CR 93-62

WISCONSIN
DEPT. OF NATURAL RESOURCES
George E. Meyer
Secretary

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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STATE OF WISCONSIN)
) SS
DEPARTMENT OF NATURAL RESOURCES)

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, George E. Meyer, Secretary of the Department of Natural Resources and custodian of the official records of said Department, do hereby certify that the annexed copy of Natural Resources Board Order No. SW-50-92 was duly approved and adopted by this Department on September 23, 1993. I further certify that said copy has been compared by me with the original on file in this Department and that the same is a true copy thereof, and of the whole of such original.

RECEIVED
JAN 26 1994
REVISOR OF STATUTES BUREAU

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the Department at the Natural Resources Building in the City of Madison, this 18th day of January, 1994.

George E. Meyer

George E. Meyer, Secretary

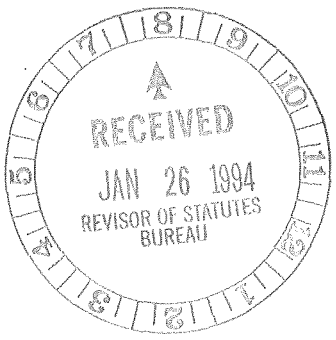
(SEAL)

part 5-1-94

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

IN THE MATTER of repealing ss. NR 158.01, 158.02, 158.04, 158.06 to 158.09, and chs. 550 and 551; amending ss. NR 110.09(2)(r), 150.03(6)(b)7. and (8)(e)20.e., ch. NR 158 (title), and ss. NR 158.03, 158.05, 213.07, 214.08, 508.20(11), 635.17(1) and 685.05(1)(d); and creating ss. NR 500.08(6) and 685.05(1)(f) and chs. NR 700, 702, 704, 705, 708, 710, 712, 714, 716, 718, 724, 726, 728, 730, 732, 734 and 736 of the Wisconsin Administrative Code, pertaining to the investigation and remediation of environmental contamination at sites or facilities subject to the environmental repair statute or regulated by the hazardous substance spills statute or the abandoned container statute, and for the remediation of soil contamination, at certain solid waste facilities, hazardous waste facilities and wastewater sludge storage facilities, lagoons, and storage and treatment structures

SW-50-92



Analysis Prepared by the Department of Natural Resources

Statutory authority: ss. 144.025(2)(c), 144.431(1)(a), 144.435(1), 144.44(4)(f)6, 144.44(7)(g), 144.442(4)(c), (5)(intro.) and (8)(b) and (c)3, 144.62(8), 144.76(5)(a), 144.77(3), 159.03(1)(a) and 227.11(2), Stats.

Statutes interpreted: ss. 144.431(1)(b), 144.433, 144.435(1), 144.439, 144.44(4)(f), 144.44(7)(g), 144.442, 144.64, 144.735, 144.76, 144.77, 144.951, 144.98, 159.05 and chs. 147 and 160, Stats.

The NR 700 rule series will apply to all environmental contamination response actions conducted under the state's environmental repair statute, hazardous substance discharge statute and abandoned container statute. Chapter NR 726 will apply when case closure is requested, for sites or facilities where remedial action is required pursuant to s. NR 508.20(11).

The NR 700 rule series establishes procedures for responding to environmental contamination situations, from the discovery through (if necessary) immediate action, site

investigation, interim action, design and implementation of a remedial action. The NR 700 rule series is designed to be self-implementing, because department staff are only able at the present time to oversee the cleanup of high priority sites which represent major environmental threats. Under a self-implementing rule, responsible parties would be able to proceed with cleanups at sites that are not high priority sites without waiting until department staff are available to oversee the project.

The NR 700 rule series includes leaking underground storage tank (LUST) rules that are required for the department to obtain authorization to implement the federal LUST program in Wisconsin, responds to statutory mandates which require the adoption of rules related to state and federal funding of response actions; updates the procedures and criteria for the state's hazardous substance spill contingency plan and abandoned container contingency plan; specifies minimum qualification requirements for consultants and contractors who will be expected to perform environmental cleanup activities, often without any direct oversight by department staff; and clarifies and codifies the department's procedures for the procurement of professional services and construction services for state-funded remedial actions.

Chapter NR 700 provides definitions and general information that applies to the implementation of the other NR 700 rule series chapters.

Chapter NR 702 establishes the procedures for the development and revision of a hazardous substance spills contingency plan, and will replace parts of the existing ch. NR 158.

Chapter NR 704 establishes procedures for the development and revision of an abandoned container contingency plan, and will replace the existing ch. NR 551.

Chapter NR 705 sets forth discharge reporting and source confirmation requirements for leaking underground storage tanks that are subject to regulation under 42 USC s.6991 et seq. and 40 CFR part 280. These rules are required for the department to obtain authorization to implement the federal leaking underground storage tank (LUST) program in Wisconsin.

Chapter NR 708 establishes criteria and procedures that responsible parties must follow to determine whether or not emergency immediate action, non-emergency immediate action or interim action is required when a hazardous substance discharge is discovered.

Chapter NR 710 specifies procedures that the department will follow to identify and rank sites and facilities that may threaten public health, safety or welfare or the environment. Chapter NR 710 will replace parts of the existing ch. NR 550.

Chapter NR 712 establishes minimum qualifications for consultants and contractors who perform investigations and carry out construction of remedial actions and some types of interim actions.

Chapter NR 714 establishes methods for providing the public with information and identifies opportunities for public participation in Superfund, LUST, environmental repair and spill cases.

Chapter NR 716 sets forth the minimum requirements for a site investigation in order to determine the degree and extent of contamination to allow the responsible party to select appropriate remedial action for the site or facility.

Chapter NR 718 establishes procedures for the storage, treatment and disposal of contaminated soil and solid waste which are excavated as part of a response action under chs. NR 700 to 726, without the need for dual review by the solid waste program staff and the emergency and remedial response program staff.

Chapter NR 724 outlines the minimum requirements for the design, construction, operation, maintenance and monitoring of remedial actions selected certain types of interim actions specified in ch. NR 708.

Chapter NR 726 specifies the requirements that must be met before the department will "close out" a case, i.e. find that no further action is required at a site or facility in light of the information that is available at the time.

Chapter NR 728 sets forth the enforcement tools available to the department to enforce chs. NR 700 to 726.

Chapter NR 730 establishes criteria for the department's expenditure of monies from the Environmental Fund to pay the State's required Superfund cost-share, and for determining how much, if any, a municipality should be required to pay of the State's Superfund cost-share because of the benefits received by the municipality.

Chapter NR 732 establishes criteria for the reimbursement by the State of monitoring costs ordered by the department for closed, non-approved municipal landfills.

Chapter NR 734 codifies the process used by the department to select and hire consultants for state-funded investigations and cleanup actions.

Chapter NR 736 codifies the process used by the department to advertise, bid and award environmental cleanup construction contracts.

Minor changes to several related administrative rules are also proposed as part of this rules package. Additions or modifications to ss. NR 110.26(10)(a), 150.03(6)(b)7 and

(8)(e)20.e., 158.03, 158.05, 213.07, 214.08, 508.20(11), 635.17(1) and 685.05(1)(d) are included in this rulemaking. Two new sections, ss. NR 500.08(6) and NR 685.05(1)(f) are also created. These changes revise language in existing rules to be consistent with the terminology of the NR 700 rules series.

SECTION 1. NR 110.09(2)(r) is amended to read:

NR 110.09(2)(r) Any facility plan which recommends the abandonment of a wastewater treatment, sludge or septage storage lagoon, or land disposal system shall include an abandonment plan. ~~A~~ An abandonment plan outlining the proposed method of abandonment of the facility shall be submitted as part of the facility plan to the department for approval. This abandonment plan shall provide for the removal and proper recycling, treatment or disposal of any accumulated solid matter, solid or liquid wastes or wastes in combination with soil. ~~and any~~ All recycling, treatment and disposal shall be conducted so as to protect public health and the environment. The abandonment plan shall address relandscaping necessary to prevent accumulation of standing water or runoff and shall provide for completion of the relandscaping within 2 years of the date ~~from~~ on ~~which wastewater, sludge or septage~~ the structure was last ~~disposed~~ used as it was originally intended. The department shall require groundwater monitoring for a minimum of one year at a quarterly frequency after the abandonment of facilities which have an existing groundwater monitoring system. Groundwater monitoring may be required on a case-by-case basis for facilities which do not have existing groundwater monitoring systems. The monitoring data shall be reviewed after ~~1~~ one year and the department shall determine whether groundwater monitoring should be continued or not. Any groundwater monitoring wells which are no longer necessary shall

be abandoned in accordance with ch. NR 141 and documentation of well abandonment shall be provided to the department.

SECTION 2. NR 150.03(6)(b)7. and (8)(e)20.e are amended to read:

NR 150.03(6)(b)		
7. ~~Environmental~~ Emergency and Remedial Response plans	a. ~~Activities~~ Plans or modifications of plans adopted by the department for projects funded by the environmental fund under s. 144.442, Stats., to respond ~~and repair~~ to sites or facilities which pose a substantial danger to public health~~,~~ or welfare or the environment.	III
~~Response and Repair~~	b. Emergency environmental restoration plans including ~~cleanup of chemical~~ plans for emergency action in response to hazardous substance spills under s. 144.76, Stats., and plans for emergency response under s. 144.442, Stats.	IV
NR 150.03(8)(e)20.	e. Issuance of orders, referrals to the department of justice, and other department actions under ~~ss.~~ s. 144.76(3), (4)~~(a)~~ and ~~(b) and 144.76~~ (7), Stats., and ch. NR 728.	IV

SECTION 3. Chapter NR 158 (title) is amended to read:

~~Chapter~~ CHAPTER NR 158

~~CONTINGENCY PLAN FOR EMERGENCY ACTIONS~~

~~IN RESPONSE TO~~ NOTIFICATION OF THE DISCHARGE OF HAZARDOUS SUBSTANCES

SECTION 4. Sections NR 158.01 and 158.02 are repealed.

SECTION 5. NR 158.03(intro.) and (2) ~~is~~ are amended to read:

NR 158.03 DEFINITIONS. ~~The following definitions are applicable to terms used~~ In this chapter~~:~~:

(2) "Discharge" ~~means, but is not limited to any spilling, leaking, pumping, pouring, emitting, emptying or dumping of a hazardous substance~~ has the meaning specified in s. 144.76(1)(a), Stats.

Note: Under s. 144.76(1)(a), Stats., "discharge" means, but is not limited to, "spilling, leaking, pumping, pouring, emitting, emptying or dumping."

SECTION 6. NR 158.03(4) is amended to read:

(4) "Hazardous substance" ~~means any substance or combination of substances, including wastes, of a solid, liquid, gaseous or semisolid form which, because of its quantity, concentration or physical, chemical or infectious characteristic, may cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness, or pose a substantial present or potential hazard to human health or the environment. Such substances may include, but are not limited to, those which are, to the degree determined by the department, toxic, corrosive,~~

~~flammable, irritants, strong sensitizers or explosive."~~ has the meaning specified in s. 144.01(4m), Stats.

Note: Section 144.01(4m), Stats., defines "hazardous substance" to mean "any substance or combination of substances including any waste of a solid, semisolid, liquid, or gaseous form which may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or which may pose a substantial present or potential hazard to human health or the environment because of its quantity, concentration or physical, chemical or infectious characteristics. This term includes, but is not limited to, substances which are toxic, corrosive, flammable, irritants, strong sensitizers or explosive as determined by the department."

SECTION 7. Section NR 158.04 is repealed.

SECTION 8. NR 158.05(1) is amended to read:

NR 158.05(1) DISCOVERY AND NOTIFICATION REQUIREMENTS. The discharger of a hazardous substance shall immediately notify the department or the designated statewide 24-hour emergency number provided by the division of emergency government, unless the discharge is specifically exempted under s. 144.76(9), Stats. The information provided should include as many of the following details ~~outlined in NR 158.04(2)(a)~~ as are available~~.~~:

(a) Name, address and telephone number of the person reporting the discharge.

(b) Name, address and telephone number of the discharger.

(c) Date, time, location and duration of the discharge.

(d) Date and time notification is made.

(e) Identity, physical state and quantity of the material discharged.

(f) Physical, chemical, hazardous and toxicological characteristics of the substance.

(g) Cause of incident and corrective measures being taken.

(h) Source, speed of movement and destination or probable destination of the discharged substance.

(i) Distance and direction to the nearest inhabited dwellings.

(j) Areas affected, including areas where air, land, surface water, groundwater or drinking water have been impacted.

(k) Weather conditions existing at the scene.

(l) Communications equipment available at the scene.

SECTION 9. NR 158.05(3)(a) to (g) are amended to read:

(a) Physical tests of soil~~;~~.

(b) Physical tests of waste~~;~~.

(c) Air quality tests~~;~~.

(d) pH~~;~~ measurements.

(e) Chlorine~~;~~ measurements.

(f) Temperature~~;~~ measurements.

(g) Dissolved oxygen measurements.

SECTION 10. Section NR 158.06 to 158.08 are repealed.

SECTION 11. Section NR 158.07 is created to read:

NR 158.07 RESPONSE ACTIONS. Upon notification to the department in accordance with s. NR 150.05, responsible parties shall conduct one or more of the necessary response actions in subs. (1) through (5), either at the direction of the department, where site or facility conditions warrant a response action, or both, unless the department determines no further action is warranted in accordance with s. NR 158.09:

(1) Emergency or non-emergency immediate action in accordance with this chapter.

(2) Interim action, in accordance with this chapter and, as applicable, ch. NR 724.

(3) Site investigation, in accordance with the requirements of ch. NR 716.

(4) Remedial action, in accordance with the requirements of ch. NR 724.

(5) Preventive measures plan required by a department-issued order, issued pursuant to s. 144.76(4), Stats., to minimize or eliminate any further hazardous substance discharges.

SECTION 12. Section NR 158.09 is renumbered s. NR 158.11.

SECTION 13. Section NR 158.09 is created to read:

NR 158.09 NO FURTHER RESPONSE ACTION. (1) GENERAL. Responsible parties may request in writing that the Department determine that no further action is necessary to respond to a hazardous substance discharge, in accordance with the requirements of this section. Unless sub. (2) is applicable, the department shall determine no further response action is required if the department determines that the responsible parties have taken all necessary response actions to restore the environment, to the extent practicable, and if the hazardous substance discharge and contaminated environmental media pose no threat to the public health, welfare and safety and the environment, considering all of the following criteria:

(a) The type of hazardous substance discharged, including the toxicity, mobility and volume of the hazardous substances.

(b) The duration of the discharge.

(c) Time until the discharge was responded to and properly contained or eliminated.

(d) Any mitigation efforts that may have accelerated the migration of the hazardous substances, such as any fire mitigation methods.

(e) Weather conditions at the site or facility, such as any precipitation that may have accelerated the migration of the discharge, from the time of the discharge until the response was completed.

(f) Migration potential of the discharge, including soil conditions, proximity to surface water bodies, location of drains or storm sewers, depth to groundwater and the integrity of any containment area.

(g) The nature and scope of any immediate action conducted.

(h) The results of any sampling conducted to confirm the adequacy of the response, taken in accordance with s. NR 708.05(3)(c).

(i) Visual and olfactory evidence of contamination.

(j) Actual or potential environmental impacts.

(k) Proximity of contamination to receptors.

(l) Present and anticipated future land use.

(m) Whether or not routes of exposure are protective and the environment has been restored to the extent practicable.

(n) Any other information that the department considers relevant.

(2) The department shall require responsible parties to conduct a site investigation in accordance with ch. NR 716 if a hazardous substance discharge from an UST meets any of the following conditions:

(a) There is evidence that groundwater wells have been affected by a discharge of a hazardous substance, including evidence found during the release confirmation procedures in ch. NR 705.

(b) Free product is found to need recovery in compliance with s. NR 708.13.

(c) There is evidence that contaminated soils may be in contact with groundwater.

(3) REOPENING A CASE. The department may require that additional response actions be conducted by responsible parties pursuant to chs. NR 700 to NR 726 if additional information indicates that residual contamination at a site or facility poses a threat to public health, safety or welfare or the environment.

Note: Although the department may determine at this time that no further response action is necessary pursuant to chs. NR 700 to NR 726, the site, facility or portion of the site or facility may be subject to the regulations and requirements of other department programs.

SECTION 14. NR 213.07 is amended to read:

NR 213.07 ABANDONMENT. Lagoons, storage structures and treatment structures which will no longer be used, shall be properly abandoned within 2 years of the date on which the waste material was last stored or treated. A plan outlining the proposed method of abandonment shall be submitted to the department for approval. This plan shall ~~include~~ contain a procedure to properly identify the presence and characteristics of any accumulated solid waste and provide appropriate removal, ~~and proper~~ disposal ~~of any accumulated solid matter~~ or recycling or treatment alternatives in accordance with applicable solid and hazardous waste laws. All recycling, treatment and disposal shall be conducted so as to protect public health and the environment. The plan shall also address site restoration ~~of any accumulated solid matter~~ and any landscaping ~~necessary to~~ that will prevent ~~groundwater impacts,~~ accumulation of standing

water or runoff. The department may require groundwater monitoring for a period of time after abandonment of the land ~~lagoon, storage structure or~~ treatment system ~~structure~~ to assess groundwater impacts. ~~Any groundwater monitoring wells which are no longer necessary~~ The design, installation, construction, abandonment and documentation of all monitoring wells shall be ~~abandoned~~ in accordance with the requirements of ch. NR 141.

SECTION 15. NR 214.08 is amended to read:

NR 214.08 ABANDONMENT. Land treatment systems, which will no longer be used, shall be properly abandoned within 2 years of the date on which waste material was last applied. The department may require a plan that includes a procedure to properly identify the presence and characteristics of any accumulated solid matter and provide appropriate removal, ~~and proper~~ disposal, treatment or recycling alternatives in accordance with applicable solid and hazardous waste laws. All recycling, treatment and disposal shall be conducted so as to protect public health and the environment. The plan shall also address site restoration ~~of any accumulated solid matter~~ and any landscaping ~~necessary to~~ that will prevent groundwater impacts, accumulation of standing water or runoff. The department may require groundwater monitoring for a period of time after abandonment of the land treatment system to assess groundwater impacts. ~~Any groundwater monitoring wells which are no longer necessary~~ The design, installation, construction, abandonment and documentation of all monitoring wells shall be ~~abandoned~~ in accordance with the requirements of ch. NR 141.

SECTION 16. NR 500.08(6) is created to read:

NR 500.08(6) REMEDIATION ACTION EXEMPTION. The following facilities are exempt from solid waste program regulatory requirements under ss. 144.43 to 144.47, Stats., and chs. NR 500 to 536:

(a) Facilities for the treatment, storage or disposal of solid waste which is excavated for the primary purpose of conducting a site investigation or implementing an interim or remedial action in compliance with the requirements of chs. NR 700 to 726 and which is returned to the same property from which it was excavated in compliance with the requirements of ch. NR 718; and

(b) Facilities for the treatment, storage or disposal of excavated contaminated soil which are operated in compliance with the requirements of ch. NR 718.

SECTION 17. NR 508.20(11) is amended to read:

NR 508.20(11) PROPOSED REMEDIAL ACTIONS. Based on an evaluation of the data generated, the types of remedial actions necessary to return the facility to compliance with the requirements of s. NR 504.04(4) shall be proposed. Sections NR 140.24(4) and 140.26(2) outline the required set of remedial actions to address groundwater impacts depending on what parameters are affected and whether or not a preventive action limit or enforcement standard has been exceeded. A long-term environmental monitoring program shall be proposed so the performance of the facility and the effects of any remedial action can be evaluated. The department may issue a

determination that no further remedial action is necessary at the facility pursuant to ch. NR 726.

SECTION 18. Chapters NR 550 and 551 are repealed.

SECTION 19. NR 635.17(1) is amended to read:

NR 635.17(1) The owner or operator of a facility seeking a license for the treatment, storage or disposal of hazardous waste shall institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or hazardous waste constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in a unit. Corrective action under this section shall, at a minimum, restore contaminated groundwater in compliance with the requirements of ch. NR 140.

SECTION 20. NR 685.05(1)(d) is amended to read:

NR 685.05(1)(d) Meets the additional closure requirements for landfills and surface impoundments as specified in s. NR 660.16, where required for all disposal facilities or other facilities where required under s. NR 640.16, 645.17, 655.11, 665.10 or 670.10, where the facilities have obtained an operating license under ch. NR 680; ~~and~~

SECTION 21. NR 685.05(1)(f) is created to read:

NR 685.05 (1)(f) Meets, in the case of a landfill or surface impoundment as specified in s. NR 660.15 or 660.16, applicable requirements in ch. NR 140 and meets the applicable closure requirements of pars. (c) or (d), whichever are more stringent.

SECTION 22. Chapters NR 700, 702, 704, 705, 708 and 710 are created to read:

CHAPTER NR 700

GENERAL REQUIREMENTS

NR 700.01 PURPOSE. (1) The purpose of this chapter is to provide definitions of terms used in chs. NR 700 to 736, to incorporate by reference specified regulations or materials, and to grant confidential status for records, reports and other information furnished to or obtained by the department for use in the administration of chs. NR 702 to 736.

(2) The purpose of chs. NR 700 to 736 is to establish consistent, uniform standards and procedures that allow for site-specific flexibility, pertaining to the identification, investigation and remediation of sites and facilities which are subject to regulation under s. 144.442, 144.76 or 144.77, Stats. The department intends that responsible parties should be able to efficiently move through the NR 700 rule series response process with minimal department oversight. These rules are adopted pursuant to ss. 144.025(2)(c), 144.431(1), 144.435(1), 144.44(4)(f) and (7)(g), 144.442, 144.62(8), 144.76, 144.77, 159.03(1)(a) and 227.11(2), and ch. 160, Stats.

Note: A flow chart showing how a site or facility moves from discovery to case closure under chs. NR 700 to 726 is included in Appendix A. The flow chart outlines a process that begins with the discovery of a hazardous substance discharge or

environmental pollution. A discharge of a hazardous substance is required to be reported to the department pursuant to s. NR 158.05 or NR 705.05. If there is a need for immediate action, procedures identified in ch. NR 708 are required to be followed. If immediate action is not required, or if immediate action has been completed, a site investigation may be required which complies with the requirements of ch. NR 716. An interim action may be required to be conducted pursuant to ch. NR 708. Following completion of the site investigation, responsible parties generally are required to select a remedial action and implement a remedial action consistent with the requirements of ch. NR 724. Following completion of the remedial action, or in some cases at the completion of the ch. NR 716 site investigation, application for case closure may be made to the department pursuant to ch. NR 726.

NR 700.02 APPLICABILITY. (1) This chapter and chs. NR 702, 704 and 708 to 736 apply to actions taken by the department under the authority of s. 144.442, 144.76 or 144.77, Stats.

(2) This chapter and chs. NR 705, 708, 712 to 728 apply to actions taken by responsible parties at sites, facilities or portions of a site or facility that are subject to regulation under s. 144.442 or 144.76, Stats., regardless of whether there is direct involvement or oversight by the department.

Note: The department of agriculture, trade and consumer protection has the authority under s. 94.73, Stats., to issue corrective action orders to parties who are

responsible for the discharge of an agricultural chemical, to require that the responsible parties take action that is necessary to restore the environment to the extent practicable and to minimize the harmful effects of the discharge to the air, lands or waters of this state. The department of natural resources has been informed that the department of agriculture, trade and consumer protection intends to require that this chapter and chs. NR 708 and 712 to 726 be applied to actions taken by responsible parties as directed by the department of agriculture, trade consumer protection under s. 94.73, Stats. For actions directed by the department of agriculture, trade and consumer protection under s. 94.73, Stats., submittals under chs. NR 708 and 712 to 726 shall be sent to the department of agriculture, trade and consumer protection, and approvals required by these chapters shall be obtained from the department of agriculture, trade and consumer protection.

Note: Persons who are not responsible parties and who voluntarily take a response action at a site or facility that is subject to regulation under s. 144.442 or 144.76, Stats., are not required to comply with the standards and procedures in chs. NR 700 to 724. However, the department is not likely to consider case closure under ch. NR 726 for the site or facility until the applicable rules in chs. NR 700 to 724 have been complied with, and a person who did not originally fall within the definition of a responsible party may become a responsible party if the actions taken by that person cause the discharge of a hazardous substance or if the person takes possession or control of the site or facility.

Note: Persons who wish to conduct response actions that will meet the requirements of CERCLA and the National Contingency Plan (NCP) may request that the department enter into a contract with them pursuant to s. 144.442, Stats. However, a CERCLA-quality response action will likely require compliance with additional requirements beyond those contained in chs. NR 700 to 724 in order to satisfy CERCLA and the NCP.

(3) In addition to being applicable to sites or facilities that are subject to regulation under s. 144.442 or 144.76, Stats., ch. NR 726 applies to the proposed closure of solid waste facilities where remedial action is required by the department pursuant to s. NR 508.20(11).

(4) The department may exercise enforcement discretion on a case-by-case basis and choose to regulate a site, facility or a portion of a site or facility under only one of a number of potentially applicable statutory authorities. However, where overlapping restrictions or requirements are applicable, the more restrictive shall control. The department shall, after receipt of a request from a responsible party, provide a letter that indicates which regulatory program or programs the department considers to be applicable to a site or facility.

Note: Sites or facilities or portions of a site or facility that are subject to regulation under s. 144.442 or 144.76, Stats., may also be subject to regulation under other statutes, including the solid waste statutes in ss. 144.43 to 144.441, 144.443 to

144.47, Stats., or the hazardous waste management act, ss. 144.60 to 144.74, Stats., and the administrative rules adopted pursuant to these statutes. One portion of a site or facility may be regulated under a different statutory authority than other portions of that site or facility.

NR 700.03 DEFINITIONS. The following definitions apply to chs. NR 700 to 736:

(1) "Approve" or "approval" means a written acceptance by the department of a plan, report or other document that has been submitted to the department for review.

(2) "Background soil quality" means:

(a) Soil quality that is attributable to the parent material from which the soil was derived and the natural processes which produce soil, or from contamination from lead, polynuclear aromatic hydrocarbons or polychlorinated biphenyls attributable to atmospheric deposition, but not attributable to hazardous substance discharges or the discharge of pollutants, as that phrase is defined in s. 147.015(5), Stats.

(b) Soil quality that is found at or within reasonable proximity to the site or facility, at a depth comparable to that of the area to be remediated, in the same soil layer and in an area unaffected by hazardous substances discharges or the discharge of pollutants.

(3) "Business days" means Monday through Friday excluding the holidays listed in s. 230.35(4)(a), Stats.

(4) "CERCLA" means the federal comprehensive environmental response, compensation and liability act (CERCLA), 42 USC §9601 to 9675.

(5) "CFR" means the code of federal regulations.

(6) "Consultant" means a person or business under contract to perform a response action taken under, or subject to regulation under, chs. NR 702 to 736.

(7) "Contamination" or "contaminated" means:

(a) Where the air, land or waters of the state have been affected by the discharge of a hazardous substance; or

(b) Where environmental pollution exists.

(8) "Contingency plan" means a document setting out an organized, planned and coordinated course of action to be followed in the event of a hazardous substance discharge or imminent threat of a hazardous substance discharge.

(9) "Day" means calendar day, except where the phrase "business day" is used.

(10) "Debris" means material resulting from the construction, demolition or razing of buildings, roads and other structures and materials that have been discarded at a site or facility.

(11) "Department" means the department of natural resources.

(12) "Department-funded response action" means a response action undertaken by the department using the authority of s. 144.442, 144.76 or 144.77, Stats., which is funded in whole or in part by appropriations in s. 20.370(2) or 20.866(2), Stats.

(13) "Discharge" has the meaning specified in s. 144.76(1)(a), Stats.

Note: Under s. 144.76(1)(a), Stats., "discharge" means, but is not limited to, "spilling, leaking, pumping, pouring, emitting, emptying or dumping."

(14) "Dispose" or "disposal" means the discharge, deposit, injection, dumping, spilling, leaking or placing of any solid or hazardous waste into or on any land or water in a manner which may permit the waste to be emitted into the air, to be discharged into any waters of the state or otherwise to enter the environment.

(15) "Emergency" means a situation which requires an immediate response to address an imminent threat to public health, safety or welfare or the environment.

(16) "Enforcement standard" has the meaning specified in s. NR 140.05(7).

Note: Section NR 140.05(7) defines "enforcement standard" to mean "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."

(17) "Engineering control" means an action designed and implemented to contain contamination and minimize the spread of contamination within a media or to another media. Engineering controls include, but are not limited to: the installation of a cover with low permeability; groundwater extraction and treatment; slurry walls; solidification; and stabilization.

(18) "Environment" means any plant, animal, natural resource, surface water (including underlying sediments and wetlands), groundwater, drinking water supply, land

surface and subsurface strata, and ambient air within the state of Wisconsin or under the jurisdiction of the state of Wisconsin.

(19) "Environmental pollution" has the meaning specified in s. 144.01(3), Stats.

Note: Section 144.01(3), Stats., defines "environmental pollution" to mean "the contamination or rendering unclean or impure the air, land or waters of the state, or making the same injurious to public health, harmful for commercial or recreational use, or deleterious to fish, bird, animal or plant life."

(20) "Environmental standards" mean those cleanup standards, performance standards, standards of control and other substantive and procedural requirements, criteria or limitations promulgated as a regulation or rule under or pursuant to federal environmental or state environmental or facility citing laws that specifically address a hazardous substance, pollutant, remedial action, location or other circumstances found at a site or facility.

(21) "Facility" means "approved facility" as defined in s. 144.441(1)(a), Stats., "approved mining facility" as defined in s. 144.441(1)(b), Stats., and "nonapproved facility" as defined in s. 144.441(1)(c), Stats.

Note: Under 144.441(1), Stats., "approved facility" means "a solid or hazardous waste disposal facility with an approved plan of operation under s. 144.44(3) or a solid waste disposal facility initially licensed within 3 years prior to May 21, 1978, whose owner

successfully applies, within 2 years after May 21, 1978, for a determination by the department that the facility's design and plan of operation comply substantially with the requirements necessary for plan approval under s. 144.44(3)." "Approved mining facility" means "an approved facility which is part of a mining site, as defined under s. 144.81(8), used for the disposal of solid waste resulting from mining, as defined under s. 144.81(5), or prospecting, as defined under s. 144.81(12)." "Nonapproved facility" means "a licensed solid or hazardous waste disposal facility which is not an approved facility."

(22) "Free product" means a discharged hazardous substance or environmental pollution that is present in the environment as a floating or sinking non-aqueous phase liquid.

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

Note: Section 160.01(4), Stats., defines "groundwater" to mean "any waters of the state, as defined in s. 144.01(19), occurring in a saturated subsurface geological formation of rock or soil." See "waters of the state" definition in sub. (57).

(24) "Groundwater quality standards" mean site-specific standards developed pursuant to ch. NR 140 and groundwater quality standards adopted by the department in ch. NR 140, including enforcement standards, preventive action limits, indicator parameters and alternative concentration levels.

(25) "Hazardous substance" has the meaning specified in s. 144.01(4m), Stats.

Note: Section 144.01(4m), Stats., defines "hazardous substance" to mean "any substance or combination of substances including any waste of a solid, semisolid, liquid or gaseous form which may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or which may pose a substantial present or potential hazard to human health or the environment because of its quantity, concentration or physical, chemical or infectious characteristics. This term includes, but is not limited to, substances which are toxic, corrosive, flammable, irritants, strong sensitizes or explosives as determined by the department."

(26) "Hazardous waste" has the meaning specified in s. 144.61, Stats.

Note: Section 144.61, Stats., defines "hazardous waste" to mean any "solid waste identified by the department as hazardous under s. 144.62(2)." Federal laws and rules may have broader or different definitions than the state does. If so, federal hazardous waste laws must be complied with, in addition to state laws.

(27) "High groundwater level" has the meaning specified under s. NR 214.03(11).

Note: Section NR 214.03(11) defines "high groundwater level" to mean "the higher of the elevation to which the soil is saturated and observed as a free water surface in an unlined hole, or the elevation to which the soil has been seasonally or periodically saturated as indicated by soil color patters throughout the soil profile."

(28) "Immediate action" means a response action that is taken within a short period of time after the discharge of a hazardous substance occurs, or after the discovery of a hazardous substance discharge or environmental pollution, to halt the discharge, contain or remove discharged hazardous substances or remove contaminated environmental media, in order to restore the environment to the extent practicable and to minimize the harmful effects of the discharge to air, lands and waters of the state and to eliminate any imminent threat to public health, safety or welfare that may exist. This term includes both emergency and non-emergency immediate actions.

Note: Examples of immediate actions may be found in s. NR 708.05(4) If further action will be required after a non-emergency response action is taken, that action would meet the definition of "interim action" in s. NR 700.03(29). The principal distinction between a non-emergency, immediate action and an interim action is that a site investigation will be required in conjunction with an interim action, but not with a non-emergency immediate action. In addition, interim actions will be closed out using the criteria in ch. NR 726, not the "no further action" criteria in s. NR 708.09 which apply at the completion of an immediate action.

(29) "Interim action" means a response action taken to contain or stabilize a discharge of a hazardous substance, in order to minimize any threats to public health, safety, or welfare or the environment, while other response actions are being taken or planned for the site or facility.

Note: Examples of interim actions may be found in s. NR 708.11. "Interim action" does not include emergency or non-emergency immediate actions. An interim action is followed by subsequent response action at the site or facility, unless the department determines in compliance with the requirements of ch. NR 726, that no further response action is necessary after a site investigation has been conducted.

(30) "Interim action options report" means a report which identifies and evaluates various interim action options with the goal of selecting an option which meets the environmental standards for the interim action being undertaken.

(31) "Long-term monitoring" means systematic evaluation of the selected remedial or interim action option through collection and inspection of soil data, groundwater data, surface water data, sediment data, and other relevant data.

(32) "Management of a hazardous substance" means the treatment, storage or disposal, including recycling, of a hazardous substance.

(33) "Media" means air, surface water, groundwater, sediments and land surface and subsurface strata, including soil.

(34) "Migration pathway" means natural geologic features or cultural features, including but not limited to water mains, sewage laterals, drain tiles and road beds, which allow the movement of a hazardous substance or environmental pollution in liquid, solid, dissolved or vapor phase.

(35) "Municipal population" means the number of people residing in the municipality according to the most recent department of administration estimates.

(36) "Municipality" has the meaning specified in s. 144.01(6), Stats.

Note: Section 144.01(6), Stats., defines "municipality" to mean, "any city, town, village, county, county utility district, town sanitary district, public inland lake protection and rehabilitation district or metropolitan sewage district".

(37) "National priorities list" means the list, compiled by the U.S. Environmental Protection Agency (EPA) pursuant to section 105(8)(b) of CERCLA, of hazardous substance releases in the United States that are priorities for investigation and remedial action.

(38) "National contingency plan" or "NCP" means 40 CFR part 300.

(39) "Naturally occurring background" means the quality of individual media in the vicinity of a discharge of a hazardous substance or environmental pollution that has not been affected by a hazardous substance discharge or environmental pollution.

(40) "Operation and maintenance" means measures designed to monitor, operate and maintain the effectiveness of response actions.

(41) "Operator" has the meaning specified in s. 144.442(9)(a)1., Stats.

Note: Section 144.442(9)(a)1., Stats., defines "operator" to mean "any person who operates a site or facility or who permits the disposal of solid waste at a site or facility under his or her management or control for consideration, regardless of whether the site or facility remains in operation and regardless of whether the person operates or permits

the disposal of solid waste at the time any environmental pollution occurs. This term includes a subsidiary or parent corporation."

(42) "Owner" has the meaning specified in s. 144.442(9)(a)2., Stats.

Note: Section 144.442(9)(a)2., Stats., defines "owner" to mean "any person who owns or who receives direct or indirect consideration from the operation of a site or facility regardless of whether the site or facility remains in operation and regardless of whether the person owns or receives consideration at the time any environmental pollution occurs. This term includes a subsidiary or parent corporation."

(43) "Person" has the meaning specified in s. 144.01(9m), Stats.

Note: Section 144.01(9m), Stats., defines "person" to mean "an individual, owner, operator, corporation, partnership, association, municipality, interstate agency, state agency or federal agency."

(44) "Point of standards application" has the meaning specified in s. NR 140.05(15).

Note: Section NR 140.05(15) defines "point of standards application" to mean "the specific location, depth or distance from a facility, activity or practice at which the

concentration of a substance in groundwater is measured for purposes of determining whether a preventive action limit or an enforcement standard has been attained or exceeded."

(45) "Practicable" means capable of being implemented, taking into account:

(a) The technical feasibility of a remedial action option, considering its long-term effectiveness, short-term effectiveness, implementability and the time it will take until restoration is achieved; and

(b) The economic feasibility of a remedial action option, considering the cost of the remedial action option compared to its technical feasibility.

(46) "Preventive action limit" has the meaning specified in s. NR 140.05(17).

Note: Section NR 140.05(17) defines "preventive action limit" to mean "a numerical value expressing the concentration of a substance in groundwater which is adopted under s. 160.15, Stats., and s. NR 140.10, 140.12 or 140.20."

(47) "Receptor" means environmental resources, including but not limited to, plant and animal species and humans, sensitive environments and habitats, water supply wells, and buildings or locations that have the potential to be, or have actually been, exposed to contamination.

(48) "Remedial action" means those response actions, other than immediate or interim actions, taken to control, minimize, restore or eliminate the discharge of hazardous substances or environmental pollution so that the hazardous substances or environmental pollution do not present an actual or potential threat to public health, safety or welfare or the environment. The term includes actions designed to prevent, minimize, stabilize or eliminate the threat of discharged hazardous substances, and actions to restore the environment to the extent practicable and meet all applicable environmental standards. Examples include storage, disposal, containment, treatment, recycling or reuse, and any monitoring required to assure that such actions protect public health, safety and welfare and the environment.

(49) "Remedial action options report" means a report which identifies and evaluates various remedial action options with the goal of selecting an option.

(50) "Response" or "response action" means any action taken to respond to a hazardous substance discharge or to environmental pollution, including, emergency and non-emergency immediate actions, investigations, interim actions and remedial actions.

(51) "Responsible party" means any person who is required to conduct a response action, or is liable to reimburse the department for the costs incurred by the department to take response action, under s. 144.442, 144.76 or 144.77, Stats.

(52) "Restore" or "restoration" means those actions necessary to return the environment to its original condition before the hazardous substance discharge or environmental pollution occurred. Such actions may include, but are not limited to, the

replacement or removal of injured plant and animal life and treatment of contaminated soils.

Note: This definition was formerly found in s. NR 158.04(5).

(53) "Risk assessment" means a site-specific characterization of the current or potential threats that may be posed to public health, safety and welfare and the environment by contamination migrating to or in groundwater or surface water, discharging to the air, leaching through or remaining in soil, bioaccumulating in the food chain, or other exposure pathways.

(54) "Sediment" means particles in surface waters or wetlands that are derived from the erosion of rock, minerals, soils and biological materials, as well as chemical precipitation from the water column. Sediment particles are transported by, suspended in or deposited by water.

(55) "Sensitive environment" means 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 § 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.

(56) "Site" means:

(a) Any waste site as defined in s. 144.442(1)(e), Stats.; or

(b) Any area where a hazardous substance has been discharged.

Note: Section 144.442(1)(e), Stats., defines "waste site" to mean "any site, other than an approved facility, an approved mining facility or a nonapproved facility, where waste is disposed of regardless of when disposal occurred."

(57) "Site investigation" means an investigation undertaken in conformance with ch. NR 716.

(58) "Soil" means unsaturated organic material, derived from vegetation and unsaturated, loose, incoherent rock material, of any origin, that rests on bedrock other than foundry sand, debris and any industrial waste.

(59) "Solid waste" has the meaning specified in s. 144.01(15), Stats.

Note: Section 144.01(15), Stats., defines "solid waste" to mean "any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant or air pollution control facility and other discarded or salvageable materials, including solid, liquid, semisolid, or contained gaseous materials resulting from industrial, commercial, mining and agricultural operations, and from community activities, but does not include solids or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under ch. 147, or source, special nuclear or by-product material as defined under s. 140.52."

(60) "Submittal" means any document, report, plan, set of specifications, engineering design or scientific evaluation of site data that is prepared to satisfy the requirements of chs. NR 702 to 726.

(61) "Surface water" has the meaning specified in s. NR 103.02(3).

Note: "Surface water" means "all natural and artificial, named and unnamed lakes and all naturally flowing streams within the boundaries of the state, but not including cooling lakes, farm ponds and facilities constructed for the treatment of wastewaters."

(62) "Superfund" means the federal environmental cleanup fund and program created by CERCLA.

(63) "Treatment" means any method, technique or process, including thermal destruction, which changes the physical, chemical or biological character or composition

of a hazardous substance or environmental pollution so as to render the contamination less hazardous.

(64) "Treatability study" means the testing and documentation activities to evaluate the effectiveness of an interim or remedial action prior to full scale design and implementation. Treatability study includes, but is not be limited to, bench scale studies and pilot scale studies.

Note: Treatability studies provide additional data for the detailed analysis of treatment alternatives and the engineering design of remedial alternatives under ch. NR 724.

(65) "U.S. EPA" or "EPA" means the United States environmental protection agency.

(66) "Underground storage tank" or "UST" means any one or a combination of tanks, including connected pipes, that is used to contain an accumulation of hazardous substances, and the volume of which, including the volume of connected underground pipes, is 10 percent or more beneath the surface of the ground. The term does not include any of the following or pipes connected to any of the following:

(a) Septic tanks.

(b) Pipeline facilities, including gathering lines, regulated under:

1. The Natural Gas Pipeline Safety Act of 1968 (49 USC App. 1671, et seq.).

2. The Hazardous Liquid Pipeline Safety Act of 1979 (49 USC App. 2001, et seq.).

3. State laws comparable to the provisions of the law referred to in subd. 1 or 2 for intrastate pipeline facilities.

(c) Surface impoundments, pits, ponds or lagoons.

(d) Storm water or waste water collection systems.

(e) Flow-through process tanks.

(f) Liquid traps or associated gathering lines directly related to oil or gas production and gathering operations; or

(g) Storage tanks situated in an underground area, such as, but not limited to, a basement, cellar, mineworking, drift, shaft, or tunnel, if the storage tank is situated upon or above the surface of the floor.

Note: This definition of "underground storage tank" is based on the definition found in s. ILHR 10.01(98).

(67) "Waters of the state" has the meaning specified in s. 144.01(19), Stats.

Note: Section 144.01(19), Stats., defines "waters of the state" to include "those portions of Lake Michigan and Lake Superior within the boundaries of Wisconsin, 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 the state or its jurisdiction."

(68) "Wetlands" has the meaning specified in s. 23.32, Stats.

Note: Section 23.32, Stats., defines "wetland" to mean "those areas where water is at, near or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation, and which have soils indicative of wet conditions."

(69) "Work plan" means a plan which outlines the intended scope of a response action, or any phase of a response action, including but not limited to intended methods, procedures and techniques to be used during the response action.

NR 700.05 CONFIDENTIALITY OF INFORMATION. (1) Except as provided under sub. (2), any record, report or other information furnished to, or obtained by, the department in the administration of chs. NR 700 to 736 is a public record subject to the provisions of ss. 19.21, 19.31 to 19.39, Stats., and s. NR 2.195.

(2) If confidential status is sought for any record, report or other information furnished to or obtained by the department under chs. NR 700 to 736, the standards and procedures in s. NR 2.19 are applicable to all sites and facilities, and the standards and procedures in s. 144.433(2), Stats., are applicable to the owners and operators of solid waste facilities.

Note: Under s. NR 2.19, the department may grant confidential status if: (1) the standards for granting confidential status found in ss. 144.433 or 144.70, Stats., are met;

(2) confidential treatment is in the public interest using the balancing test in State ex rel. Youmanns v. Owens, 28 Wis. 2d 672 (1965); or (3) a specific statutory or common law right to confidential treatment is applicable.

(3) Records, reports and other information for which the department has granted confidential status may be:

(a) Used by the department in compiling or publishing analyses or summaries relating to the general condition of the environment if the analyses or summaries do not identify a specific person or responsible party and the analyses or summaries do not reveal records or other information granted confidential status;

(b) Released by the department to the U.S. EPA or its authorized representative, if the U.S. EPA or its authorized representative agrees to protect the confidentiality of the records, reports or other information;

(c) Released for general distribution if the person who provided the information to the department expressly agrees to the release; and

(d) Released on a limited basis if the department is directed to take this action by a judge or administrative law judge under an order which protects the confidentiality of the record, report or other information.

Note: Sections 144.442(4)(d) and (6)(e), 144.76(8) and 144.77(5), Stats., provide the department with authority to gain access to property for the purpose of conducting

response actions, and access to records relating to abandoned containers, discharged hazardous substances and solid waste disposed of at a site or facility.

NR 700.07 INCORPORATION BY REFERENCE. The material listed in this section is incorporated by reference at the paragraph noted:

"SW-846, Test Methods for Evaluating Solid Waste", by the U.S. Environmental Protection Agency, Office of Solid Waste, loose-leaf manual, dated November 1986, as amended by December 1987 update and November 1990 update II, referenced in s. NR 716.13(3).

Note: These materials are available for inspection in the offices of the department of natural resources, 101 S. Webster Street, Madison, Wisconsin or may be purchased for personal use from:

National Technical Information Service

U.S. Department of Commerce

Springfield, VA 22161

NR 700.09 SUBMITTALS. (1) DUE DATES. A submittal shall be considered to be filed in a timely manner if it is mailed or delivered to the department on the due date. If the last day of a specified time period falls on a Saturday, Sunday or holiday listed in s. 230.35(4)(a), Stats., the submittal may be mailed or delivered to the department on the next business day.

(2) DEPARTMENT REVIEW. (a) Site or facility priority. The department shall determine the level of department review at each site or facility by evaluating the following factors:

1. The availability of department staff to serve as project managers and to review submittals.

2. The relative priority of the site or facility, by evaluating the threat the site or facility poses to public health, safety or welfare or the environment based on the evaluation procedures in ss. NR 710.07 to 710.11.

(b) Methods. Based on the department's evaluation conducted in par. (a), the department shall communicate to the responsible parties in writing, as early as possible in the response process, to inform responsible parties as to which one of the following department review methods is to be used for the site or facility:

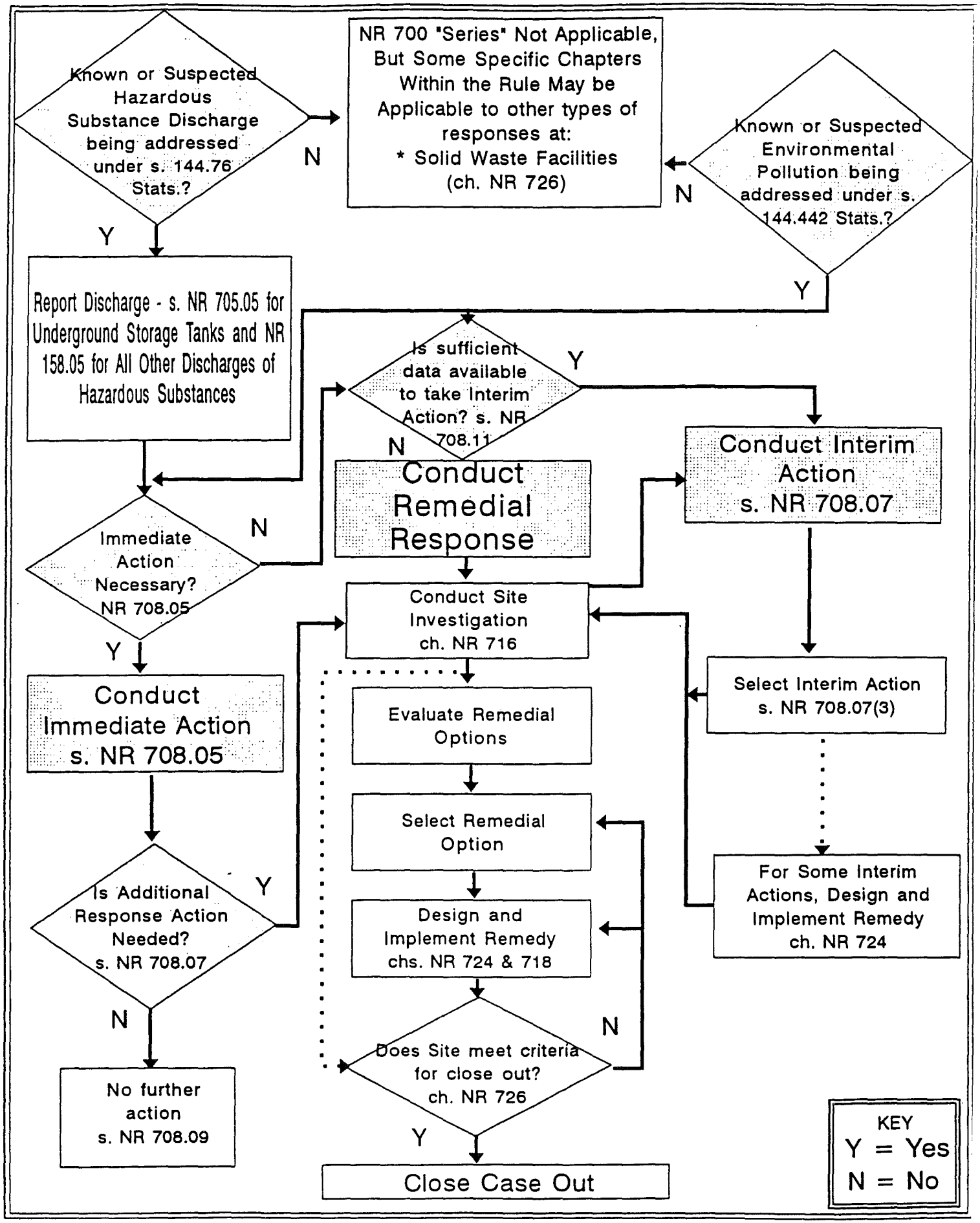
1. The department may direct the responsible parties, in writing, to provide the department with the applicable submittals required under chs. NR 700 to 726 and proceed through the response process without waiting for department approval, review or acknowledgement of those submittals. If directed by the department to proceed under this subdivision, the responsible parties may not delay the initiation of response action because they are awaiting department approval. A submittal may not be construed as approved if the department fails to review the document.

2. The department may direct responsible parties, in writing, that review and approval by the department of submittals for their site or facility are necessary prior to the responsible parties proceeding to the next stage of the response process. The

department shall provide written acknowledgement of receipt of each submittal within 30 days, if department acknowledgement is required by chs. NR 700 to 726. Department acknowledgement shall include the estimated date for completion of department review.

3. The department may change the level of department review for a site or facility, if new information is available that would affect the site or facility priority established in par. (a). If the level of department review does change, the department shall communicate to the responsible parties, in writing, the appropriate method to be followed in par. (b).

Appendix A: NR 700 Flow Chart



CHAPTER NR 702

CONTINGENCY PLANNING FOR HAZARDOUS SUBSTANCE DISCHARGE RESPONSE BY STATE AGENCIES

NR 702.01 PURPOSE. The purpose of this chapter is to establish criteria and procedures for use by the department in developing, establishing and amending a contingency plan, that complements and is consistent with federal, state and local contingency plans. The department's contingency plan is intended to provide for efficient, coordinated and effective response to hazardous substance discharges which may pose an imminent threat to public health, safety or welfare or the environment, and to minimize harmful effects to the air, land and waters of the state. This chapter is adopted pursuant to ss. 144.76 and 227.11(2), Stats.

NR 702.02 APPLICABILITY. This chapter applies to the department's development, establishment and amendment of a contingency plan for the undertaking of emergency immediate actions in response to the discharge of hazardous substances, as required by s. 144.76, Stats.

NR 702.03 DEFINITIONS. In this chapter, "incident command system" means an organized approach used to effectively control and manage operations at the scene of an emergency immediate action.

NR 702.05 CONTINGENCY PLAN DEVELOPMENT. (1) The department shall develop and establish a contingency plan for responding to hazardous substance discharges that pose an imminent threat to public health, safety or welfare or the environment, after consulting with local government, federal agencies and other state agencies which may be involved in an emergency immediate action within the state of Wisconsin. The contingency plan shall be developed to be consistent with the overall state emergency operations plan maintained by the division of emergency government. The department's contingency plan shall include all of the following:

(a) Personnel protection measures.

(b) Site investigation and documentation procedures.

(c) Hazardous substance identification procedures.

(d) Procedures for management of hazardous substances.

(e) Duties and responsibilities of other state departments and agencies.

(f) Procedures for restoration of affected lands or waters.

(2) The department may enter into memoranda of understanding with other state agencies or federal or local government agencies, for the purpose of defining roles and responsibilities for hazardous substance discharges that require an emergency immediate action.

NR 702.07 CONTINGENCY PLAN AMENDMENT AND REVIEW. The contingency plan shall be amended by the department when necessary to improve emergency immediate actions in response to a hazardous substance discharge, after

consultation with other affected agencies. At a minimum, the contingency plan shall be reviewed by the department at least every 4 years. The department shall maintain records of emergency actions and non-emergency immediate actions taken by the department in response to hazardous substance discharges and these records shall be taken into account when reviewing the contingency plan.

NR 702.09 CONTINGENCY PLAN CRITERIA. The department shall consider all of the following criteria when developing the contingency plan:

(1) At the scene of a hazardous substance discharge, there may be response personnel from several different agencies, with each agency having its own specific responsibilities, authorities and capabilities. In these cases, primary decision-making authority shall rest with the agency having specific authority to deal with the concern of highest priority as ranked in this subsection. All other agencies' roles and activities shall be subordinated until the concern of highest priority is addressed. Subsequent activity then progresses to the agency having authority and the capability to deal with the next most immediate concern. When it is possible to cooperatively address more than one concern at the same time, actions shall be taken simultaneously. In every stage of decision making, the consequence of each decision on the subsequent response activities shall be weighed, and detrimental consequences minimized. Concerns shall be prioritized according to the following ranking:

(a) Rescue and treatment of injured humans.

(b) Prevention of injury to humans.

(c) Protection of potable water supplies.

(d) Protection of the air, lands or waters of the state.

(e) Prevention and minimization of damage to human dwellings.

(f) Protection of agricultural products and domestic animals used for foods.

(g) Preservation of all indigenous animal and plant species and the quality of habitats of those species.

(h) Re-establishment of transportation usage.

(2) When deemed appropriate to effectively coordinate all actions at the scene of a hazardous substance discharge, an incident command system shall be implemented.

CHAPTER NR 704

CONTINGENCY PLANNING FOR ABANDONED CONTAINER RESPONSE

NR 704.01 PURPOSE. The purpose of this chapter is to establish criteria and procedures for developing, establishing and amending a contingency plan to be used by the department when responding to abandoned containers of hazardous substances, other than buried containers. This chapter is adopted pursuant to ss. 144.77 and 227.11(2), Stats.

NR 704.02 APPLICABILITY. This chapter applies to the department's development, establishment and amendment of a contingency plan for conducting emergency immediate actions in relation to abandoned containers of hazardous substances, as required by s. 144.77, Stats.

NR 704.03 DEFINITIONS. In this chapter:

(1) "Abandoned container" has the meaning specified in s. 144.77 (1), Stats.

Note: Section 144.77 (1), Stats., defines "abandoned container" to mean "any container which contains a hazardous substance and is not being monitored and maintained."

(2) "Container" means any vessel, tank, bag, box, carton, barrel or drum, which holds or encloses an actual or suspected hazardous substance and is not located under or partially under the land surface.

NR 704.05 CONTINGENCY PLAN DEVELOPMENT. (1) The department shall develop a contingency plan for responding to abandoned containers. The contingency plan shall include all of the following elements:

(a) Personnel protection measures.

(b) Procedures for obtaining access to the site.

(c) Site investigation and documentation procedures.

(d) Hazardous substance identification procedures.

(e) Procedures for transportation of hazardous substances.

(f) Procedures for proper management of hazardous substances.

(2) The contingency plan developed under this section shall be established as an appendix to the department's hazardous substance discharge response contingency plan, required in ch. NR 702.

NR 704.07 CONTINGENCY PLAN AMENDMENT AND REVIEW. The contingency plan shall be amended by the department when necessary to improve response to abandoned containers of hazardous substances. At a minimum, the plan shall be reviewed by the department at least every 4 years. The department shall

maintain records regarding abandoned container response actions and these records shall be taken into account in reviewing the contingency plan.

NR 704.09 CRITERIA FOR ABANDONED CONTAINER RESPONSE. The plan developed under s. NR 704.05 shall contain all of the following criteria to be considered by the department when evaluating a response action for an abandoned container:

(1) Quantity, toxicity or other threats the hazardous substance presents to public health, safety or welfare or the environment.

(2) Location and condition of the container.

(3) Whether an emergency exists, considering the nature of the hazardous substance and the location and condition of its container.

(4) Costs versus potential threats shall be considered when evaluating abandoned container responses in cases where the actual or potential threat to public health, safety or the environment is low.

(5) Whether a responsible party can be identified and is able to adequately respond in a timely manner.

NR 704.11 EVALUATION OF HAZARDOUS SUBSTANCE MANAGEMENT OPTIONS. (1) The department shall identify and evaluate options for managing hazardous substances found in abandoned containers according to the priorities established in s. 159.05(12), Stats.

(2) For any preferred option, the department shall evaluate the facility or site selected for management of the hazardous substance, in order to determine, on the basis of available information, if the facility or site complies with state and federal environmental regulations governing the recycling, treatment, storage, or disposal of hazardous substances.

CHAPTER NR 705

DISCHARGE REPORTING REQUIREMENTS AND SOURCE CONFIRMATION FOR UNDERGROUND STORAGE TANK SYSTEMS

NR 705.01 PURPOSE. The purpose of this chapter is to adopt by administrative rule certain requirements that are mandated by U.S. EPA for any state agency that wants to obtain authorization to implement the federal underground storage tank program. This chapter is adopted pursuant to ss. 144.76 and 227.11(2), Stats.

Note: The following portions of 40 CFR part 280 have been included in the text of this chapter: s. 280.34(a)(2); portions of s. 280.34(a)(3); s. 280.34(b)(5); ss. 280.50(a) to (c)(1); s. 280.51; s. 280.52; s. 280.53; s. 280.61(1); s. 280.62(a)(5); portions of s. 280.63(a)(1) to (3); portions of s. 280.63(b); portions of s. 280.72(a); s. 280.72(b); and s. 280.73. Additional portions of s. 280.34(a)(3) are included in chs. NR 708, 716 and 724. Additional portions of s. 280.63(a) to (3), and 280.63(b) are included in chs. NR 708 and 716. Additional portions of s. 280.72(a) are included in ch. IHLR 10.

NR 705.02 APPLICABILITY. (1) This chapter applies to any person who owns or operates an underground storage tank system that is subject to regulation under 42 USC s. 6991 et seq. and 40 CFR part 280, or ch. ILHR 10, for hazardous substance discharges that are related to the UST system.

Note: The definition of "underground storage tank" in s. NR 700.03(62), which applies to this chapter, is based on the definition of "underground storage tank" in ch. ILHR 10, which includes certain farm and residential motor fuel storage tanks and heating oil tanks that are excluded from the federal UST program definition in 42 USC s. 6991.

(2) Notification to the department of the discharge of a hazardous substance which complies with the reporting requirements of this chapter also satisfies the immediate reporting requirements of s. NR 158.05.

Note: All discharges of hazardous substances are required to be immediately reported under s. NR 158.05. However, it is not necessary to report a discharge from an underground storage tank system twice, because reporting in compliance with the requirements of this chapter also satisfies the reporting requirements of s. NR 158.05.

(3) Persons and facilities subject to the release notification requirements in CERCLA s. 103(a), 42 USC 9603(a), or the emergency notification and reporting requirements in s. 166.20, Stats., and 42 USC 11004, 11021, 11022 and 11023, are required to comply with those requirements in addition to complying with the reporting requirements of this chapter, except that notification of a hazardous substance discharge which is given to the department in compliance with the requirements of this chapter

constitutes notification of the state emergency response board as required by s. 166.20, Stats., if the notification contains all of the information specified in 42 USC 11004(b)(2).

NR 705.03 DEFINITIONS. The definitions in s. NR 700.03 apply to this chapter.

Note: The term "UST" which is an acronym for "underground storage tank" is defined in s. NR 700.03(68).

NR 705.05 REPORTING OBLIGATIONS. (1) DISCHARGE NOTIFICATION.

(a) Owners or operators of UST systems shall immediately notify the department of a spill, overfill or other discharge or suspected discharge of a hazardous substance that is related to the UST system.

(b) Evidence which indicates that a discharge of a hazardous substance has occurred or may have occurred includes, but is not limited to: visible soil contamination; the presence of free product or vapors in soils, basements, sewers or utility lines, or on surface water or groundwater in the surrounding area; and the receipt of reports, environmental assessments or routinely gathered monitoring data which indicates that a discharge of a hazardous substance has occurred or may have occurred.

(c) Reporting of hazardous substance discharges to the department shall be made by telephoning, telefaxing or visiting a district office of the department during normal business hours or by telephoning a department-designated 24-hour hotline telephone number after normal business hours.

(d) The notification required by this subsection shall contain the elements listed in s. NR 705.07 to the extent possible.

Note: Directories for the telephone numbers of the department's district offices can be found in local telephone books and in department guidance. The department's 24-hour hotline is operated by the division of emergency government and can be reached at (608) 266-3232. The 24-hour hotline will accept collect calls.

(2) CLOSURE ASSESSMENT REPORTS. The owner or operator of the UST system shall submit to the department any tank closure assessment report that is generated to document compliance with the requirements of s. ILHR 10.734 or 10.805, regardless of whether a discharge of a hazardous substance was detected during the site assessment.

NR 705.07 INITIAL NOTIFICATION. (1) The person who notifies the department of a hazardous substance discharge from a UST system shall provide as much of the following information as possible to assist the department and other entities in properly assessing and responding to the discharge:

(a) Name, address and telephone number of the person reporting the discharge.

(b) Name, address and telephone number of the owner and operator of the UST system and any other potentially responsible persons.

(c) Date, time and duration of the discharge.

(d) Location of the discharge, including street address; 1/4, 1/4 section; and legal description of lot, if located in platted area.

(e) Identity, physical state and quantity of the hazardous substance discharged.

(f) Physical, chemical and hazardous characteristics of the hazardous substance.

(g) Cause of the discharge.

(h) Immediate actions being taken and the name of the contractor or other person performing the actions.

(i) Source, speed of movement and destination or probable destination of the discharged hazardous substance.

(j) Local soil type and topography in the area of the discharge and distance to surface water.

(k) Any known or anticipated acute or chronic human health impacts associated with the hazardous substance discharged and, where appropriate, advice regarding medical attention necessary for exposed individuals.

(l) Actual and potential impacts to the environment, including drinking water supplies.

Weather

OK 3/16/94 (m) Whether conditions existing at the scene, including presence of precipitation and wind direction and velocity.

(2) The owner or operator of the UST system shall document and submit to the department, within 72 hours of the original notification, any additional information that they obtain which was not included at the time of the original notification, unless otherwise directed by the department.

NR 705.09 INDICATION OF A DISCHARGE FROM A DISCHARGE MONITORING SYSTEM. (1) When the discharge monitoring system of an UST system indicates that a discharge of a hazardous substance may have occurred, the owner or operator of the UST system shall determine immediately whether the indication was due to a malfunction of the discharge monitoring equipment.

(2) If the discharge monitoring equipment is found to be malfunctioning, and there is no other reason to suspect that a discharge of a hazardous substance has occurred, the owner or operator of the UST system shall repair, recalibrate or replace the equipment in accordance with all applicable statutes and rules. Notification of the department is not necessary if there is no reason to suspect a discharge.

(3) If the discharge monitoring equipment is found to be working correctly, the owner or operator of the UST system shall immediately report the suspected or confirmed discharge to the department in accordance with the requirements of s. NR 705.05.

(4) If testing or inspection of discharge monitoring equipment is inconclusive, the owner or operator of the UST system shall conduct another test, expand the scope of their inspection, conduct tank system tightness tests, or excavate the area where a discharge is suspected, as necessary, to determine whether or not a discharge of a hazardous substance has occurred.

(5) If investigation of unusual operating conditions, such as the erratic behavior of product dispensing equipment, the sudden loss of product from the system, or an unexplained presence of water in the tank, indicates that a release may have occurred,

the owner or operator of the UST system shall immediately report the suspected or confirmed discharge to the department in accordance with the requirements of s. NR 705.05.

Note: Chapter ILHR 10 contains requirements governing methods of release detection for underground storage tanks.

NR 705.11 DISCHARGE SOURCE CONFIRMATION. (1) EVIDENCE OF A DISCHARGE. (a) If there is evidence of the discharge of a hazardous substance to the environment which may be from an UST system, the owner or operator of the UST system shall, within 10 days, undertake all steps necessary to determine whether the UST system is the source of the discharge.

(b) Evidence of a discharge which may be from an UST system includes, but is not limited to, visible soil contamination and the presence of free product or vapors in soils, basements, sewers or utility lines, or on surface water or groundwater in the surrounding area.

(2) SYSTEM INTEGRITY TESTS. (a) When a discharge monitoring system indicates a hazardous substance discharge may have occurred or there is other evidence of a hazardous substance discharge to the environment, the owner or operator of the UST system shall conduct the appropriate tests for tightness specified in ch. ILHR 10 to determine whether a leak exists in the tank or the attached piping, or both.

(b) Further investigation is not required if the test results for the system, tank and piping do not indicate that a leak exists and if there is no other indication of a discharge of a hazardous substance from the UST system.

(c) If the tests do not indicate that a leak exists, but there is other evidence of a hazardous substance discharge to the environment which may be associated with the UST system, the department may require the owner or operator of an UST system to undertake other measures to determine whether contamination is associated with the UST system, including the identification and investigation of potential migration pathways from the UST system to the location where contamination is discovered.

(3) SITE CHECK. (a) If there is evidence of the discharge of a hazardous substance to the environment which may be from an UST system, but system integrity tests conducted under sub. (2) do not indicate that a leak exists, the owner or operator shall collect samples for laboratory analysis from areas where contamination is most likely to be present at the UST site, unless the presence and source of the discharge have been confirmed in a closure assessment site check.

(b) In selecting sample types, sample locations and measurement methods, the owner or operator shall consider the nature of the stored substance, the type backfilm backfill depth to groundwater and other factors as appropriate for identifying the presence and source of the release.

(4) REPORTING A CONFIRMED DISCHARGE. When UST system integrity test results or sampling results indicate that a discharge of a hazardous substance has

occurred, the owner or operator of the UST system shall report the confirmed discharge immediately in accordance with the requirements of s. NR 705.05.

NR 705.13 EVALUATION OF HAZARDOUS SUBSTANCE DISCHARGE FOR APPROPRIATE ACTIONS. Unless the department determines that no further action is warranted in accordance with s. NR 708.09, (if there is evidence of the discharge of a hazardous substance to the environment from an UST system,) the owner or operator of the UST system shall conduct all necessary response actions including, but not limited to, the actions listed in subs. (1) to (4), either at the direction of the department or where the owner or operator has determined that conditions at the site or facility warrant additional response action:

(1) Discharge source confirmation, as required in s. NR 705.11.

(2) An emergency or non-emergency immediate action or interim action, as required in ch. NR 708.

(3) A site investigation.

(4) Implementation of a preventive measures plan to minimize or any further hazardous substance discharges.

Note: Although the department may determine that no further response action is necessary pursuant to chs. NR 700 to 726, the site or facility may be subject to the regulations and requirements of other department programs, other state laws and federal laws.

NR 705.15 UNDERGROUND STORAGE TANK RESPONSE ACTION STATUS REPORT. The owner or operator of every UST system for which a response action has been taken to respond to the discharge of a hazardous substance that is related to the UST system shall annually report to the department on the status of all response activities undertaken to restore the environment to the extent practicable and to minimize the harmful effects to the environment of the discharge from their UST system. This annual report shall be on a form supplied by the department, and shall be submitted by June 30th of each year, until the case has been closed by the department in accordance with ch. NR 726.

Note: Copies of the annual status report form required by this section are available from the Emergency and Remedial Response Section, Bureau of Solid & Hazardous Waste Management, Wisconsin Department of Natural Resources, P.O. Box 7921, Madison, Wisconsin 53707.

CHAPTER NR 708

IMMEDIATE AND INTERIM ACTIONS

NR 708.01 PURPOSE. This chapter establishes criteria for emergency and non-emergency immediate actions and interim actions to be taken by responsible parties to protect public health, safety and welfare and the environment; and establishes the documentation requirements associated with these response actions. This chapter is adopted pursuant to ss. 144.431(1)(a) and (b), 144.442, 144.76, 159.03(1)(a) and 227.11(2), Stats.

Note: The following portions of 40 CFR part 280 have been included in the text of this chapter: portions of s. 280.34(a)(3); s. 28061(b) and (c); s. 280.62(a)(1) to (3) and (6); s. 280.62(b); portions of s. 280.63 (a) and (b); s. 280.64(a) to (d); s. 280.65(a); and portions of s. 280.66(a), (b) and (d). Additional portions of s. 280.34(a)(3) are included in chs. NR 705, 716, and 724. Additional portions of s. 280.63(a) and (b) are included in chs. NR 705 and 716. Additional portions of 40 CFR s. 280.66(a) to (d) are included in ch. NR 724.

NR 708.02 APPLICABILITY. (1) This chapter applies to emergency and non-emergency immediate actions and interim actions taken by the department under the authority of s. 144.442, 144.76 or 144.77, Stats. In this chapter, where the term

"responsible parties" appears, it should be read to include the department in situations where a department-funded response action is being taken.

Note: The department has the authority under s. 144.76(10), Stats., to waive the requirements of s. 144.76, Stats., to prevent an emergency condition threatening public health, safety or welfare or the environment.

(2) This chapter applies to immediate actions and interim actions taken by responsible parties at sites, facilities or portions of a site or facility that are subject to regulation under s. 144.442 or 144.76, Stats., regardless of whether there is direct involvement or oversight by the department.

Note: Persons who wish to conduct response actions that will meet the requirements of CERCLA and the NCP may request that the department enter into a contract with them pursuant to s. 144.442, Stats. However, a CERCLA-quality response action will likely require compliance with additional requirements beyond those contained in chs. NR 700 to 724 in order to satisfy CERCLA and the NCP.

(3) The department may exercise enforcement discretion on a case-by-case basis and choose to regulate a site, facility or a portion of a site or facility under only one of a number of potentially applicable statutory authorities. However, where overlapping restrictions or requirements are applicable, the more restrictive control. The department

shall, after receipt of a request from a responsible party, provide a letter that indicates which regulatory program or programs the department considers to be applicable to the site or facility.

Note: Sites, facilities or portions of a site or facility that are subject to regulation under s. 144.442 or 144.76, Stats., may also be subject to regulation under the solid waste statues in ss. 144.43 to 144.47, Stats., or the hazardous waste management act, ss. 144.60 to 144.74, Stats., and the administrative rules adopted pursuant to those statues. One portion of a site or facility may be regulated under a different statutory authority than other portions of that site or facility.

NR 708.03 DEFINITIONS. The definitions in s. NR 700.03 apply to this chapter.

NR 708.05 IMMEDIATE ACTIONS. (1) GENERAL. Unless otherwise directed by the department, responsible parties shall immediately take action to halt a hazardous substance discharge or environmental pollution and to minimize the harmful effects of the discharge or environmental pollution to the air, lands, or waters of the state.

Note: Section 144.76(2)(a), Stats., requires that the department be notified immediately of hazardous substance discharges. Hazardous substance discharges from an UST must be immediately reported in accordance with s. NR 705.05. All other

hazardous substance discharges must be immediately reported in accordance with s. NR 158.05.

(2) EMERGENCIES. For hazardous substance discharges that pose an imminent threat to public health, safety or welfare or the environment, responsible parties shall conduct all necessary emergency immediate actions. Once the emergency situation is responded to, responsible parties shall conduct any further response actions needed to restore the environment to the extent practicable, unless the department determines that no further response is necessary in accordance with s. NR 708.09.

Note: Responsible parties are also required by s. 166.22(2), Stats., to immediately conduct emergency action to protect public health and safety and to prevent damage to property in cooperation with local police and fire departments, county sheriffs, regional teams established by the state emergency response board under s. 166.20(2)(g), Stats., and county offices of emergency government.

(3) NON-EMERGENCIES. (a) Responsible parties shall take all necessary, non-emergency immediate actions to halt the discharge of a hazardous substance and to contain, treat, or remove discharged hazardous substances, environmental media or both, in order to minimize the harmful effects of the discharge to the air, lands and waters of the state and to restore the environment to the extent practicable.

(b) A response to a hazardous substance discharge and any related contaminated media shall be considered by the department as a non-emergency immediate action when all of the following criteria are met:

1. The discharge does not pose an imminent threat to public health, safety and welfare and the environment.

2. The response does not result in the excavation and disposal, treatment or storage of more than 100 cubic yards of contaminated soil, debris, sediment or a combination of these media from a single site or facility.

3. The discharge is responded to immediately after the hazardous substance discharge occurs or is responded to immediately after discovery.

Note: Responsible parties are required to notify the department immediately of a hazardous substance discharge, in accordance with s. NR 705.05 for discharges from underground storage tanks and in accordance with s. NR 158.05 for all other types of hazardous substance discharges.

4. At the completion of the response action, no further action is required by the department under s. NR 708.09.

Note: If further action is required after a non-emergency response action is taken, that action meets the definition of "interim action" in s. NR 700.03(29). The principal distinction between a non-emergency, immediate action and an interim action is

that a site investigation will be required in conjunction with an interim action, but not with a non-emergency immediate action. In addition, interim actions will be closed out using the criteria in ch. NR 726, not the "no further action" criteria in s. NR 708.09.

(c) Responsible parties shall conduct sampling at the completion of an immediate action, in accordance with the requirements of ss. NR 712.05 and 716.13, when any of the following conditions are met:

1. The hazardous substance discharge or environmental pollution is in contact with groundwater.

2. The amount, identity or duration of the hazardous substance discharge or environmental pollution is unknown.

3. Where other site or facility conditions indicate that sampling is necessary to confirm the adequacy of the immediate action.

(4) SPECIFIC ACTIONS. Immediate actions may include any of the following:

(a) Limiting public access to the site or facility.

(b) Identifying, monitoring and mitigating fire, explosion and vapor hazards, which may include free product removal. Free product removal shall be conducted in accordance with the requirements of s. NR 708.13 and documented in accordance with s. NR 708.15.

(c) Visually inspecting the site or facility and installing physical containment barriers such as berms, booms, dikes or trenches.

(d) Preventing the flushing of hazardous substances to sewer systems, state waters or environmental media or habitats.

(e) Plugging or over packing leaking containers which contain or are suspected to contain hazardous substances.

(f) Providing alternate water supplies to persons whose water supply has been or is likely to be affected by the migration of contamination.

(g) Removing hazardous substances from leaking underground storage tank systems.

(h) Removing the contaminated soil, debris, or the hazardous substance that was discharged, in compliance with s. NR 708.11(3)(e).

(i) Measuring for the presence of free product, visually or through field samples or other appropriate methods.

(5) EXEMPTIONS. (a) The provisions of chs. NR 712, 716 and 724 do not apply to immediate actions conducted by responsible parties, unless compliance with a portion of these chapters is specifically required in this chapter.

(b) Contaminated soils, as defined in s. NR 718.03(4), that are excavated as part of an immediate action are exempt from the storage requirements of s. NR 718.05 and the solid waste regulatory requirements of ss. 144.43 to 144.441, 144.443 to 144.47, Stats., and chs. NR 500 to 536, for a period of 72 hours after the initial excavation of the contaminated soils.

(6) DOCUMENTATION. (a) Unless par. (b) is applicable or unless otherwise directed by the department, responsible parties shall prepare and submit written

documentation to the department describing the immediate actions taken at their site or facility and the outcome of those actions, within 45 days after the initial hazardous substance discharge notification is given to the department in accordance with the requirements of s. NR 158.05.

(b) Where a discharge from an UST has occurred, responsible parties shall prepare and submit written documentation to the department within 20 days after notifying the department of a hazardous substance discharge in accordance with the requirements of s. NR 705.05.

(c) The written documentation required of the responsible parties pursuant to par. (a) or (b) shall include ~~the~~ all of the following: GLO 3/16

1. A statement expressing the purpose of the submittal and the desired department action or response.

2. Name, address and telephone number of the responsible parties.

3. Location of the site or facility, or discharge incident, including street address; quarter-quarter section; and legal description of lot, if located in platted area.

4. Any information required under s. NR 158.05 for hazardous substance discharges from sources other than an UST or s. NR 705.05 for USTs, that has not been provided to the department previously.

5. The type of engineering controls, treatment, or both and the effluent quality of any permitted or licensed discharge.

6. The type, total volume and final disposition of the discharged hazardous substance and contaminated materials generated as part of the immediate action, including legible copies of manifests, receipts and other relevant documents.

(d) Responsible parties shall include with the submittal required in par. (c) a narrative discussion of the "no further action" criteria in s. NR 708.09, when responsible parties request that no further action be required by the department after completion of the immediate action.

NR 708.07 ADDITIONAL RESPONSE ACTIONS. At the completion of an immediate action, responsible parties shall conduct all necessary additional response actions including, but not limited to, the actions listed in subs. (1) to (5), either at the direction of the department or where the responsible party has determined that site or facility conditions warrant an additional response action, unless the department determines no further action is warranted in accordance with s. NR 708.09:

(1) Additional immediate action in accordance with this chapter.

(2) Interim action, in accordance with this chapter and, as applicable, ch. NR 724.

(3) A site investigation, in accordance with the requirements of ch. NR 716.

(4) Implementation of a preventive measures plan to minimize or prevent any further hazardous substance discharges.

NR 708.09 NO FURTHER RESPONSE ACTION. (1) GENERAL. At the completion of an immediate action, responsible parties may request in writing that the

department determine no further action is necessary to respond to a hazardous substance discharge or environmental pollution. Unless sub. (2) is applicable, the department shall determine no further response action is required if the immediate action taken by responsible parties has restored the environment, to the extent practicable, and if the hazardous substance discharge and any contaminated environmental media pose no threat to the public health, safety or welfare or the environment, considering all of the following criteria:

(a) The type of hazardous substance discharged or the type of environmental pollution, including the toxicity, mobility and volume of the contamination.

(b) The duration of the discharge.

(c) Time until the discharge or environmental pollution was responded to and properly contained or eliminated.

(d) Any mitigation efforts that may have accelerated the migration of the environmental pollution or hazardous substances, such as any fire mitigation methods.

(e) Weather conditions at the site or facility, such as any precipitation that may have accelerated the migration of the contamination, from the time of the discharge until the response was completed.

(f) Migration potential of the contamination, including soil conditions, proximity to surface water bodies, location of drains or storm sewers, depth to groundwater and the integrity of any containment area.

(g) The nature and scope of any immediate action conducted.

(h) The results of any sampling conducted to confirm the adequacy of the response, taken in accordance with s. NR 708.05(3)(c).

(i) Visual and olfactory evidence of contamination.

(j) Actual or potential environmental impacts.

(k) Proximity of contamination to receptors.

(l) Present and anticipated future land use.

(m) Whether or not routes of exposure are protective and the environment has been restored to the extent practicable.

(n) Any other information that the department considers relevant.

(2) SITE INVESTIGATION. The department shall require responsible parties to conduct a site investigation in accordance with the requirements of ch. NR 716 if a hazardous substance discharge from an UST meets any of the following conditions:

(a) There is evidence that groundwater wells have been affected by a discharge of a hazardous substance, including any evidence found during the release confirmation procedures in ch. NR 705.

(b) Free product is found and removal is required under s. NR 708.13.

(c) There is evidence that contaminated soils may be in contact with groundwater.

(3) REOPENING A CASE. The department may require that additional response actions be conducted by responsible parties in compliance with the requirements of chs. NR 700 to NR 726 if additional information indicates that residual contamination at a site or facility poses a threat to public health, safety or welfare or the environment.

Note: Although the department may determine at this time that no further response action is necessary pursuant to chs. NR 700 to NR 726, the site, facility or portion of the site or facility may be subject to the regulations and requirements of other department programs.

NR 708.11 INTERIM ACTIONS. (1) GENERAL. Responsible parties shall evaluate the need for interim action prior to initiating a site investigation and during a site investigation. Interim action shall be taken where it is necessary to contain or stabilize a discharge of a hazardous substance or environmental pollution, in order to minimize any threat to public health, safety or welfare or the environment. When an interim action is warranted, responsible parties shall implement an interim action as soon as facility or site-related information makes it possible to do so, in compliance with the requirements of this chapter.

Note: The principal distinction between a non-emergency, immediate action and an interim action is that a site investigation will be required in conjunction with an interim action, but not with a non-emergency immediate action. In addition, interim actions will be closed out using the criteria in ch. NR 726, not the "no further action" criteria in s. NR 708.09.

(2) SPECIFIC ACTIONS. Interim actions may include any of the following:

(a) Restricting public access to the site or facility.

(b) Conducting source removal, such as excavation and treatment of highly contaminated soils, to prevent or limit further movement of the contamination.

(c) Extracting free product, leachate or groundwater to restrict migration of a contaminant plume.

(d) Constructing a temporary engineering control, such as a low permeability cover.

(e) Actions listed in s. NR 708.05(4)(c), (g) or (i).

(3) SELECTION OF INTERIM ACTIONS. Unless otherwise directed by the department, responsible parties shall select and implement necessary interim action without prior department approval. The interim action selected by responsible parties shall comply with all of the following requirements:

(a) Be protective of public health, safety and welfare and the environment for the exposure pathways being addressed and any solid or hazardous waste or the hazardous substances and contaminated environmental media being generated.

(b) Comply with all state and federal public health and environmental laws, whichever are more stringent, that apply to the type of interim action being taken and any solid or hazardous waste and contaminated environmental media that is being generated, treated, stored or disposed as part of the interim action.

(c) Use recycling or treatment to the extent practicable.

(d) Be consistent with the final remedial action that is likely to be selected for that pathway of exposure or contaminated environmental media that is being addressed by the interim action.

(4) DESIGN AND IMPLEMENTATION REQUIREMENTS. For the types of interim actions listed in par. (a) through (c), responsible parties shall prepare and submit to the department all reports and plans required by ch. NR 724 for department review and approval prior to proceeding to the next step in design, implementation or operation of a interim action under ch. NR 724, unless otherwise directed.

(a) On-site treatment system, including a groundwater extraction and treatment system.

(b) On-site engineering control or barrier, including a landfill cover or groundwater barrier system.

(c) Any other type of interim action option when the department notifies responsible parties, on a case-by-case basis, that a design report is required prior to implementation of the interim action.

(5) ADDITIONAL RESPONSE ACTION. Unless otherwise directed by the department, responsible parties shall initiate and complete a site investigation in accordance with ch. NR 716 during the implementation of the interim action or as soon as it is feasible to do so after the completion of the interim action.

NR 708.13 FREE PRODUCT REMOVAL. Responsible parties shall conduct free product removal whenever it is necessary to halt or contain the discharge of a hazardous substance or to minimize the harmful effects of the discharge to the air, lands or waters of the state. When required, free product removal shall be conducted, to the maximum extent practicable, in compliance with all of the following requirements:

(1) Free product removal shall be conducted in a manner that minimizes the spread of contamination into previously uncontaminated zones using recovery and disposal techniques appropriate to the hydrologic conditions at the site or facility, and that properly reuses or treats discharges of recovery byproducts in compliance with applicable state and federal laws.

(2) Free product removal systems shall be designed to abate free product migration.

(3) Any flammable products shall be handled in a safe and competent manner to prevent fires or explosions.

NR 708.15 INTERIM ACTION REPORTS. (1) GENERAL. Responsible parties shall prepare and submit to the department an interim action report, in accordance with this section, describing each interim action taken. The interim action report shall be submitted as part of the remedial action report or the site investigation report, unless otherwise directed by the department or unless sub. (2) is applicable.

(2) FREE PRODUCT REMOVAL. For interim actions conducted to remove free product that was discharged from an UST, responsible parties shall prepare and submit a written interim action report to the department within 45 days after confirming a discharge in accordance with the requirements of s. NR 705.05, unless otherwise directed by the department.

(3) REPORT CONTENTS. The report required in sub. (1) or (2) shall include all of the following:

(a) Name, address and telephone number of the responsible party.

(b) Location of the site or facility, including street address; quarter-quarter section; and legal description of lot, if located in platted area.

(c) The department-issued site or facility identification number.

(d) The name of the consultant or person who has implemented the measures.

(e) A description of the interim action implemented.

(f) The estimated quantity and type of contamination, including the thickness of free product observed or measured in wells, bore holes, and excavations when applicable.

(g) The location and effluent quality of any permitted discharge, such as a wastewater discharge.

(h) The steps that have been or are being taken to obtain necessary permits for any discharge.

(i) The type, total volume and final disposition of any recovered hazardous substance discharged and contaminated environmental media generated, treated, stored or disposed of, including legible copies of manifests, receipts and other relevant documents.

CHAPTER NR 710

SITE DISCOVERY, SCREENING AND RANKING

NR 710.01 PURPOSE. This chapter establishes procedures that the department shall use in evaluating sites and facilities in the environmental repair program, hazardous substance discharge program, leaking underground storage tank program and superfund program, to assist the department in determining the priority for action at those sites and facilities. This chapter is adopted pursuant to ss. 144.431(1)(a) and (b), 144.442, 144.76 and 227.11(2), Stats.

NR 710.02 APPLICABILITY. This chapter applies to the department's discovery, screening and ranking of sites, facilities and portions of sites and facilities that are subject to regulation under the authority of s. 144.442 or 144.76, Stats.

Note: The department's superfund, spills, LUST and environmental repair programs may become aware of a potential site or facility through a wide variety of means, including any one of the following:

1. Notification of hazardous substance discharge, as required by ss. 144.76, Stats., and NR 158.05, or 705.05 for reporting discharges from underground storage tanks.

2. Citizen complaints.

3. Department investigations, observations or inspections.

4. Referrals from other programs or agencies.

NR 710.03 DEFINITIONS. In this chapter:

(1) "CERCLIS" means the comprehensive environmental response, compensation and liability information system, as compiled by the U.S. EPA.

(2) "Hazard ranking system" means the method used by U.S. EPA to evaluate the relative potential of hazardous substance discharges to cause health or safety problems, or ecological or environmental damage.

(3) "Inventory" means the list of sites or facilities which may cause or threaten to cause contamination which the department is required to compile under s. 144.442(4)(a), Stats.

(4) "LUST" means leaking underground storage tank.

(5) "Wisconsin remedial response site evaluation report" means the list of sites and facilities complied and maintained department's emergency and remedial response program, including all of the following:

(a) The inventory of sites or facilities which may cause or threaten to cause contamination.

(b) The hazardous substance discharge incidents which require a response action beyond an immediate action.

(c) LUST sites which have been designated as high or medium priorities by the department.

Note: Currently, there are several site or facility lists compiled by the department, including the "inventory of sites which may cause or threaten to cause

environmental pollution", the "hazard ranking list", the hazardous substance discharge incident list, the LUST list, a list of Wisconsin superfund sites on the NPL, the "registry of waste disposal sites in Wisconsin" and the "Wisconsin remedial response site evaluation report". To obtain any of these lists, please contact the Bureau of Solid and Hazardous Waste Management, Emergency and Remedial Response Section, Public Information Requests, P.O. Box 7921, Madison, WI. 53707. The federal CERCLIS list is available from the U. S. EPA, by writing to: WI. Freedom of Information Act Officer, U.S. EPA Region V, 77 W. Jackson Blvd, Chicago, IL, 60604.

NR 710.05 IDENTIFICATION OF RESPONSIBLE PARTIES. The department may attempt to identify potentially responsible parties during any phase of response action by any one of the following methods:

(1) Interviewing local officials, neighboring residents, persons involved with the operations of the site or facility, and past and present site or facility owners or operators.

(2) Reviewing operational records of the site or facility.

(3) Reviewing department records.

(4) Determining current and past ownership of the site or facility.

(5) Collecting and analyzing samples.

(6) Other appropriate means.

NR 710.07 LUST SITE EVALUATION PROCEDURES. The department shall evaluate all confirmed hazardous substance discharges from leaking underground storage

tanks to determine the relative threat each poses to public health, safety and welfare and the environment, and to determine the priority of the site or facility for action and department oversight. The department shall classify a LUST site as either a high, medium or low priority. The department may change, at any time, the priority of a site or facility on the basis of additional information provided by responsible parties or others.

NR 710.09 SUPERFUND SITE ASSESSMENT. A site or facility may be evaluated by the department to determine eligibility for the federal superfund program, under CERCLA and the NCP. The department also may conduct federal site assessment activities, in cooperation with the U.S. EPA. Assessment activities may include, but are not limited to:

(1) Identifying sites for addition to CERCLIS;

(2) Reviewing files by department staff in the form of preliminary assessments;

(3) Collecting data both on-and-off-site by conducting field sampling;

(4) Preparing or reviewing federally prepared hazard ranking system scores, using the federal hazard ranking system; and

(5) Nominating sites or facilities to the national priorities list.

NR 710.11 ENVIRONMENTAL REPAIR PROGRAM SCREENING. (1) INITIAL ASSESSMENT. The department shall conduct an initial assessment of each site or facility which the department suspects may threaten public health, welfare or

safety or the environment. The department shall consider, at a minimum, all of the following information during the initial assessment:

(a) Type and form of contamination disposed of or present at the site or facility.

(b) Estimated quantities of contamination disposed of or present at a site or facility. (c) Toxicity and persistence of contamination disposed of or present at a site or facility.

(d) Size of the site or facility.

(e) Estimated depth to groundwater.

(f) Distance to private and public water supply wells.

(g) Population living within at least one-fourth mile of a facility or site.

(h) Types of surfacial features and underlying soils.

(i) Distance from the site or facility to the nearest surface water and wetlands.

(j) Proximity to a floodplain or known flood hazard area.

(k) Proximity to sensitive environments, including fisheries and wildlife habitats, wetlands and other waters.

(l) Potential for direct contact with contamination.

(m) Estimated air emissions from the site or facility.

(2) DETERMINING SITE OR FACILITY POTENTIAL. The department shall use the information gathered pursuant to sub. (1) to determine whether the site or facility poses a high, low or unknown potential, based on the criteria in pars. (a) to (c).

(a) High potential. Based on the information gathered pursuant to sub. (1), the department shall assign the classification of high potential to any site or facility that

threatens public health, safety or welfare or the environment after considering all of the following criteria:

1. Groundwater contamination at or beyond the applicable point of standards application attains or exceeds a preventive action limit for any substance of public health concern or public welfare concern listed in ss. NR 140.10 and 140.12. If there is no groundwater quality standard established for a substance in ch. NR 140, the detection of a non-naturally occurring substance above the limit of detection and the detection of naturally occurring substances above background levels, that have not been affected by any contamination.

2. Surface water or sediment contamination attributable to the site or facility that violates the standards established pursuant to chs. NR 102 to 106.

3. Air contaminants in violation of the air quality standards contained in chs. NR 400 to 499.

4. Site or facility-specific factors identified in sub. (1) lead the department to conclude that there is a high potential that the site or facility may threaten public health, safety or welfare or the environment.

(b) Low potential. The classification of low potential may be assigned to any site or facility not classified as high potential after considering all of the following criteria:

1. Materials at the site or facility consist solely of concrete, brick, wood, inert material or other demolition debris which does not contain hazardous substances or environmental pollution.

2. No further action is required at the site or facility to comply with chs. NR 700 to 736, after considering all of the following:

a. Volume of contamination.

b. Physical properties of the contamination, such as the toxicity and persistence.

c. Soil components.

d. Geology and hydrogeology, including depth to bedrock and groundwater.

e. Potential for direct contact.

f. Other factors.

3. Other appropriate information which leads the department to conclude that there is a low potential for the site or facility to threaten public health, safety or welfare or the environment.

(c) Unknown potential. Any site or facility which cannot be classified as having a high or low potential to threaten public health, safety or welfare or the environment shall be classified as having unknown potential.

(3) ADDITIONAL INFORMATION. The department shall collect additional information for each site or facility classified as a high potential or unknown potential, including:

(a) Name of the person who presently owns or operates the site or facility.

(b) Site or facility history, including present operational status, the approximate length of time the site or facility was operated, and the names of potentially responsible persons.

(c) Physical characteristics of the site including, but not limited to, surface and subsurface soil permeability, depth to bedrock, depth to groundwater and type of bedrock.

(d) The number and location of private water supply wells and public water supply systems within 4 miles of the site or facility and the population served by those water supply well systems.

(e) The ability of the contamination to migrate to or impact the environment, including proximity to fisheries, wildlife habitat, wetlands or other areas where there may be a detrimental effect on the environment.

(f) Other information which may assist the department in determining the extent of actual or potential threat posed by the site or facility.

(4) SITE PRIORITIZATION. The department may develop and implement a prioritization system for each program to quickly estimate the environmental impact of a site or facility and to establish a general priority for department action.

NR 710.13 WISCONSIN REMEDIAL RESPONSE SITE EVALUATION REPORT. (1) GENERAL. The department shall routinely publish and update a report listing sites or facilities in Wisconsin which have been determined to represent a high potential of threatening public health, safety or welfare or the environment. This publication shall be titled the Wisconsin remedial response site evaluation report, and shall include all of the following:

(a) The inventory of sites or facilities which may cause or threaten to cause environmental pollution, which the department is required to compile and maintain under s. 144.442, Stats.

(b) Sites or facilities where a hazardous substance discharge has occurred and a response action, beyond an immediate action, is necessary.

(c) Sites where a hazardous substance discharge has occurred from an underground storage tank and the department has classified it as a high or medium priority, under s. NR 710.09.

(2) SITES OR FACILITIES ON THE INVENTORY. (a) Listing. A site or facility which is being addressed by the department under s. 144.442, Stats., shall be listed on the inventory specified in s. NR 710.13(1)(a), after the department has classified the site or facility as having a high potential for threatening public health, safety or welfare or the environment, including all sites or facilities proposed or listed as final on the national priorities list, using the screening process in s. NR 710.11(2).

(b) Contents. The inventory shall contain all of the following information:

1. Site or facility name.

2. District, county, town or city, quarter-quarter section and address or legal description of where the site or facility is located.

(c) Publication. The department shall publish the inventory and any amendments to the inventory as required by s. 144.442 (4), Stats. Amendments to the inventory shall be published no later than December 31 of every even-numbered year after the effective date of this rule [revisor insert date].

(d) Exceptions. 1. Except as provided in subd. 2., the department may not list on the inventory sites or facilities which are regulated under a department permit or approval issued under ss. 144.04, 144.30 to 144.79, chs. 30, 147 and 162, Stats., or other approvals or permits issued by the department.

2. If the regulation of a site or facility under department approval or permit is failing to correct any threats to public health, safety or welfare or the environment, the department may consider the site or facility for listing on the inventory. The department may list sites or facilities regulated under the authorities listed in subd. 1 on the inventory if the department determines that the site or facility owner or operator, or both, are not responsible for the contamination, or there is no responsible party able or willing to undertake the necessary response actions at the site or facility.

(e) Delisting. 1. Any site or facility may be removed from the inventory if the department determines that the site or facility no longer presents a substantial danger to public health, safety and welfare and the environment, or if the department determines that it shall address the site or facility under s. 144.76, Stats., instead of s. 144.442, Stats.

2. The department shall delist an individual site or facility from the inventory by excluding the site or facility from the next inventory amendment published after the department's decision.

3. The department shall use the screening process in s. NR 710.11(2) to decide if a site or facility no longer presents a substantial danger to public health, welfare and safety and the environment.

4. A site or facility may be delisted after the department has approved the request for case closure of the entire site or facility in accordance with ch. NR 726.

(3) HAZARDOUS SUBSTANCE DISCHARGES. (a) Listing. A site or facility subject to regulation under s. 144.76, Stats., shall be listed on the Wisconsin remedial response site evaluation report when the department determines that the site or facility threatens public health, welfare or safety or the environment, if the screening process described in s. NR 710.11(2) identifies the site or facility as having a high potential for threatening public health, welfare or safety or the environment or when a site investigation is necessary, as required by s. NR 158.05 or 708.09. (b) Contents. The hazardous substance discharge sites or facilities meeting the criteria in par. (a) shall be listed in the Wisconsin site evaluation report. This section of the report shall contain all of the following information about each site or facility:

1. Site or facility name.

2. District, county, town or city, quarter-quarter section and address or legal description where the site or facility is located.

(c) Exceptions. A site or facility which is being addressed under s. 144.76, Stats., but is designated as a LUST site shall be listed in the LUST section of the report, not in the hazardous substance discharge section of the Wisconsin remedial response site evaluation report.

(d) Delisting. 1. Any site or facility may be removed from the report if the department determines that the site or facility is in compliance with all applicable environmental and public health standards and that the environment has been restored

to the extent practicable, or if the department determines that it will address the site or facility under s. 144.442, Stats., instead of s. 144.76, Stats.

2. The department shall delist an individual site or facility by excluding the site or facility from the next Wisconsin remedial response site evaluation report published after the department's decision.

3. When no response action is required at the site or facility, the department shall use the screening process contained in s. NR 710.11(2) or the no further action criteria in s. NR 158.09 to decide whether or not to delist the site or facility in compliance with this paragraph.

4. At the completion of an immediate action, a site or facility may be delisted after no further action is required by the department pursuant to s. NR 708.09.

5. A site or facility may be delisted after the department has approved the request for case closure under ch. NR 726.

(4) LUST SITES. (a) Listing. A site or facility that is subject to regulation under s. 144.76, Stats., may be listed in the LUST section of the Wisconsin remedial response site evaluation report if it involves a discharge of a hazardous substance from a leaking underground storage tank and the department has determined that the site or facility threatens public health, welfare or safety or the environment, using the screening process described in s. NR 710.07. Only sites or facilities identified as high and medium priority shall be listed in the Wisconsin remedial response site evaluation report. The LUST section of the report shall contain all of the following information:

1. Site or facility name.

2. District, county, town or city, and address or legal description where the site or facility is located.

(b) Delisting. 1. Any site or facility may be removed from the LUST section of the report if the department determines that the site or facility is in compliance with all applicable public health and environmental standards, and that the environment has been restored to the extent practicable.

2. The department shall delist an individual site or facility by excluding the site or facility from the next Wisconsin remedial response site evaluation report published subsequent to the department's decision and the LUST program list.

3. When no response action is required the site or facility the department shall use the screening process contained in s. NR 710.07 or the no further action criteria in s. NR 708.09 to decide whether or not to delist the site or facility in compliance with this paragraph.

4. At the completion of an immediate action, a site or facility may be delisted after no further action is required by the department pursuant to s. NR 708.09.

5. A site or facility may be delisted after the department has approved the request for case closure under ch. NR 726.

NR 710.15 ENVIRONMENTAL REPAIR PROGRAM HAZARD RANKING SYSTEM. (1) APPLICABILITY. (a) Sites or facilities to be scored. All sites or facilities listed on the inventory under s. NR 710.13(2) shall be scored using the environmental repair program hazard ranking procedures in this section.

Note: The hazard ranking system does not quantify the probability of harm from a site or facility or the magnitude of the harm that could result, although the factors have been selected in order to approximate both those elements of risk. It is a procedure for ranking facilities in terms of the potential threat they pose by describing the manner in which the substances of concern are contained, the route by which they would be discharged, and the likely impacts on stet or the environment. The hazard ranking system, as currently drafted, incorporates the ranking system formerly found in ch. NR 550, without revision. It is the intent of the department to revise the hazard ranking system in the near future, after reviewing alternative scoring systems including other state systems, as well as the new federal hazard ranking system.

(b) Rescoring. The department shall evaluate the information obtained from the site investigation conducted in compliance with ch. NR 716 and if appropriate, the site or facility using the environmental repair program hazard ranking procedures in this section.

(c) Substantial danger. 1. All sites or facilities that receive a migration route score equal to, or greater than, 15.0 using the scoring procedures listed in ss. NR 710.17 to 710.21 shall be considered by the department to pose a substantial threat to the public health, welfare or safety or the environment.

2. The department may, on a case-by-case basis, determine that a site or facility that has not been scored or that receives a migration route score of less than 15.0 poses a substantial threat to the public health, welfare or safety or the environment, based on

relevant information which was not considered in the hazard ranking system. In this case, the department shall maintain a written record of the decision, including a detailed explanation of the factors considered to determine that a substantial threat exists.

(2) HAZARD RANKING LIST. (a) Ranking list. The department shall publish a hazard ranking list of sites or facilities scored using the scoring procedures in this section.

(b) Publication. 1. The department shall publish the hazard ranking list, and any amendments, as required by s. 144.442(4), Stats.

2. Amendments to the hazard ranking list shall be published no later than December 31 of every odd-numbered year, after the initial hazard ranking list is published.

(c) List information. For each site or facility scored, the hazard ranking list shall contain all of the following information:

1. Site or facility name.

2. District where site or facility is located.

3. Migration route score, the fire and explosion score, and the direct contact score.

4. Notice that the site or facility poses a substantial threat to public health, welfare, safety or the environment.

5. Brief description of the reason why the substantial threat exists.

6. Statement describing response actions taken at the site or facility, if any and whether the response actions have been completed.

(d) Other substantial danger sites or facilities. The hazard ranking list shall also include those sites or facilities that have been determined by the department to pose a substantial threat to the public health, welfare or safety or the environment, under sub. (1)(c) 2.

(3) SCORING. (a) General. The hazard ranking system assigns 3 hazard mode or route scores to a site or facility. These hazard mode or route scores are the migration score, the fire and explosion score, and the direct contact score.

(b) Migration score. The migration score, S_M, reflects the potential for harm to humans or the environment from migration of substances away from the site or facility by routes involving groundwater, surface water, or air. It is a composite of separate scores for each of the 3 routes. The migration score is computed by the following equation:

$$S_M = \frac{1}{1.73} (S^2_{gw} + S^2_{sw} + S^2_a)^{0.5}$$

where: S_{gw} = groundwater route score

S_{sw} = surface water route score

S_a = air route score

Note: The effect of combining the route scores is to emphasize the highest scoring route while giving some additional consideration to the other routes. The factor 1/1.73 is used to reduce S_M scores to a 100-point scale.

(c) Fire and explosion. The fire and explosion score, S_{FE}, reflects the potential for harm from contamination that can explode or cause fires.

(d) Direct contact. The direct contact score, S_{DC}, reflects the potential for harm from direct contact with contamination at the site or facility.

Note: The hazard ranking system does not quantify the probability of harm from a site or facility or the magnitude of the harm that could result, although the factors have been selected in order to approximate both those elements of risk. It is a procedure for ranking facilities in terms of the potential threat they pose by describing the manner in which the substances of concern are contained, the route by which they would be released, and the likely impacts on humans or natural resources.

(4) RATING FACTORS. The score for each hazard mode (migration, fire and explosion and direct contact) or route is obtained by considering a set of factors that characterize the potential for the site or facility to cause harm (Table 1). Each factor is assigned a numerical value according to the procedures set forth in ss. NR 710.17 to 710.27. This value is then multiplied by a weighing factor yielding the factor score. The factor scores within each category are added, and the total scores for each factor

category are multiplied together to develop a score for groundwater, surface water, air, fire and explosion, and direct contact. In computing the fire and explosion, direct contact, or individual migration route score, the product of its factor category scores is divided by the maximum possible score and multiplied by 100 to reduce scores to a 100-point scale.

(5) RANKING. (a) Repair action. The migration route score shall be used to determine substantial danger under sub. (1), and for establishing repair priorities for projects being addressed by the department under s. 144.442, Stats.

(b) Emergency action. Fire and explosion and direct contact scores shall be used by the department to help identify sites or facilities requiring an emergency immediate action under ch. NR 708.

(6) INFORMATION. Use of the hazard ranking system requires considerable information about the site or facility, its surroundings, the contamination present, and the geological character of the area. Where there are no data for a factor, it shall be assigned a value of zero. However, if a factor with no data is the only factor in a category (for example: containment), then the factor is given a score of 1. If data are lacking for more than one factor in connection with the evaluation of either any migration or exposure route that route score is set at zero. Figure 1 illustrates the format for recording general information regarding the site or facility being evaluated. It shall also serve as a cover sheet for the work sheets used in the evaluation.

TABLE 1
Comprehensive List of Rating Factors

HAZARD MODE	FACTOR CATEGORY	Factors		
		GROUNDWATER ROUTE	SURFACE WATER ROUTE	AIR ROUTE
Migration	Route Characteristics	* Depth to Groundwater * Infiltration Potential * Permeability of Unsaturated Zone * Physical State of Waste	* Facility Slope and Intervening Terrain * Run-off Potential * Distance to Nearest Surface Water * Physical State of Waste	
	Containment	* Containment	* Containment	
	Waste Characteristics	* Toxicity/Persistence * Leachate Strength * Hazardous Waste Quantity/Total Waste Quantity	* Toxicity/Persistence * Leachate Strength * Hazardous Waste Quantity/Total Waste Quantity	* Reactivity/Incompatibility * Toxicity * Hazardous Waste Quantity/Total Waste Quantity
	Potential Impacts	* Groundwater Use * Distance to Nearest Well/Population Served	* Surface Water Use * Distance to Sensitive Environment * Population Served/Distance to Water Intake Downstream	* Land Use * Population Within 4-Mile Radius * Distance to Sensitive Environment
Fire and Explosion	Containment	* Containment		
	Waste Characteristics	* Direct Evidence * Ignitability * Reactivity * Incompatibility * Hazardous Waste Quantity/Total Waste Quantity		
	Potential Impacts	* Distance to Nearest Population * Distance to Nearest Building * Distance to Nearest Sensitive Environment * Land Use * Population Within 2-Mile Radius * Number of Buildings Within a 2-Mile Radius		
Direct Contact	Observed Incident	* Observed Incident		

(Table 1 continues on next page)

	Accessibility	* Accessibility of Hazardous Substances		
	Containment	* Containment		
	Waste Characteristics	* Toxicity		
	Potential Impacts	* Population Within 1-Mile Radius * Distance to Critical Habitat		

TABLE 1
Comprehensive List of Rating Factors

NR 710.17 GROUNDWATER MIGRATION ROUTE. (1) OBSERVED RELEASE. (a) Scoring. If a release is observed using the criteria listed in par. (b), enter a score of 45 on line one of the groundwater route worksheet (Figure 2), and do not evaluate the route characteristics and containment factors (lines 2 and 3). If direct evidence of a discharge or release is lacking, enter a value of zero on line one and proceed with scoring the route characteristics and containment factors as described in subs. (2) and (3).

(b) Direct evidence. Direct evidence of release must be analytical. If a contaminant is measured, regardless of frequency, in groundwater or a well in the vicinity of the site or facility at a higher level than the background level, then quantitative evidence exists, and a release or discharge has been observed. For the purpose of this paragraph, one of the following methods may be used to evaluate an observed release:

1. In the vicinity of the site or facility, the concentration of a substance of public health or welfare concern attains or exceeds the preventive actions limits contained in Table 1, s. NR 140.10, or Table 2, s. NR 140.12;

2. In the vicinity of the site or facility, the concentration of an indicator parameter exceeds a preventive action limit for that parameter as established in s. NR 140.20;

Site or facility name: _____

Location: _____

DNR District: _____

Person(s) in charge of the site or facility: _____

_____

_____

Name of Reviewer: _____

Date: _____

General description of the site or facility:

(For example: landfill, surface impoundment, waste pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

_____

_____

_____

_____

_____

Scores: S_M = (S_{gw} = S_{sw} = S_a =)
S_{FE} =
S_{DC} =

Figure 1
HRS COVER SHEET

GROUNDWATER ROUTE WORKSHEET					
Rating Factor	**Assigned Value (circle one)**	**Multiplier**	**Score**	**Max. Score**	**Ref. Section**
[1] Observed Release	0 45	1		45	sub.(1)
If observed release is given a score of 45, proceed to line [4]. If observed release is given a score of 0, proceed to line [2].					
[2] Route Characteristics					sub.(2)
Depth to Groundwater	0 1 2 3	2		6	
Infiltration Potential	0 1 2 3	1		3	
Permeability of the Unsaturated Zone	0 1 2 3	1		3	
Physical State	0 1 2 3	1		3	
	Total Route Characteristics Score			15	
[3] Containment	0 1 2 3	1		3	sub.(3)
[4] Waste Characteristics					sub.(4)
Toxicity/Persistence	0 3 6 9 12 15 18	1		18	
Leachate Strength	0 2 4 6 8 10	1		10	
Waste Quantity/Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Waste Characteristics Score			26	
[5] Potential Impacts					sub.(5)
Groundwater Use	0 1 2 3	3		9	
Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1		40	
	Total Potential Impacts			49	
[6] If line [1] is 45, multiply [1] x [4] x [5] If line [1] is 0, multiply [2] x [3] x [4] x [5]				57,330	
[7] Divide line [6] by 57,330 and multiply by 100			S_{gw} =		

Figure 2

GROUNDWATER ROUTE WORKSHEET

3. In the vicinity of the site or facility, a sample contains a detectable concentration of a substance not detected in a background sample; or

4. The department determines by using other appropriate information that the increase in the concentration of a substance in the vicinity of the site or facility is from the site or facility.

Note: Tables 12 and 15 contained in sub. (4) and Tables One, 2 and 3 contained in ch. NR 140, list substances which may be used for determining an observed release.

(c) Qualitative evidence. Qualitative evidence of release, e.g., an oily or otherwise objectionable taste or smell in well water, constitutes direct evidence only if it can be confirmed that it results from a release at the site or facility in question.

(2) ROUTE CHARACTERISTICS. (a) Depth to groundwater. Depth to groundwater is measured vertically from the lowest point of the substances of concern to the highest seasonal groundwater level. This factor is one indicator of the ease with which a pollutant from the facility could migrate to groundwater. Values for depth to groundwater are shown in Table 2.

TABLE 2
DEPTH TO GROUNDWATER

Depth to Groundwater	Assigned Value
>150 feet	0
76 to 150 feet	1
21 to 75 feet	2
<21 feet	3

(b) Infiltration potential. Infiltration potential is a measure of the site characteristics which encourage, or allow, the accumulation of water on the site surface and movement of water through the wastes or hazardous substances generating leachate. Infiltration potential is a function of the available water at the site, the slope of the site surface, the type of surface soils, and the vegetative cover. Infiltration potential is assigned a value from Table 3. The infiltration score is determined by adding the individual values obtained from Tables 4 and 5, and Figure 3.

TABLE 3 INFILTRATION POTENTIAL		
Infiltration Potential	**Infiltration Score**	**Assigned Value**
Low	(0-6)	0
Moderately Low	(7-11)	1
Moderately High	(12-17)	2
High	(18-22)	3

TABLE 4 SLOPE/VEGETATIVE COVER				
Vegetative Cover	**Site Surface Slope**			
	<3%	**3-5%**	**5-8%**	**>8%**
None	9	7	6	5
Poorly Established < (Sparse, Root Zone 6")	8	6	5	4
Established (Good, Root Zone 6-12")	6	4	3	2
Well Established > (Lush, Root Zone 12")	4	2	1	0

TABLE 5	
Soil Score	**Infiltration**
Surface Soil Type	Value
Sand	8
Silty Sand	7
Sandy Loam	6
Silty Loam	5
Peaty Topsoil	4
Clay Loam	3
Silty Clay	2
Clay	1

TABLE 6 PERMEABILITY OF UNDERLAYING GEOLOGICAL MATERIALS		
TYPE OF MATERIAL	**APPROXIMATE RANGE OF HYDRAULIC CONDUCTIVITY**	**ASSIGNED VALUE**
Unfractured clay, cemented till, shale; unfractured metamorphic and igneous rocks	10^{-7} cm/sec	0
Silt, loess, silty clays, silty loams, clay loams; less permeable limestone, dolomites, and sandstone; moderately permeable till; fractured clay	10^{-5} - 10^{-7} cm/sec	1
Fine sand and silty sand; sandy loams; moderately permeable limestone, dolomites, and sandstone (no karst); moderately fractured igneous and metamorphic rocks, some coarse till	10^{-3} - 10^{-5} cm/sec	2
Gravel, sand; highly fractured igneous and metamorphic rocks; permeable basalt and lavas, karst limestone and dolomite	10^{-3} cm/sec	3

(c) Subsurface permeability. Permeability of unsaturated zone (or intervening geological formations) is an indicator of the speed at which a contaminant could migrate from a site or facility. Values for permeability are shown in Table 6.

(d) Physical state of waste. Physical state refers to the state of the substances of concern at the time of disposal, except that gases generated by the substances in a disposal area should be considered in rating this factor. Values for the physical state of the substance are shown in Table 7.

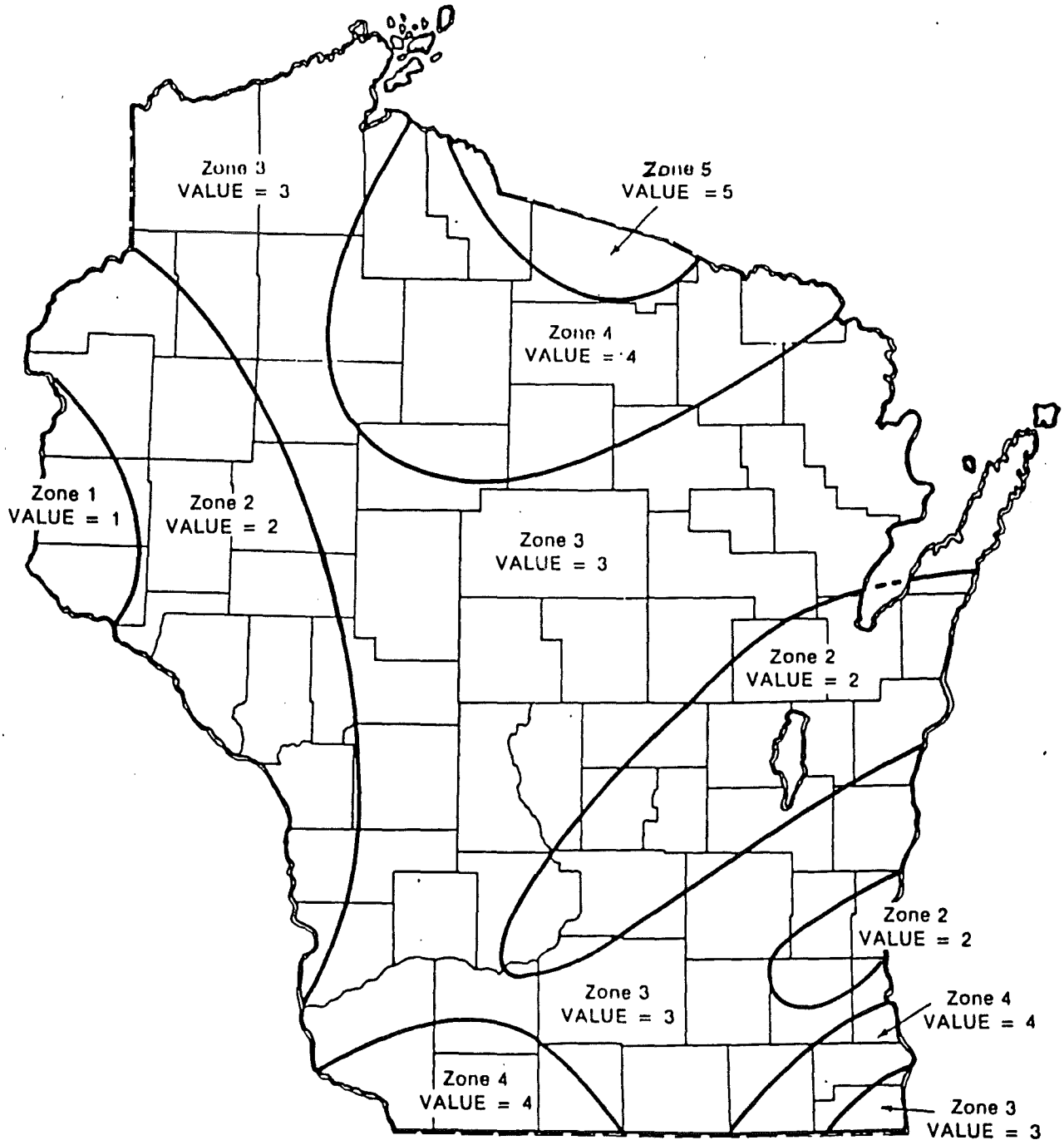


Figure 3 - Water Balance Values

TABLE 7 PHYSICAL STATE	
Physical State	**Assigned Value**
Solid, consolidated or stabilized	0
Solid, unconsolidated or unstabilized	1
Powder or fine materia	2
Liquid sludge or gas	3

(3) CONTAINMENT. Containment is a measure of the natural or artificial means that have been used to minimize or prevent a substance from entering groundwater. Examples include liners, leachate collection systems, and sealed containers. Containment values are shown in Table 8. Consideration shall be given to all ways in which substances are stored or disposed at the site or facility. If the site or facility involves more than one method of storage or disposal, assign the highest from among all applicable values, e.g., if a landfill has a containment value of one, and, at the same location, a surface impoundment has a value of 2, assign containment a value of 2.

TABLE 8 CONTAINMENT VALUE FOR GROUNDWATER ROUTE	
Assign containment a value of 0 if: (1) all the hazardous substances at the site or facility are underlain by an essentially nonpermeable surface (natural or artificial) and adequate leachate collection systems and diversion systems are present; or (2) there is no groundwater in the vicinity. The value "0" does not indicate no risk. Rather, it indicates a significantly lower relative risk when compared with more serious sites. Otherwise, evaluate the containment for each of the different means of storage or disposal at the site or facility using the following guidance.	
A. Surface Impoundment	Assigned Value
Sound run-on diversion structure, essentially nonpermeable liner (natural or artificial) compatible with the waste, and adequate leachate collection system.	0
Essentially nonpermeable compatible liner with no leachate collection system; or inadequate freeboard.	1
Potentially unsound run-on diversion structure; or moderately permeable compatible liner.	2
Unsound run-on diversion structure; no liner; or incompatible liner.	3
B. Containers	Assigned Value
Containers sealed and in sound condition, adequate liner, and adequate leachate collection system.	0
Containers sealed and in sound condition, no liner or moderately permeable liner.	1
Containers leaking, moderately permeable liner.	2
Containers leaking and no liner or incompatible liner.	3
C. Piles	Assigned Value
Piles uncovered and waste stabilized; or piles covered, waste unstabilized, and essentially nonpermeable liner.	0
Piles uncovered, waste unstabilized, moderately permeable liner, and leachate collection system.	1
Piles uncovered, waste unstabilized, moderately permeable liner, and leachate collection system.	2
Piles uncovered, waste unstabilized, and no liner.	3
D. Landfill	Assigned Value
Essentially nonpermeable liner, liner compatible with waste, and adequate leachate collection system.	0
Essentially nonpermeable compatible liner, no leachate collection system, and landfill surface precludes ponding.	1
Moderately permeable, compatible liner, and landfill surface precludes ponding.	2
No liner or incompatible liner; moderately permeable compatible liner; landfill surface encourages ponding; no run-on control.	3

(4) WASTE CHARACTERISTICS. (a) Scoring. The waste characteristics score is evaluated using the most hazardous substances, or the strength of collected leachate, at the site or facility that may migrate to groundwater. Take the substance with the highest score as representative of the potential hazard due to waste characteristics. Note that

the substance that may have been observed in the release category can differ from the substance used in rating waste characteristics.

(b) Toxicity and persistence. Toxicity and persistence have been combined into a matrix because of their important relationship. Determine the matrix toxicity/persistence value for a substance using Table 12, or evaluate each factor individually as discussed in pars. (c) and (d). Match the individual values assigned from Tables 10 and 11 with the values in Table 9 for the combined rating factor. Evaluate several of the most hazardous substances at the facility independently and enter only the highest score from Table 9 or 12 on the work sheet.

TABLE 9
TOXICITY AND PERSISTENCE

Value for toxicity	Value for Persistence			
	0	1	2	3
0	0	0	0	0
1	3	6	9	12
2	6	9	12	15
3	9	12	15	18

(c) Toxicity. The toxicity of each substance being evaluated is given a value using the rating schemes shown in Table 10. Specific information about chemical toxicity is given in Table 13 or 14.

TABLE 10 TOXICITY	
Toxicity Level from Table 13 or Table 14	**Assigned Value**
Level 0	0
Level 1	1
Level 2	2
Level 3 or 4	3

(d) Persistence. Persistence of each substance is evaluated based on its biodegradability. Persistence values are shown in Table 11. Specific information about chemical persistence is given in Table 15.

TABLE 11 PERSISTENCE	
Persistence of Substance	**Assigned Value**
Easily biodegradable compounds	0
Straight chain hydrocarbons	1
Substituted and other ring compounds	2
Metals, polycyclic compounds and halogenated hydrocarbons	3

(e) Leachate strength. Leachate strength may be used to estimate the potential environmental pollution caused by the site or facility. Values for leachate strength are based on chemical oxygen demand, COD, and are given in Table 16. Only one of the 2 estimates, toxicity/persistence or leachate strength, is to be used.

TABLE 12 Toxicity/Persistence					
Chemical/Compound	**Groundwater & Surfacewater**	**Air**	**Ignitability**	**Reactivity**	**Volatility**
Acenapthene	9	3			
Acetaldehyde	6	6	3	2	3
Acetic Acid	6	6	2	1	1
Acetone	6	6	3	0	3
2-Acetylaminofluorene	18	9			
Aldrin	18	9	1	0	0
Ammonia	9	9	1	0	3
Aniline	12	9	2	0	1
Anthracene	15	9			
Arsenic	18	9			
Arsenic Acid	18	9			
Arsenic Trioxide	18	9			
Asbestos	15	9			
Barium	18	9			
Benzene	12	9	3	0	3
Benzidine	18	9			
Benzo(a)pyrene	18	9			
Benzopyrene, NOS	18	9			
Beryllium & Compounds, NOS	18	9			
Beryllium Dust, NOS	18	9			
Bis (2-Chloroethyl) Ether	15	9			
Bis (2-Ethylhexyl) Phthalate	12	3			
Bromodichloromethane	15	6			
Bromoform	15	6			
Bromomethane	15	9			
Cadmium	18	9	0		
Carbon Tetrachloride	18	9	0	0	3
Chlordane	18	9			
Chlorobenzene	12	6	3	0	1
Chloroform	18	6	0	0	3
3-Chlorophenol	12	6			
4-Chlorophenol	15	9			
2-Chlorophenol	12	6			
Chromium	18	9			
Chromium, Hexavalent (Cr^{+6})	18	9			
Chromium, Trivalent (Cr^{+3})	15	6			
Copper & Compounds, NOS	18	9			

TABLE 12 Toxicity/Persistence					
Chemical/Compound	**Groundwater & Surfacewater**	**Air**	**Ignitability**	**Reactivity**	**Volatility**
Creosote	15	6			
Cresols	9	6	2	0	1
4-Cresol	12	9	1	0	1
Cupric chloride	18	9			
Cyanides (soluble salts), NOS	12	9			
Cyclohexane	12	6	3	0	3
DDE	18	9			
DDT	18	9			
Diaminotoluene	18	6			
Dibromochloromethane	15	6			
1,2-Dibromo, 3-chloropropane	18	9			
Di-N-Butyl-Phthalate	18	6			
1,4-Dichlorobenzene	15	6			
Dichlorobenzene, NOS	18	6			
1,1-Dichloroethane	12	6			
1,2-Dichloroethane	12	9			
1,1-Dichloroethene	15	9			
1,2-cis-Dichloroethylene	12	3			
1,2-trans-Dichloroethylene	12	3			
Dichloroethylene, NOS	12	3			
2,4-Dichlorophenol	18	6			
2,4-Dichlorophenoxyacetic Acid	18	9			
Dicyclopentadiene	18	9			
Dieldrin	18	9			
2,4-Dinitrotoluene	15	9			
Dioxin	18	9			
Endosulfan	18	9			
Endrin	18	9	1	0	0
Ethylbenzene	9	6	1	0	0
Ethylene Dibromide	18	9			
Ethylene Glycol	9	6			
Ethyl Ether	15	6			
Ethylmethacrylate	12	6			
Fluorine	18	9			
Formaldehyde	9	9	2	0	3
Fromic Acid	9	6	2	0	2
Heptachlor	18	9			

TABLE 12 Toxicity/Persistence					
Chemical/Compound	**Groundwater & Surfacewater**	**Air**	**Ignitability**	**Reactivity**	**Volatility**
Hexachlorobenzene	15	6			
Hexachlorobutadiene	18	9			
Hexachlorocyclohexane, NOS	18	9			
Hexachlorocyclopentadiene	18	9			
Hydrochloric Acid	9	6			
Hydrogen Sulfide	18	9			
Indene	12	6			
Iron & Compounds, NOS	18	9			
Isophorone	12	6			
Isopropyl Ether	9	3	0	0	3
Kelthane	15	6			
Kepone	18	9			
Lead	18	9			
Lindane	18	9	1	0	0
Magnesium & Compounds, NOS	15	6			
Manganese & Compounds, NOS	18	9			
Mercury	18	9			
Mercury Chloride	18	9			
Methane	6		3	0	3
Methoxychlor	15	6			
4,4-Methylene-Bis-(2-Chloroaniline)	18	9			
Methylene Chloride	12	6			
Methyl Ethyl Ketone	6	6	3	0	2
Methyl Isobutyl Ketone	12	6			
4-Methyl-2-Nitroaniline	12	9			
Methyl Parathion	9	9	3	2	2
2-Methylpyridine	12	6			
Mirex	18	9			
Naphthalene	9	6	2	0	1
Nickel & Compounds, NOS	18	9			
Nitric Acid	9	9	0	0	3
Nitroaniline, NOS	18	9			
Nitrogen Compounds, NOS	12	0			
Nitroquanidine	12	9			
Nitrophenol, NOS	15	9			

TABLE 12 Toxicity/Persistence					
Chemical/Compound	**Groundwater & Surfacewater**	**Air**	**Ignitability**	**Reactivity**	**Volatility**
m-Nitrophenol	15				
o-Nitrophenol	12				
p-Nitrophenol	15				
Nitrosodiphenylamine	12	6			
Parathion	9	9	1	2	0
Pentachlorophenol	18	9			
Pesticides, NOS	18	9			
Petroleum, Kerosene	12	0	2	0	1
Phenanthrene	15	9			
Phenol	12	9	2	0	1
Phosgene	9	9			
Polybrominated Biphenyl (PBB),NOS	18	9			
Polychlorinated Biphenyls(PCB), NOS	18	9			
Potassium Chromate	18	9			
Radium & Compounds, NOS	18	9			
Radon & Compounds, NOS	15	9			
RDX, (Cyclonite)	15	0			
2,4-D, Salts & Esters	18	9			
Selenium	15	9			
Sevin (Carbaryl)	18	9			
Sodium Cyanide	12	9			
Styrene	9	6			
Sulfate	9	0			
Sulfuric Acid	9	9	0	2	1
2,4,5-T	18	9			
1,1,2,2-Tetrachloroethane	18	9			
Tetrachloroethane, NOS	18	9			
1,1,2,2-Tetrachloroethene (Tetrachloroethylene)	12	6			
Tetraethyl Lead	18	9			
Tetrahydrofuran	15	6			
Thorium & Compounds, NOS	18	9			
Toluene	9	6	3	0	2
TNT	12				
Toxaphene	18	9			
Tribomomethane	18	9			

TABLE 12 Toxicity/Persistence					
Chemical/Compound	**Groundwater & Surfacewater**	**Air**	**Ignitability**	**Reactivity**	**Volatility**
1,2,4-Trichlorobenzene	15	6	1	0	1
1,3,5-Trichlorobenzene	15	6	1	0	1
1,1,1-Trichloroethane	12	6			
1,1,2-Trichloroethane	15	6			
Trichloroethane, NOS	15	6	1	0	3
Trichloroethene	12	6			
1,1,1-Trichloropropane	12	6			
1,1,2-Trichloropropane	12	6			
1,2,3-Trichloropropane	15	9			
Uranium & Compounds, NOS	18	9			
Varsol	12	6			
Vinyl Chloride	15	9			
Xylene	9	6	3	0	1
Zinc & Compounds, NOS	18	9			
Zinc Cyanide	18	9			

Note: The source of this table is 40 CFR 300, Appendix A and guidance from EPA using information from:

-Sax, N.I.; *Dangerous Properties of Industrial Materials, 4th Edition, 1975.*

-JRB Associates, Inc.; *Methodology for Rating the Hazard Potential of Waste Disposal Sites,* May 5, 1980.

-National Fire Protection Association, *National Fire Codes,* Vol. 13, No. 49, 1977.

-Professional judgement based on information contained in the U.S. Coast Guard CHRIS Hazardous Chemical data, 1978, and existing literature.

Values given for ignitability, reactivity, and volatility in the Table are taken from 40 CFR 300, Appendix A. The above-referenced documents, or EPA, should be referred to for values not shown in the table.

TABLE 13 TOXICITY RATINGS
Level 0 = No Toxicity
This designation is given to materials which fall into one of the following categories: (a) Materials which cause no harm under any conditions of normal use. (b) Materials which produce toxic effects on humans only under the most unusual conditions or by overwhelming dosages.
Level 1 = Slight Toxicity
(a) Acute local. Materials which on single exposures lasting seconds, minutes, or hours cause only slight effects on the skin or mucous membranes regardless of the extent of the exposure. (b) Acute systemic. Materials which can be absorbed into the body by inhalation, ingestion, or through the skin and which produce only slight effects following single exposures lasting seconds, minutes, or hours, or following ingestion of a single dose, regardless of the quantity absorbed or the extent of the exposure. (c) Chronic local. Materials which on continuous or repeated exposures extending over periods of days, months, or years cause only slight and usually reversible harm to the skin or mucous membranes. The extent of exposure may be great or small. (d) Chronic systemic. Materials which can be absorbed into the body by inhalation, ingestion, or through the skin and which produce only slight and usually reversible effects extending over days, months, or years. The extent of the exposure may be great or small. In general, those substances classified as having "slight toxicity" produce changes in the human body which are readily reversible and which will disappear following termination of exposure, either with or without medical treatment.

TABLE 13 TOXICITY RATINGS
Level 2 = Moderate Toxicity
(a) Acute local. Materials which on single exposure lasting seconds, minutes, or hours cause moderate effects on the skin or mucous membrane. These effects may be the result of intense exposure for a matter of seconds or moderate exposure for a matter of hours. (b) Acute systemic. Materials which can be absorbed into the body by inhalation, ingestion, or through the skin and produce moderate effects following single exposures lasting seconds, minutes, or hours, or following ingestion of a single dose. (c) Chronic local. Materials which on continuous or repeated exposures extending over periods of days, months, or years cause moderate harm to the skin or mucous membranes. (d) Chronic systemic. Materials which can be absorbed into the body by inhalation, ingestion, or through the skin and which produce moderate effects following continuous or repeated exposures extending over periods of days, months, or years. Those substances classified as having "moderate toxicity" may produce irreversible as well as reversible changes in the human body. These changes are not of such severity as to threaten life or to produce serious physical impairment.
Level 3 = Severe Toxicity
(a) Acute local. Materials which on single exposure lasting seconds or minutes cause injury to skin or mucous membrane of sufficient severity to threaten life or to cause permanent physical impairment or disfigurement. (b) Acute systemic. Materials which can be absorbed into the body by inhalation, ingestion, or through the skin and which can cause injury or sufficient severity to threaten life following a single exposure lasting seconds, minutes, or hours, or following ingestion of a single dose. (c) Chronic local. Materials which on continuous or repeated exposures extending over periods of days, months, or years can cause injury to skin or mucous membranes of sufficient severity to threaten life or cause permanent impairment, disfigurement, or irreversible change. (d) Chronic systemic. Materials which can be absorbed into the body by inhalation, ingestion or through the skin and which can cause death or serious physical impairment following continuous or repeated exposures to small amounts extending over periods of days, months, or years.

Note: The source of this table is 40 CFR 300, Appendix A, Table 6, and is based on information taken from: Sax, N.I.; Dangerous Properties of Industrial Materials, 4th Edition, 1975, and 5th Edition, 1979.

TABLE 14 TOXICITY RATINGS	
Level	**Material**
0	Materials which on exposure under fire conditions would offer no health hazard beyond that of ordinary combustible material.
1	Materials only slightly hazardous to health. It may be desirable to wear self-contained breathing apparatus.
2	Materials hazardous to health, but areas may be entered freely with self-contained breathing apparatus.
3	Materials extremely hazardous to health, but areas may be entered with extreme care. Full protective clothing, including self-contained breathing apparatus, rubber gloves, boots, and bands around legs, arms and waist should be provided. No skin surface should be exposed.
4	A few whiffs of the gas or vapor could cause death; or the gas, vapor, or liquid could be fatal on penetrating the fire fighters' normal full protective clothing which is designed for resistance to heat. For most chemicals having a Health 4 rating, the normal full protective clothing available to the average fire department will not provide adequate protection against skin contact with these materials. Only special protective clothing designed to protect against the specific hazard should be worn.

Note: The source of this table is 40 CFR 300, Appendix A, Table 7, and is based on information taken from: National Fire Protection Association, *National Fire Codes*, Vol. 13, No. 49, 1977.

TABLE 15
PERSISTENCE (BIODEGRADABILITY) OF SOME ORGANIC COMPOUNDS

VALUE = 3 HIGHLY PERSISTENT COMPOUNDS	
aldrin	heptachlor
benzopyrene	heptachlor epoxide
benzothiazole	1,2,3,4,5,7,7-heptachloronorbornene
benzothiophene	hexachlorobenzene
benzyl butyl phthalate	hexachloro-1,3-butadiene
bromochlorobenzene	hexachlorocyclohexana
bromoform butanol	hexachloroethane
bromophenyl phyntl ether	methyl benzothiazola
chlordane	pentachlorobiphenyl
chlorohydroxy benzephenone	pentachlorophenol
bis-chloroisoprophyl ether	1,1,3,3-tetrachloroacetone
m-chloronitrobenzene	tetrachlorobiphenyl
thiomethylbenzothiazole	1,3-dimethyl naphthalene
DDT	trichlorobenzene
dibromobenzene	trichlorobiphenyl
dibutyl phthalate	trichlorofluoromethane
1,4-dichlorobenzene	2,4,6-trichlorophenol
dichlorodifluouroethane	triphenyl phosphate
dieldrin	bromodichloromethane
diethyl phthalate	bromoform
di(2-ethylhexyl)phthalate	carbon tetrachloride
dihexyl phthalate	chloroform
di-isobutyl phthalate	chloromochloromethane
dimethyl phthalate	dibromodichloroethane
4,6-dinitro-2-aminophenol	tetrachloroethane
diproply phthalate	1,1,2-trichloroethane
endrin	
VALUE = 2 PERSISTENT COMPOUNDS	
acenaphthylene	cis-2-ethyl-4-methyl-1,3-dioxolane
atrazine	trans-2-ethyl-4-methyl-1, 3-dioxolane
(diethyl) atrazine	guaiacol
barbital	2-hydroxyadiponitrile
borneol	isophorone
bromobenzene	indene
camphor	isoborneol
chlorobenzene	isopropanyl-r-isoproply benzene
1,2-bis-chloroethoxy ethane	2-methoxy biphenyl
b-chloroethyl methyl ether	methyl biphenyl
chloromethyl ether	methyl chloride
chloromethyl ethyl ether	methylindane
3-chloropyridine	methylene chloride
di-t-butyl-p-benzoquinone	nitroanisole
dichloroethyl ether	nitrobenzene
dihydrocarvone	1,1,2-trichloroethylene
dimethyl sulfoxide	trimethyl-trioxo-hexahydro-triazine isomer
2,6-dinitrotoluene	

VALUE = 1 SOMEWHAT PERSISTENT COMPOUNDS	
acetylene dichloride	isoprophyl benzene
behenic acid, methyl ester	limonene
benzene	methyl ester of lignoceric acid
benzene sulfonic acid	methane
butyl benzene	2-methyl-5-ethyl-pyridine
butyl bromide	methyl naphthalene
e-caprolactam	methyl palmitate
carbon-disulfide	methyl phenyl carbinol
o-cresol	methyl stearate
decane	naphthalene
1,2-dichloroethane	nonane
1,2-dimethoxy benzene	octane
pentane	octyl chloride
1,4-dimethyl phenol	phenyl benzoate
dioctyl adipate	phthalic anhydride
n-dodecane	propylbenzene
ethyl benzene	1-terpineol
2-ethyl-n-hexane	toluene
o-ethyltoluene	vinyl benzene
isodecane	xylene
VALUE = 0 NONPERSISTENT COMPOUNDS	
acetaldehyde	methyl benzoate
acetic acid	3-methyl butanol
acetone	methyl ethyl ketone
acetophenone	2-methylpropanol
benzoic acid	octadecane
di-isobutyl carbinol	pentadecane
docosane	pentanol
eicosane	propanol
ethanol	propylamine
ethylamine	tetradecane
hexadecane	n-tridecane
methanol	n-undecane

Note: The source of this table is 40 CFR 300, Appendix A, Table 5., and is based on information from: JRB Associates, Inc. *Methodology for Rating the Hazards Potential for Waste Disposal Sites*, May 5, 1980.

TABLE 16 LEACHATE STRENGTH	
Leachate COD in mg/l	**Assigned Value**
<1,000	0
1,000-10,000	2
10,000-20,000	4
20,000-30,000	6
30,000-40,000	8
>40,000	10

(f) Waste quantity. Waste quantity includes all hazardous and nonhazardous substances received at a site or facility. Do not include amounts of contaminated soil or water; in such cases, the substance may be estimated. On occasion, it may be necessary to convert data to a common unit to combine them. In such cases, 1 ton = 1 cubic yard = 4 drums and for the purpose of converting bulk storage, 1 drum = 50 gallons. Values for waste quantity are shown in Table 17.

TABLE 17 WASTE QUANTITY						
Hazardous Substance		**Total Waste Quantity**				
Quantity		**0**	**1-500**	**501-2000**	**2001-8000**	**>8000 Drums**
Drums	**Tons or yd^3**	**0**	**1-125**	**126-500**	**501-2000**	**>2000 tons or yd^3**
0	0	0	1	2	3	4
1-500	1-125	-	2	3	4	5
501-2000	126-500	-	-	4	5	6
2001-8000	501-2000	-	-	-	6	7
>8000	>2000	-	-	-	-	8

(5) POTENTIAL IMPACTS. (a) Groundwater use. Groundwater use indicates the nature of the use made of groundwater within 3 miles of a substance of concern, including the geographical extent of the measurable concentration of the substance in the groundwater. Groundwater use values are shown in Table 18.

TABLE 18
GROUNDWATER USE

Groundwater Use	Assigned Value
Commercial, industrial or irrigation; and another water source presently available : groundwater not used, but usable for drinking water	1
Drinking water with municipal water from alternate unthreatened sources presently available (i.e., minimal hookup requirements); or commercial, industrial or irrigation with no other water source presently available	2
Drinking water; no municipal water from alternate unthreatened sources presently available	3

(b) Distance to wells and population. Distance to nearest well and population served have been combined in the matrix shown in Table 19 to reflect the important relationship between the distance of a population from substances of concern and size of the population served by groundwater that might be contaminated by those substances. To determine the overall value for this combined factor, score each factor individually as discussed in pars. (c) and (d). Match the individual values assigned with the values in the matrix for the total score.

TABLE 19 SERVICE VALUES					
Value for population served	Value for Distance to Nearest Well				
	0	1	2	3	4
0	0	0	0	0	0
1	0	4	6	8	10
2	0	8	12	16	20
3	0	12	18	24	30
4	0	16	24	32	35
5	0	20	30	35	40

(c) Distance to nearest well. Distance to nearest well is measured from the substance of concern to the nearest water supply well. If the actual distance to the nearest well is unknown, use the distance between the substance and the nearest occupied building not served by a public water supply. Distance values are shown in Table 20.

TABLE 20 DISTANCE TO NEAREST WELL	
Distance to Well	Assigned Value
>3 miles	0
2 to 3 miles	1
1 to 2 miles	2
2,000 feet to 1 mile	3
<2,000 feet	4

(d) Population served. Population served by groundwater is an indicator of the population at risk, which includes residents as well as others who would regularly use the water such as workers in factories or offices and students. Include employees in restaurants, motels, or campgrounds but exclude customers and travelers passing through the area in autos, buses or trains. If aerial photography is used, and residents are known to use groundwater, assume each dwelling unit has 2.8 residents. Where groundwater is used for irrigation, convert to population by assuming 1.5 persons per acre of irrigated land. The well or wells of concern must be within 3 miles of the substances, including the area of known groundwater contamination, but the "population served" need not be since water supplies may be distributed over a wider area. Likewise people within 3 miles who do not use water from the groundwater are not to be counted. Population values are contained in Table 21.

TABLE 21
POPULATION AT RISK-GROUNDWATER

Population	Assigned Value
0	0
1 to 100	1
101 to 700	2
701 to 1,500	3
1,501 to 5,000	4
> 5,000	5

NR 710.19 SURFACE WATER ROUTE. (1) OBSERVED RELEASE. Direct evidence of release to surface water, including wetlands, may be quantitative evidence that the facility or site is releasing contaminants into surface water or visual evidence of an active discharge which flows to a surface water. Quantitative evidence could be the measurement of levels of contaminants from a site or facility in surface water, either at

the site or facility or downhill from it, that represents an increase over background levels. Visual evidence of a discharge must flow to a surface water which is readily identifiable in the field, from topographic maps, or from air photographs. If direct evidence of release has been obtained (regardless of frequency), enter a value of 45 on line 1 of the work sheet (Figure 5) and omit the evaluation of the route characteristics in sub. (2) and containment factors in sub. (3). If there is no direct evidence of release, enter a value of zero on line 1 and continue with the scoring procedure discussed in sub. (2).

(2) ROUTE CHARACTERISTICS. (a) Slope. Facility slope and intervening terrain are indicators of the potential for contaminated runoff or spills at a site or facility to be transported to surface water. The site or facility slope is an indicator of the potential for runoff or spills to leave the site or facility. Intervening terrain refers to the average slope of the shortest path which would be followed by runoff between the site or facility boundary and the nearest downhill surface water. The rating factor can be assessed using topographic maps. Table 22 shows values assigned to various facility conditions.

TABLE 22
VALUES FOR FACILITY SLOPE AND INTERVENING TERRAIN

		Intervening Terrain				
Facility Slope		Terrain Average Slope <3%; or Site Separated from Water Body by Areas of Higher Elevation	Terrain Average Slope 3-5%	Terrain Average Slope 5-8%	Terrain Average Slope >8%	Site in Surface Water
Facility is closed basin		0	0	0	0	3
Facility has average slope	<3%	0	1	1	2	3
Average slope	3-5%	0	1	2	2	3

Average slope	5-8%	0	2	2	3	3
Average slope	>8%	0	2	3	3	3

SURFACE WATER ROUTE WORKSHEET					
Rating Factor	**Assigned Value (circle one)**	**Multiplier**	**Score**	**Max. Score**	**Ref. Section**
[1] Observed Release	0 45	1		45	sub.(1)
If observed release is given a score of 45, proceed to line [4]. If observed release is given a score of 0, proceed to line [2].					
[2] Route Characteristics					sub.(2)
Facility Slope and Intervening Terrain	0 1 2 3	1		3	
Run-off Potential	0 1 2 3	1		3	
Distance to Nearest Surface Water	0 1 2 3	2		6	
Physical State	0 1 2 3	1		3	
	Total Route Characteristics Score			15	
[3] Containment	0 1 2 3	1		3	sub.(3)
[4] Waste Characteristics					sub.(4)
Toxicity/Persistence	0 3 6 9 12 15 18	1		18	
Leachate Strength	0 2 4 6 8 10	1		10	
Hazardous Waste Quantity/Total Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Waste Characteristics Score			26	
[5] Potential Impacts					sub.(5)
Surface Water Use	0 1 2 3	3		9	
Distance to a Sensitive Environment	0 1 2 3	2		6	
Population Served/Distance to Water Intake Downstream	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1		40	
	Total Potential Impacts			55	
[6] If line [1] is 45, multiply [1] x [4] x [5] If line [1] is 0, multiply [2] x [3] x [4] x [5]				64,350	
[7] Divide line [6] by 64,350 and multiply by 100			S_{gw} =		

Figure 5

SURFACE WATER ROUTE WORKSHEET

(b) Runoff potential. Vegetative cover and surface soils at a site or facility are indicators of the potential of contaminated runoff or spills at a site or facility to be transported to a surface water. Table 23 shows the assigned values for runoff potential based on these 2 indicators.

TABLE 23
RUNOFF POTENTIAL

Soil Type	Vegetative Cover			
	None	Poorly Established (Sparse Cover)	Established (Good Cover)	Well Established (Lush)
Sand	2	1	0	0
Silty Sand	2	1	0	0
Sandy Loam	2	2	1	0
Silty Loam	2	2	1	0
Peaty Topsoil	3	2	1	1
Clay Loam	3	2	1	1
Silty Clay	3	3	2	1
Clay	3	3	2	1

(c) Distance to surface water. Distance to the nearest surface water is the shortest distance from the substance of concern, not the facility or property boundary, to the nearest downhill body of surface water, such as a lake, stream or intermittent stream, to which runoff can be expected to flow. This factor indicates the potential for pollutants flowing overland and into surface water bodies. In areas of extreme topographic relief, the migratory distance is to be estimated, and that distance used for determining a value. Values for distance to surface water are shown in Table 24.

TABLE 24 DISTANCE TO SURFACE WATER	
Distance	Assigned Value
>2 miles	0
1 to 2 miles	1
1,000 feet to 1 mile	2
<1,000 feet	3

(d) Physical state. Physical state of the waste is assigned a value using the procedures in s. NR 710.17(2)(d).

(3) CONTAINMENT. Containment is a measure of the means that have been taken to minimize the likelihood of a contaminant entering surface water either at the site or facility or beyond the site or facility boundary. Examples of containment are diversion structures and the use of sealed containers. If more than one type of containment is used at a site or facility, evaluate each separately using Table 25 and assign the highest score.

TABLE 25
CONTAINMENT VALUE FOR SURFACE WATER ROUTE

A. Surface Impoundment	Assigned Value	C. Piles	Assigned Value
Sound diking or diversion structure, adequate freeboard, and no erosion evident	0	Piles are covered and surrounded by sound diversion or containment system.	0
Sound diking or diversion structure, but inadequate freeboard.	1	Piles covered, waste unconsolidated, diversion or containment system not adequate.	1
Diking not leaking, but potentially unsound.	2	Piles not covered, waste unconsolidated, and diversion or containment system potentially unsound.	2
Diking unsound, leaking, or in danger of collapse.	3	Piles not covered, wastes unconsolidated, and no diversion or containment, or diversion system leaking or in danger of collapse.	3
B. Containers	**Assigned Value**	**D. Landfill**	**Assigned Value**
Containers sealed, in sound condition, and surrounded by sound diversion or containment system.	0	Landfill slope precludes runoff, landfill surrounded by sound diversion system, or landfill has adequate cover material.	0
Containers sealed and in sound condition, but not surrounded by sound diversion or containment system.	1	Landfill not adequately covered and diversion system sound.	1
Containers leaking and diversion or containment structures potentially unsound.	2	Landfill not covered and diversion system potentially unsound.	2
Containers leaking, no diversion or containment structures or diversion structures leaking or in danger of collapse.	3	Landfill not covered and no diversion system present, or diversion system unsound.	3

(4) WASTE CHARACTERISTICS. Evaluate waste characteristics for the surface water route with the procedures described in s. NR 710.17(4).

(5) POTENTIAL IMPACTS. (a) Surface water. Surface water use brings into the rating process the use of the surface water downstream from the site or facility. The use or uses of interest are those associated with water taken from surface waters within a distance of 3 miles from the location of the hazardous substance. Use values are contained in Table 26.

TABLE 26
SURFACE WATER USE

Surface Water Use	Assigned Value
Not currently used	0
Commercial or industrial	1
Irrigation, economically important resources, commercial food preparation, or recreation	2
Drinking water	3

(b) Sensitive environments. Distance to sensitive environment refers to the distance from the substance of concern, not the site or facility boundary, to an area containing an important biological resource or to a fragile natural setting that could suffer an especially severe impact from pollution. Table 27 provides guidance on assigning a value to this rating factor.

(c) Population. Population served by surface water with water intake within 3 miles downstream from the site or facility, or 1 mile in static surface water such as a lake, is a rough indicator of the potential hazard exposure of the nearby population served by potentially contaminated surface water. Measure the distance from the probable point of contaminant entry to surface water following the surface flow. The

population includes residents as well as others who would regularly use the water such as workers in factories or offices and students. Include employees in restaurants, motels, or campgrounds but exclude customers and travelers passing through the area in autos, buses and trains. The distance is measured from the substance of concern, including observations in stream or sediment samples, regardless of site or facility boundaries. Where only residential houses can be counted (e.g., from an aerial photograph), and residents are known to be using surface water, assume 2.8 individuals per dwelling unit. Where surface water is used for irrigation, convert to population by assuming 1.5 persons per acre of land irrigated. Population values are shown in Table 28.

TABLE 27
VALUES FOR SENSITIVE ENVIRONMENT – SURFACE WATER

Assigned Value =	0	1	2	3
Distance to wetlands or critical habitats of endangered species	>2 mile	1 to 2 mile	½ mile to 1 mile	<½ mile
Distance to national or state wildlife refuge, or state fish refuge	>1 mile	½ to 1 mile	¼ to ½ mile	<¼ mile
Distance to Wild or Scenic River	>½ mile	¼ to ½ mile	400 ft to ¼ mile	<400 ft.
Distance to designated Scientific Areas	>1 mile	½ to 1 mile	¼ to ½ mile	<¼ mile
Distance to designated Natural Areas	>½ mile	¼ to ½ mile	500 ft. to ¼ mile	<500 ft.

TABLE 28 POPULATION AT RISK – SURFACE WATER					
Population	Distance to Water Intake				
	>3 miles	2 to 3 miles	1 to 2 miles	2,001 feet to 1 mile	0 to 2,000 feet
0	0	0	0	0	0
1 to 100	0	4	6	8	10
101 to 700	0	8	12	16	20
701 to 1,500	0	12	18	24	30
1,501 to 5,000	0	16	24	32	35
>5,000	0	20	30	35	40

NR 710.21 AIR ROUTE. (1) OBSERVED RELEASE. The only acceptable evidence of release for the air route is data that show levels of a contaminant at or in the vicinity of the site or facility that significantly exceed background levels, regardless of the frequency of occurrence. If such evidence exists, enter a value of 45 on line one of the air route worksheet in Figure 6. If an observed release is scored, complete the analysis as described in subs. (2) and (3). If observed release is assigned a zero value, then Sa = 0, and no additional analysis is necessary. Record the date, location, and the sampling methods and procedures for monitoring data on the worksheet. Data based on transitory conditions due to facility disturbance by investigative personnel are not acceptable.

(2) WASTE CHARACTERISTICS. (a) General. The substance observed for scoring the release category may be different from the substance used to score waste characteristics.

(b) Reactivity and incompatibility. 1. Reactivity and incompatibility are measures of the potential for sudden release of concentrated air pollutants. These factors are evaluated independently, and the highest value for either is recorded on the worksheet.

AIR ROUTE WORKSHEET						
	Rating Factor	**Assigned Value (Circle One)**	**Multiplier**	**Score**	**Max Score**	**Ref. Section**
[1]	Observed Release	0 45	1		45	
	Date and Location:					
	Sampling Procedures:					
	If line [1] is 0 then S_a = 0. Enter on line [5].					
	If line [1] is 45 then proceed to line [2].					
[2]	Waste Characteristics					
	Reactivity and Incompatibility	0 1 2 3	1		3	
	Toxicity	0 1 2 3	3		9	
	Hazardous Waste Quantity/Total Waste Quality	0 1 2 3 4 5 6 7 8	1		8	
	Total Route Characteristics Score				20	
[3]	Potential Impacts					
	Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
	Distance to Sensitive Environment	0 1 2 3	2		6	
	Land Use	0 1 2 3	1		3	
	Total Potential Impacts Score				39	
[4]	Multiply [1] x [2] x [3]				35,100	
[5]	Divide line [4] by 35,100 and Multiply by 100			S_a=		

Figure 6

AIR ROUTE WORKSHEET

2. Reactivity provides a measure of the fire or explosion threat at a facility. Assign a value based on the reactivity classification given in Table 29. Reactivity ratings for a number of common chemicals are given in Table 12.

TABLE 29
REACTIVITY RATINGS

Level	Description	Assigned Value
0	Materials which are normally stable even under fire exposure conditions and which are not reactive with water.	0
1	Materials which in themselves are normally stable but which may become unstable at elevated temperatures and pressures or which may react with water with some release of energy but not violently.	1
2	Materials which in themselves are normally unstable and readily undergo violent chemical change but do not detonate. Includes materials which can undergo chemical change with rapid release of energy at normal temperatures and pressures or which can undergo violent chemical change at elevated temperatures and pressures. Also includes those materials which may react violently with water or which may form potentially explosive mixtures with water.	2
3	Materials which in themselves are capable of denotation or of explosive decomposition or of explosive reaction but which requires a strong initiating source or which must be heated under confinement before initiation. Includes materials which are sensitive to thermal or mechanical shock at elevated temperatures and pressures or which react explosively with water without requiring heat or confinement.	3
4	Materials which in themselves are readily capable of denotation or of explosive decomposition or explosive reaction at normal temperatures and pressures. Includes materials which are sensitive to mechanical or localized thermal shock.	3

Note: The source of this table is 40 CFR 300, Appendix A, Table 11; and is based on information taken from: National Fire Protection Association, National Fire Codes, Vol. 13, No. 49, 1977.

3. Incompatibility provides a measure of the increased hazard when substances are mixed under uncontrolled conditions which may lead to production of heat, pressure, fire, explosion, violent reaction, toxic dusts, mists, fumes of gases, or flammable fumes

or gases. Table 32 provides examples of incompatible combinations of materials. Incompatibility values are shown in Table 30.

TABLE 30 INCOMPATIBILITY	
Incompatibility	Assigned Value
No incompatible substances are present	0
Present but do not pose a hazard	1
Present and may pose a future hazard	2
Present and posing an immediate hazard	3

(c) Toxicity. Toxicity should be rated for the most toxic of the substances that can reasonably be expected to be transported away from the site or facility via the air route. Using the information given in Tables 12, 13 and 14 (s. NR 710.17(4)), assign values as shown in Table 31.

TABLE 31 TOXICITY	
Toxicity Level from Table 13 or Table 14	Assigned Value
Level 0	0
Level 1	1
Level 2	2
Level 3 or 4	3

(d) Waste quantity. Waste quantity is assigned a value as described in s. NR 710.17(4)(f).

TABLE 32
INCOMPATIBLE MATERIALS

In the lists below, the mixing of a Group A material with a Group B material may have the potential consequence as noted.

Group 1-A	Group 1-B
Acetylene sludge	Acid sludge
Alkaline caustic liquids	Acid and water
Alkaline cleaner	Battery acid
Alkaline corrosive liquids	Chemical cleaners
Alkaline corrosive battery fluids	Electrolyte acid
Caustic wastewater	Etching acid liquid or solvent
Lime sludge and other corrosive alkalies	Pickling liquor and other corrosive acids
Lime wastewater	Spent acid
Lime and water	Spent mixed acid
Spent caustic	Spent sulfuric acid

Potential consequences: Heat generation; violent reaction.

Group 2-A	Group 2-B
Aluminum	Any waste in Group 1-A or 1-B
Beryllium	
Calcium	
Lithium	
Potassium	
Sodium	
Zinc powder	
Other reactive metals and metal hybrids	

Potential consequences: Fire or explosion; generation of flammable hydrogen gas.

Group 3-A	Group 3-B
Alcohols	Any concentrated waste in Groups 1-A or 1-B
Water	Calcium
	Lithium
	Metal hydrides
	Potassium
	SO2Cl2, SOCl2, PCl2, CH3, SiCl3
	Other water-reactive waste

Potential consequences: Fire, explosion, or heat generation; generation of flammable or toxic gases.

Group 4-A	Group 4-B
Alcohols	Concentrated Group 1-A or 1-B wastes
Aldehydes	Group 2-A wastes
Halogenated hydrocarbons	
Nitrated hydrocarbons	
Unsaturated hydrocarbons	
Other reactive organic compounds and solvents	

Potential consequences: Fire, explosion, or violent reaction.

Group 5-A	Group 5-B
Spent cyanide and sulfide solutions.	Group 1-B wastes

Potential consequences: Generation of toxic hydrogen cyanide or hydrogen sulfide gas.

Group 6-A	Group 6-B
Chlorates Chlorine Chlorites Chromic acid Hyphochlorites Nitrates Nitric acid, fuming Perchlorates Permanganates Peroxides Other strong oxidizers	Acetic acid or other organic acids Concentrated mineral acids Group 2-A wastes Group 4-A wastes Other flammable and combustible wastes
Potential consequences: Fire, explosion, or violent reaction.	

Note: The sources of this table is 40 CFR 300, Appendix A, Table 12; and is based on information taken from: Hazardous Waste Management Law, Regulations, and Guidelines for the Handling of Hazardous Wastes, California Department of Health, February, 1975.

(3) POTENTIAL IMPACTS. (a) Population. Population within a 4-mile radius is an indicator of the population which may be harmed should substances be released to the air. The distance is measured from the location of the substances, not from the site or facility boundary. The population to be counted includes persons residing within the 4-mile radius as well as transients such as workers in factories, offices, restaurants, motels, or students. It excludes travelers passing through the area. If aerial photography is used in making the count, assume 2.8 individuals per dwelling unit. Select the highest value contained in Table 33 for this rating factor.

TABLE 33 AIR MIGRATION POPULATION AT RISK				
Population	1 to 4 miles	½ to 1 mile	¼ to ½ mile	0 to ¼ mile
0	0	0	0	0
1 to 100	9	12	15	18
101 to 700	12	15	18	21
701 to 1,500	15	18	21	24
1,501 to 5,000	18	21	24	27
>5,000	21	24	27	30

(b) Sensitive environments. Distance to a sensitive environment is an indicator of the likelihood that a region that contains important biological resources or that is a fragile natural setting would suffer serious damage if substances were to be released from the site or facility. Assign a value from Table 27.

(c) Land use. Land use indicates the nature and level of human activity in the vicinity of a site or facility. Assign highest applicable value from Table 34.

TABLE 34 – VALUES FOR LAND USE AIR ROUTE AND FIRE AND EXPLOSION				
Assigned Value	0	1	2	3
Distance to Commercial-Industrial	>1 mile	½ to 1 mile	¼ to ½ mile	< ¼ mile
Distance to National/State Parks, Forests, Wildlife Reserves, Scientific and Natural Areas, Wetlands and Residential Areas				
	>2 miles	1 to 2 miles	½ to 1 mile	<½ mile
Distance to Agricultural Lands (in Production within 5 years):				
Ag Land	>1 mile	½ to 1 mile	¼ to ½ mile	< ¼ mile
Prime Ag Land	>2 miles	1 to 2 miles	½ to 1 mile	<½ mile
Distance to Historic/Landmark Sites (National Register of Historic Places and National Natural Landmarks)			Within view of site or if site is subject to significant impacts (3)	

NR 710.23 COMPUTING THE MIGRATION HAZARD MODE SCORE, S_M.

To compute S_M complete the worksheet, Figure 7, using the groundwater score, Sgw, obtained using the instructions in s. NR 710.17, the surface water score, Ssw, obtained

using the instructions in s. NR 710.19, and the air route score, Sa, obtained using the instructions in s. NR 710.21.

FIGURE 7 WORKSHEET FOR COMPUTING THE MIGRATION SCORE		
	S	S^2
Groundwater Route Score (S_{gw})		
Surface Water Route Score (S_{sw})		
Air Route Score (S_a)		
$S^2_{gw} + S^2_{sw} + S^2_a$		
$(S^2_{gw} + S^2_{sw} + S^2_a)^{0.5}$		
$(S^2_{gw} + S^2_{sw} + S^2_a)^{0.5}/1.73$	S_M=	

NR 710.25 FIRE AND EXPLOSION. (1) NOTIFICATION. Compute a score for the fire and explosion hazard mode, SFE, when the local fire chief has provided written notice to the department that the site or facility presents a significant fire or explosion threat to the public or to a sensitive environment. SFE is also scored if there is a demonstrated fire or explosion threat based on field observations (e.g., combustible gas indicator readings). The threat must be documented to complete the worksheet for fire and explosion -- Figure 8.

(2) CONTAINMENT. Containment is an indicator of the measures that have been taken to minimize or prevent substances at the site or facility from catching fire or exploding. Normally, it will be given a value of 3 on the worksheet shown in Figure 8. If no substances that are individually ignitable or explosive are present and those that may be ignitable or explosive in combination are segregated and isolated so that they cannot come together to form incompatible mixtures, assign this factor a value of 1.

FIRE AND EXPLOSION WORKSHEET					
Rating Factor	**Assigned Value (circle one)**	**Multiplier**	**Score**	**Max. Score**	**Ref. Section**
[1] Containment	1 3	1		3	sub. (2)
[2] Waste Characteristics					sub. (3)
Direct Evidence	0 3	1		3	
Ignitability	0 1 2 3	1		3	
Reactivity	0 1 2 3	1		3	
Incompatibility	0 1 2 3	1		3	
Waste Quantity/Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Route Characteristics Score			20	
[3] Potential Impacts					sub. (4)
Distance to Nearest Population	0 1 2 3 4 5	1		5	
Distance to Nearest Building	0 1 2 3	1		3	
Distance to Sensitive Environment	0 1 2 3	1		3	
Land Use	0 1 2 3	1		3	
Population Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1		5	
	Total Potential Impacts Score			24	
[4] Multiply [1] x [2] x [3]				1,440	
Divide line [4] by 1,440 and multiply by 100			S_{FE} =		

Figure 8

FIRE AND EXPLOSION WORKSHEET

(3) WASTE CHARACTERISTICS. (a) Evidence. Direct evidence of ignitability or explosion potential may exist in the form of measurements with appropriate instruments. If so, assign this factor a value of 3; if not, assign a value of 1.

(b) Ignitability. Ignitability is an indicator of the threat of fire at a site or facility and the accompanying potential for release of air contaminants. Assign this rating factor a value based on the classification schemes shown in Table 35 and Table 36. Table 12 gives ignitability values for a number of common chemicals.

TABLE 35 IGNITABILITY LEVELS AND ASSIGNED VALUES		
Ignitability Level	Description	Assigned Value
0	Materials that will not burn	0
1	Materials that must be preheated before ignition can occur. Most combustible solids have a flammability rating of 1	1
2	Liquids which must be moderately heated before ignition will occur and solids that readily give off flammable vapors	2
3	Liquids which can be ignited under all normal temperature conditions. Any materials that ignite spontaneously at normal temperatures in air	3
4	Very flammable gases, very volatile flammable liquids, and materials that in the form of dusts or mists readily form explosive mixtures when dispersed in air	3

Note: The source of this table is 40 CFR 300, Appendix A, Table 13, and is based on information taken from: National Fire Protection Association, National Fire Codes, Vol. 13, No. 49, 1977.

TABLE 36 IGNITABILITY	
Ignitability Level from Table 35 Flashpoint	Assigned Value
Level 0 >200°F	0
Level 1 140°F to 200°F	1
Level 2 80°F to 140°F	2
Level 3 or 4 <80°F	3

(c) Reactivity. Reactivity values are assigned as described in s. NR 710.21(2).

(d) Incompatibility. Incompatibility values are assigned as described in s. NR 710.21(2).

(e) Waste quantity. Waste quantity values are assigned as described in s. NR 710.17(4)(f).

(4) POTENTIAL IMPACTS. (a) Distance to nearest population. Distance to nearest population is the distance from the hazardous substance to the nearest building or area in which one or more persons are likely to be located either for residential, educational, business, occupational, or recreational purposes. It is an indicator of the potential for harm to humans from fire and explosion. The building or area need not be off-site. Distance values are shown in Table 37.

TABLE 37
DISTANCE TO NEAREST POPULATION

Distance	Assigned Value
>2 miles	0
1 mile - 2 miles	1
½ mile - 1 mile	2
201 feet - ½ mile	3
51 feet - 200 feet	4
<50 feet	5

(b) Distance to nearest building. Distance to nearest building is an indicator of the potential for property damage as a result of fire or explosion. Values for distance to nearest building are shown in Table 38.

TABLE 38
DISTANCE TO NEAREST BUILDING

Distance	Assigned Value
>½ mile	0
201 feet - ½ mile	1
51 feet - 200 feet	2
<50 feet	3

(c) Sensitive environments. Distance to nearest sensitive environment is measured from the substance of concern, not from the site or facility boundary. It is an indicator of potential harm to a sensitive environment from fire or explosion at the site or facility. Select the highest value using the information provided in Table 39, except assign a value of 3 where fire could be expected to spread to a sensitive environment even though that environment is more than 100 feet from the substance.

TABLE 39
VALUES FOR SENSITIVE ENVIRONMENTS – FIRE AND EXPLOSION

Assigned Value =	0	1	2	3
Distance to Wetlands	> 100 feet	-	-	< 100 feet
Distance to Critical Habitat	> ½ mile	1,000 feet to ½ mile	100 to 1,000 feet	< 100 feet

(d) Land use. Assign land use value as in s. NR 710.19(3) (c).

(e) Population at risk. Population within a 2-mile radius of the substance of concern, not from the site or facility boundary, is a rough indicator of the population at risk in the event of fire or explosion at a facility. The population to be counted includes those residing within the 2-mile radius as well as people regularly in the vicinity such as workers in factories, offices, or students. It does not include travelers passing through the area. If aerial photography is used in making the count, assume 2.8 individuals per dwelling. This population factor is given a value from Table 40.

(f) Buildings at risk. The number of buildings within a 2-mile radius from the substance of concern, not from the site or facility boundary, is a rough indicator of the property damage that could result from fire and explosion at a facility. Building values are shown in Table 41.

TABLE 40 POPULATION AT RISK FIRE AND EXPLOSION	
Population	Assigned Value
0	0
1 to 100	1
101 to 700	2
701 to 1,500	3
1,501 to 5,000	4
>5,000	5

TABLE 41 BUILDINGS AT RISK FIRE AND EXPLOSION	
Number of Buildings	Assigned Value
0	0
1 to 26	1
27 to 260	2
261 to 790	3
791 to 2,600	4
>2,600	5

NR 710.27 DIRECT CONTACT. (1) POTENTIAL INJURY. The direct contact hazard mode refers to the potential for injury by direct contact with substances at the site or facility.

(2) OBSERVED INCIDENT. If there is a confirmed instance in which contact with substances at the site or facility has caused injury, illness, or death to humans, or domestic or wild animals, enter a value of 45 on line one of the worksheet shown in Figure 9 and proceed to line 4. Document the incident giving the date, location and pertinent details. If no such instance is known, enter "0"on line one and proceed to line 2.

(3) ACCESSIBILITY. Accessibility to substances of concern refers to the measures taken to limit access by humans or animals to substances. Accessibility values are shown in Table 42.

TABLE 42
ACCESSIBILITY TO WASTE

Barrier	Assigned Value
A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the facility; or An artificial or natural barrier (e.g., a fence combined with a cliff), which completely surrounds the facility; and a means to control entry, at all times, through the gates or other entrances to the facility (e.g., an attendant, television monitors, locked entrances, or controlled roadway access to the facility).	0
Security guard, but no barrier	1
A barrier, but no separate means to control entry	2
Barriers do not completely surround the facility	3

DIRECT CONTACT WORKSHEET

Rating Factor	Assigned Value (circle one)	Multiplier	Score	Max. Score	Ref. Section
[1] Observed Incident	0 45	1		45	sub. (2)
If line [1] is 45, proceed to line [4]					
If line [1] is 0, proceed to line [2]					
[2] Accessibility	0 1 2 3	1		3	sub. (3)
[3] Containment	0 15	1		15	sub. (4)
[4] Waste Toxicity	0 1 2 3	5		15	sub. (5)
[5] Potential Impacts					
Population Within a 1-Mile Radius	0 1 2 3 4 5	4		20	sub. (6)
Distance to a Critical Habitat	0 1 2 3	4		12	
Total Potential Impacts Score				32	
If line [1] is 45, multiply [1] X [4] X [5]					
If line [1] is 0, multiply [2] X [3] X [4] X [5]				21,600	
Divide line by 21,600 and multiply by 100			S_{DC} =		

Figure 9

DIRECT CONTACT WORKSHEET

(4) CONTAINMENT. Containment indicates whether the substances of concern are accessible to direct contact. For example, if a substance at the site or facility is in surface impoundments, containers (sealed or unsealed), piles, tanks, or landfills with a cover depth of less than 2 feet, or has been spilled on the ground or other surfaces easily contacted such as the bottom of shallow pond or creek, assign this rating factor a value of 15. Otherwise, assign a value of zero.

(5) WASTE TOXICITY. Assign a toxicity value as described in s. NR 710.17(4).

(6) POTENTIAL IMPACTS. (a) Population. Population within one-mile radius is a rough indicator of the population that could be involved in direct contact incidents at an uncontrolled facility. Population values are shown in Table 43.

TABLE 43 – POPULATION AT RISK DIRECT CONTACT

Population	Assigned Value
0	0
1 to 100	1
101 to 700	2
701 to 1,500	3
1,501 to 5,000	4
>5,000	5

(b) Habitats. Distance to a critical habitat of an endangered species is a rough measure of the probability of harm to members of an endangered species by direct contact with a substance of concern. Distance values are shown in Table 44.

TABLE 44 HABITATS	
Distance	Assigned Value
> 1 mile	0
½ to 1 mile	1
¼ to ½ mile	2
< ¼ mile	3

SECTION 23. Chapter NR 712 is created to read:

CHAPTER NR 712

PERSONNEL QUALIFICATIONS

FOR CONDUCTING ENVIRONMENTAL RESPONSE ACTIONS

NR 712.01 PURPOSE. This chapter establishes minimum standards for experience and professional qualifications for persons who perform and provide certain services or scientific evaluations associated with specified environmental response actions. This chapter is adopted pursuant to ss. 144.442, 144.76, 144.77 and 227.11(2), Stats.

NR 712.02 APPLICABILITY. (1) Except as provided in s. NR 712.11, this chapter applies to work performed by environmental consultants hired by the department under the authority of s. 144.442 or 144.76, Stats.

(2) Except as provided in s. NR 712.11, this chapter applies to all sampling and field work conducted during any response action being taken to satisfy the requirements of chs. NR 700 to 726.

(3) Except as provided in s. NR 712.11, this chapter applies to any person who provides engineering services or performs any scientific evaluation associated with a remedial action or any of the interim actions specified in s. NR 708.11(4) for a site, facility or potion of a site or facility that is subject to regulation under s. 144.442 or

144.76, Stats., regardless of whether there is direct involvement or oversight by the department.

Note: Responsible parties who take an immediate action or interim action that does not involve the construction or operation of on-site treatment or an engineering control, as specified in s. NR 708.11(4), are not required to hire personnel who meet the qualifications in this chapter, except that sampling and field work that is being done in conjunction with the immediate or interim action must comply with the requirements of this chapter.

(3) The department may exercise enforcement discretion on a case-by-case basis and choose to regulate a site, facility or a portion of a site or facility under only one of a number of potentially applicable statutory authorities. However, where overlapping restrictions or requirements are applicable, the more restrictive control. The department shall, upon receipt of a request from a responsible party, provide a letter that indicates which regulatory program or programs the department considers to be applicable to a site or facility.

Note: Sites, facilities or portions of a site or facility that are subject to regulation under s. 144.442 or 144.76, Stats., may also be subject to regulation under other statutes, including the solid waste statutes in ss. 144.43 to 144.47, Stats., or the hazardous waste management act, ss. 144.60 to 144.74, Stats., and the administrative rules adopted

pursuant to those statutes. One portion of a site or facility may be regulated under a different statutory authority than other portions of that site or facility.

NR 712.03 DEFINITIONS. In this chapter:

(1) "Hydrogeologist" has the meaning specified in s. NR 600.03(98).

Note: Section NR 600.03(98) defines "hydrogeologist" to mean "a person who is a graduate of an accredited institution of higher education and who has successfully completed 30 semester hours and 45 quarter hours of course work in geology. At least 6 semester hours or 9 quarter hours of the geology course work shall be hydrogeology, geohydrology, or groundwater geology. This person shall also have acquired through education and field experience, the ability to direct the drilling of borings and the installation and development of wells, describe and classify geologic samples and evaluate and interpret geologic and hydrogeologic data."

(2) "Professional engineer" means an engineer registered with the department of regulation and licensing.

(3) "Scientist" means a person who is a graduate of an accredited institution of higher education and who has successfully completed the necessary credit hours to receive a degree in a field of scientific expertise applicable to environmental response actions, including, but not limited to, geology, chemistry, agronomy, crops and soils, soil science, toxicology and biology.

(4) "Supervised field experience" means experience collecting samples of air, soil, water or other media completed with guidance from, and oversight by, a person who meets the requirements of s. NR 712.05(2).

(5) "Supervision" means personal, active oversight and control of the preparation of submittals.

Note: Supervision of field personnel may be by telephone or other form of remote communication, unless otherwise specified in this chapter.

NR 712.05 SAMPLING AND FIELD WORK REQUIREMENTS. (1) GENERAL. All sampling, field work and development of plans for field activities for response actions being taken to satisfy the requirements of ss. NR 708.09 to 708.15 or chs. NR 716 to 726 shall be conducted by or under the supervision of a professional engineer, hydrogeologist or scientist, unless sub. (2) or an exemption in s. NR 712.11 is applicable.

(2) SAMPLING FOR IMMEDIATE AND INTERIM ACTIONS NOT INVOLVING TREATMENT OR ENGINEERING CONTROLS. For immediate actions and interim actions that do not involve treatment or engineering controls, samples of air, soil, water or other media for field measurement or analytical laboratory analysis are not required to be collected under the supervision of a professional engineer, hydrogeologist or scientist, but shall be collected by one of the following, unless the sampling is exempt under s. NR 712.11(2):

(a) A graduate of a vocational or technical school with course work in science or engineering who has 40 hours of supervised field experience; or

(b) Any person who has all of the following:

1. 40 hours of training in collecting, preserving, filtering and transporting environmental samples and decontaminating sampling equipment that meets the requirements of sub. (4)(a).

2. 80 hours of supervised field experience that meets the requirements of sub (4)(a).

3. A letter or certificate that meets the requirements of sub. (4)(b).

(3) SAMPLING FOR INTERIM ACTIONS INVOLVING TREATMENT OR ENGINEERING CONTROLS AND REMEDIAL ACTIONS. For remedial actions and interim actions that involve treatment or engineering controls, samples of air, soil, water or other media for field measurements or analytical laboratory analysis shall be collected by a professional engineer, hydrogeologist, scientist or any one of the following working under the supervision of a professional engineer, hydrologist, or scientist, unless the sampling is exempt under NR 712.11(2):

(a) A graduate of a vocational or technical school with course work in science or engineering who has 40 hours of supervised field experience; or

(b) Any other person who has all of the following:

1. 40 hours of training in collecting, preserving, filtering and transporting environmental samples and decontaminating sampling equipment that meets the requirements of sub. (4)(a).

2. 80 hours of supervised field experience that meets the requirements of sub (4)(a).

3. A letter or certificate that meets the requirements of sub. (4)(b).

(4) TRAINING AND EXPERIENCE. (a) Training and supervised field experience required by subs. (2) and (3) shall include sampling methods for all media that a person is expected to sample in the course of his or her employment.

(b) A letter or certificate documenting the supervised field experience and training shall be signed and dated by the person conducting the training. The person conducting the training must meet the qualifications specified in sub. (2). The letter or certificate shall be kept on file with the employer. Documentation of supervised field experience and training shall be provided to the department upon request.

(5) SOIL BORING LOGS. (a) The written descriptions of soil and rock on soil boring logs shall be prepared by a graduate of an accredited institution of higher education with a major in an appropriate science or engineering specialty. This person shall have acquired, through education and actual field experience, the ability to direct the drilling of borings, classify geologic samples and evaluate and interpret geologic and hydrogeologic data. The following academic disciplines are considered appropriate science specialties for preparers of soil boring logs: earth sciences, geochemistry, geology, geophysics, hydrogeology and soil science. The following engineering majors are considered appropriate engineering specialties for preparers of soil boring logs: environmental, civil, geological, geotechnical, mining, mineral, petroleum, agricultural, and geophysical.

(b) The logs shall be developed in accordance with the requirements of ch. NR 141 and shall be signed by the person that developed the written description in the boring logs of the soil and rock.

NR 712.07 REQUIREMENTS FOR SUBMITTAL PREPARATION. (1) Submittals that are prepared to satisfy the requirements of s. NR 708.11(4) or 708.13 or chs. NR 716 to 726, which require the performance of engineering services or scientific evaluations, shall be prepared by or under the supervision of a professional engineer, hydrogeologist or scientist, except as provided in s. NR 712.11. All phases of work necessary to obtain data, develop conclusions, recommendations and prepare submittals shall be conducted or supervised by the professional engineer, hydrogeologist or scientist.

(2) Submittals prepared to satisfy the requirements of ch. NR 724 or s. NR 708.11(4), including free product removal conducted in accordance with s. NR 708.13, for response actions taken to address groundwater contamination shall be jointly prepared by, or under the supervision of, a professional engineer and a hydrogeologist.

(3) Submittals prepared to satisfy the requirements of ch. NR 724 or s. NR 708.11(4) for response actions that address any media other than groundwater shall be prepared by, or under the supervision of, a professional engineer.

Note: This chapter is not intended to authorize the practice of professional engineering in violation of ch. 443, Stats.

(4) Hydrogeologists shall prepare or supervise the preparation of submittals involving the assessment of groundwater conditions at a site or facility, when prepared to satisfy the requirements of ch. NR 716.

(5) Submittals addressing any media other than groundwater, which are prepared to satisfy the requirements of ch. NR 716, shall be prepared by or under the supervision of a professional engineer, a hydrogeologist or a scientist.

NR 712.09 SUBMITTAL CERTIFICATION. (1) Submittals prepared by, or under the supervision of, a professional engineer, a hydrogeologist or a scientist shall be dated and certified by the professional engineer, hydrogeologist or scientist using the appropriate certification set forth in sub. (3). The responsibility for signing the certification may not be delegated to others.

(2) The act of signing the certification means that the professional engineer, hydrogeologist or scientist certifies that, to the best of her or his knowledge, all information contained in the submittal is correct and the submittal was prepared in accordance with all of the applicable requirements of chs. NR 708 to 726. Conclusions and recommendations in the submittal shall represent the certifier's best professional opinions and judgments.

(3) The appropriate certification in pars. (a) to (c) shall be attached to all submittals to the department to demonstrate that the requirements of s. NR 712.07 have been met.

(a) The following certification shall be attached to any submittal that is required to be prepared by, or under the supervision of, a professional engineer under s. NR 712.07(2), (3) or (5):

"I, _____, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

_____ _____

Signature, title and P.E. number P.E. stamp

(b) The following certification shall be attached to any submittal that is required to be prepared or to have its preparation supervised by a certified hydrogeologist under s. NR 712.07(2), (4) or (5):

"I, _____, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03(1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

_____ _____

Signature and title Date

(c) The following certification shall be attached to any submittal that is required to be prepared or to have its preparation supervised by a certified scientist under s. NR 712.07(5):

"I, _____, hereby certify that I am a scientist as that term is defined in s. NR 712.03(3), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

_____ _____

Signature and title Date

NR 712.11 EXEMPTIONS. (1) GENERAL. The following submittals are exempt from the requirements of this chapter:

(a) Submittals related to research projects prepared by, or under the supervision of, employees of state or federal educational or research institutions who have the training, but not the experience, registration or education needed to be a professional engineer, hydrogeologist or scientist. This exemption applies only to persons preparing

or supervising the preparation of a submittal pursuant to s. NR 712.07, not to field personnel covered under s. NR 712.05.

(b) Analytical laboratory reports prepared by laboratories that are certified or registered under ch. NR 149 or the U.S. EPA contract laboratory program.

(c) Plans or specifications for air emission treatment devices that are submitted to the department's bureau of air management for approval.

(d) Plans or specifications submitted to the department's bureau of water supply for approval of lagoon or treatment system abandonment.

(e) Plans and specifications submitted to the department to meet the requirements of ch. NR 108.

Note: Section NR 108.04(2)(c) requires the final plans and specifications for wastewater treatment devices to be submitted under the signature and the seal of a professional engineer.

(f) Tank closure assessments performed in accordance with the requirements of ch. ILHR 10 by a site assessor certified by the department of industry, labor and human relations, and any other plans, specifications or reports required by the department of industry, labor and human relations not specifically required by ch. 705, 708, 716, 724 or 726.

(g) Plans for the landspreading of soil contaminated only with fertilizers or regulated pesticides.

(2) SAMPLING. (a) Sampling that is conducted in compliance with all of the following conditions is exempt from the requirements of s. NR 712.05(1) to (3), except as provided in par. (b):

1. The sampling is conducted by responsible parties or by an employee of the responsible parties in compliance with all of the requirements of chs. NR 700 to 726, except s. NR 712.05(1) to (4).

2. The sampling is conducted by responsible parties or by an employee of the responsible parties in accordance with all applicable sampling protocols established by the department. A description of sampling and sample preservation methods shall be provided to the department by the responsible parties at the time that the sampling results are submitted.

3. A statement is included in the submittals that describes the education, training and experience that qualifies the person who collected the samples to take samples without meeting the requirements of s. NR 712.05(2).

(b) The department may reject any sampling results submitted under this subsection if the department determines that the samples were not taken in accordance with the requirements of this subsection and all other applicable sections of chs. NR 700 to 726, or that the person taking the samples was not qualified to do so based on the statement submitted to the department under par. (a) 3. If the department rejects any sampling results, the department shall provide the responsible parties with specific reasons for the rejection in writing. The responsible parties shall hire a consultant who

meets the qualifications of s. NR 712.05 to conduct any required sampling if the department directs them to do so in writing.

SECTION 24. Chapters NR 714, 716, 718, 724, 726, 728, 730, 732, 734 and 736 are created to read:

CHAPTER NR 714

PUBLIC INFORMATION AND PARTICIPATION

NR 714.01 PURPOSE. The purpose of this chapter is to identify required public participation and public information activities for response actions undertaken pursuant to chs. NR 700 to 726. Nothing in this chapter shall be construed to prevent the department or responsible parties from providing additional means for public information and participation consistent with the provisions of this chapter. This chapter contains public participation requirements mandated for environmental repair sites or facilities in s. 144.442, Stats., and for leaking underground storage tanks in 40 CFR part 280. This chapter is adopted pursuant to ss. 144.431(1)(a) and (b), 144.442, 144.76, 144.77 and 227.11(2), Stats.

Note: The following portions of 40 CFR part 280 have been included in the text of this chapter: 40 CFR ss. 280.67 (a) to (d).

NR 714.02 APPLICABILITY. This chapter applies to response actions taken under the authority of s. 144.442 or 144.76, Stats.

Note: Persons who wish to conduct response actions that will meet the requirements of CERCLA and the National Contingency Plan (NCP) may request that the department enter into a contract with them pursuant to s. 144.442, Stats. However, a CERCLA-quality response action will likely require compliance with additional requirements beyond those contained in chs. NR 700 to NR 728 in order to satisfy CERCLA and the NCP.

NR 714.03 DEFINITIONS. In this chapter:

(1) "Contested case" has the meaning specified in s. 227.01(3), Stats. A contested case hearing is only conducted by the department in situations where state statutes allow an aggrieved party to request a hearing before an administrative law judge.

Note: Section 227.01(3), Stats., defines "contested case" to mean "an agency proceeding in which the assertion by one party of any substantial interest is denied or controverted by another party and in which, after a hearing required by law, a substantial interest of a party is determined or adversely affected by a decision or order."

(2) "Noncontested case hearing" or "public informational hearing" means a statutorily required hearing conducted as specified in s. NR 2.135, in a matter that is not considered a contested case.

(3) "Public meeting" means a meeting held for general informational purposes which is not required by statute.

NR 714.05 PROGRAM-SPECIFIC PUBLIC PARTICIPATION REQUIREMENTS. (1) ENVIRONMENTAL REPAIR. The department shall conduct all of the following public participation activities, as required in s. 144.442, Stats., with respect to:

(a) Inventory of sites or facilities which may cause or threaten to cause environmental pollution. The inventory of sites or facilities which may cause or threaten to cause environmental pollution required by s. 144.442(4)(a), Stats., and any amendments compiled in accordance with s. NR 710.17, shall be published as a class 1 notice under ch. 985, Stats.

Note: The department maintains a number of lists, in addition to the inventory of sites or facilities which may cause or threaten to cause environmental pollution required by s. 144.442(4)(a), Stats. These lists are: a state-wide list of leaking underground storage sites (LUST); a historical list of reported hazardous substance discharge incidents (i.e., spill report); a list of Wisconsin Superfund sites on the NPL; the Wisconsin remedial response site evaluation report; hazard ranking list; and the registry of waste disposal sites in Wisconsin. To obtain any of these lists, contact the Bureau of Solid and Hazardous Waste Management, Department of Natural Resources, Emergency and Remedial Response Section, Public Information Requests, P. O. Box 7921, Madison, WI., 53707.

(b) Hazard ranking list. The hazard ranking list, which is compiled in accordance with s. NR 710.19, shall be published as a class 1 notice under ch. 985, Stats. The department shall hold a public informational hearing in accordance with the requirements of s. NR 2.135 on the hazard ranking list, and any amendments to the hazard ranking list, if a hearing is requested within 30 days after the notice is published. As provided in s. 144.442(4)(c)4, Stats., notwithstanding s. 227.42, Stats., the public informational hearing may not be converted to a contested case hearing. A public hearing notice shall be published by the department at least 10 days prior to the hearing.

(c) Proposed remedial action options. The department shall publish a public notice as a class 1 notice under ch. 985, Stats., upon selection of a proposed remedial action, for sites or facilities where a department-funded remedial action is proposed pursuant to ss. 144.442 or 144.76, Stats., or both. The availability of the department's proposed remedial action for public review shall be included in the public notice, including the identification of a department contact person, and his or her phone number and mailing address.

(d) Other. The department shall be responsible for conducting or directing appropriate public participation activities for sites or facilities where a department-funded response action is be conducted pursuant to s. 144.442 or 144.76, Stats., and where the department is overseeing response actions conducted by responsible parties under a contract signed pursuant to s. 144.442, Stats.

(2) LEAKING UNDERGROUND STORAGE TANKS. For all confirmed discharges from leaking underground storage tanks which require a site investigation

under ch. NR 716, the department shall conduct, or require responsible parties to conduct, public participation activities which meet all of the following minimum requirements:

(a) Notice shall be provided to the public by means designed to reach those members of the public directly affected by the discharge of a hazardous substance and the implementation and operation of any proposed remedial action. Notice to the public may be provided by any of the following methods:

1. Public notice in local newspapers.

2. Block advertisements.

3. Public service announcements.

4. Publication in a state register.

5. Letters to individual households.

6. Personal contacts by department field staff or responsible parties.

(b) The department shall make available to the public for inspection upon request, in compliance with ss. NR 2.19 and 2.195, site or facility-specific information and decisions concerning response actions.

(c) Before approving of the proposed remedial action, the department may hold a public meeting to consider comments on the proposed remedial action if there is sufficient public interest, or for any other reason.

(d) The department shall notify the public using one of the methods in par. (a) if implementation of the selected remedial action does not comply with all applicable

federal and state public health and environmental laws, and closure of the case is under consideration by the department.

Note: If the department is required to give public notice of a remedial action being considered for closure that does not comply with the applicable public health and environmental laws, the department is not required to conduct a noncontested case hearing.

(3) SUPERFUND. The department shall conduct appropriate public participation activities consistent with 40 CFR part 300, at sites or facilities on the national priorities list, unless U.S. EPA is conducting the public participation activities. The public participation activities shall include the posting of signs at the site or facility in accordance with s. NR 714.07(3), either by the U.S. EPA, department or the potentially responsible parties.

NR 714.07 GENERAL PUBLIC PARTICIPATION REQUIREMENTS. (1) EVALUATION OF NEED FOR PUBLIC PARTICIPATION. In order to promote effective and meaningful public participation, responsible parties shall conduct all necessary public participation activities, unless otherwise directed by the department. Responsible parties shall evaluate the need for and the level of public participation, based on the following criteria:

(a) Threats. Known or potential threats to public health, safety or welfare or the environment that may be reduced by providing information to the public.

(b) Public concern. Level of public concern about a specific site, facility or discharge or the number or status of sites, facilities or discharges which require a response action within a particular geographic area.

(c) Additional information needed. The need to contact the public in order to gather information about the response action, including immediate or interim actions.

(d) Other. Any other factors which may be relevant to a specific site, facility or discharge or to a group of sites, facilities or discharges.

(2) NOTIFICATION. If responsible parties or the department determine that public notification is necessary at a site or facility, responsible parties shall include, or the department may direct the responsible parties to include, the following information in publicly disseminated information or news releases:

(a) Description. A description of the contamination, including the type, volume and characteristics of the contamination.

(b) Mitigation. Response actions underway to contain, reduce or eliminate the threat or the contamination.

(c) Contacts. Phone number and address of persons to contact for more information.

(3) POSTING OF SIGNS. (a) Unless otherwise directed by the department, responsible parties shall post one or more department-issued signs in the following manner, when any of the following conditions are found at a site or facility:

1. At the edge of the excavated contaminated soil being stored on the site or facility.

2. The specific locations at the facility or site where surficial soil or contaminated sediments present a direct contact or inhalation threat to humans.

3. At the entry locations of buildings or structures contaminated with hazardous substances or environmental pollution that pose or may pose a threat to public health, safety or welfare, and where the building or structure will be addressed by one of the response actions for the site or facility.

4. Any other site or facility where the department believes unacceptable human exposure to contaminants exists.

(b) The responsible parties shall add to the department-issued sign required in par. (a) all necessary information, including:

1. Name, address and phone number of the owner or operator of the site or facility or responsible parties.

2. Types of hazardous substances or environmental pollution on the property.

3. Department-issued identification number for the site or facility.

4. For signs posted at contaminated soil piles, the anticipated month, day, and year of removal of the soil pile.

5. Any other information the department may request.

(c) Responsible parties shall place the signs at locations on the site or facility in accordance with par. (b), so that they shall be visible to the general public, unless the

department specifies the location of the sign or signs. At least one sign shall be placed at the edge of contaminated soil storage piles.

(d) Unless otherwise directed by the department, signs required under this subsection shall be maintained and legible for the duration of the response action until the case is closed out in accordance with ch. NR 726, or until no further action is required by the department in accordance with s. NR 708.09.

(4) REQUESTS FOR SITE OR FACILITY-SPECIFIC INFORMATION. Interested persons may request, in writing, that the department keep them informed of the response actions being taken at a site or facility. The department shall maintain a list of persons interested in a specific site or facility and provide them with copies of any department approvals or rejections for all of the following documents:

(a) Site investigation workplans.

(b) Site investigation reports.

(c) Remedial action options reports.

(d) Department responses to requests for case closure in s. NR 726.07(1) and final decisions on case closures in s. NR 726.07(2).

(5) ADDITIONAL PUBLIC PARTICIPATION ACTIVITIES. If the responsible parties or the department determine that additional public participation activities are required to supplement the public notification required under sub. (2), after considering the factors listed in sub. (1), the responsible parties shall, unless otherwise directed by the department, conduct one or more of the following activities:

(a) Contact government officials. Contact local government, law enforcement, emergency response and health officials to inform them of the circumstances and the actions that are underway to contain, reduce or eliminate the threat of the contamination.

(b) Contact interested individuals. Contact persons who have asked to be kept informed of site or facility activities at various points in the process.

(c) Contact media. Prepare radio, newspaper or television announcements.

(d) Hold informational meetings. Hold public informational meetings.

(e) Distribute leaflets. Distribute leaflets door-to-door in the vicinity of the site or facility.

(f) Establish a clearinghouse. Establish an information clearinghouse or hotline number.

(g) Other. Use other appropriate mechanisms to contact and inform the public.

CHAPTER NR 716

SITE INVESTIGATIONS

NR 716.01 PURPOSE. The purpose of this chapter is to ensure that site investigations provide the information necessary to define the nature, degree and extent of contamination, define the source or sources of contamination, determine whether any interim actions, remedial actions, or both are necessary at the site or facility, and allow a interim or remedial action option to be selected that complies with applicable environmental laws. Nothing in this chapter shall be construed to require plans or reports that are more detailed or complex than is justified by the known scope of contamination or the complexity of the site or facility. This chapter is adopted pursuant to ss. 144.431(a) and (b), 144.442, 144.76, 159.03(1)(a) and 227.11(2), Stats.

Note: The following portions of 40 CFR part 280 have been included in the text of this chapter: portions of s. 280.34(a)(3), portions of s. 280.63(a) and (b), and s. 280.65(b).

NR 716.02 APPLICABILITY. This chapter applies to all site investigations required under s. NR 716.05 and conducted by:

(a) The department under the authority of s. 144.442 or 144.76, Stats. In this chapter, where the term "responsible parties" appears, it shall be read to include "the department" where department-funded response action is being taken.

(b) Responsible parties at sites, facilities or portions of a site or facility that are subject to regulation under s. 144.442 or 144.76, Stats., regardless of whether there is direct involvement or oversight by the department.

Note: This chapter does not apply to site assessments undertaken for the sole purpose of gathering information prior to knowledge or discovery of contamination. However, upon the discovery of a discharge of a hazardous substance during a site assessment, s. 144.76, Stats., and s. NR 158.05 require the responsible party to immediately notify the department of the discharge and s. NR 705.05 requires the responsible party to immediately notify the department of a discharge of a hazardous substance from an underground storage tank.

(2) The department may exercise enforcement discretion on a case-by-case basis and choose to regulate a site, facility or a portion of a site or facility under only one of a number of potentially applicable statutory authorities. However, where overlapping restrictions or requirements apply, the more restrictive control. The department shall, after receipt of a request from the responsible parties, provide a letter indicating which regulatory program or programs the department considers to be applicable to a site or facility.

Note: Sites, facilities or portions of a site or facility that are subject to regulation under s. 144.442 or 144.76, Stats., may also be subject to regulation under other statutes,

including the solid waste statutes in ss. 144.43 to 144.47, Stats., or the hazardous waste management act, ss. 144.60 to 144.74, Stats., and the administrative rules adopted pursuant to those statutes. One portion of a site or facility may be regulated under a different statutory authority than other portions of that site or facility. Persons who wish to conduct response actions that will meet the requirements of CERCLA and the NCP may request that the department enter into a contract with them pursuant to s. 144.442, Stats. However, a CERCLA-quality response action will likely require compliance with additional requirements beyond those contained in chs. NR 700 to 726 in order to satisfy CERCLA and the NCP.

NR 716.03 DEFINITIONS. In this chapter:

(1) "Batch of samples" means a group of samples collected during one discrete sampling event and stored and transported in a single shipping container, regardless of the number of samples in the group.

(2) "Field blank" means a sample of water which, prior to use, is known to be free of contaminants, and which is processed through the sampling equipment in the field in the same manner as the actual water sample to determine if field procedures introduce contaminants into the samples. This is also known as a "rinse blank."

(3) "Immunoassay" means a test for the presence or concentration of a substance that relies on the reaction of one or more antibodies with the substance.

(4) "Investigative waste" means all solid and liquid wastes and contaminated environmental media resulting from activities conducted during a site investigation,

immediate action, interim action, remedial action, or a monitoring or sampling event at a site or facility. Investigative wastes include soil from drill cuttings; drilling fluids; contaminated water from construction, purging, development and sampling of monitoring wells; and wash waters used during sampling or decontamination activities.

(5) "Lithologic" means based on the physical characteristics of a rock.

(6) "Piezometer" has the meaning specified in s. NR 141.05(30).

Note: Section NR 141.05(30) defines "piezometer" as "a groundwater monitoring well, sealed below the water table, installed for the specific purpose of determining either the elevation of the potentiometric surface or the physical, chemical, biological or radiological properties of groundwater at some point within the saturated zone or both."

(7) "Potentiometric surface" has the meaning specified in s. NR 141.05(31).

Note: Section NR 141.05(31) defines "potentiometric surface" to mean "an imaginary surface representing the total head of groundwater and is the level to which water will rise in a well."

(8) "Replicate sample" has the meaning specified in s. NR 149.03(27).

Note: Section NR 149.03(27) defines "replicate sample" to mean "equal aliquots taken from the same sampling location and analyzed independently for the same constituent." This is also known as a "duplicate."

(9) "Temperature blank" means a water sample which undergoes the same cooling procedure used for the samples for analysis, but which is only checked to determine the temperature of the samples upon arrival at the laboratory.

(10) "Trip blank" has the meaning specified in s. NR 149.03(34).

Note: Section NR 149.03(34) defines "trip blank" to mean "a sample of reagent grade water which is used to determine possible contamination of samples from volatile organic chemicals while in transit to and from the laboratory."

(11) "Water table observation well" has the meaning specified in s. NR 141.05(46).

Note: Section NR 141.05(46) defines "water table observation well" to mean "any groundwater monitoring well, in which the screen or open borehole intersects a water table, which is installed for the specific purpose of determining either the elevation of the water table or the physical, chemical, biological or radiological properties of groundwater at the water table or both."

NR 716.05 GENERAL. (1) Responsible parties shall conduct a site investigation that meets the requirements of this chapter when site-specific or facility-specific information indicates that soil, sediment, groundwater, surface water, air or other environmental media at a site or facility may have become contaminated. Unless sub. (2) is applicable, responsible parties shall use the factors in ss. NR 708.09(1)(a) through (n) and NR 708.09(2)(a) through (d) to determine whether or not a site investigation is necessary.

(2) A site investigation is not required of the responsible parties at a site or facility, if:

(a) After notification to the department of a hazardous substance discharge in accordance with ss. NR 158.05 or 705.05, the department determines that no further action is required of the responsible parties, based on the factors in s. NR 158.09 or s. NR 708.09(1) and (2).

(b) After completion of an immediate action, the department determines that no further action is required of the responsible parties, based on the factors in s. NR 708.09(1) and (2).

Note: Department guidance on conducting site investigations is available. The publications Guidance for Conducting Environmental Response Actions and Leaking Underground Storage Tank Analytical Guidance may be obtained by contacting the Bureau of Solid and Hazardous Waste Management, Emergency and Remedial Response Section, Public Information Requests, P.O. Box 7921, Madison, WI 53707.

NR 716.07 SITE INVESTIGATION SCOPING. Prior to conducting the field component of a site investigation required under s. NR 716.05, responsible parties shall evaluate all of the following relevant items, considering the location of the site or facility, to ensure that the scope and detail of the field investigation are appropriate to the complexity of the site or facility:

(1) History of the site or facility, including industrial, commercial or other land uses that may have been associated with one or more hazardous substance discharges at the site or facility.

(2) Knowledge of the type of contamination and the amount of the contamination.

(3) History of previous hazardous substance discharges or environmental pollution.

(4) Environmental media affected or potentially affected by the contamination.

(5) Location of the site or facility, and its proximity to other sources of contamination.

(6) Need for permission from property owners to allow access to the site or facility and to adjacent or nearby properties.

(7) Potential or known impacts to receptors, including public and private water supplies; buildings and other cultural features; and utilities or other subsurface improvements. This evaluation shall include mapping the location of all water supply wells within a 1,200-foot radius of the outermost edge of contamination.

(8) Potential for impacts to any of the following:

(a) State- or federal-listed threatened or endangered species.

(b) Species, habitat or ecosystems sensitive to the contamination.

(c) Wetlands, especially those in areas of special natural resource interest as designated in s. NR 103.04.

(d) Outstanding resource waters and exceptional resource waters as defined in ss. NR 102.10 and 102.11.

(e) Sites or facilities of historical or archaeological significance.

(9) Potential interim and remedial actions applicable to the site or facility and the contamination.

(10) Immediate or interim actions already taken or in progress, including any evaluations made of whether an interim action is needed at the site or facility.

(11) Any other items, including climatological conditions and background water or soil quality information, that may affect the scope or conduct of the site investigation.

NR 716.09 SITE INVESTIGATION WORK PLAN. (1) GENERAL. In cases where a site investigation is required under s. NR 716.05, responsible parties shall submit a work plan to the department describing the intended scope and conduct of a field investigation, unless the department directs otherwise. The work plan shall be submitted within 60 days after the discovery of the contamination, or within an alternate timeframe authorized by the department.

(2) CONTENTS. The work plan shall include all of the following information, unless otherwise directed by the department:

(a) Site name, address, and location by quarter-quarter section, township, range and county, or a more precise location description if necessary to adequately define the location of the site or facility.

(b) Name and address of the responsible party or parties, and name and address of all consultants or contractors involved in the response action.

(c) Site location map, consisting of the applicable portion of a 1:24,000-scale topographic quadrangle published by the United States geological survey with the name of the quadrangle indicated, and a site layout map to approximate scale depicting the layout of buildings, roads, discharge location and other relevant features of the site.

(d) Information gathered during scoping of the project, including the applicable items in s. NR 716.07.

(e) Basic information on the physiographical and geological setting of the site necessary to choose sampling methods and locations, including:

1. The existing topography, including prominent topographic features.

2. The surface water drainage patterns and significant hydrologic features, such as surface waters, springs, surface water drainage basins, divides, wetlands and whether the site lies within a floodplain or floodway.

3. Texture and classification of surficial soils.

4. General nature and distribution of geologic materials, including the thickness and type of unconsolidated materials and the type and nature of bedrock.

5. General hydrogeologic information.

6. Potential hazardous substance migration pathways.

(f) Sampling and analysis strategy to be used during the field investigation, including:

1. A description of the investigative techniques to be used to characterize the site or facility.

2. Identification on a site layout map of the locations, both planimetric and vertical, from which samples of environmental media will be obtained. Where locations cannot be specified in advance, the work plan shall include a description of the strategy to be used for determining these locations in the field.

3. A description of sampling methods to be used, including methods for preserving and delivering samples.

4. An itemization of the parameters for which samples will be analyzed, as well as the analytical methods to be used and their method detection limits.

5. A description of quality control and quality assurance procedures to be used, including the items specified in s. NR 716.13.

6. A description of the procedures to be used to prevent cross-contamination among samples.

7. A description of the type of investigative wastes that will be generated during the site investigation and how they will be collected, stored, transported and treated or disposed of.

8. A discussion of how the sampling and analysis results will be related to results of any previous investigations at the site or facility, and how the results will be used to

determine the degree and extent of the contamination and the selection of a remedial action option including, where appropriate, natural biodegradation.

(g) A description of other procedures to be used for site management, including erosion control and repair of soil or ground disturbance.

(h) A schedule for conducting the field investigation and reporting the results to the department.

(3) DEPARTMENT REVIEW. (a) The department may instruct responsible parties to proceed without departmental review of work plans submitted under this section.

(b) Responsible parties that are not instructed to proceed under par. (a) shall wait before initiating the field investigation until the department has approved or conditionally approved the work plan, except that if the department has not reviewed the work plan within 60 days after its receipt by the department, the responsible parties may proceed with the field investigation.

(c) If the department disapproves a work plan submitted under this section, the department shall provide to the responsible parties, in writing, the basis for disapproval and a deadline for providing a revised work plan.

(d) The lack of a response from the department, after the department's receipt of a work plan, may not be construed to mean that the department has approved the work plan.

(e) Approval of the work plan by the department may not be construed to constitute a department guarantee that the proposed work will provide results sufficient to satisfy the requirements of this chapter.

NR 716.11 FIELD INVESTIGATION. (1) Responsible parties shall conduct a field investigation as part of each site investigation required under this chapter, unless the department directs otherwise.

(2) The field investigation shall be conducted in accordance with a work plan approved or conditionally approved by the department, unless the department has directed the responsible parties to proceed with a field investigation without department review of the investigation work plan.

(3) The purposes of the field investigation shall be to:

(a) Determine the nature, degree, and extent, both areal and vertical, of the hazardous substances or environmental pollution in all affected media.

(b) Provide sufficient information to permit evaluation of interim options pursuant to ch. NR 708, and remedial action options, and to permit a determination to be made regarding whether any of the interim or remedial action options require a treatability study or other pilot-scale study.

(4) Responsible parties shall extend the field investigation beyond the property boundaries of the source area as necessary to fully define the extent of the contamination. If the responsible parties are unable to complete the required investigation beyond the source property because a property owner refuses access, the

responsible parties shall notify the department within 30 days of the refusal, and shall document in writing the efforts undertaken to gain access when requested by the department.

(5) The field investigation shall include an evaluation of all of the following items:

(a) Potential pathways for migration of the contamination, including buried utilities and drainage improvements.

(b) The impacts of the contamination upon receptors.

(c) The known or potential impacts of the contamination on any of the resources listed in s. NR 716.07(8) that were identified during the scoping process as having the potential to be affected by the contamination.

(d) Surface and subsurface rock, soil and sediment characteristics, including physical, geochemical and biological properties that are likely to influence the type and rate of contaminant movement, or that are likely to affect the choice of a remedial action.

(6) Responsible parties shall manage investigative wastes in a manner that will not pose a threat to public health, safety or welfare or the environment, and which is consistent with state and federal regulations.

NR 716.13 SAMPLING AND ANALYSIS REQUIREMENTS. (1) Responsible parties shall use laboratory analyses of environmental media samples which are collected, handled and analyzed in compliance with subs. (2) to (12) to confirm the nature and

extent and evaluate the impacts of contamination, if a field investigation is required under s. NR 716.11(1).

(2) Responsible parties shall ensure that drinking water samples are collected, handled and analyzed according to the procedures specified in ch. NR 109.

(3) Responsible parties shall ensure that samples other than drinking water are collected, handled and analyzed according to the procedures specified in "SW-846: Test Methods for Evaluating Solid Waste", November 1986, including December 1987 and November 1990 updates, published by the U.S. EPA, unless the department approves the use of an alternative procedure. The department may approve the use of an alternative procedure from one of the authoritative sources listed in s. NR 149.03(5), an alternate test procedure approved by the U.S. EPA, or, if the department determines that an appropriate procedure is neither available from "SW-846: Test Methods for Evaluating Solid Waste" nor from one of the authoritative sources listed in s. NR 149.03(5), from another source.

Note: Copies of "SW-846: Test Methods for Evaluating Solid Waste" are available for inspection at the offices of the department of natural resources, the secretary of state, and the revisor of statutes. Copies may be obtained from the Government Printing Office, Room 190, Federal Building, 517 East Wisconsin Avenue, Milwaukee, WI 53202.

(4) All chemical and physical analyses for which a certification or registration test category is available under ch. NR 149 shall be conducted by a laboratory certified under ch. NR 149 for that test category.

(5) Responsible parties may use non-laboratory methods of sample analysis, including field screening with a photoionization detector or flame ionization detector, analysis with a field gas chromatograph, geophysical or downhole probe surveying, non-certified mobile laboratory analysis, immunoassays and other appropriate methods, to supplement the information derived from laboratory analysis of samples. If non-laboratory methods are used at a location from which a laboratory sample is collected, responsible parties shall use separate samples for the non-laboratory and the laboratory analyses, unless the target compound is not subject to loss or alteration through sample handling.

(6) All soil samples obtained during the field investigation for the purpose of defining the degree and extent of the contamination shall be discrete, not composite, samples, unless the department explicitly approves in advance composite sampling for a specific site situation.

(7) Responsible parties shall inspect monitoring wells installed for field investigations conducted under this chapter at least annually to determine whether they are providing a conduit to the subsurface, and shall take action to repair or abandon the well if necessary in accordance with ch. NR 141.

(8) Responsible parties shall measure and record to the nearest 0.01 foot the static water level elevation in each groundwater monitoring well prior to obtaining a

groundwater sample from the well. The measurement point shall be the top of the well casing and shall be identified on the well itself if the top of the casing is not level.

(9) Where site investigation data or other information indicate it is appropriate, or when directed to do so by the department, responsible parties shall make a good faith effort to sample public or private water supply wells as part of a regular monitoring program or to determine the extent of groundwater contamination, or both. Responsible parties shall report all water supply well sampling results to the department within 10 days after receiving the sampling results. The report shall include a preliminary analysis of the cause and significance of any contaminant concentrations observed in the samples and an identification of any substances that attain or exceed ch. NR 140 preventive action limits, as well as any other substances observed in the samples for which there are no ch. NR 140 groundwater quality standards. Private and public water supply wells to be sampled shall include:

(a) Those wells that are known or suspected to be affected by the groundwater contamination.

(b) Other wells that the department determines have the potential to be affected by the groundwater contamination.

(10) If the responsible parties are unable to sample a public or private well because the property owner refuses access, the responsible parties shall notify the department within 30 days of the refusal, and shall document in writing the efforts undertaken to gain access when requested by the department.

(11) Responsible parties shall provide for the following quality control and quality assurance procedures, at a minimum, when collecting samples for laboratory analysis for a field investigation conducted under this chapter:

(a) Chain of custody, which shall be documented in a format specified by the department, from the time of sample collection to the receipt of the sample by the analytical laboratory.

Note: Copies of the chain-of-custody format may be obtained from the Emergency and Remedial Response Section, Public Information Requests, Bureau of Solid and Hazardous Waste Management, 101 S. Webster Street, P.O. Box 7921, Madison, WI. 53707.

(b) For soil samples, one temperature blank for every batch of samples that require cooling for preservation, unless samples are received by the laboratory on ice and a temperature of no greater than 4 °C is maintained until their receipt by the laboratory.

(c) For water samples:

1. One replicate sample for every 10 or less samples.

2. One field blank for every 10 or less samples.

3. One trip blank for each batch of samples that will be analyzed for volatile organic chemicals.

4. One temperature blank for every batch of samples that require cooling for preservation, unless samples are shipped on ice and a temperature of no greater than 4 °C is maintained until their receipt by the laboratory.

(d) Decontamination of all sampling instruments between each sampling event, unless dedicated or disposable sampling devices are used in a manner that prevents cross contamination or other unintended contamination of samples.

(12) Responsible parties shall ensure that the following items are documented during the field investigation and are made available to the department upon request:

(a) Procedures for sampling and all other routine activities associated with the site investigation.

(b) A log of all routine and nonroutine maintenance and calibrations performed on all instruments used during the field investigation.

(c) Field notes describing in detail the sequence of activities that took place during the field investigation.

NR 716.15 SITE INVESTIGATION REPORT. (1) REPORT REQUIREMENT. Unless otherwise directed by the department, responsible parties shall submit a site investigation report to the department within 90 days after the completion of sampling and other investigatory activities that are required under this chapter, prior to selecting a remedial action.

(2) COMBINED SUBMITTAL. When the department authorizes responsible parties to proceed with implementation of a remedial action without prior department

approval, the site investigation report and a remedial action options report may be combined into a single submittal.

(3) REPORT CONTENTS. The site investigation report shall include all of the following:

(a) Cover letter. A letter referencing the department's identification number for the site or facility and stating the purpose of the submittal and the desired department action or response.

(b) Number of copies. Unless otherwise directed by the department, two copies of the plan or report.

(c) Executive summary. A brief narrative describing the site investigation results, conclusions and recommendations for future actions.

(d) General information. 1. Project title and purpose.

2. Name, address and telephone number of the present property owner, lessee, operator and any individual or company responsible for the contamination.

3. Name, address and telephone number of any consultants or contractors involved with the response action at the site or facility.

4. Site or facility name, address and location by quarter-quarter section, township, range and county. The location of the property and the contamination shall be given in sufficient detail to allow department personnel to inspect the property and the contaminated area.

Note: Additional requirements for reporting locations of monitoring wells are contained in ch. NR 141.

5. Location map which meets the requirements of s. NR 716.15(3)(h)1.

6. In addition to any other site layout maps, one site layout map which depicts the site's property boundaries, named and unnamed roads or access points, surface water features, underground utilities, buildings, public and private wells, land uses on adjacent properties and known and potential hazardous substance sources.

(e) Background information. Descriptions of the following:

1. Activities or events at or near the site or facility which had the potential to affect public health, safety or welfare or the environment, including time, duration, type and amounts of hazardous substance discharges.

2. Any previous discharges or response actions and the relevant dates.

3. Response action activities to date, with references to any previous reports concerning response action activities on the site or facility.

4. Any other information relevant to the response action.

(f) Methods of investigation. Descriptions of investigative techniques used to characterize the site or facility, including subsurface boring and probe methods; monitoring well construction, installation and development procedures; well and aquifer testing methods; modeling techniques; and sample collection, handling and analysis techniques. Where procedures were performed in accordance with methods described in a work plan for the same investigation that was previously submitted to the department

or in exact accordance with published departmental guidance, the site investigation report may omit detailed descriptions by referring to the work plan or the department guidance in which the methods were described.

(g) Results. A detailed description of the results of the site investigation, including all of the following:

1. The information collected during the scoping stage of the investigation conducted pursuant to s. NR 716.07.

2. A description of the sequence of activities that took place during the site investigation.

3. All field measurements, observations, and sampling data generated during the site investigation, including data from non-laboratory sample analyses. Laboratory data shall include laboratory name, location from which each sample was obtained, date each sample was obtained, date each sample was extracted and analyzed, analytical method used by the laboratory, parameters tested for, the method detection limit, the analytical result for each sample, and whether other compounds not specifically tested for were observed in significant quantities. Relevant and significant sample results and field measurements shall be compiled in tabular form and at corresponding sampling locations noted on a site layout map.

4. Where laboratory results are significantly inconsistent with field observations or non-laboratory method results, a clear evaluation of the reason for the inconsistency and an indication of whether resampling or additional quality control procedures are needed.

5. For sites or facilities with 3 or more water table observation wells, a map depicting the elevation of the water table and the apparent direction of groundwater flow, with additional water table maps as necessary to depict significant variations in water table elevation or groundwater flow direction.

6. For sites or facilities with 2 or more soil borings, a geologic cross section depicting the stratigraphy of the site.

7. Isoconcentration maps of hazardous substance concentrations in each environmental medium, as appropriate to the scope and complexity of the site and where sufficient data are available to estimate meaningful isoconcentrations.

8. Interpretations of the data generated at the site or facility sufficient to characterize the geologic and hydrogeologic characteristics of the site or facility, the areal and vertical degree and extent of hazardous substances in all environmental media, and the impacts of the contamination to all potential receptors.

(h) Visual aids. Maps, figures, tables and photographs that are necessary to clarify and support results and interpretations. Visual aids shall present information in legible formats, shall be referenced in the report text, and shall meet all of the following requirements:

1. Maps, plan sheets, drawings, cross sections and fence diagrams shall:

a. Be of appropriate scale to show all required details with sufficient clarity.

b. Have a figure number, title, north arrow, legend of all symbols used, contain horizontal and vertical scales, specify drafting or origination dates and indicate the source if not an original design.

c. Use national geodetic survey data as the basis for all elevations.

d. Use a distinguishing symbol, such as a dashed line or question mark, to depict inferred or questionable data.

e. For water table maps and potentiometric surface maps, depict water level elevations measured on the same day, indicate the date of measurement on the map, and indicate apparent flow direction. For potentiometric surface maps, additionally depict measurements taken from piezometers with similar screen lengths that intersect the same geologic zone and depth, and indicate any vertical gradients as well as the location and type of any confining layers.

f. For isoconcentration maps, depict hazardous substance concentrations and indicate the hazardous substance, the environmental medium, the date measured and the unit of measurement.

2. Cross sections shall include a reduced inset diagram of the site layout map indicating the location of the cross-section transect, and shall indicate the dates of measurements, stratigraphy, screened intervals of monitoring wells and water table surface.

3. Tables shall meet all of the following requirements:

a. Have a table number, title and an explanation of any footnotes marked in the body of the table.

b. Include units of measurement when displaying measured data. When an environmental standard exists for the contaminant, the unit of measurement shall be the same as that used by the department to express the environmental standard.

c. Indicate measurement or sample collection date when displaying measured data or data derived from sampling.

d. Indicate which results equal or exceed environmental standards when displaying analytical results of tests on environmental media for which standards exist.

4. Photographs shall be in color, of sufficient size to clearly represent the purpose of the photograph, and shall be accompanied by the date, orientation and topic.

(i) Well and borehole documentation. All of the following department forms, shall be used, where applicable to the site or facility:

1. 4400-89, groundwater monitoring well information.

2. 4400-113A, monitoring well construction.

3. 4400-113B, monitoring well development.

4. 4400-122, soil boring log information.

5. 3300-5B, well/drillhole/borehole abandonment.

Note: Copies of these well and borehole documentation forms may be obtained from the Bureau of Solid and Hazardous Waste Management, Emergency and Remedial Response Section, Public Information Requests, P.O. Box 7921, Madison, WI. 53707.

(j) Conclusions and recommendations. A summary of the results from the site investigation, and recommendations for further response actions necessary to protect public health, safety and welfare and the environment, and to meet the requirements of chs. NR 700 to 726.

NR 716.17 ADDITIONAL REQUIREMENTS. (1) When warranted by the complexity of the site or facility or the severity of the actual or potential environmental or public health impacts which may be caused by the contamination, the department may impose additional site investigation requirements upon responsible parties beyond those specifically described in this chapter. The department shall communicate any additional investigation requirements to the responsible parties in writing and shall explain why the additional requirements are needed.

(2) The department may require that treatability studies be conducted as part of the site investigation, where appropriate for the purpose of demonstrating that an interim action or remedial option will meet the remedy selection criteria in ch. NR 708.

(3) When a site investigation conducted under this chapter indicates that an immediate, interim or remedial action is necessary, the responsible parties shall identify, evaluate and select an immediate or interim action in accordance with ch. NR 708 or a remedial action.

(4) When a site investigation conducted under this chapter indicates that, based on the criteria in NR 726.05(1), no further action is necessary to protect public health, safety or welfare or the environment, the responsible parties may request that the department close the case in accordance with ch. NR 726.

CHAPTER NR 718

MANAGEMENT OF SOLID WASTES EXCAVATED DURING RESPONSE ACTIONS

NR 718.01 PURPOSE. This chapter establishes minimum standards for the storage, transportation, treatment and disposal of contaminated soil and certain other solid wastes excavated during response actions conducted in accordance with the requirements of chs. NR 700 to 726. Where responsible parties have chosen to comply with the requirements of this chapter, the responsible parties are exempt from the storage, transportation, treatment and disposal requirements in ss. 144.43 to 144.441, 144.443 to 144.47, Stats., and chs. NR 500 to 536, except where solid waste program requirements are specifically referenced in this chapter. This chapter is adopted pursuant to ss. 144.431(1)(a) and (b), 144.435, 144.44(7)(g), 144.442, 144.76, 159.03(1)(a) and 227.11(2), Stats.

Note: This chapter exempts responsible parties who conduct specific types of response actions from obtaining site-specific approvals from the state's solid waste program, when the response actions are conducted in accordance with this chapter. The exemptions that responsible parties may be eligible for under this chapter are from any one of the following solid waste program requirements:

1. Licensing of on-site and off-site contaminated soil storage piles.
2. Licensing of on-site and off-site contaminated soil treatment.

3. Licensing of transportation in vehicles containing contaminated soil when the vehicles are owned by the responsible parties.

4. Approval for disposal of contaminated soil and other solid wastes on the same property from which it was excavated.

5. Approval for disposal of specified types of contaminated soil on property other than that from which it was excavated.

Note: The following portion of 40 CFR part 280 has been included in the text of this chapter: 40 CFR s. 280.62(a)(4).

NR 718.02 APPLICABILITY. (1) This chapter applies to the storage, transportation, treatment and disposal of all of the following:

(a) Contaminated soil which:

1. Is excavated as part of a response action conducted pursuant to chs. NR 700 to 726, at sites or facilities subject to regulation under s. 144.442 or 144.76, Stats.; and

2. Is not a hazardous waste as defined in s. NR 600.03(87) or 42 USC 6901-6991, as amended.

(b) Solid waste which:

1. Contains materials other than contaminated soil and is excavated during a response action conducted pursuant to chs. NR 700 to 726, at sites or facilities subject to regulation under s. 144.442 or 144.76, Stats.;

2. Is not a hazardous waste as defined in s. NR 600.03(87) or 42 USC 6901-6991 as amended; and

3. Is replaced at the same site or facility from which it was excavated.

(2) This chapter does not apply to landspreading facilities regulated under ch. NR 518 (solid waste), NR 204 (wastewater), or AG 17 (fertilizer waste).

Note: Responsible parties may also be subject to local requirements governing contaminated materials management.

NR 718.03 DEFINITIONS. In this chapter:

(1) "Berm" means a ridge of clean, compacted cohesive soil or impervious material constructed to withstand and control the movement of liquids.

(2) "Bioremediation" means degradation of contaminants by microbes.

(3) "Commercial treatment unit or facility" means a unit or facility that is operated for a profit by entities that are paid for providing the service. The term does not apply to a unit or facility operated by several responsible parties who pay a share of jointly incurred expenses, including consultant fees.

Note: The use of leased vehicles or other equipment does not make a treatment unit commercial.

(4) "Contaminated soil" means soil which contains one or more hazardous substances or environmental pollution and which is not a hazardous waste as defined in s. NR 600.03(87) or 42 USC 6901-6991, as amended.

(5) "Floodplain" has the meaning specified in s. NR 116.03(16).

Note: Section NR 116.03(16) defines "floodplain" to mean "that land which has been or may be covered by floodwaters during the regional flood. The floodplain includes the floodway, floodfringe, shallow depth flooding, flood storage and coastal floodplain areas."

(6) "Leachate" has the meaning specified in s. NR 500.03(75).

Note: Section NR 500.03(75) defines "leachate" to mean "water or other liquid that has been contaminated by dissolved or suspended materials due to contact with solid waste or with gases generated by solid waste."

(7) "Monitoring" means a systematic method of collecting and reporting chemical and other data from contaminated media.

(8) "Storage" means placement of solid waste on a temporary basis in a manner that does not constitute disposal of solid waste.

(9) "Volatilization" means removal of contaminants from soil or other media by evaporation.

NR 718.05 STORAGE OF EXCAVATED CONTAMINATED SOIL. (1) EXEMPTION FROM SOLID WASTE PROGRAM REQUIREMENTS. Sites or facilities where less than 2,500 cubic yards of excavated contaminated soil are stored by responsible parties for a period not to exceed 6 months, in accordance with all of the requirements of this section, are exempt from the solid waste program requirements for the storage of contaminated soil in ss. 144.43 to 144.441, 144.443 to 144.47, Stats., and chs. NR 500 to 536.

Note: This section does not apply to sites or facilities where more than 2,500 cubic yards of excavated contaminated soil are stored or where storage of contaminated soil exceeds 6 months. This section also does not apply to the storage by responsible parties of excavated contaminated soil at sites or facilities that are licensed solid waste storage facilities.

(2) GENERAL STORAGE REQUIREMENTS. Except as provided in sub. (3) or (4), the requirements in this subsection apply to the storage by responsible parties of excavated contaminated soil at sites or facilities that are not licensed solid waste storage facilities.

(a) Location standards. Responsible parties may store contaminated soil at a site or facility in accordance with the requirements of this section, except if the storage area will be located in one of the area specified in subds. 1. through 4., or if an exemption is issued by the department pursuant to par. (b).

1. Within a floodplain.

2. Within 100 feet of any wetland or critical habitat area.

3. Within 300 feet of any navigable river, stream, lake, pond or flowage.

4. Within 100 feet of any water supply well for on-site storage or within 300 feet of any water supply well for off-site storage.

(b) Exemptions from location standards. Responsible parties may store contaminated soil in a location listed in par. (a) if the department has granted a written exemption from that location standard, after considering all of the following:

1. Waste characteristics and quantities.

2. The geology and hydrogeology of the area, including information from well logs and well construction records for nearby wells.

3. The unavailability of other environmentally suitable alternatives.

4. Compliance with other state and federal regulations.

5. The threat to public health, safety or welfare or the environment.

(c) Impervious base. Responsible parties shall place contaminated soil on base material impervious to the contaminant and to water, such as concrete, asphalt, plastic sheeting or an impervious construction fabric.

(d) Cover and anchoring. Responsible parties shall ensure that all contaminated soil in a storage area is sloped and graded to eliminate depressions in the surface and is covered. The cover shall be in place at all times when the soil is not being transferred. The cover shall be constructed and maintained in accordance with all of the following requirements:

1. The cover shall be constructed of an impervious material, such as plastic sheeting, impervious construction fabric, or another flexible impervious material. The cover shall be formulated to resist degradation by ultraviolet light.

2. The cover material shall be anchored in place, by means such as weights, ropes, cables, cords, chains or stakes to prevent the contaminated soil from being exposed.

(e) Surface water control. Responsible parties shall construct a storage area to prevent surface water contact with the soil, including the construction of berms if necessary. Any water which has been in contact with contaminated soil shall be contained and may be replaced in the storage pile, or shall be collected and treated as leachate as required by chs. NR 500 to 536.

(f) Signs. Responsible parties shall post signs as required by s. NR 714.07(3).

(g) Inspections. Unless otherwise directed by the department, responsible parties shall ensure that contaminated soil storage piles are inspected at least once every 30 days, and shall immediately repair or replace any base, cover, anchoring and berm materials that do not meet the requirements of this subsection. Responsible parties shall also ensure that a written log is maintained which includes the inspection dates, name of the inspector, the condition of the storage pile at the time of the inspection and any repairs that were made.

(h) Notification that soil is being transported to another property. Responsible parties shall notify the department in writing if excavated contaminated soil is transported for storage to a property other than that from which it was excavated.

Notification shall be made within 3 days after the first day that contaminated soil is transported to another property and shall include all of the following:

1. The name, address and telephone number of the person who owns the site or facility from which the soil originated.

2. The volume of soil being transported.

3. The hazardous substances and environmental pollution present in the soil.

4. The containment measures utilized to attain compliance with pars. (c), (d) and (e).

5. The address and location by quarter-quarter section, township, range and county of the property from which the soil was excavated.

6. The name, address and telephone number of the person who owns the property where the soil is stored.

7. The address and location by quarter-quarter section, township, range and county of the property where the soil is stored.

(i) Notification of storage for 90 days or more. Responsible parties shall notify the department in writing if contaminated soil is stored for 90 days or more either on-site or off-site, within 3 business days after the ninetieth day. Notification shall include all of the following:

1. The name, address and telephone number of responsible parties.

2. The volume of soil being stored.

3. The hazardous substances or environmental pollution present in the soil.

4. The containment measures utilized to attain compliance with pars. (c), (d) and (e).

5. The address and location by quarter-quarter section, township, range and county of the property where the soil is stored.

6. A brief proposal for treatment and final placement of the soil.

(3) REQUIREMENTS FOR TEMPORARY STOCKPILES. Sites or facilities where responsible parties temporarily store up to 2,500 cubic yards of excavated contaminated soil for 15 days or less, for the purpose of loading the soil into transfer vehicles or treatment units, are exempt from regulation under ss. 144.43 to 144.441, 144.443 to 144.47, Stats., and chs. NR 500 to 536 and are not subject to the general storage requirements in sub. (2) if the soil is stored in accordance with all of the following requirements:

(a) The entire soil pile shall be located within 500 feet of the excavation from which the contaminated soil was removed, or within 1,000 feet of the excavation from which the contaminated soil was removed if the soil is stored on the same property from which it was excavated.

(b) The same contaminated soil shall not be stored for more than 15 days.

(c) All contaminated soil shall be placed on base material impervious to contaminants in the soil and to water, such as concrete, asphalt, plastic sheeting or impervious construction fabrics.

(d) Surface water contact with the contaminated soil shall be prevented, including the construction of berms if necessary, to control surface water movement.

(e) The contaminated soil shall be covered when it is not being moved, with a cover material sufficient to prevent infiltration of precipitation and to inhibit volatilization of soil contaminants.

(4) REQUIREMENTS FOR CONTAINERIZED STORAGE. Sites or facilities where responsible parties store up to 2,500 cubic yards of excavated contaminated soil for 6 months or less in containers or in buildings are exempt from regulation under ss. 144.43 to 144.441, 144.443 to 144.47, Stats., and chs. NR 500 to 536, and are not subject to the general storage requirements in sub. (2), if the contaminated soil is stored in accordance with all of the following requirements:

(a) Containers and buildings shall be designed, constructed and maintained to prevent leakage, infiltration of precipitation and volatilization of soil contaminants to the ambient atmosphere.

(b) Containers shall be labeled and buildings shall have a sign posted in accordance with the requirements of s. NR 714.07(3).

(c) Contaminated soil may not be stored in containers or buildings for more than 6 months, without the prior written approval of the department.

NR 718.07 TRANSPORTATION OF EXCAVATED CONTAMINATED SOIL.

(1) Except where sub. (2) is applicable, a solid waste collection and transportation service operating license is required under s. NR 502.06 whenever excavated contaminated soils are transported.

(2) Responsible parties may transport excavated contaminated soil in vehicles that they own without a solid waste collection and transportation service operating license regardless of the number and size of loads, if the excavated contaminated soil is hauled to a site or facility in compliance with the requirements of this chapter or to a licensed solid waste storage, treatment or disposal facility. Responsible parties shall cover contaminated soil, as necessary, to prevent the loss of any material during transport.

NR 718.09 TREATMENT OF EXCAVATED CONTAMINATED SOIL. (1) GENERAL. If excavated contaminated soil is treated at a non-commercial treatment unit or facility and the treatment unit or facility is operated by the responsible parties in compliance with the requirements of this chapter, that site or facility is exempt from solid waste program requirements for the treatment of the contaminated soil in ss. 144.43 to 144.441, 144.443 to 144.47, Stats., and chs. NR 500 to 536, except where solid waste program requirements are specifically referenced in this section. Commercial treatment units or facilities, hot-mix asphalt plants where contaminated soil is treated by means other than incorporation into the asphalt mix, and thermal treatment units or facilities are required to be licensed under ss. 144.43 to 144.441, 144.443 to 144.47, Stats., and chs. NR 500 to 536, and are not exempt under this section.

Note: Treatment of contaminated soil that has not been excavated is not regulated as solid waste treatment under ss. 144.43 to 144.441, 144.443 to 144.47, Stats.

and chs. NR 500 to 536. Design, operation and maintenance requirements for the treatment of unexcavated contaminated soil are established in ch. NR 724.

(2) LOCATION STANDARDS. (a) Unless approved under chs. NR 400 to 499, chs. NR 500 to 536 where applicable, or par. (b), responsible parties may not treat excavated contaminated soil in any of the following locations:

1. Within a floodplain.

2. Within 100 feet of any wetland or critical habitat area.

3. Within 300 feet of any navigable river, stream, lake, pond or flowage.

4. Within 100 feet of any on-site water supply well or 300 feet of any off-site water supply well.

(b) Responsible parties may treat contaminated soil in a location listed in par. (a) if the department has granted a written exemption from that location standard, after considering all of the following:

1. Waste characteristics and quantities.

2. The geology and hydrogeology of the area, including information from well logs and well construction records for nearby wells.

3. The unavailability of other environmentally suitable alternatives.

4. Compliance with other state and federal regulations.

5. The threat to public health, safety or welfare or the environment.

(3) NON-COMMERCIAL TREATMENT OF SOIL FROM MORE THAN ONE SITE. Non-commercial treatment units or facilities operated by responsible parties,

where less than 2,500 cubic yards of excavated contaminated soil from 5 or fewer contamination sites are treated, are exempt from solid waste program requirements for the treatment of contaminated soil in ss. 144.43 to 144.441, 144,443 to 144.47, Stats., and chs. NR 500 to 536, if the treatment is conducted in compliance with the requirements of this section. Excavated contaminated soil from more than 5 properties may not be treated at the same site or facility unless the treatment site or facility is a licensed solid waste treatment facility. Responsible parties may not mix excavated contaminated soil from one property with soil from another property unless the same party owns all of the mixed soil or an approval has been granted under ch. NR 502. Contaminated soil which is stored prior to treatment shall be stored in compliance with the provisions of s. NR 718.05.

(4) NOTIFICATION. (a) Responsible parties shall notify the department in writing within 30 days after any of the following:

1. Start up of any type of treatment of excavated contaminated soil that is subject to the requirements of sub. (7), (8) or (9).

2. Shutdown of any type of treatment of excavated contaminated soil that is subject to the requirements of sub. (7), (8) or (9).

3. Substantial change in operations of any type of treatment of excavated contaminated soil that is subject to the requirements of sub. (7), (8) or (9).

4. Completion of any type of treatment of excavated contaminated soil that is subject to the requirements of sub. (7), (8) or (9).

(b) Notification shall include all of the following:

1. The name, address and telephone number of all responsible parties.

2. All locations of sites from which contaminated soil was excavated by address and location by quarter-quarter section, township, range and county.

3. The volume of soil being treated.

4. The hazardous substances or environmental pollution in the soil.

5. The address and location by quarter-quarter section, township, range and county of the treatment site.

6. The name, address and telephone numbers of all consultants and contractors involved in response actions at the sites or facilities.

7. A brief description of the treatment system.

8. The reasons for any unscheduled shutdowns or changes in operation.

9. A brief proposal for the disposal of the contaminated soils after treatment.

(5) TREATMENT OF EXCAVATED CONTAMINATED SOIL AT HOT-MIX ASPHALT OR STRUCTURAL CONCRETE PLANTS. (a) Responsible parties may not transport or hire another entity to transport excavated contaminated soil to a hot-mix asphalt plant which incorporates contaminated soil into the asphalt mix unless the hot-mix asphalt plant has a current operating air permit under chs. NR 400 to 499 and is in compliance with chs. NR 400 to 499. Storage of excavated contaminated soil at hot-mix asphalt plants which incorporate contaminated soil into the asphalt mix shall be in compliance with ch. NR 718.05.

(b) Responsible parties may not transport or hire another entity to transport excavated contaminated soil to a hot-mix asphalt plant for treatment other than

incorporation into the asphalt mix unless the hot-mix asphalt plant has a current operating air permit under chs. NR 400 to 499, is in compliance with chs. NR 400 to 499 and has an approval for solid waste processing under ss. 144.43 to 144.441, 144.443 to 144.47, Stats. and chs. NR 500 to 536.

(c) Responsible parties may not transport or hire another entity to transport excavated contaminated soil to a structural concrete batch plant that does not have all required operating permits and approvals for incorporation of contaminated soils into the concrete mix.

(d) Hot-mix asphalt plants which do not incorporate contaminated soil into the asphalt mix and structural concrete plants shall store excavated contaminated soil in compliance with ch. NR 502.

(6) THERMAL TREATMENT OF EXCAVATED CONTAMINATED SOIL. Responsible parties may not transport or hire another entity to transport excavated contaminated soil to a thermal treatment unit or facility unless that thermal treatment unit or facility has all required operating permits or licenses, including a current operating air permit under chs. NR 400 to 499, is in compliance with chs. NR 400 to 499, and has a current license or other approval under s. NR 502.08. Operators of soil treatment units shall take steps satisfactory to the department to minimize noise and dust, such as wetting treated soils and the work area to control dust.

(7) BIOREMEDIATION AND TREATMENT BY VOLATILIZATION OF EXCAVATED CONTAMINATED SOIL. All of the following requirements apply to the treatment of excavated contaminated soil by bioremediation, volatilization, or both:

(a) Responsible parties who treat excavated contaminated soil by bioremediation or volatilization, or both, shall maintain the excavated contaminated soil in compliance with the requirements of s. NR 718.05(2)(c), (e), (f) and (g), unless other methods are approved by the department.

(b) All excavated contaminated soil shall be covered, as necessary, to prevent volatilization of soil contaminants in excess of limits in chs. NR 400 to 499. If a cover is required by chs. NR 400 to 499, the cover material and anchoring system shall meet the requirements of s. NR 718.05(2)(d), unless other methods are approved by the department.

(c) All treatment of excavated contaminated soil by bioremediation or volatilization shall be designed, operated and maintained in accordance with the requirements of ch. NR 724.

(8) LANDSPREADING OF EXCAVATED CONTAMINATED SOIL. Responsible parties may landspread excavated contaminated soil provided that all of the following requirements are met:

(a) All landspreading of contaminated soil shall be done in accordance with the requirements of ch. NR 518, unless the soil is contaminated only with fertilizers or pesticides, and shall be landspread in accordance with par. (b).

(b) Responsible parties who landspread soil contaminated with fertilizers or pesticides shall do so in accordance with a plan that has received prior written approval from either the department or the department of agriculture, trade and consumer protection, and shall comply with all applicable requirements in chs. NR 400 to 499.

Responsible parties who landspread soil contaminated with fertilizers or pesticides in accordance with an approved landspreading plan are not subject to the requirements of ss. NR 718.11 and 718.13.

(9) OTHER TYPES OF TREATMENT. Responsible parties shall obtain approval from the department before implementing any type of treatment for excavated contaminated soil other than the types of treatment described in subs. (5) to (8). An application for approval shall include the information required in ch. NR 724 and any other information required by the department.

NR 718.11 ON-SITE REPLACEMENT OF CONTAMINATED SOIL. (1) GENERAL. If excavated contaminated soil is replaced on the same property from which it was excavated in compliance with the requirements of this section, that site or facility is exempt from the solid waste program requirements for placement or disposal in ss. 144.43 to 144.441, 144.443 to 144.47, Stats., and chs. NR 500 to 536.

(2) REPLACEMENT OF CONTAMINATED SOIL WITHOUT PRIOR DEPARTMENT APPROVAL. Responsible parties shall comply with all of the requirements of this subsection if they replace contaminated soil in the excavation from which it was removed without obtaining prior department approval.

(a) Replacement of contaminated soil in the excavation from which it was removed for treatment. Responsible parties may replace contaminated soil in the excavation from which it was removed for the purpose of treatment, such as passive

biodegradation or soil venting, without prior department approval, if all of the following requirements are met:

1. The response action shall be taken in accordance with all of the applicable requirements in chs. NR 700 to 726.

2. Excavated contaminated soil may not be replaced at a depth greater than the depth of the original excavation from which it was removed.

3. The soil shall be replaced at least one meter above the high groundwater level.

4. Subsurface treatment shall begin within 180 days after the soil is replaced in the excavation, unless the department approves of an extension. If subsurface treatment is not initiated within 180 days after soil is replaced in the excavation and the department has not approved an extension, the contaminated soil shall be re-excavated and shall be stored, treated or disposed of in compliance with the requirements of this chapter or ss. 144.43 to 144.441, 144.443 to 144.47, Stats., and chs. NR 500 to 536.

5. Until the time of treatment, soil that is replaced in the excavation shall be covered in compliance with the requirements of s. NR 718.05(2)(d), unless other methods have been approved by the department.

6. Responsible parties may not replace excavated contaminated soil within a floodplain, within 100 feet of any wetland or critical habitat area, within 300 feet of any navigable river, stream, lake, pond or flowage, or within 300 feet of any water supply well, unless the department has granted a written exemption to these location standards, after considering all of the factors listed in s. NR 718.05(2)(b).

7. Responsible parties shall provide the department with written notice, within 15 days after the soil replacement begins, when excavated contaminated soil has been replaced for treatment. This notice shall include all of the following:

a. Name, address and telephone number of responsible parties.

b. Volume of contaminated soil being replaced.

c. Concentrations of hazardous substances or environmental pollution present in the soil based on a sampling schedule no less stringent than that required in par. (b) 2.

d. Site or facility address and location, by quarter-quarter section, township, range and county.

e. Name, address and telephone number of any consultants or contractors who will design, install or operate a subsurface treatment system.

f. A preliminary schedule for installation and operation of the system.

8. Excavated contaminated soil may not be replaced for subsurface soil treatment if it would cause any significant adverse environmental impacts.

9. Where safety or other considerations require timely back filling of an excavation and subsurface soil treatment is not planned, back fill materials not affected by a hazardous substance discharge or environmental pollution shall be used.

(b) Replacement of contaminated soil on the property from which it was excavated for disposal. Responsible parties may replace contaminated soil for the purpose of disposal in the excavation from which it was removed, or in another excavation on the property from which it was excavated, if all of the following requirements are met:

1. The response action shall be taken in accordance with the requirements in chs. NR 700 to 726.

2. Unless otherwise directed by the department, responsible parties shall sample and analyze all contaminated soil according to all of the following requirements:

a. If the contaminated soil is treated prior to replacement, responsible parties shall collect samples for analysis within 30 days after completion of the treatment process or prior to replacement, whichever occurs first.

b. A minimum of 2 samples shall be collected from the soil that is to be replaced at a site or facility, regardless of whether the contaminated soil was treated prior to replacement.

c. Samples shall be analyzed for all contaminants that were detected during a site investigation. In addition, the uses that have been made of the site or facility in the past shall be evaluated to determine what soil contaminants might have been discharged at the site or facility, and samples shall be analyzed for all contaminants whose presence is suspected as a result of the evaluation of past land use, consistent with the requirements in ch. NR 716.

d. For each site or facility, one sample shall be collected for analysis for each 100 cubic yards of contaminated soil, for the first 600 cubic yards. For volumes of contaminated soil that exceed 600 cubic yards, a minimum of one sample per 300 cubic yards shall be collected for analysis.

e. All soil samples shall be collected from areas most likely to contain residual soil contamination.

f. Responsible parties shall report the analytical results to the department in writing within 20 days after the completion of analysis.

3. Responsible parties may not replace excavated contaminated soil within a floodplain, within 100 feet of any wetland or critical habitat area, within 300 feet of any navigable river, stream, lake, pond or flowage, or within 300 feet of any water supply well, unless the department has granted a written exemption to these location standards, after considering all of the factors listed in s. NR 718.05(2)(b).

4. Contaminated soil that is to be replaced on the property from which it was excavated may not exceed background soil quality at the site or facility for naturally occurring substances or the level of detection for non-naturally occurring substances.

5. The soil shall be placed at least one meter above the high groundwater level.

6. Responsible parties shall notify the department of replacement of contaminated soil within 30 days after the replacement of the contaminated soil on the property from which it was excavated. The notification shall include all of the following:

a. The name, address and telephone number of the responsible parties.

b. The volume of contaminated soil that was replaced.

c. The results of the analyses required in subd. 2.

d. The address and location by quarter-quarter section, township, range and county of the site or facility where the soil was replaced.

(3) REPLACEMENT REQUIRING PRIOR DEPARTMENT APPROVAL. Responsible parties may apply to the department for prior written approval to replace excavated contaminated soil that does not meet the requirements of sub. (2) on the

property from which it was excavated. To apply for prior approval, responsible parties shall submit a written application to the department which contains all of the following information:

(a) The name, address and telephone number of the responsible parties.

(b) The volume of contaminated soil that is to be replaced.

(c) The address and location, by quarter-quarter section, township, range and county, of the site or facility where the soil is to be replaced.

(d) The results of analyses performed on the contaminated soil.

(e) The type of remedial action to be conducted.

(f) Location at the site or facility where the contaminated soil shall be replaced.

NR 718.13 OFF-SITE DISPOSAL OF CONTAMINATED SOIL. (1) If responsible parties dispose of contaminated soil on a property other than the property from which it was excavated in compliance with the requirements of subs. (2) to (9), the disposal site or facility is exempt from solid waste program requirements in ss. 144.43 to 144.441, Stats., and chs. NR 500 to 536, except where solid waste program requirements are specifically referenced in this section.

Note: Contaminated soil which does not meet the requirements of this section may be approved for off-site disposal or disposal in a licensed solid waste disposal facility under ss. 144.43 to 144.441. 144.443 to 144.47, Stats., and chs. NR 500 to 536. It may

also be treated or disposed of on the property from which it was excavated under s. NR 718.11.

(2) The contaminated soil was generated as part of a response action conducted in accordance with the requirements of chs. NR 700 to 726.

(3) Unless otherwise directed by the department, responsible parties shall sample and analyze the contaminated soil according to all of the requirements in s. NR 718.11(2)(b)2.

(4) The site or facility where the contaminated soil shall be disposed of has, or had in the past, similar contaminants to those in the excavated contaminated soil that is being disposed of.

(5) The disposal location is not a landspreading facility as defined in s. NR 500.03(74).

Note: The landspreading of contaminated soil is subject to the requirements of ch. NR 518.

(6) Responsible parties may not dispose of excavated contaminated soil within a floodplain, within 100 feet of any wetland or critical habitat area, within 300 feet of any navigable river, stream, lake, pond or flowage, or within 300 feet of any water supply well, unless the department has granted a written exemption to these location standards, after considering all of the following:

1. Waste characteristics and quantities.

2. The geology and hydrogeology of the area, including information from well logs and well construction records for nearby wells.

3. The unavailability of other environmentally suitable alternatives.

4. Compliance with other state and federal regulations.

5. The threat to public health, safety or welfare or the environment.

(7) The residual levels of contamination in the soil to be disposed of off-site meet the requirements of s. NR 718.11(2)(b)4.

(8) The contaminated soil shall be placed at least one meter above the high groundwater level.

(9) Responsible parties shall notify the department of the disposal of any contaminated soil off-site, in accordance with the requirements of this chapter, within 30 days after disposal. The notification shall include all of the following:

(a) The name, address and telephone number of the person who owns the site from which the soil was excavated.

(b) The name, address and telephone number of the person who owns the property where the soil was disposed of.

(c) The results of the analyses required in sub. (2).

(d) The volume of soil that was disposed of.

(e) The address and location, by quarter-quarter section, township, range and county of the property where the soil was disposed of.

NR 718.15 MANAGEMENT OF OTHER SOLID WASTES. If solid waste which contains waste other than contaminated soil is replaced at the site or facility from which it was excavated, as part of a response action conducted in compliance with all of the applicable requirements in chs. NR 700 to 726, and the department has granted prior written approval for the action, the replacement of that solid waste on the site or facility from which it was excavated is exempt from the requirements of ss. 144.43 to 144.441, 144.443 to 144.47, Stats., and chs. NR 500 to 536.

NR 718.17 EXEMPTION FOR EMERGENCY IMMEDIATE ACTIONS. For a period of 72 hours after an emergency immediate response is initiated in accordance with the requirements of ch. NR 708, the storage and transportation of contaminated soil that was excavated as part of the emergency immediate action are exempt from the requirements of ss. NR 718.05 and 718.07, and are exempt from meeting the solid waste storage and transportation requirements in ss. 144.43 to 144.441, 144.443 to 144.47, Stats. and chs. NR 500 to 536, provided that the department is immediately notified of the emergency immediate action being conducted in accordance with the requirements of ch. NR. 708.

CHAPTER NR 724

REMEDIAL AND INTERIM ACTION DESIGN, IMPLEMENTATION, OPERATION, MAINTENANCE AND MONITORING REQUIREMENTS

NR 724.01 PURPOSE. The purpose of this chapter is to outline the requirements for the design, implementation, operation, maintenance and monitoring of remedial actions and specific types of interim actions. This chapter is adopted pursuant to ss. 144.431(1)(a) and (b), 144.442, 144.76, 159.03(1)(a) and 227.11(2), Stats.

Note: This chapter does not apply to emergency or non-emergency immediate actions or to those types of interim actions that are not listed in s. NR 724.03(1)(b).

NR 724.02 APPLICABILITY. (1) This chapter applies to all remedial actions and to those types of interim actions that are specified in s. NR 724.03(1)(b) taken by the department under the authority of ss. 144.442 or 144.76, Stats. In this chapter, where the term "responsible parties" appears, it should be read to include the department in situations where a department-funded response action is being taken.

Note: The following portions of 40 CFR part 280 have been included in the text of this chapter: portions of s. 280.34(a)(3); and portions of s. 280.66(a) and (b). Additional portions of s. 280.34(a)(3) are included in chs. NR 705, 708 and 716. Additional portions of s. 280.66(a) and (b) are included in ch. NR 708.

(2) This chapter applies to all remedial actions and specific types of interim actions taken by responsible parties, at sites, facilities or portions of a site or facility that are subject to regulation under s. 144.442 or 144.76, Stats., regardless of whether there is direct involvement or oversight by the department.

Note: Persons who wish to conduct response actions that will meet the requirements of CERCLA and the National Contingency Plan (NCP) may request that the department enter into a contract with them pursuant to s. 144.442, Stats. However, a CERCLA-quality response action will likely require compliance with additional requirements beyond those contained in chs. NR 700 to 726 in order to satisfy CERCLA and the NCP.

(3) The department may exercise enforcement discretion on a case-by-case basis and choose to regulate a site, facility or a portion of a site or facility under only one of a number of potentially applicable statutory authorities. However, where overlapping restrictions or requirements apply, the more restrictive control. The department shall, upon receipt of a request from a responsible party provide a letter that indicates which regulatory program or programs the department considers to be applicable.

Note: Sites, facilities or portions of a site or facility that are subject to regulation under s. 144.442 or 144.76, Stats., may also be subject to regulation under the solid waste statutes in ss. 144.43 to 144.47, Stats., or the hazardous waste management act, ss. 144.60

to 144.74, Stats., and the administrative rules adopted pursuant to those statutes. One portion of a site or facility may be regulated under a different statutory authority than other portions of that site or facility.

NR 724.03 GENERAL SUBMITTAL REQUIREMENTS. (1) GENERAL. Unless otherwise directed by the department, responsible parties shall submit the plans and reports that are required by this chapter to the department after all of the following:

(a) Selection of a remedial action.

(b) Selection of any of the following types of interim actions, as specified in s. NR 708.11(4):

1. An on-site treatment system, including a groundwater extraction and treatment system.

2. An on-site engineering control or barrier, including an engineered landfill cover or groundwater barrier system.

3. Any other type of interim action option when the department determines, on a case-by-case basis, that a design report required under s. NR 724.07 is necessary prior to implementation.

(2) LEVEL OF DETAIL. (a) Nothing in this chapter shall be construed to require plans or reports that are more detailed or complex than is justified by the known scope of contamination or the complexity of the site or facility.

(b) The department may require additional information in the plans and report beyond what is specifically required under this chapter based on the complexity of the site or facility, or the degree and extent of the contamination.

(3) SUBMITTALS. Unless otherwise directed by the department, responsible parties shall submit the plans and reports required by this chapter in accordance with all of the following requirements:

(a) The plans, reports and specifications required by ss. NR 724.07, 724.09 and 724.11 shall be submitted simultaneously.

(b) Two copies of each plan or report shall be submitted to the department.

(c) The department may require by the issuance of an administrative order or consent order that these plans and reports be prepared in accordance with a site-specific schedule.

(d) At sites or facilities where multiple remedial or interim actions are taken, all of the following requirements apply:

1. All submittals required by this chapter shall include a brief discussion of the interrelationship between the actions.

2. The design report required by s. NR 724.07 and the design plans and specifications required by s. NR 724.09 that are prepared for subsequent remedial or interim actions may include the design details for the subsequent action without repeating design work that was included in previous submittals to the department for other remedial or interim actions.

(e) Each submittal under this chapter shall include all of the following:

1. Cover letter. A cover letter, including:

a. The month, day and year of the submittal.

b. The department-issued identification number for the site or facility.

c. The purpose of the submittal and the desired department action or response.

d. A brief narrative summarizing the contents of the submittal.

e. The regulatory status of the site or facility.

2. General information. All reports or plans shall contain:

a. Project title and purpose, including the department-issued identification number for the site or facility.

b. Name, address and telephone number of the property owner, lessee, operator or any individual or company responsible for the discharge of hazardous substances or environmental pollution on the site or facility.

c. Name, address, and telephone number or any consultants or contractors involved with the response action at the site or facility.

d. Site name, address and location by, at a minimum, quarter-quarter section, township, range and county. The location of the site or facility shall be given in sufficient detail to allow department personnel to locate and inspect the site or facility.

e. A location map that meets the requirements of s. NR 716.15(3)(h)1.

f. Month, day and year of the submittal.

g. A summary of the nature and extent of contamination at the site or facility.

NR 724.05 DEPARTMENT RESPONSE. (1) PRIOR DEPARTMENT REVIEW NOT REQUIRED. Unless the department directs otherwise, responsible parties shall submit all of the plans and reports required under this chapter and shall proceed to the next step in the design, implementation, or operation of a remedial action or interim action under this chapter without department acknowledgement, prior review or approval.

(2) DEPARTMENT APPROVAL REQUIRED. (a) When the department directs responsible parties in writing that department approval of a plan or report is necessary prior to proceeding to the next step in the design, implementation or operation of a remedial action or interim action under this chapter, the department shall provide a written acknowledgement of receipt of any report or plan submitted pursuant to this chapter within 30 days. The department acknowledgement shall include an estimated date for completion of department review.

(b) In cases where department approval is required for the reports or plans submitted under this chapter, the department may request additional information, require revisions, approve, conditionally approve or disapprove of the plans or reports. The department shall provide to the responsible parties, in writing, the reasons for any disapproval and the department may establish a deadline for providing revisions.

Note: Persons who prepare the plans and reports required by this chapter should be aware that other department programs may also require the submittal, review and approval of plans and reports.

NR 724.07 DESIGN REPORT. Responsible parties shall submit to the department a design report for all remedial actions and those interim actions specified in s. NR 724.03(1), containing all of the following information:

(1) The information required in s. NR 724.03(3)(e).

(2) A brief description of the site or facility.

(3) A complete and detailed description of the remedial or interim action being designed.

(4) All engineering criteria, concepts, assumptions and calculations used in preparing the design, including adequate justification for their use.

(5) Any treatability study information, pilot test results, aquifer pumping test results or other test results utilized in the design shall be presented, unless this data was previously submitted to the department.

Note: Treatability studies should be conducted as early in the response process as possible.

(6) A listing of all local, state and federal permits, licenses and approvals required to construct and implement the remedial or interim action.

(7) A brief description of the public health and environmental laws and standards applicable to the contamination and the interim or remedial action being implemented, including the physical location where the environmental standards shall be complied with for each media of concern.

(8) A preliminary discussion of the types of, frequency of and schedule for monitoring of the remedial or interim action. This discussion shall address any water, soil, soil gas, air or other monitoring required for each component of the remedial or interim action.

(9) A preliminary discussion of planned operation and maintenance provisions.

Note: An operation and maintenance plan prepared in accordance with s. NR 724.11 will satisfy the requirements of s. NR 724.07(6), (7), (8) and (9), if submitted with the design report. In this case, the operation and maintenance plan should provide a complete, rather than a preliminary discussion of the topics described in s. NR 724.07(6), (7), (8) and (9).

(10) A proposed schedule for implementation of the remedial or interim action, which identifies timing for initiation and completion of all tasks. The proposed dates for completion of the remedial or interim action and major milestones shall be specified. The schedule shall include deadlines for all reports, plans and submittals required by the department.

(11) Discussion of any other relevant technical factors.

NR 724.09 DESIGN PLANS AND SPECIFICATIONS. Responsible parties shall submit to the department design plans and specifications for each remedial action,

and any of the interim actions specified in s. NR 724.03(1), in accordance with all of the following requirements:

(1) Shall be prepared in accordance with the concepts presented in the design report required by s. NR 724.07.

(2) Provide a general correlation between drawings and technical specifications.

(3) Include technical specifications and requirements necessary for all the components of the remedial or interim action.

(4) Include detailed drawings of the proposed design, including general component arrangements, equipment layout, process flow diagram, piping and instrumentation diagrams, cross sections, sampling locations and instrumentation locations.

(5) Show sufficient detail for construction, according to customary industrial and professional standards.

(6) Unless otherwise directed by the department, legible visual aids, including maps, plan sheets, drawings, isometrics, cross-sections and aerial photographs shall be included with the design plans and specifications and prepared according to all of the following requirements:

(a) Be no larger than 24 inches x 36 inches and no smaller than 8 1/2 inches x 11 inches.

(b) Be of appropriate scale to show all required details in sufficient clarity.

(c) Be numbered, titled, have a legend of all symbols used, contain horizontal and vertical scales, where applicable, and specify drafting or origination dates and current drawing revision or issue status.

(d) Use uniform scales.

(e) Contain a north arrow, where appropriate.

(f) Use USGS datum as a basis for all elevations.

(g) Show dimensions for location and placement of features or units and elevations that are based on permanent, retrievable surveying control monuments or stations.

(h) For solid or hazardous waste disposal facilities or other land-based features being constructed at the site or facility as part of the response action, the visuals shall:

1. Contain a survey grid based on monuments established in the field which is referenced to state plane coordinates.

2. Show survey grid location and reference major plan sheets on all cross sections.

Note: Examples of land-based features include earth moving, covers, waste or soil piles, soil treatment piles, liners, landfills and regrading.

(i) Include a reduced plan-view map on all sheets with cross-sections indicating the location of the cross-section.

(j) Include descriptions, specifications and performance criteria necessary for procurement, construction and start up of all features and units, including key

components and all instrumentation. Performance curves or criteria published by equipment suppliers or manufacturers may be utilized if they provide sufficient information.

NR 724.11 OPERATION AND MAINTENANCE PLAN. (1) GENERAL. Unless otherwise directed by the department, responsible parties shall conduct all necessary operation and maintenance activities according to all of the requirements of this section:

(a) Submit to the department an operation and maintenance plan in accordance with this section where on-site maintenance activities are necessary to implement, monitor or ensure the effectiveness of a remedial or interim action.

(b) Conduct operation and maintenance activities at a site or facility in compliance with all applicable state or federal public health and environmental laws, whichever is more stringent, until all applicable environmental laws, are complied with as required in chs. NR 700 to 726.

(c) Unless otherwise directed by the department, perform operation and maintenance of any final covers, liners, physical hydraulic containment systems, leachate collection systems and gas collection, extraction and management systems at sites or facilities for which they are responsible for, for at least 30 years.

Note: The operation and maintenance requirements of par. (c) do not apply to any of the following:

1. Off-site disposal of material at facilities or sites in compliance with state and federal laws.

2. Sites or facilities where no landfill engineering features or systems are or will be provided, and no other contaminants have been or will be disposed of.

(2) PLAN CONTENTS. The operation and maintenance plan shall outline all operation, monitoring and maintenance activities, from design through case closure under ch. NR 726, including all of the following information:

(a) The information required pursuant to s. NR 724.03(3)(e).

(b) A description of normal operation and maintenance, including a schedule showing the frequency of each operation and maintenance task.

(c) A contingency plan for any anticipated or potential operation and maintenance problems, including a description of techniques or activities to be conducted by the responsible parties to resolve operation and maintenance problems.

(d) A description of routine monitoring and analysis, including:

1. Long-term monitoring required under s. NR 724.15;

2. Laboratory or field tests, test methods and sampling methods; and

3. A schedule of monitoring frequency and dates.

(e) A descriptions of any site-specific or facility-specific record-keeping and reporting requirements to document operation and maintenance activities, including:

1. Mechanisms for reporting system failures, discharges of hazardous substances or environmental pollution and other emergencies; and

2. Reports to be submitted to the department, including the results of system and environmental monitoring and the results of the monitoring well inspections meeting the requirements of s. NR 716.15(7).

(3) PROGRESS REPORTS. Unless otherwise directed by the department, progress reports shall be submitted quarterly and shall be sequentially numbered, starting with the first report after the remediation system start up. Progress reports shall include all of the following:

(a) A brief discussion of the progress of the remediation system, including:

1. As applicable to the site or facility, total contaminant extraction and destruction to date in pounds of contaminant removed;

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

3. An overall evaluation of the effectiveness of the system; and

4. Recommendations for future activities, if appropriate.

(b) A site map that indicates the location of pertinent equipment and sampling points at the site or facility.

(c) Sufficient tables, graphs and figures to efficiently and concisely summarize and portray relevant data and pertinent field measurements.

(d) Laboratory reports and chain-of-custody for any laboratory data, unless otherwise directed by the department.

(e) Any other pertinent information or data.

(4) REVISIONS. The appropriate section of the operation and maintenance plan shall be revised, sent to the department by the responsible parties, and shall include all of the following:

1. Include the information required pursuant to s. NR 724.03(3)(e).

2. Be numbered with a revision number.

3. Document any changes in the time of anticipated case closure and any conditions the department may place on case closure under ch. NR 726.

4. Document any changes in the design, operation, maintenance or monitoring of the interim or remedial action.

NR 724.13 DOCUMENTATION OF CONSTRUCTION AND COMPLETION.

(1) Responsible parties shall submit to the department a construction documentation or as-built report within 60 days after the date that construction of a remedial action or any interim action specified in s. NR 724.03(1) is completed or determined to be essentially complete by the department.

(2) The report shall document that the completed final remedial or interim action meets or exceeds all design criteria and the plans and specifications developed in accordance with all of the requirement of this chapter.

(3) Unless otherwise directed by the department, the construction documentation report shall include all of the following information:

(a) The information required pursuant to s. NR 724.03(3)(e).

(b) As-built maps, plan sheets, drawings, isometric drawings and cross-sections.

(c) A synopsis of the remedial or interim action and a certification that the design and construction was carried out in accordance with the plans and specifications.

(d) An explanation of any minor changes to the plans and why these were necessary for the project.

(e) Results of all pilot and field tests or studies and site monitoring conducted during construction.

(f) A brief description of the public health and environmental laws applicable to the contamination and the interim or remedial action selected, including the physical location where the environmental laws shall be complied with for each media of concern;

(g) The information required in ch. NR 516 for documenting the construction at the site or facility of any final covers, liners, leachate collection systems and gas collection, extraction and management systems at site or facilities they are responsible for.

Note: Please see the note in s. NR 724.11 for further information on the types of solid and hazardous waste systems covered by s. NR 724.13(3)(g).

(h) A revised operations and maintenance plan in accordance with s. NR 724.11(4), unless the cover letter indicates that there are no revisions to the operations and maintenance plan.

NR 724.15 LONG-TERM MONITORING. (1) GENERAL. (a) Responsible parties shall conduct all necessary and appropriate long-term monitoring at a site or facility in accordance with all of the requirements of this section and any other applicable public health and environmental laws.

(b) Unless otherwise directed by the department, the responsible parties shall submit a long-term monitoring plan to the department that specifies:

1. The parameters to be monitored;

2. The sampling and analytical methods to be used, consistent with the sampling and analysis requirements in s. NR 716.15;

3. The interval at which monitoring is to be performed; and

4. The public health and environmental laws, including standards, to be complied with.

(2) RESULTS. (a) Unless otherwise directed by the department, monitoring results shall be submitted by the responsible parties to the department within 60 days of each sampling event, except as provided in par. (b).

(b) Monitoring results from private and public wells shall be submitted to the department in accordance with s. NR 716.13(9).

Note: Section 144.76(2)(a), Stats., requires that the department be notified immediately of any hazardous substance discharge. The immediate notification requirements of s. NR 158.05 shall be followed by the responsible parties, unless the discharge is from an underground storage tank (UST). Where an UST discharge is

discovered, responsible parties shall immediately follow the notification requirements in s. NR 705.05.

(c) A written report shall be submitted by the responsible parties to the department, including all of the following information:

1. The information required pursuant to s. NR 724.03(3)(e).

2. Results from the sampling event, on forms provided by the department or in an alternate format approved in advance by the department.

Note: The department recommends that groundwater monitoring results be submitted to the department in an electronic (i.e., computer disk) format. However, hard copy (i.e., paper) forms may be used for the submittal of groundwater monitoring results. Hard copy forms may be obtained from any district office of the department, or by writing the Department of Natural Resources, Bureau of Solid and Hazardous Waste Management, P.O. Box 7921, Madison, WI 53707.

3. Monitoring results in tabular and graph form, including the current monitoring results and all previous results, so as to provide a concise summary of the monitoring program.

4. Laboratory analytical reports and sample chain-of-custody forms, unless otherwise directed by the department.

5. Identification of the specific environmental laws, including standards, which have been attained or exceeded, and the physical location of the attainments or exceedances noted on a site or facility map.

6. A preliminary analysis of the cause and significance of any new attainments or exceedances or increases in concentrations of previously reported attainments or exceedances, including the factors specified in s. NR 140.24(1)(c)1. through 9. for groundwater.

(3) DEPARTMENT REVIEW. (a) Plan. The long-term monitoring plan required in s. NR 724.15(1)(a) shall be reviewed by the department in accordance with the procedures specified in s. NR 724.05.

(b) Monitoring Results. 1. The department shall review the results of long-term monitoring every five years if requested to do so by the responsible parties, to evaluate the effectiveness of the remedial action in achieving the environmental and public health laws.

2. The department may review long-term monitoring results at other times at its discretion.

3. The department may require additional remedial action, pursuant to s. 144.76, Stats., or a contract under s. 144.442, Stats., based on the evaluation of monitoring results.

NR 724.17 APPLICATION OF NEW SOIL OR GROUNDWATER QUALITY STANDARDS. (1) If after a remedial action is selected the groundwater quality

standards in ch. NR 140 are modified by the department to be more stringent, or if new soil or groundwater quality standards are promulgated, the department shall require responsible parties to comply with the new or modified soil or groundwater quality standards if the department determines that, for a specific site or facility, compliance with the more stringent standards is necessary to ensure that the interim action or remedial action will be protective of public health, safety and welfare and the environment.

(2) If after a remedial action is selected, the groundwater quality standards in ch. NR 140 are modified by the department to be less stringent, the department shall approve of case closeout if requested by a responsible parties once the new, less stringent standards are attained, if the department determines that the new, less stringent standards will be protective of public health, safety and welfare and the environment at the specific site or facility that is the subject of the case closeout request.

CHAPTER NR 726

CASE CLOSURE

NR 726.01 PURPOSE. The purpose of this chapter is to specify the minimum requirements and conditions that shall be met before the department may determine that a case at a specific site or facility may be closed. This chapter is adopted pursuant to ss. 144.431(a) and (b), 144.442, 144.76, 159.03(1)(a) and 227.11(2), Stats.

NR 726.02 APPLICABILITY. (1) This chapter applies to the closure of all cases where response action, other than immediate action, is taken at a site, facility or portion of a site or facility that is subject to regulation under s. 144.442 or 144.76, Stats., regardless of whether there is direct involvement or oversight by the department, except where the department has determined under ch. NR 158, 705 or 708 that no further action is necessary.

(2) In addition to being applicable to sites or facilities specified in sub. (1), this chapter applies to the proposed closure of solid waste facilities where remedial action is required by the department pursuant to s. NR 508.20(11).

(3) The department may exercise enforcement discretion on a case-by-case basis and choose to regulate a site, facility or a portion of a site or facility under only one of a number of potentially applicable statutory authorities. However, where there are overlapping restrictions or requirements, the more restrictive shall control. The department shall, after receipt of a request from responsible parties, provide a letter that

indicates which regulatory program or programs the department considers to be applicable to a site or facility.

Note: Sites, facilities or portions of a site or facility that are subject to regulation under s. 144.442 or 144.76, Stats., may also be subject to regulation under other statutes, including the solid waste statutes in ss. 144.43 to 144.441 and ss. NR 144.443 to 144.47, Stats., or the hazardous waste management act, ss. 144.60 to 144.74, Stats., and the administrative rules adopted pursuant to those statutes. One portion of a site or facility may be regulated under a different statutory authority than other portions of that site or facility.

NR 726.03 DEFINITIONS. In this chapter:

(1) "Case closure" means a determination by the department that, based on information available at the time of the department's review, no further action is necessary.

(2) "Responsible parties" means:

(a) Persons who are liable for the hazardous substance discharge or environmental pollution under s. 144.442 or 144.76, Stats; and

(b) Owners and operators of solid waste facilities that are subject to regulation under ch. NR 508.

NR 726.05 REQUESTS FOR CASE CLOSURE. (1) After compliance with all applicable federal and state public health and environmental laws, including chs. NR 700 to 726 where applicable, at a site or facility at which a response action, other than an immediate action, has been conducted, responsible parties or other interested persons may request that the department close the case under this chapter.

(2) A request for case closure shall be in writing accompanied by a report demonstrating that the applicable public health and environmental laws, including chs. NR 700 to 724 where applicable to the site or facility, have been complied with. The department may require that the case closure report be summarized in a format supplied by the department.

(3) In order to demonstrate that the applicable public health and environmental laws have been complied with, the person who is requesting case closure shall provide the department with all of the following information:

(a) For groundwater:

1. Documentation showing that site investigation requirements in ch. NR 716 have been met, or where applicable, documentation showing the in-field condition requirements in ch. NR 508, the groundwater assessment requirements in s. NR 140.24(1)(b), or both have been met.

2. A description of the interim and remedial actions taken at the site or facility.

3. Where the department has required groundwater quality sampling to be conducted, results from four successive quarterly rounds of sampling demonstrating compliance with the applicable requirements of ch. NR 140. The samples shall be taken

from monitoring wells constructed in accordance with ch. NR 141. The department may approve an alternative monitoring program designed to show whether groundwater quality standards have been met.

(b) For soil:

1. Documentation showing that site investigation requirements in ch. NR 716 have been met, or where applicable, documentation showing that in-field condition requirements in ch. NR 508, the groundwater assessment requirements in s. NR 140.24(1)(b), or both have been met.

2. A description of the interim and remedial actions taken at the site or facility.

3. Goal

(c) For sediments:

1. Documentation showing that the site investigation requirements in ch. NR 716 have been met.

2. A description of the interim and remedial actions taken at the site or facility.

3. Sampling data demonstrating that the remedial action taken has restored the environment to the extent practicable and minimized the harmful effects of the hazardous substances on the air, lands and waters of the state.

(d) Any other information that the department specifically requests.

(4) The department may not close a case under this chapter if the remaining level of contamination would at any time in the future:

(a) Pose a threat to public health, safety or welfare or the environment.

(b) Cause the attainment or exceedance of a ch. NR 140 groundwater quality enforcement standard at any applicable point of standards application, except where the department has granted an exemption under s. NR 140.28 for a specific hazardous substance.

NR 726.07 DEPARTMENT RESPONSE. (1) Within 30 days after receipt of a request for case closure under s. NR 726.05, the department shall either close the case under sub. (2) or acknowledge in writing the request for case closure and provide an estimated date by which the department intends to determine whether the case can be closed.

(2) Following receipt of a request for case closure under s. NR 726.05, the department shall review the information provided under s. NR 726.05(3) to determine whether the applicable public health and environmental laws, including chs. NR 700 to 724 where applicable, have been complied with and whether any further threat to public health, safety or welfare or the environment exists at the site or facility. Based on this review, the department shall approve the case closure, conclude that additional response actions, such as additional remedial action or long-term monitoring, are needed at the site or facility, or conclude that there is not sufficient information to allow the department to determine whether the applicable public health and environmental laws have been complied with.

(a) If the department approves the request for case closure, the department shall mail written notice of the approval to the responsible parties, other interested persons

who requested closure of the case, and any person who requested such information pursuant to s. NR 714.07(4).

(b) If the department determines that the applicable public health and environmental laws have not been complied with, the department shall mail written notice to the responsible parties, other interested persons who requested closure of the case, and any person who requested such information pursuant to s. NR 714.07(4). The notice shall indicate what conditions must be met in order for the case to receive further consideration by the department for closure.

(c) If the department determines that there is not sufficient information to allow the department to determine whether the applicable public health and environmental laws have been complied with, the department shall mail written notice the responsible parties, other interested persons who requested closure of the case, and any person who requested such information pursuant to s. NR 714.07(4). The notice shall indicate what additional information the department needs in order to determine whether the case can be closed.

(3) The department may, as a condition of case closure, require one or more of the following:

(a) That the property owner record a deed restriction for the site or facility at the office of the register of deeds for the county in which the property is located, specifying the legal description of the property, the location of residual contamination on the property, and the existence of on-site engineering controls, if any, in order to prevent

exposures to contamination, where a restriction, such as a limitation on land use, is necessary to protect public health, safety or welfare or the environment.

(b) That the property owner record an affidavit at the office of the register of deeds for the county in which the property is located which specifies the legal description of the property and the location of residual contamination on the property, and gives notice to any prospective purchaser of residual contamination.

Note: The restrictions imposed on a property by a deed restriction required under s. NR 726.07(3)(a) may be modified with the approval of the department if circumstances change. A second affidavit may be recorded at the register of deeds for the county in which the property is located to update or modify an affidavit required under s. NR 726.07(3)(b).

(c) That all monitoring wells and boreholes installed during any response action be abandoned and documented as abandoned in accordance with s. NR 141.25.

(d) That all wastes generated during the response action be treated or disposed of in accordance with applicable state and federal laws.

(e) Any other conditions necessary to protect public health, safety or welfare or the environment.

Note: For leaking underground storage tank cases, 40 CFR s. 280.67 requires the department to give public notice, by means designed to reach those members of the

public directly affected by the release, if implementation of an approved corrective action plan does not comply with the public health and environmental laws applicable to the selected remedial action and the department is considering case closure. See s. NR 714.05(2)(d) for further reference.

NR 726.09 REOPENING CLOSED CASES. (1) The department may require additional response actions, including monitoring, for any case which has previously been closed by the department, if additional information regarding site or facility conditions indicates that contamination on or from the site or facility poses a threat to public health, safety or welfare or the environment.

(2) If additional response action is required for a previously closed case, the department:

(a) Shall indicate in writing to the responsible parties that additional response action is needed at the site or facility and provide the responsible parties with information regarding the nature of the problem and category of response action that is needed.

(b) May require the responsible parties to achieve compliance with the applicable public health and environmental laws, including chs. NR 700 to 724 where applicable, within a time period established by the department.

CHAPTER NR 728

ENFORCEMENT

NR 728.01 PURPOSE. The purpose of this chapter is to describe the enforcement tools that are available to the department to enforce chs. NR 700 to 726 and to implement response actions at sites or facilities with environmental pollution, and sites where there has been a discharge of a hazardous substance. This chapter is adopted pursuant to ss. 144.431(1)(a) and (b), 144.442, 144.76, 144.77 and 227.11(2), Stats.

NR 728.02 APPLICABILITY. This chapter applies to enforcement actions taken by the department under the authority of s. 144.442, 144.76 or 144.77 Stats.

NR 728.03 DEFINITIONS. In this chapter:

(1) "Environmental repair contract" means an agreement entered into by one or more persons and the department pursuant to s. 144.442, Stats., which requires the performance of a response action at a site or facility which causes or threatens to cause environmental pollution.

(2) "Consent order" means an administrative order issued by the department which the order recipient stipulates to and waives the right to a contested case hearing on the order.

NR 728.05 REFERRALS FOR RULE VIOLATIONS. Any person who violates the requirements of chs. NR 700 to 726 may be referred to the office of the attorney general by the department. Any person who is referred to the office of the attorney general by the department shall be given written notice of the referral. Section 144.98, Stats., requires that the attorney general enforce ch. 144, Stats., and all rules promulgated to implement ch. 144, Stats.

Note: Section 144.99, Stats., provides for forfeitures of not less than $10 nor more than $5,000 for each violation of ch. 144, Stats., any rule promulgated under ch. 144, Stats., or any plan approval, license or special order issued under ch. 144, Stats. Each day of continued violation is a separate offense.

NR 728.07 ENVIRONMENTAL REPAIR CONTRACTS. (1) APPLICABILITY. The department may enter into an environmental repair contract with any person for response actions pursuant to s. 144.442, Stats.

(2) CONTENT. All environmental repair contracts entered into pursuant to s. 144.442, Stats., shall contain at a minimum, all of the following provisions:

(a) A description of the site or facility, and its location.

(b) A listing of the parties to the contract.

(c) A schedule for completing the response action covered by the contract.

(d) Provision for stipulated penalties if the response action is not completed in accordance with the contract schedule.

(e) The method for resolving any disputes which may arise during the implementation of the response actions.

(f) The method for modifying the contract.

NR 728.09 SPECIAL ORDERS (1) EMERGENCY ORDERS. The department may issue emergency orders without prior hearing, pursuant to s. 144.76(7)(c), Stats., to the person or persons responsible for a hazardous substance discharge, for the purpose of protecting public health, safety or welfare. Such an emergency order shall become effective upon receipt. However, the recipient of the order shall have 10 days after service of the order to file a petition for judicial review pursuant to ss. 227.52 and 227.53, Stats. The emergency order shall remain in effect after the filing of a petition for judicial review unless the reviewing court issues a stay.

(2) UNILATERAL ADMINISTRATIVE ORDERS. The department may issue unilateral administrative orders pursuant to s. 144.76(7)(c), Stats. Such an administrative order shall become effective 30 days after service of the order, unless the order recipient petitions for a contested case hearing within that 30-day period. All such petitions shall be filed in accordance with the requirements of s. NR 2.05.

(3) CONSENT ORDERS. The department may, in its discretion, issue a consent order pursuant to s. 144.76(7)(c), Stats., if the order recipient is willing to stipulate to the order's issuance.

CHAPTER NR 730

SUPERFUND COST SHARING

NR 730.01 PURPOSE. The purpose of this chapter is to establish criteria for the department's expenditure of moneys for Superfund state cost share purposes from the appropriations that are referenced in s. 144.442(8)(b), Stats., and for determining a municipality's responsibility to pay a share of the state's Superfund cost share in cases where a municipality will benefit from the proposed remedial action. This chapter is adopted pursuant to ss. 144.431(1)(a) and (b), 144.442 and 227.11(2), Stats.

NR 730.02 APPLICABILITY. This chapter applies to all cases where the department is considering signing a Superfund state contract with U.S. EPA, under the authority of s. 144.442(8), Stats., in order to authorize the payment of a state cost share for a Superfund-financed remedial action. It also applies to those cases where a municipality will benefit from the proposed remedial action and is not a responsible party under section 107(a) of CERCLA.

NR 730.03 DEFINITIONS. The definitions found in s. NR 700.03 apply to this chapter.

NR 730.05 SUPERFUND STATE COST SHARE. (1) COOPERATIVE AGREEMENTS AND SUPERFUND STATE CONTRACTS. The department may

enter into cooperative agreements or Superfund state contracts with the U.S. EPA for the purpose of taking a response action under CERCLA. The department may use money from the appropriations referenced in s. 144.442(8)(b), Stats., to pay the required Superfund state cost share of any Superfund-financed remedial action taken at a national priorities list site in accordance with the criteria in sub. (2).

(2) CRITERIA FOR COST SHARING. (a) General. The department shall consider the criteria in pars. (b) to (i), to determine whether or not to enter into a Superfund state contract with U.S. EPA.

(b) Department evaluation of the proposed remedial action. The department shall review the remedial investigation, feasibility study, the proposed plan and any other reports prepared by U.S. EPA to evaluate the proposed remedial action. The department may not commit the required Superfund state cost share for a remedial action unless the department is in substantial agreement with EPA's assessment of the expected ability of the proposed remedial action to protect public health, safety and welfare and the environment, and to comply with the applicable state environmental and public health laws and standards, whichever are more stringent.

(c) Money available to the department. The department shall consider the money available from the appropriations in s. 144.442(8)(b), Stats., taking into account all of the following:

1. At the beginning of each fiscal year, the department shall reserve adequate funds for planned investigations, environmental repair and hazardous substance spill program response actions, abandoned container response actions, LUST program state

matching funds and emergency actions. 2. The department shall consider the timing of expenditures in relation to the end of the state fiscal year and the availability of new appropriations. When nearing the end of a state fiscal year, the department may use funds earlier reserved for environmental repair or hazardous substance spill program response actions, abandoned container response actions and emergency immediate actions, to commit to a Superfund state cost share for remedial actions to be taken at a national priorities list site.

(d) Money available from other sources. The department shall consider the money available from other sources to pay the capital cost and annual operation and maintenance costs for remedial actions taken at a national priorities list site. Sources may include any one of the following:

1. Potentially responsible parties or interested persons, including local governments, who are willing and able to pay any part of the remedial action costs.

2. Funding from the Wisconsin well compensation program under ~~(x)~~ s. 144.027, Stats.

3. For mining facilities, the investment and local impact fund under s. 144.441(6)(b) through (d), Stats.

4. Closure bonds or other proof of financial responsibility that were previously submitted to the department.

(e) Timing of response actions. The department shall consider whether or not the threat to public health, safety or welfare or the environment at the site or facility shall become greater if remedial action is delayed.

(f) Preclusion of other projects. The department shall consider whether the department's ability to take response action at other sites or facilities shall be precluded by committing state funds for the Superfund state cost share for the proposed remedial action to be taken at a national priorities list site.

(g) Department staff resources. The department shall consider the availability of department staff to serve as project managers and to review submittals.

(h) Other criteria. The department may consider any other criteria it deems appropriate.

(3) NOTIFICATION. After consideration of the criteria in sub. (2), the department shall notify EPA as to whether or not the department shall commit the required Superfund state cost share for the proposed remedial action to be taken under CERCLA.

NR 730.07 MUNICIPAL COST SHARE. (1) GENERAL. (a) The department may require a municipality that is not a potentially responsible party under CERCLA to pay up to 50% of the amount expended by the department, for a Superfund-financed response action taken in cooperation with the U.S. EPA, under CERCLA. A payment schedule for the municipal cost-share amount shall be negotiated between the municipality and the department, and shall include credit to the municipality for provision of operation and maintenance activities, as well credit for payment of any capital costs. A municipality shall not be required to pay more than $3 per capita in any one year.

(b) A response action need not be taken within the boundaries of a municipality for that municipality to be required to pay a share of the state's Superfund cost share. More than one municipality may be required to pay a share of the state's cost share at a CERCLA site, with the total amount charged to all municipalities at a given site not to exceed 50% of the amount of the state's cost-share. If more than one municipality will benefit, the analysis performed pursuant to sub. (3) shall be done for each municipality.

(2) METHOD. The department shall use the following methods specified in pars. (a) to (d), including Tables 1 and 2, to determine the portion of the state's Superfund cost share a municipality shall be required to pay.

(a) The department shall use Table 1 to determine the appropriate percentage for the full property value per capita in the municipality, as specified in subd. 1, and the appropriate percentage for the average per capita income of residents in the municipality, as specified in subd. 2.

1. The full property value per capita in the municipality. The full property value per capita for each municipality shall be determined using the most recent data published by the Wisconsin department of revenue. The full property value per capita for a municipality shall be compared with the full property value per capita for all municipalities in Wisconsin to determine the municipality's relative ability to pay with respect to per capita property value.

2. The average per capita personal income of residents in the municipality. The most recent Wisconsin department of revenue statistics that are available shall be used to determine the per capita personal income for all municipalities in Wisconsin. The

average per capita personal income for a municipality shall be compared with the average per capita personal income for all municipalities in Wisconsin to determine the municipality's relative per capita personal income.

(b) The full property value per capita in the municipality and the per capita personal income of the residents in the municipality, compared to all Wisconsin municipalities, shall be calculated separately and the resulting percentages shall be summed together to get a total percentage for Table 1.

Table 1

Municipality's Property Value per Capita Divided by Average Property Value per Capita for All Wisconsin Municipalities	Relative Ability to Pay
> 100%	25%
75% - 99.9%	18%
50% - 74.99%	12%
25% - 49.99%	6%
0% - 24.99%	1%

Municipality's per Capita Income Divided by Average per Capita Income for All Wisconsin Municipalities	Relative Ability To Pay
> 100%	25%
75% - 99.99%	18%
50% - 74.99%	12%
25% - 49.99%	6%

0 - 24.99%	1%

(c) The department shall use Table 2 to determine the benefit received by the municipality. The benefit of a remedial action to a municipality shall be defined in terms of the cost savings to the municipality resulting from implementation of the remedial action. To calculate the benefit, cost savings for the 10 years following construction of the remedial action shall be used in situations where the remedial action will require operation and maintenance after construction is completed. In calculating the benefit, only those projects that would be performed by the municipality (i.e. installation of a new water supply, road maintenance, or flood protection) shall be counted.

Table 2

Benefit to the municipality, measured as a percentage of most recent annual budget	Percentage for purposes of determining amount municipality is required to pay
>50%	50%
25.1 - 49.9%	25%
10.1 - 24.9%	10%
<10%	1%

(d) After the individual percentages have been determined using the methods in pars. (b) and (c), the percentages shall be summed and divided by 2 to get a final percentage. The final percentage shall represent the percentage of the state's Superfund cost share the municipality shall have to pay.

CHAPTER NR 732

COST REIMBURSEMENT FOR MUNICIPAL LANDFILL MONITORING

NR 732.01 PURPOSE. The purpose of this chapter is to provide eligibility criteria and procedures for submitting, processing, and approving requests for state reimbursement of monitoring costs incurred by a municipality, that is an owner or a past or present operator of a closed solid or hazardous waste disposal site or facility which was either a nonapproved municipal landfill or a waste site, as defined in s. 144.442(1)(e), Stats. This chapter is adopted pursuant to ss. 144.431(1)(a), 144.44(4)(f), 144.442(6m) and 227.11(2), Stats.

NR 732.02 APPLICABILITY. This chapter applies to monitoring required of a municipality through the issuance of a special order by the department under the authority of s. 144.44(4)(f)(3), Stats.

NR 732.03 DEFINITIONS. In this chapter:

(1) "Closed" means no longer accepting solid or hazardous waste.

(2) "Eligible monitoring cost" means "expenditures incurred by a municipality for monitoring required by an order under s. 144.44(4)(f)(s), Stats., including expenditures for geophysical surveys, mapping, private and public well sampling, placement of monitoring wells, access fees and actual costs of collection.

(3) "Environmental fund" means the fund established in s. 25.46, Stats.

(4) "Monitoring" has the meaning specified in s. 144.44(4)(f)1., Stats.

Note: Section 144.44(4)(f)1, Stats., defines "monitoring" to mean "activities necessary to determine whether contaminants are present in groundwater, surface water, soil or air in concentrations that require investigation or remedial action. 'Monitoring' does not include investigations to determine the extent of contamination, to collect information necessary to select or design remedial action, or to evaluate the performance of remedial action."

(5) "Nonapproved municipal landfill" means either a licensed solid or hazardous waste disposal facility which was never an "approved facility" as that term is defined in s. 144.441(1)(a), Stats; or an area used by a municipality for the disposal of municipal or industrial waste, or both, which never received a license or written approval for operation from the department.

(6) "Waste site" has the meaning specified in s. 144.442(1)(e), Stats.

Note: Section 144.442(1)(e), Stats., defines "waste site" to mean "any site, other than an approved facility, an approved mining facility or a nonapproved facility, where waste is disposed of regardless of when disposal occurred."

NR 732.05 ELIGIBILITY. (1) A municipality that is an owner or a past or present operator of a closed, nonapproved municipal landfill or waste site may seek reimbursement for any eligible costs of monitoring incurred pursuant to an order issued

by the department under s. 144.44(4)(f)3, Stats., if all of the following conditions are satisfied:

(a) The municipality is in compliance with the order issued by the department under s. 144.44(4)(f)3, Stats.

(b) The municipality has provided an affidavit to the department that the municipality has filed a claim for the costs of monitoring with all of the municipality's past and present liability insurance carriers, for which insurance coverage may still be in effect, and that to date coverage has been denied in whole or in part.

(c) If the municipality's liability insurance carriers pay the municipality for any of the monitoring costs for the same closed, nonapproved municipal landfill or waste site for which the municipality received any payment under this chapter, the municipality agrees that it shall reimburse the department for the payments made under this chapter from the insurance proceeds.

(d) The costs incurred are reasonable and necessary for the monitoring that has been ordered.

(2) Any monitoring that is conducted at a nonapproved municipal landfill that closes after the issuance of a department order requiring monitoring shall not be eligible for reimbursement under this chapter.

NR 732.07 APPLICATIONS FOR REIMBURSEMENT. (1) Municipalities shall submit reimbursement applications on forms that are available from the department.

Note: Copies of these forms may be obtained from the Department of Natural Resources, Bureau of Solid and Hazardous Waste Management, Emergency and Remedial Response Section, P.O. Box 7921, Madison, WI 53707.

(2) All applications for reimbursement of monitoring costs incurred in the previous calendar year or before shall be submitted to the department on or before June 1st of each year, in order to be eligible for payment in that same calendar year. Properly completed applications submitted before June 1st shall be reimbursed no later than September 1 of that year. Applications that are received by the department after June 1st of any year shall be paid from the environmental fund appropriation under s. 20.730(2)(dv), Stats., on or before September 1 of the following year.

Note: Applications should be submitted to the solid waste staff person assigned to the site for review of eligibility and compliance with the order. The application will be forwarded to the department's environmental repair unit in Madison, for review.

Note: A municipality may elect to carry over eligible costs from one year to the next to maximize their reimbursement should the order be issued so that only a portion of the monitoring cannot be completed prior to June 1st.

NR 732.09 REIMBURSEMENT. (1) The department shall pay the total eligible monitoring costs incurred by the municipality pursuant to an order issued under s.

144.44(4)(f)(3), Stats., which exceed $3 multiplied by the municipal population, prior to making other payments from the environmental fund appropriation under s. 20.370(2)(dv), Stats.

(2) The department shall reimburse a municipality that has submitted a properly completed application for reimbursement, in compliance with the requirements of ss. NR 732.05 and 732.07, up to a maximum of $100,000 total for each closed, nonapproved municipal landfill or waste site. The department shall reimburse the municipality from the environmental fund appropriation that is referenced in s. 144.44(4)(f)5, Stats. Any monitoring costs incurred by the municipality which exceed this maximum shall be the responsibility of the municipality.

CHAPTER NR 734

SELECTING AND CONTRACTING ENVIRONMENTAL CONSULTING SERVICES

NR 734.01 PURPOSE. The purpose of this chapter is to establish procedures that apply to the procurement of professional services of consultants by the department for projects related to hazardous substance discharge and environmental repair response actions. This chapter is adopted pursuant to ss. 144.431(1)(a) and (b), 144.442, 144.76. 144.77 and 227.11(2), Stats.

NR 734.02 APPLICABILITY. This chapter applies to the department's selection of, and contract negotiations with, consultants which the department proposes to hire to conduct response actions under the authority of s. 144.442 or 144.76, Stats.

NR 734.03 DEFINITIONS. In this chapter:

(1) "Consultant data record form" means a form upon which consultants provide specific data requested by the department to facilitate evaluation of their performance capabilities, experience, personnel and staff and information on past projects.

(2) "Consultant proposal" means those documents submitted by a consultant, indicating interest in providing professional services to the department for a proposed project. The documents may include a tentative project work schedule, the method and

staff that would be employed to meet the requirements of the proposed project and other information, as requested by the department.

(3) "Project" means any response action which the department proposes to conduct or conducts.

(4) "Minority business" means a business certified by the department of development pursuant to s. 560.036, Stats.

(5) "Selection committee" means a group composed of department employees appointed by the department secretary, or his or her designee, for the purpose of selecting consultants to provide professional services to the department for a project.

NR 734.05 CONSULTANT QUALIFICATION LIST. (1) The department shall maintain a list of consultants interested in providing professional services to the department. Consultants who wish to be on the list may submit a consultant data record form to the department at any time, listing their qualifications.

(2) Consultant data record forms may be requested by the department every 2 years for the purpose of maintaining a list of consultants interested in providing professional services to the department. Invitations to submit a consultant data record form shall be published as a class 2 notice in the state's official newspaper.

(3) In addition to the class 2 notice required in sub. (1), an invitation to submit a consultant data record form may be offered by advertising in trade publications or other newspapers.

(4) The consultant data record forms shall include a request for information on the firm's status as a minority business.

Note: Consultant data record forms may be obtained by contacting the DNR's Bureau of Solid and Hazardous Waste Management, Emergency and Remedial Response Section, Public Information Request, 101 S. Webster St., Madison, WI 53707.

NR 734.07 SELECTION PROCESS. (1) A list of consultants that, based on an accurate and completed consultant data record form, possess the necessary capabilities for each proposed project shall be provided to the selection committee members.

(2) The selection committee shall review the requirements of each project and the qualifications of consultants and select a consultant considered to be appropriate for each project.

(3) When selecting a consultant, the selection committee may utilize any of the procedures specified in ss. NR 734.09, 734.11 and 734.13, for projects with projected costs less than $2,500,000.

(4) For projects with projected costs greater than $2,500,000, the selection committee shall utilize the procedures in s. NR 734.13.

NR 734.09 COMMITTEE NOMINATION PROCEDURE. (1) Any member of the selection committee may nominate a consultant for consideration. The nominated consultant shall either be from the list of consultants supplied under s. NR 734.07(1) or

the consultant shall, at the request of the committee, complete a consultant data record form within 20 days after nomination. If the nominated consultant fails to provide a completed consultant data record form within that time frame the consultant's name shall be removed from consideration for the project.

(2) Upon review of the consultant data record forms of nominated consultants for appropriate capabilities, the committee shall select one or more consultants considered appropriate for the proposed project.

(3) Upon selection, the selection committee shall request a proposal from one or more consultants.

NR 734.11 REQUEST FOR QUALIFICATIONS. (1) The selection committee may request consultants who have submitted a consultant data record form to submit an additional statement of qualifications specific to a project.

(2) Criteria for evaluating the project-specific qualifications shall be established by the selection committee or a designee of the chairperson prior to the review of the statement of qualification.

(3) Proposals may be requested from one or more consultants who meet the project-specific qualification criteria.

NR 734.13 ADVERTISEMENT FOR PROPOSALS. (1) For projects having an estimated cost which exceeds $2,500,000, an invitation for any consultant to submit a project-specific statement of qualifications for consideration by the selection committee

shall be published by the department as a class 2 notice under ch. 985, Stats., in the official state newspaper. The notice shall contain, at a minimum, all of the following information:

(a) Project title and location.

(b) Name of the department.

(c) Date and place where project information and scope of work may be obtained.

(d) Description of services required.

(e) Location where proposals will be received and the date and time receipt of proposals will close.

(2) In addition to the class 2 notice required in sub. (1), the department may also solicit project-specific statements of qualifications by any appropriate method, including any of the following:

(a) Placing the notice in trade publications or newspapers within the locale of the project.

(b) Mailing the notice directly to potential consultants, if such measure is deemed necessary by the department to assure an adequate number of consultants for consideration by the selection committee.

(3) Criteria for evaluating project-specific qualifications shall be established by the selection committee or the designee of the chairperson prior to review of the statements of qualification.

(4) Proposals may be requested from one or more consultants who meet the project-specific qualification criteria.

NR 734.15 REQUEST FOR PROPOSAL. (1) Upon selection of one or more qualified consultants, the selection committee shall transmit to the consultants the department's project scope of work and a request for a proposal for completing the project.

(2) The selection committee may request proposals from any number of qualified consultants.

(3) The department's proposed project scope of work shall include all of the following:

(a) Consultant reporting requirements.

(b) Consultant data generation requirements.

(c) The requirements for a site safety plan.

(d) A copy of the department's standard contract.

(e) Any other project specific requirements.

(4) The request for proposal shall specify a date by which the consultant's proposal shall be submitted to the department. If the consultant cannot provide the completed proposal by the time specified, the department may either grant a time extension or deem the consultant non-responsive and remove the consultant from further consideration for the project.

(5) The consultant's proposal shall include all of the following:

(a) A detailed description of the work to be completed.

(b) A list of key personnel expected to work on the project and their qualifications pursuant to ch. NR 712.

(c) A cost breakdown for the work to be performed, by task and assigned personnel.

(d) A list of subcontractors expected to work on the project and their qualifications pursuant to ch. NR 712.

(e) A quality assurance and quality control plan.

(f) A site safety plan.

NR 734.17 PROPOSAL REVIEW. (1) In selecting a consultant for a project, the department shall consider the adequacy of the proposal submitted under s. NR 734.15, in addition to the information is pars. (a) to (e).

(a) Past performance on similar projects.

(b) Experience and expertise necessary for the specific project.

(c) Availability of qualified environmental staff, as required by ch. NR 712.

(d) The consultant's geographic proximity to the site or facility.

(e) Status as a minority-owned firm.

Note: The department shall attempt to ensure that at least 5% of the total amount expended under this section in each fiscal year is paid to minority businesses, as required in s. 23.41 (6), Stats.

NR 734.19 INTERVIEW. (1) If the selection committee considers it necessary, the committee may interview one or more consultants for the purpose of discussing the

department's requested scope of services and the consultant's proposed method to implement the department's scope of work.

(2) Upon completion of the consultant's presentations, the selection committee shall select a consultant in accordance with the requirements of s. NR 734.15. An alternate consultant may also be designated by the committee.

NR 734.21 AWARD OF CONTRACT. (1) The department may negotiate the costs and scope of work for any project with a consultant.

(2) Upon completion of contract negotiations, a contract shall be sent to the consultant for signature.

(3) The contract shall be signed by the consultant and the department's secretary.

(4) Projects with a cost greater than $30,000 shall be signed by the governor, in addition to the signatures required pursuant to subs. (3).

(5) No work on a project may commence until after the required signatures have been obtained.

NR 734.23 PERFORMANCE REPORTING. The department may evaluate the performance of consultants, create a written record of that evaluation, provide summaries of the evaluation to the consultant, provide the consultant an opportunity to discuss the evaluation with the department and allow the consultant to submit a written response for inclusion in the record.

CHAPTER NR 736

ADVERTISING, BIDDING AND AWARD OF ENVIRONMENTAL CONSTRUCTION CONTRACTS

NR 736.01 PURPOSE. The purpose of this chapter is to establish procedures for the department to implement the advertising and award of contracts for environmental construction contracts pursuant to s. 23.41, Stats. This chapter is adopted pursuant to ss. 144.431(1)(a) and (b), 144.442, 144.76, 144.77 and 227.11(2), Stats.

NR 736.02 APPLICABILITY. This chapter applies to the department's advertising, bidding and award of environmental construction contracts with estimated construction costs that exceed $30,000, which the department proposes to enter into for response actions taken under the authority of s. 144.442, 144.76 or 144.77, Stats.

Note: Small environmental construction projects, with an estimated construction cost of $30,000 or less, will be processed by the department using expedited procedures not set forth in this chapter.

NR 736.03 DEFINITIONS. In this chapter:

(1) "Advertisement for proposals" means a written notice issued by the department announcing that sealed bids will be received for a specific environmental

construction project, inviting prospective bidders to obtain or review drawings and specifications for the purpose of submitting a bid to do work.

(2) "Bid" means a completed standard bid form on which the bidder has set forth the price or prices for which the bidder shall be willing to enter into a contract to perform and complete the work bid, in full compliance with the contract documents.

(3) "Bidder" means a person that submits a bid.

(4) "Bidder's authorized representative" means an individual who has been provided, in writing, the authority to act in the bidder's behalf.

(5) "Bidding period" means the time from the date of first publication of the advertisement for proposals to the time of bid opening.

(6) "Bid guarantee" means a properly executed department form of bid bond, a bank certified check, or a cashier's check, in an amount equal to 10% of the highest combination base bid or bids and alternate bids submitted.

(7) "Minority business" means a business certified by the department of development pursuant to s. 560.036, Stats.

(8) "Supporting document" means those documents submitted with a bid, including the bid guarantee, a power of attorney if a bid bond is submitted as bid guarantee, required affidavit forms and other information specifically requested by the department.

NR 736.05 ADVERTISING. (1) All drawings and specifications for the project shall be available for distribution to prospective bidders on or before the date upon

which the advertisement for proposals shall be published. The advertisement for proposals shall specify the following information:

(a) Location of the work.

(b) Identification of the department as the owner.

(c) Scope of the work, which describes the primary function of the project.

(d) That a 10 percent bid guarantee shall be required.

(e) Date and time receipt of bids shall close and public opening shall occur.

(f) Location where bids shall be received.

(g) Date, time and location where drawings and specifications shall be available.

(2) The department shall advertise for proposals by publication of a class 1 notice under ch. 985, Stats., in the official state newspaper. The notice shall be published a minimum of 30 days prior to bid opening, unless the department indicates in writing that the bidding period will be for a lesser period of time.

(3) In addition to the class 1 notice required in sub. (2), the department may solicit and advertise for proposals by either or both of the following methods:

(a) An advertisement for proposals in trade publications, or newspapers within the locale of the project, which would have the potential of reaching prospective bidders.

(b) An advertisement for proposal mailed directly to potential bidders, if such measure is deemed necessary to encourage adequate competition in bidding.

NR 736.07 ISSUANCE OF ADDENDA. (1) The department may issue addenda during the bidding period to correct, alter, or to provide clarification of the drawings and

specifications or other contract requirements for the project being bid or to extend the bidding period. No oral correction, alteration or clarification of bid documents shall be considered valid.

(2) Each addendum issued shall be identified by project number and title, date of addenda, and assigned an addendum number which will indicate consecutive issue.

(3) Addenda shall be distributed to every recipient of drawings and specifications for the project being bid, including all locations where drawings and specifications are available for public inspection.

(4) No addenda shall be issued during the last 7 days prior to the published bid opening date, unless such addenda include an extension of the bid opening date for a minimum of 7 additional days.

NR 736.09 SUBMITTAL AND RECEIPT OF BIDS. (1) All bids shall be submitted in sealed envelopes.

(2) The bidder shall place all of the following information on the face of the envelope containing the bidder's proposal:

(a) A statement that the envelope contains a sealed bid.

(b) Project name.

(c) Project number.

(d) Location of project.

(e) Bid date.

(f) Name and address of bidder.

(3) The bidder is responsible for the sealed bid being delivered to the place designated in the published advertisement for proposals, on or before the date and time specified.

(4) All sealed bids received by the department shall be stamped upon the face of the envelope indicating the date and time the envelope was received.

(5) Sealed bids received by the department, after the date and time designated in the advertisement for proposal, shall have the date and time of receipt stamped upon the face of the envelope and be returned to the bidder unopened.

(6) The bidder shall indicate his or her status as a minority business where provided on the bid form.

NR 736.11 WITHDRAWAL OF BIDS. (1) At any time before the date and time of bid opening, a bidder or the bidder's representative may withdraw the bid without prejudice to the right of the bidder to submit a new bid. Withdrawal of a bid may be accomplished by one of the following methods:

(a) A written request submitted and signed by the bidder on the bidder's letterhead stationery.

(b) Personal appearance of the bidder or the bidder's authorized representative. Either individual shall be required to sign a receipt for the withdrawn bid.

NR 736.13 BID OPENING. (1) A representative of the department shall preside at the bid opening as the bidding officer. At the date and time for bid opening, the

bidding officer shall announce to those in attendance that bidding is officially closed and public opening and reading of bids will commence.

(2) All of the following rules shall be observed when reading the bids:

(a) Following identification of each bid to be read, it shall be publicly stated whether a bid guarantee has or has not accompanied the bid. If a bid guarantee has not accompanied the bid, the remainder of the bid contents may not be read.

(b) Where both written word and numerical dollar amounts are requested on the bid form, the written word amount is the amount that controls and that shall be publicly read.

(3) The bidding officer shall identify the project title for which the bid shall be read.

(4) All of the following bid information shall be publicly read aloud by the bidding officer and recorded in the official bid tabulation form as bids are read:

(a) The name of bidder whose bid is being read.

(b) The written word price quotation for the base bid and any alternate bids.

(c) If offered, the written word price quotation of a combined bid and identification of the base bids, which constitute the work proposed under the combined bid submitted.

(5) Upon completing the public reading of bids, the bidding officer shall announce that the bid opening for the specific project is officially closed and the results of the bid opening shall be available at a later date after bidding information has been checked and validated.

Note: Any informalities, omissions, errors or mistakes will be evaluated by the department during the validation of bids.

NR 736.15 REJECTION OF BIDS. (1) The department shall reject any bid which evidences any of the following conditions:

(a) The base bid amount and alternate bid amounts as requested in the specifications have not been entered on the bid form.

(b) The bid form has not been signed by the bidder.

(c) The bid guarantee has not accompanied the bid form.

(d) Receipt of an addendum applicable to the award of contract has not been acknowledged on the bid form.

(e) The bid form has been altered or changed in such a way that it incorporates unsolicited material, either directly or by reference, which would alter any essential provision of the contract documents or require consideration of the unsolicited material in determining the award of contract.

(f) The bid is submitted by a bidder whom, through investigation, is found not to be qualified or responsible under s. NR 736.17(2).

(2) The department may reject any bid if the included documents have any of the following informalities, unless such informalities are waived by the department and corrected by the bidder within 3 business days from date and time of bidder notification:

(a) Submittal of bid bond on a form other than that contained in the specification volume.

(b) No power of attorney submitted with bid bond.

(c) Date of power of attorney precedes date of bid bond.

(d) Bonding company is not licensed to do business in Wisconsin.

(e) Failure to submit an affidavit, affirming that bidder is not guilty of collusion or fraud with regard to bid submittal.

(f) Failure to submit any other document which is specifically requested in the specifications to be submitted with the bid form, acceptance of which would not constitute a correction or alteration of the bid.

(3) The department may reject all low bids constituting the total lowest construction cost when such amount exceeds the authorized funds available.

(4) The department may reject any or all bids if, in the opinion of the department, the best interest of the state will be served.

(5) Rejection of either a combined bid or the separate bids which correspond to the combined bid, as submitted by the bidder, shall not invalidate the other.

(6) The reason or reasons for rejection of a bid, if due to any of the conditions stated in this section shall be sent to the bidder in writing within 30 days after the date of bid opening.

(7) If a bidder gives prompt written notice that a contract will not be executed due to a mistake, error or omission in the bid, which does not constitute gross negligence, the bid guarantee may be returned by the department.

NR 736.17 AWARD OF CONTRACTS. (1) The department shall award contracts to the lowest qualified responsible bidder which results in the lowest total construction cost for the project if such amount does not exceed the available funds authorized for the project.

(2) The lowest qualified responsible bidder shall be determined utilizing all of the following criteria:

(a) The lowest bidder is one whose bid contains the lowest total dollar amount when compared with other bids submitted for the same work.

(b) A qualified bidder is one who meets all of the following conditions:

1. Has completed one or more projects of at least 50 percent of the size or value of the work being bid and of the type of work completed similar to that being bid. If other experience requirements, other than size or value of past work is deemed necessary by the department, such requirements shall be described in the bid specifications.

2. Has access to all necessary equipment and has the organizational capacity and technical competence necessary to perform the work properly and expeditiously.

3. A joint venture consisting of 2 or more contracting firms organized for the purpose of entering into an environmental construction contract as a single entity shall be considered a qualified bidder, if the assignment of and provisions for continuity of the various responsibilities within the joint venture are agreed upon prior to award of a contract and further providing that one of the individual firms constituting the joint venture is a qualified bidder as specified in par. (b).

(c) If the project is of such magnitude as to limit competition as a result of the conditions established for qualification, the department may waive any conditions for qualification.

(d) A responsible bidder is one who meets all of the following criteria:

1. Maintains a permanent place of business.

2. Provides a sworn statement upon request, which shows the bidder has adequate financial resources to complete the work being bid, as well as all other work the bidder is under contract to complete.

3. Is bondable for the term of the proposed contract.

4. Has a record of satisfactorily completing past projects. Criteria considered in determining satisfactory completion of projects by contractors and subcontractors shall include:

a. Contracts completed in accordance with drawings and specifications.

b. Diligently pursued execution of the work and completed contracts according to the established time schedule and department authorized extensions.

c. Fulfilled guarantee requirements of the contract documents.

d. Established and diligently maintained a satisfactory affirmative action program in accordance with the contract provisions.

5. Is not presently on an ineligible list maintained by the department of administration for noncompliance with equal employment opportunities and affirmative action requirements as provided in s. 16.765(9), Stats., is not presently on an ineligible

list for wage rate violations, or on a Federal debarred list if the project is federally funded.

(3) The department shall make the final determination as to which bidder is the lowest qualified responsible bidder.

(4) If the total of the proposals submitted by the lowest qualified responsible bidder or bidders exceed the estimated project cost, the department may negotiate deductive changes, not to exceed 5 percent of the total bid by any of the lowest qualified responsible bidders, for each contract, to bring the bids within funding limits.

(5) The department may consider any unsolicited material accompanying the bid of the lowest qualified responsible bidder only after contracts have been awarded on the basis of the information contained in the bid form. Such consideration may be given to unsolicited material only if it is in the best interest of the state to do so, and does not warrant rejection due to any of the conditions stated in s. NR 736.15(1)(e).

(6) Award of a contract shall not be finalized until the required performance payment bond and certificate of insurance have been received and approved by the department.

(7) Any contractor or subcontractor who enters into a contract on a state environmental construction project shall assume an obligation to take whatever affirmative action is necessary to ensure equal employment opportunity in all aspects of employment, irrespective of age, race, religion, color, handicap, sex, physical condition, developmental disability as defined in s. 51.01(5), Stats., sexual orientation or national origin.

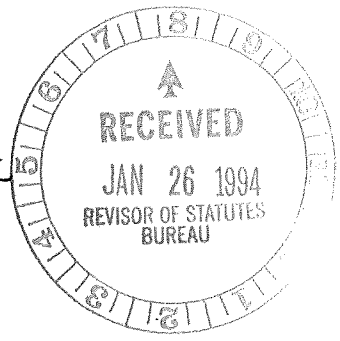
The foregoing rules were approved and adopted by the State of Wisconsin Natural Resources Board on September 23, 1993.

These rules shall take effect on the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22 (2) (intro.), Stats., except that Section 23 of this Order shall take effect 12 months after the first day of the month following publication.

Dated at Madison, Wisconsin January 18, 1994.

STATE OF WISCONSIN

DEPARTMENT OF NATURAL RESOURCES



(SEAL)

By George E. Meyer

George E. Meyer, Secretary