criteria of s. Comm 46.05 (2) may be closed after only the investigation, if it is determined that the site poses no additional risk and it has been determined that additional source control is not needed.

(e) Sites that do not meet all criteria of s. Comm 46.05 (2) and are determined to pose additional risk shall conduct remedial efforts to address and resolve the risk.

(f) The criteria of s. Comm 46.05 (2) are statements of what constitute risk factors. The elements established through those statements will be used by the departments in the process of setting remediation targets and in decisions on whether to grant closure or no further action.

(3) DETERMINATION OF COMPLIANCE WITH THE ENFORCEMENT STANDARD. When determining whether a site is above or below either the enforcement standard or any other contaminant level or target, recognition shall be made of the impact of error of measurement, repeatability of test results and statistical significance. The DNR and Commerce shall develop, by June 30, 1999, a process for taking these considerations into account and then revise and/or adopt administrative rules as appropriate.

(4) TRACKING OF REMEDIATION PROGRESS

(a) The departments shall establish a system for electronically tracking the achievement of remediation targets. They shall use the tracking system to determine if remediation funding should end and if a site closure request should be submitted.

(b) The departments shall jointly require and enforce the use of the electronic reporting system by claimants.

Comm 46.07 Transfer of sites. (1) GENERAL. The DNR will establish the responsibility of either Commerce or DNR for a site within 60 days of the receipt of the site investigation report, unless any of the following apply:

(a) The DNR has requested additional information after reviewing the site investigation report and the requested information has not been submitted.

(b) The site is the subject of an enforcement action initiated by the DNR.

(c) Other circumstances over which the DNR has no control have prevented the DNR from making a site classification determination.

(2) CONSULTANT DETERMINATION. Consultants performing site investigations may determine, as part of a joint agency site classification pilot, whether a site is high, medium or low priority and submit the investigation report directly to the agency they believe has jurisdiction.

(3) CHANGES IN CLASSIFICATION. If a site is classified as high, medium or low priority, and the DNR or Commerce determines that the classification is incorrect, that agency will transfer the site and all related data to the other agency within 14 days.

(4) LIST OF SITES IN REMEDIATION. The departments will develop and maintain a reconciled list of sites in remediation including data on target levels, risk factors, expected closure costs and other relevant data .

FINDING OF EMERGENCY

The Wisconsin Natural Resources Board finds that an emergency exists and that the attached rule is necessary for the immediate preservation of the public peace, health, safety or welfare. A statement of the fact contributing to the emergency is: The Department of Commerce has adopted administrative rules under sections 101.143 and 101.144, Stats., to implement the Petroleum Environmental Cleanup Fund Act (PECFA). The purpose of PECFA is to reimburse property owners for the eligible costs incurred to investigate and remediate petroleum product discharges from a petroleum storage system or home heating oil tank system. The attached rule is being proposed in response to resolutions adopted by the Joint Committee for Review of Administrative Rules (JCRAR) which directed the Department of Commerce and the Department of Natural Resources to promulgate a joint emergency rule, incorporating parts of a Memorandum of Understanding between the two agencies that relates to the classification of contaminated sites. JCRAR had made it clear that the committee was prepared to suspend the

Department of Commerce's PECFA rules (which would have suspended further payments from the PECFA fund to reimburse property owners for eligible costs already incurred) if the agencies failed to adopt the emergency rule that JCRAR was directing them to adopt.

The foregoing emergency rule was approved and adopted by the State of Wisconsin Natural Resources Board on February 23, 1999.

This rule takes effect upon publication in the official state newspaper as provided in s. 227.24, Stats. This rule shall expire on May 31, 1999, unless an extension is granted under s. 227.24(2), Stats.

Dated at Madison, Wisconsin February 23, 1999

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By George E. Meyer
George E. Meyer, Secretary

(SEAL)

LRB or Bill No./Adm. Rule No. COMM 46
Amendment No. if Applicable

ORIGINAL UPDATED
 CORRECTED SUPPLEMENTAL

FISCAL ESTIMATE
 DOA-2048 N(R10/94)

Subject

Fiscal Effect
 State: No State Fiscal Effect
 Check columns below only if bill makes a direct appropriation or affects a sum sufficient appropriation.

<input type="checkbox"/> Increase Existing Appropriation	<input type="checkbox"/> Increase Existing Revenues	<input type="checkbox"/> Increase Costs - May be possible to Absorb Within Agency's Budget <input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Decrease Existing Appropriation	<input type="checkbox"/> Decrease Existing Revenues	<input type="checkbox"/> Decrease Costs
<input type="checkbox"/> Create New Appropriation		

LOCAL: No local government costs

1. <input type="checkbox"/> Increase Costs <input type="checkbox"/> Permissive <input type="checkbox"/> Mandatory	3. <input type="checkbox"/> Increase Revenues <input type="checkbox"/> Permissive <input type="checkbox"/> Mandatory	5. Types of Local Governmental Units Affected: <input type="checkbox"/> Towns <input type="checkbox"/> Villages <input type="checkbox"/> Cities
2. <input type="checkbox"/> Decrease Costs <input type="checkbox"/> Permissive <input type="checkbox"/> Mandatory	4. <input type="checkbox"/> Decrease Revenues <input type="checkbox"/> Permissive <input type="checkbox"/> Mandatory	<input type="checkbox"/> Counties <input type="checkbox"/> Others _____ <input type="checkbox"/> School Districts <input type="checkbox"/> WTCS Districts

Fund Sources Affected <input type="checkbox"/> GPR <input type="checkbox"/> FED <input type="checkbox"/> PRO <input type="checkbox"/> PRS <input type="checkbox"/> SEG <input type="checkbox"/> SEG-S	Affected Ch. 20 Appropriations
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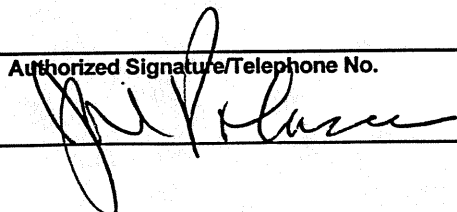
Assumptions Used in Arriving at Fiscal Estimate

Background
 1995 Act 27 divided the responsibility for overseeing the remediation of sites with petroleum contamination between the Department of Commerce (COM) and the Department of Natural Resources (DNR). This legislation gave jurisdiction for low and medium priority sites to COM and jurisdiction for high priority sites and those with other types of contamination to DNR. It also directed the agencies to enter into a Memorandum of Understanding (MOU) that establishes: 1) the respective functions of the two departments in administrating the remediation of these sites; 2) procedures to ensure that remedial actions for these sites are consistent with actions taken under the Spill Law; and 3) the procedures, standards and schedules for determining whether sites are classified as high, medium or low priority.

On September 16, 1998 the Joint Committee for Review of Administrative Rules (JCRAR) held a public hearing on a number of items, including implementation of the MOU between COM and DNR. At that hearing, JCRAR adopted a resolution directing COM and DNR to promulgate a Joint Emergency Rule, within 30 days, incorporating those portions of the MOU related to the classification of contaminated sites. Since this rule merely codifies existing procedures, no additional workload is created by its promulgation.

Fiscal Impact to State Government
 The creation of ch. COMM 46 does not create additional regulatory workload. No state fiscal impact is anticipated as a result of the creation of ch. COMM 46.

Long-Range Fiscal Implications

Agency/Prepared by: (Name & Phone No.) Joe Polasek, 266-2794	Authorized Signature/Telephone No. 	Date 2-16-99
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ORDER OF THE STATE OF WISCONSIN
NATURAL RESOURCES BOARD

REPEALING AND RECREATING
RULES

JUN 08 REC'D

JUN 08 REC'D

The Wisconsin Natural Resources Board proposes to jointly with the Department of Commerce repeal and recreate Comm 46 relating to sites contaminated with petroleum products from petroleum storage tanks.

RR-23-99 (E)

Analysis prepared by the Department of Natural Resources

Statutory authority: Section 227.11 (2)(a), 227.24 and 227.26 (2)(b), Stats.

Statutes interpreted: Sections 101.143, 101.144, 292.11 and 292.31 and ch. 160, Stats.

The proposed repealed and recreated Comm 46 is identical to the version of Comm 46 that is being promulgated by the Department of Commerce.

Chapter Comm 46 defines "high priority site", "medium priority site" and "low priority site", and provides that the Department of Natural Resources shall have authority for high priority sites and the Department of Commerce shall have authority for low and medium priority sites. If adopted by the Natural Resources Board, the rule will require the transfer of sites with petroleum contamination in the groundwater below the enforcement standard in ch. NR 140 from the Department of Natural Resources to the Department of Commerce.

Chapter Comm 46 requires the two agencies to work cooperatively to develop the following:

1. A system of joint decision-making for the selection of remedial bids and the setting of remediation targets for sites which are competitively bid or bundled with another site or sites.
2. An agreed-upon methodology for determining if there is evidence of an expanding plume and the actions to take if the data provided through the site investigation is not adequate.
3. A process for taking into account the impact of error of measurement, repeatability of results and statistical significance, when determining whether a site is above or below the enforcement standard or any other contaminant level or target.
4. A system for electronically tracking the achievement of remediation targets.
5. A reconciled list of sites in remediation.

Chapter Comm 46 also establishes procedures for transferring sites from one agency to the other when information relevant to their classification becomes available.

The amendments and new provisions that are proposed to be added to chs. NR 716, 720, 722 and 726, as part of this emergency rule package, consist of cross-references to Comm 46 that are proposed to be inserted in chs. NR 716 and 726, and exceptions to requirements that would conflict with the requirements in ch. Comm 46: that is, an exception to the soil cleanup standards in ch. NR 720 and the remedial action option evaluation requirements in ch. NR 722.

SECTION 1. Comm 46 is repealed and recreated to read:

CHAPTER Comm 46
PETROLEUM ENVIRONMENTAL CLEANUP FUND INTERAGENCY
RESPONSIBILITIES

Comm 46.01 Purpose. The purpose of this rule is to identify the roles, processes and procedures that guide the departments of commerce and natural resources in the administration of their respective responsibilities for high, medium and low priority petroleum-contaminated sites under ss. 101.143, 101.144, 292.11 and 292.31, and ch. 160, Stats. This rule codifies portions of a memorandum of understanding that has been signed by the two agencies, as required by s. 101.144 (3m), Stats.

Comm 46.02 Applicability. This chapter only applies to sites where petroleum products have discharged from petroleum storage tanks.

Comm 46.03 Definitions. In this chapter:

- (1) "Commerce" means the department of commerce.
- (2) "Discharge" has the meaning specified in s. 292.01 (3), Stats.

Note: Under s. 292.01 (3), Stats., "discharge" means, but is not limited to, "spilling, leaking, pumping, pouring, emitting, emptying or dumping."

- (3) "DNR" means the department of natural resources.

- (4) "Enforcement standard" means a numerical value expressing the concentration of a substance in groundwater which is adopted under s. 160.07, Stats., and s. NR 140.10 or s. 160.09, Stats., and s. NR 140.12.

(5) "Groundwater" has the meaning specified in s. 160.01 (4), Stats.

Note: Section 160.01 (4), Stats., defines "groundwater" to mean "any water of the state, as defined in s. 281.01 (18), occurring in a saturated subsurface geological formation of rock or soil. Section 281.01 (18), Stats., defines "waters of the state" to include "those portions of Lake Michigan and Lake Superior within the boundaries of this state, and all lakes, bays, rivers, streams, springs, ponds, wells, impounding reservoirs, marshes, watercourses, drainage systems and other surface water or groundwater, natural or artificial, public or private, within this state or its jurisdiction."

(6) "High priority site" means a site that is contaminated with a petroleum product and meets one or more of the following criteria:

(a) One or more hazardous substances other than petroleum products from a petroleum storage tank are present at the site.

(b) Contamination from the site discharges to a sensitive environment as defined in s. NR 700.03 (55).

Note: Section NR 700.03 (55) defines "sensitive environment" to mean "an area of exceptional environmental value, where a discharge could pose a greater threat than a discharge to other areas, including but not limited to: wetlands; habitat used by state or federally designated endangered or threatened species; national or state fish and wildlife refuges and fish and wildlife management areas; state and federal designated wild and scenic rivers, designated state riverways and state designated scenic urban waterways; riparian areas; rookeries; cold water communities as defined in s. NR 102.04 (3)(b), Lakes Superior and Michigan and the Mississippi river, environmentally sensitive areas and environmental corridors identified in area-wide water quality management plans, special area management plans, special wetland inventory studies, advanced delineation and identification studies and areas designated by the U.S. EPA under section 404 (c), 33 USC 1344 (c); calcareous fens; state forests, parks, trails and recreational areas; state and federal designated wilderness areas; designated or dedicated state natural areas established under ss. 23.27 to 23.29, Stats.; wild rice waters as listed in s. NR 19.09; and any other waters identified as outstanding or exceptional resource waters in ch. NR 102."

(c) Groundwater contamination that is equal to or greater than an enforcement standard has been confirmed at the site.

(7) "Low permeability material" means subsurface material above bedrock, as defined in s. NR 141.05 (5), that is saturated with groundwater and has a hydraulic conductivity less than or equal to 1×10^{-5} centimeters per second as determined by a method specified in s. Comm 46.05.

Note: Section NR 141.05 (5) defines “bedrock” to mean “ the solid rock underlying any loose surficial material such as soil, alluvium or glacial drift. Bedrock includes but is not limited to limestone, dolomite, sandstone, shale and igneous and metamorphic rock.”

(8) “Low priority site” means a site that is contaminated with a petroleum product and meets both of the following criteria:

(a) There is no confirmed petroleum product in groundwater equal to or greater than a preventive action limit, and

(b) There is no evidence of a hazardous substance on the site other than petroleum products that were discharged from a petroleum storage tank.

(9) “Medium priority site” means a site that is contaminated with a petroleum product and meets both of the following criteria:

(a) There is no evidence of a hazardous substance on the site other than petroleum products that were discharged from a petroleum storage tank; and

(b) There is no confirmed petroleum product in groundwater equal to or greater than an enforcement standard.

(10) “Monitoring well” means a groundwater monitoring well designed, installed, constructed and developed in accordance with the requirements of ch. NR 141, for the purpose of monitoring groundwater or obtaining geologic or groundwater related data. The term “monitoring well” includes piezometers and water table observation wells.

(11) “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.

(12) “Permeable material” means a subsurface material that is saturated with groundwater and that is not a low permeability material.

(13) “Petroleum product” has the meaning specified in s. 101.143 (1)(f), Stats.

Note: Section 101.143 (1)(f), Stats., defines “petroleum product” to mean “gasoline, gasoline alcohol fuel blends, kerosene, fuel oil, burner oil, diesel fuel or used motor oil.” The term “petroleum product” includes substances that are, or once were, constituents of a petroleum product.

(14) “Petroleum storage tank” has the meaning specified in s. 101.144(1)(bm), Stats.

Note: Section 101.144 (1)(bm), Stats., defines “petroleum storage tank” to mean “a storage tank that is used to store petroleum products together with any on-site integral piping or dispensing system.” The term “petroleum storage tank” does not include a pipeline facility.

(15) “Preventive action limit” means a numerical value expressing the concentration of a substance in groundwater which is adopted under s. 160.15, Stats., and s. NR 140.10 or 140.12.

(16) “Property boundary” has the meaning specified in s. 160.01(6m), Stats.

Note: Section 160.01(6m), Stats., defines “property boundary” to mean “the boundary of the total contiguous parcel of land owned by a common owner, regardless of whether public or private roads run through the parcel.”

(17) “Remedial action” means a response action taken to control, minimize or eliminate the discharge of petroleum products so that they do not present an actual or potential threat to public health, safety or welfare or the environment. The term “remedial action” includes actions taken to restore the environment to the extent practicable and to meet applicable environmental standards, and includes natural attenuation. Examples include containment, treatment, excavation, disposal, recycling or reuse, and any monitoring required to assure that such actions protect public health, safety and welfare and the environment.

(18) “Remediation target” means the contaminant concentration in groundwater or soil, or both, that must be achieved before a site can be granted, or is eligible for, closure under ch. NR 726.

(19) “Responsible person” has the meaning specified in s. 101.144(1)(d), Stats.

Note: Section 101.144(1)(d), Stats., defines “responsible person” to mean “a person who owns or operates a petroleum storage tank, a person who causes a discharge from a petroleum storage tank or a person on whose property a petroleum storage tank is located.”

(20) “Site” means any area where a petroleum product has discharged.

(21) “Site closure” or “site closed” means a determination made pursuant to ch. NR 726 that applicable groundwater quality standards in ch. NR 140 have been met or will be met by relying on natural attenuation and that applicable soil cleanup standards in ch. NR 720 have been met or will be met by relying on a remedial action performance standard.

(22) “Source control” means actions taken to remove or treat soil or groundwater contamination, or both, actions taken to minimize the leaching of soil contamination to groundwater, and actions taken to prevent the migration of groundwater contamination. The term “source control” includes tank removal, the removal of free product and contaminant hot spot removal or treatment.

Note: The term “source control” does not include groundwater monitoring, soil sampling, recycling or reuse of contaminants, reliance on natural attenuation to address residual contamination, or changes to a facility’s design, operation, construction or waste handling or disposal practices.

Comm 46.04 Site authority. (1) GENERAL. The assignment of administrative authority for high, medium and low priority petroleum contaminated sites shall be determined according to the following:

- (a) DNR shall have administrative authority for high priority sites.
- (b) Commerce shall have administrative authority for low and medium priority sites.

(2) ADMINISTRATIVE AUTHORITY. The administrative authority of Commerce and DNR for a site includes enforcement under ss. 101.02, 101.144 (2) or (3), or s. 292.11 (7), Stats., setting remediation targets, remediation supervision and direction, and decision making regarding granting or denying closure and deciding whether or not further remedial action is required.

(3) JOINT DECISION-MAKING. Commerce and DNR shall implement a system of joint decision-making for the setting of remediation targets for sites that are competitively bid or bundled with another site or sites pursuant to s. Comm 47.337 (4)(a)3. and 4., and the selection of remedial bids.

(4) CLOSURE DECISIONS FOR SITES WITH GROUNDWATER CONTAMINATION. At any time following completion of the site investigation, the following steps shall be taken for a site with confirmed groundwater contaminant levels equal to or greater than an enforcement standard:

(a) Where a closure request has been submitted by, or on behalf of, a responsible person with the appropriate fee, the DNR shall review the request, make a determination on closure, and if closure is granted, forward a copy of the closure determination to Commerce.

(b) Where a closure request has not been submitted, if Commerce or DNR identifies a site that either agency believes has met its remediation target, DNR may take action to solicit a closure request from the responsible person.

(5) DISPUTE RESOLUTION. Any disputes between Commerce and DNR under sub. (3) or (4) shall be subject to the following dispute resolution process:

(a) Project managers shall discuss their differences, and the basis for them, in an attempt to resolve the dispute.

(b) If the dispute is not resolved by the project managers, the decision shall be referred to the project managers' supervisors.

(c) If the dispute is not resolved by the project managers' supervisors, the decision shall be referred to the appropriate division administrators.

(d) If the dispute still remains unresolved at the division administrator level, the department secretaries shall be the final decision-makers.

Comm 46.05 Site investigation. (1) **GENERAL.** In conducting an investigation of petroleum contaminated sites, the responsible person or a consultant retained by the responsible person shall meet applicable ch. NR 716 requirements and minimize costs while providing sufficient data necessary for risk assessment screening and decision-making under this section and ss. Comm 46.06, 46.07, 47.337 and 47.339, and chs. NR 720, 722 and 726.

(2) **GROUNDWATER PLUME EXPANSION DETERMINATION.** Commerce and DNR shall develop an agreed upon methodology for determining if there is evidence of a groundwater-contaminant plume margin expansion and the actions to take if the data provided in the site investigation report are not adequate to make this determination. This methodology shall be utilized in the site investigation process.

(3) **LOW PERMEABILITY DETERMINATION.** (a) *General.* If groundwater is contaminated with petroleum products, the responsible person or a consultant retained by the responsible person shall determine, as part of the site investigation, if the contaminant plume is completely contained within low permeability materials and does not extend into deposits of laterally extensive permeable material, into a water line or sewer line trench or other utility corridor, into a fracture in clay, or into another feature that acts or is anticipated to act as a migration pathway for groundwater contamination.

(b) *Evaluation of existing site data.* Existing site data shall be used to make the determinations required under par. (a), if existing site data are sufficient to make these determinations. Existing site data may include, but are not limited to, monitoring well development data, monitoring well purging and sampling data, rising and falling head test data, yield test data, pump test data, monitoring well and boring logs, grain size analysis, local and regional geology, subsurface description, depositional environment, expected and actual degree and extent of contamination, or a combination of this data. If the responsible person's consultant finds groundwater contamination in low permeability materials, the responsible person or the consultant shall submit to the agency that has administrative authority for the site, for approval, the results of the evaluation of existing site data that is required by this paragraph, or an explanation of why the existing site data are not sufficient to make the determinations required in par. (a).

(c) *Standard hydraulic conductivity tests.* If the agency with administrative authority for the site determines that the existing site data are insufficient to make the determinations required

under par. (a), the responsible person, or a consultant retained by the responsible person, shall then determine the hydraulic conductivity of the saturated materials at the site utilizing a method described in Appendix A, or a method that has been approved under par. (d), in conformance with the following requirements:

1. Hydraulic conductivity shall be determined for at least one monitoring well within the contaminant plume unless subd. 2 is applicable.

2. Notwithstanding the requirements in subd. 1, the agency with administrative authority for the site may determine that hydraulic conductivity test results for one or more monitoring wells outside of the plume are representative of the hydraulic conductivity of the saturated materials within the plume, based upon a comparison of the monitoring well logs for monitoring wells installed inside and outside of the plume, and that it is not necessary to conduct a hydraulic conductivity test for a monitoring well within the plume.

(d) *Alternative methods for determining hydraulic conductivity.* The agency with administrative authority for the site may approve an alternative method for determining the hydraulic conductivity of the saturated materials at a site if the method meets the objectives of this section. The responsible person, or a consultant retained by the responsible person, shall obtain approval from the agency before using an alternative method. If the agency grants approval for use of the alternative method, the responsible person or the consultant shall submit site data and test results, to the agency with administrative authority for the site, documenting that the objectives of this section have been met.

(4) SUPPLEMENTAL SITE INVESTIGATION INFORMATION. If the site investigation report for the site was submitted prior to the effective date of this rule, supplemental site information, evaluating existing site data to make the determinations required under par. (a), may be required by Commerce or DNR to be included as part of a submittal for approval of a remedial action, setting remediation targets or approving or denying closure. If the agency with administrative authority for the site determines that the existing site data are insufficient to make the determinations required in sub. (3)(a), the responsible person or a consultant retained by the responsible person, shall then determine the hydraulic conductivity of the saturated materials at the site in compliance with the requirements of sub. (3)(c).

Comm 46.06 Risk assessment screening. (1) GENERAL. The risk criteria in sub. (2) for screening sites shall be used to measure the environmental, public health, safety and welfare risks associated with the discharge of petroleum products to determine whether a remedial action shall be required, which could include, but is not limited to, adequate source control and measures to address environmental factors listed in s. Comm 47.337 (3), to set remediation targets, and to determine whether the site may be closed as provided in s. Comm 46.07.

(2) RISK CRITERIA FOR SCREENING SITES. In making decisions under sub. (1), Commerce and DNR shall utilize, as provided in s. Comm 46.07, the following risk criteria for screening sites:

(a) None of the environmental factors as listed in s. Comm 47.337 (3) are present at the site at the time of the completion of the site investigation;

(b) There is no contaminant concentration in any groundwater that has migrated outside of the property boundary, of the property where the source of the contamination is or was located, that is equal to or greater than enforcement standards, except in a public road or street right of way;

(c) No soil contamination exists within 4 feet of the ground surface that exceeds the direct contact soil concentrations listed in Table 1;

(d) No groundwater contamination, in a water sample collected from a monitoring well in low permeability material, which has been identified using the methods specified in s. Comm 46.05, exceeds the groundwater concentrations listed in Table 1;

(e) 1. There is a vertical separation distance of 5 feet or more between any contaminants contained within low permeability material and any permeable material on the site, or the soil and groundwater contaminant concentrations are decreasing with depth within the low permeability material, and

2. No concentration of any contaminant in the groundwater contained within permeable material is equal to or greater than an enforcement standard;

(f) There is no impact to a water line or sewer line trench or other utility corridor along which vapors, free product or contaminated water may flow, or an interbedded permeable soil layer, and there is no impact or evidence of imminent impact to a basement;

(g) There is no enforcement standard exceedance in any groundwater within 1000 feet of a public well; and

(h) There is no enforcement standard exceedance in any groundwater within 100 feet of a private well.

Table 1

Substance	Direct-Contact Soil Contaminant Concentrations (Top 4 ft)	Basis	Contaminant Concentration in Groundwater within Low-Permeability Materials	Basis
	(mg/kg)		(µg/l)	
Benzene	1.10	Cancer risk	1,500.	Cleanup time
1,2-DCA	0.54	Cancer risk	1,500.	Cleanup time
Ethylbenzene	400.	Soil Saturation Limit	7,100.	Soil Saturation Limit
Toluene	670.	Soil Saturation Limit	20,000.	Soil Saturation Limit
Xylene	470.	Soil Saturation Limit	7,800.	Soil Saturation Limit

Comm 46.07 Site closure and approval and tracking of remedial actions. (1) **SITE CLOSURE DECISIONS.** Commerce and DNR shall make site closure decisions based upon the following requirements:

(a) Sites where contaminant concentrations are below the enforcement standards at every point on site at which groundwater is monitored, and where all of the risk criteria in s. Comm 46.06 (2) are satisfied, shall be closed without reimbursement from Commerce for additional remedial actions except for post closure costs that are otherwise eligible for reimbursement under ch. Comm 47.

(b) Sites where contaminant concentrations within permeable material outside of the property boundary, of the property where the source of the contamination is or was located, are below enforcement standards and where contaminant concentrations within low permeability material outside of the property boundary, of the property where the source of the contamination is or was located, are below the groundwater concentrations listed in Table 1, but where contaminant concentrations above enforcement standards exist within the property boundary, of the property where the source of the contamination is or was located, shall be offered closure with institutional controls that satisfy the requirements of ch. NR 726, if all of the risk criteria in s. Comm 46.06 (2), except ss. Comm 46.06 (2)(b) or 746.06 (2)(e)2., are satisfied. If the owners of all properties on the site with enforcement standard exceedances sign and record a groundwater use restriction, as required under s. NR 726.05 (2)(b)4., the site shall be closed. If the owner of any property on the site with an enforcement standard exceedance does not sign and record a groundwater use restriction, additional remedial action, other than the utilization of natural attenuation, may not be required for areas where all contaminant concentrations that are equal to or greater than enforcement standards are found in low permeability material, except in situations where a risk or potential risk exists to public health, safety or welfare or the

environment from the residual groundwater contamination in the low permeability material, and where a technically feasible and cost effective response is available. Funding under s. 101.143, Stats., shall be terminated by Commerce for sites that are offered closure under this paragraph, except for post closure costs that are otherwise eligible for reimbursement under ch. Comm 47.

Note: DNR is currently developing a geographic information system (GIS) registry as a means for tracking residual groundwater contamination which could replace the groundwater use restriction requirement in ch. NR 726. However, until the GIS registry is operable and ch. NR 726 is amended to allow registration on a GIS registry as a substitute for recording a groundwater use restriction, groundwater use restrictions will continue to be used as the method for notifying future property owners and other interested persons of the existence of the residual groundwater contamination.

(c) After an investigation that satisfies the requirements of ch. NR 716, the agency with administrative authority for the site may approve of site closure under ch. NR 726 for sites that do not meet all of the risk criteria in s. Comm 46.06(2) if the requirements of ch. NR 726 are satisfied, or may determine that additional remedial action other than reliance on natural attenuation is not required even though all of the requirements for closure in ch. NR 726 have not been satisfied, without reimbursement from Commerce for additional remedial actions except for post closure costs that are otherwise eligible for reimbursement under ch. Comm 47.

(d) If the agency with administrative authority for a site determines that pars. (a), (b) and (c) do not apply to the site, the responsible person shall be required to conduct a remedial action, and shall be entitled to reimbursement under ch. Comm 47 for all eligible costs of the remedial action.

Note: In compliance with s. 160.21(2)(a), Stats., s. NR 140.22(2)(b) establishes the point of standards application to determine whether an enforcement standard has been attained or exceeded, for facilities, practices or activities that do not have an established design management zone, as "any point of present groundwater use and any point beyond the boundary of the property on which the facility, practice or activity is located and s. NR 140.22 (2)(c) establishes a point of standards application for "discharges, releases, sites or facilities" regulated under s. 292.11 or 292.31, Stats. (among other statutes) as "every point at which groundwater is monitored." The environmental factors in s. Comm 47.337 (3) and the other risk criteria in s. Comm 46.06 (2) require an evaluation of groundwater contaminant concentrations at all of these points of standards application.

(2) CLOSURE BASED ON REMEDIATION TARGETS. When the remediation targets developed under s. Comm 46.04 (3) are achieved, the site shall be closed utilizing an institutional control that satisfies the requirements of ch. NR 726, if required, without reimbursement from Commerce for additional remedial actions except for post closure costs that are otherwise eligible for reimbursement under ch. Comm 47.

(3) DETERMINATION OF COMPLIANCE WITH ENFORCEMENT STANDARDS OR REMEDIATION TARGETS. When determining whether contaminant concentrations at a

site are above or below either an enforcement standard or a remediation target, recognition shall be made of the impact of error of measurement, repeatability of test results and statistical significance. Commerce and DNR shall develop, by June 30, 1999, a process for taking these considerations into account and then revise or adopt administrative rules as appropriate.

(4) TRACKING OF REMEDIATION PROGRESS. (a) Commerce and DNR shall establish a system for electronically tracking remediation progress and shall use the tracking system to determine if remediation funding under s. 101.143, Stats., should end or if a site closure request should be submitted.

(b) Commerce and DNR shall jointly require and enforce the use of the electronic reporting system by claimants for reimbursement under s. 101.143, Stats.

Comm 46.08 Transfer of sites. (1) GENERAL. Except as provided in sub. (2) or (3), DNR shall determine whether Commerce or DNR has administrative authority for a site. Until that determination is made, DNR has administrative authority for the site. DNR shall make this determination within 60 days after receipt by DNR of the site investigation report, unless any of the following apply:

(a) DNR has requested additional information from a responsible person or a consultant retained by the responsible person after reviewing the site investigation report and the requested information has not been submitted to DNR.

(b) The site is the subject of an enforcement action under s. 292.11, Stats., initiated by DNR.

(c) Other circumstances over which DNR has no control have prevented DNR from making a site classification determination.

(2) CONSULTANT DETERMINATION. Consultants performing site investigations may determine, as part of a joint agency site classification pilot, whether a site is high, medium or low priority and submit the investigation report directly to the agency they determine to have administrative authority under s. Comm 46.04 (1).

(3) CHANGES IN CLASSIFICATION. If a site is classified as high, medium or low priority, and DNR or Commerce determines that the classification is incorrect, the agency making the determination that a site has been incorrectly classified shall transfer the site file and all related data to the other agency within 14 days after making the determination, if the other agency has administrative authority for the reclassified site.

(4) LIST OF SITES IN REMEDIATION. Commerce and DNR shall develop and maintain a reconciled list of sites in remediation including data on remediation targets, risk criteria for screening sites, expected closure costs and other relevant data.

Appendix A

STANDARD METHODS FOR DETERMINING HYDRAULIC CONDUCTIVITY

(1) TRANSMISSIVITY TEST. (a) To conduct a transmissivity test, a volume of water is removed from a monitoring well and the water level recovery in the well is measured after a specified time has elapsed. The resultant data may be used to determine the hydraulic conductivity of the area surrounding the monitoring well.

(b) For transmissivity tests, groundwater may not be removed from the well 12 hours prior to beginning the test.

(c) Transmissivity tests shall be conducted in a monitoring well as follows:

1. If using a pump, set the pump intake in the lower half of the screen and allow sufficient time for the water level in the well to equilibrate.

2. Measure and record the initial depth to water and well depth. Subtract the difference to determine the saturated interval of the well, in feet.

3. Pump or bail 2 gallons of groundwater from the well within 2 to 3 minutes.

4. Record the start time and finish time to remove 2 gallons from the well.

5. Measure and record the water level in the well immediately after 2 gallons is removed from the well.

6. After the applicable time listed in Table A has elapsed, measure and record the water level in the well.

7. Calculate hydraulic conductivity utilizing Formula A.

TABLE A

Saturated Interval of Well (feet)	Time (minutes)
5	190
6	160
7	140
8	120
9	105
10	95

FORMULA A

Step 1: Calculate $T = q / 4 \pi s t$

Where: T = coefficient of transmissivity, in gallons per day per foot (gpd/ft)
 q = volume of groundwater removed (2 gallons)
 s = measured residual drawdown, in feet (water level at time in Table A minus initial depth to water in par. (c) 2., above)
 t = time, in days, from Table A. (convert minutes to days by dividing by 1440)

Step 2: Convert T in gpd/ft to T in ft^2/sec by dividing by 646272.

Step 3: Calculate $K = T/b$

Where: K = hydraulic conductivity, in ft/sec
 b = saturated interval of well, in feet, as measured in par. (c) 2., above.

Step 4: Convert K in ft/sec to K in cm/sec by multiplying by 30.48.

(2) RISING AND FALLING HEAD TEST. (a) To conduct a rising head test, a volume of groundwater is instantaneously removed from a well and the rate of water level recovery in the well is measured. To conduct a falling head test, a solid object is instantaneously inserted into a well and the rate at which groundwater flows out of the well is measured. The results of both tests may be used to determine the hydraulic conductivity of the area surrounding the well. Both tests shall be conducted in accordance with procedures specified by ASTM in guidance number D 4044-96 and D 5912-96, or their successor, and the relevant criteria in pars. (b) and (c) or (d).

Note: ASTM guidance number D 5912-96 is based on the Bouwer and Rice method. Rising head test is also referred to as bail-down test, slug-out test and slug extraction test. Falling head test is also referred to as slug-in test and slug injection test. The criteria listed under pars. (a) to (c) are intended for determining the hydraulic conductivity of low permeability materials. They may not be applicable to saturated materials having a hydraulic conductivity greater than 1×10^{-5} cm/sec .

(b) For both the rising and falling head tests, groundwater may not be removed from the well 12 hours prior to the test, the well shall have at least five feet of water within the well screen or well casing, or both, prior to each test, and the borehole diameter of the well shall be at least six inches.

(c) Hydraulic conductivity shall be determined only by rising head tests in wells where the water table intersects the well screen and shall be conducted in accordance with all of the following criteria:

1. Assume the filter pack's specific yield is 0.20 to 0.25, unless measured by the manufacturer.