### State of Wisconsin

CR 86-240

## DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny Secretary

BOX 7921 MADISON, WISCONSIN 53707

File Ref:

STATE OF	WISCONSIN			
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DEPARTMEN	IT OF	NATURAL	RESOURCES	)

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Revisor of Statutes

Bureau

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Bruce B. Braun, Deputy 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-66-86 was duly approved and adopted by this Department on June 25, 1987 and October 29, 1987. I further certify that said copy has been compared by me with the original on file in this Department and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the Department at the Natural Resources Building in the City of Madison, this //\*
day of November, 1987.

ruce B. Braun, Deputy Secretary

(SEAL)

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

IN THE MATTER OF repealing ss. NR 181.04(70m), 181.21(6)(b), 181.41(1)Note, 181.44(3)(a)4.Note and (14)(c), renumbering ss. NR |8|.|9(4)(b)|0. and (5)(b)|0., |8|.2|(6)(c) to (f), 181.22(4), 181.23(2)(j), 181.24(1)(f) and 181.26(4), renumbering and amending s. NR 181.44(12)(a)1.a. to c., amending ss. NR 181.02 Note, 181.04(6r), (28), (39), (42), (71m), (75)(a), (81m), (93), (95)Note, (109m) and (111m)Note, 181.05, 181.06(1) to (3), 181.08(1)(a), 181.12(4)(a), 181.135(3)(intro.) and (5)(intro.), 181.15(2)(a)2. and 3., (3)(a)1. and 2. and (4)(a)7. and 8., 181.16(2)(a) Table 11 and (b) Table III, (3)(a) and (b)(intro). and Table IV, (c)(intro.). and Table V and (4) Table VI, [81,18(1)(a)Note, (2)(a)Note and (4), [8].[9(1)(a), (b) and (d), (2)(b) and (3)(intro.), (b) and . (c) and (4)(a)5., 181.21(1), (2)(c), (4)(†††le), (5)(a)(intro.), 2.e., 3.e. and 4. and (b)(intro.) and l. and (6)(e), 181.23(2)(f) and (h)6., 10.(intro.) and il., 181.24(1)(intro.) and (2), 181.26(1), (2)(title) and (intro.), (a) and (b) and (3), 181.31(3), 181.34(1) to (3), 181.36(1)(b) and (2), 181.37(2) to (4), 181.38(3)Note, 181.395(2) and (11), 181.41(1) and (3), 181.42(1)(a)1.(intro.), 2.(intro.) and 4., (d)1. and (e)6., (2)(b), (4)(a)6. and (c)1.d., (6)(a)2.b. and c., 4.f. and 6.b., (b)(title), (b)|.i. and (c)|., 2.(intro.) and c. and 3., (7)(b)4., (8)(a), (b)(intro.) and (d) to (i), (9)(a), (c)(intro.), (e) and (h) to (j), (i0)(b)3., (d) and (i),. (11)(d) to (f) and (12)(a)1., 181.43(2)(e), (7)(a)3., (h)2.(intro.), (n)2., 3. and 3.Note, (o) and (p) and ( $\{0\}$ )(e) $\{0\}$ , and 2.,  $\{8\}$ ,  $\{4\}$ ,  $\{3\}$ )(b),  $\{8\}$ ,  $\{4\}$ ,  $\{4\}$ ,  $\{4\}$ , and 8.c., (7)(b)2.b.3)(intro) and 9)., (i0)(e) and (f)2. and 3.a. and b., (12)(a)(intro.), 3. and 4., and (13)(intro.), (a)4.a., b. and d., (c) and (d), |8|.45(1)(b) and (4)(m)4., 181.46(1), (3)(a)2.c. and (5)(L), 181.47(4)(p)2.a., 3.a., 4. and 7.d., [81.49(2)(a), (3)(b), (4)(a)4., (5)(intro.) and (6)(intro.), (b), (d)i.d. and 2., (f)3. and (i)7.(intro), 181.51(2)(f)5., (h) and (k), 181.52, 181.53(4)(o), (q) and (r) and (6), 181.54(5) and (6)(a) and (b) and 181.55(4)(c), (5)(a), . (c) and Table XII, (6), (8)(k)1. and 4., (o)3. and (p), (9)(intro.) and (b), (10)(b)2. and (c), and Appendix II, repealing and recreating ss. NR 181.04(89), 181.13, 18L.2[(2)(b), [8].24(3), [8].4[5(†1†1e), [8].42([)(a)[2.,... (8)(b) and (c), (9)(f), (i0)(e) and (g) and (ii)(a), 181.43(2)(d), 181.51(1)(c)3.b.8) and 181.55(6) and creating 181.04(lg), (32t), (48m), (95)Note, (107t) and (109m), 181.10, 181.12(1)(b)6., (3)(c) and (4)(j), 181.16(1)(e), 181.19(4)(b)10..and (5)(b)10., 181.195, 181.21(4)(c) and (5)(c), (6)(e)Note, 181.22(4), 181.23(2)(j), 181.24(1)(f) and (g), 181.32(3), 181.415(3) and (4), 181.42(i)(a)16, and (d)(fifie), (6)(b)1.j., (9)(k), (10)(a)6m. and (11)(1), 181.43(2)(j), 181.44(12)(a) 1.a., 181.47(4)(h), 181.49(4)(1) and (6)(j)6.Note, 181.53(7)(title), 181.55(9)(f) and 181.56, pertaining to

hazardous waste management.

SW-66-86

#### Analysis Prepared by the Department of Natural Resources

The rules are promulgated under the authority of ss. 144.431(1)(a), 144.441(1m), 144.62(2), (3), (5), (8), (8m) and (10)(a) and 227.11(2)(a), Stats., and interpret ss. 144.44, 144.44, 144.44, 144.60(2), 144.62, 144.63, 144.64 and 144.76, Stats.

Portions of chapter NR 181, Wis. Adm. Code, concerning hazardous waste management, are revised to reflect some of the changes to the federal Resource Conservation and Recovery Act (RCRA) made by the Hazardous and Solid Waste Amendments of 1984 (HSWA). These revisions make the code consistent with several recent federal regulations, allowing Wisconsin to maintain final authorization for its hazardous waste program. The changes also incorporate new policies developed since the code was last revised in 1985.

#### Summary of the Rule Changes

- A. Currently the code does not contain language equivalent to the federal rule concerning the efficiency of boilers that burn hazardous waste for energy recovery. Language is added to accomplish this.
- B. Clarifying language is added to specify that when a hazardous waste ceases to meet the definition of solid waste, it is no longer considered a hazardous waste.
- C. An exemption for wastes collected during a "Clean Sweep" program is clarified.
- D. Several significant changes are made in the requirements for small quantity generators to reflect changes in the federal rules. Under the revised rule, those who generate between 100 and 1,000 kg of hazardous waste would be required to:
  - Comply with the uniform manifest requirements;
  - Comply with standards for waste accumulated;
  - Store hazardous waste for no more than 180 or 270 days; and
  - Maintain copies of manifests for three years.
- E. An error in the definition of ignitability has been corrected by revising the temperature for determining ignitability from 0 degrees Celsius to 25 degrees Celsius.
- F. Additions have been made to the lists of hazardous waste to reflect additions to the federal lists. The exemption for some precious metal wastes is eliminated to comply with federal rules. In addition, used formulations have been added to the FO27 waste description as a new waste listing.
- G. A provision is added to reflect a federal provision that prohibits the burning of hazardous waste at cement kilns located in communities with greater than 500,000 population.
- H. The requirement for treatment, storage and disposal facilities (TSD's) to report quarterly is eliminated. Instead, TSD's are required to report annually.
- A section has been added to the rules that exempt those generating, transporting or storing lead-acid storage batteries. This reflects current department policy and the federal regulations.
- J. A provision is added which allows for accumulation in satellite areas, reflecting a federal provision.
- K. A provision is added which requires a generator to provide the department with a photocopy of a manifest received from a TSD in a consignment state.
- L. As a result of federal legislation, a prohibition against the use of hazardous waste contaminated material in road treatment or dust suppression is added.
- M. A prohibition against the placement of hazardous waste in salt dome formations, underground mines or caves is created, also as a result of federal legislation.

- N. Generators and TSD's that generate waste must now have a program in place to reduce the amount and toxicity of wastes generated and must ensure that the method of treatment, storage or disposal minimizes the threat to human health and the environment. Compliance with the minimization requirements must now be certified on the manifest, reported annually and kept in the TSD facility's operating records.
- O. Changes are made to the specific formulas that are used to calculate the amount of financial responsibility needed to account for a change requested by EPA.
- P. The rule is revised to allow TSD's to use a financial test method to demonstrate that they have adequate liability coverage. This has also been added to help ease the current difficulty in obtaining liability insurance.
- Q. Changes have been made to the closure, long term care and financial responsibility standards to account for EPA regulations resulting from the settlement between EPA and the American Iron and Steel Institute. The changes have been made in response to the EPA action, and are generally not more stringent than the federal rule.
- R. The final cover design standards have been modified to account for new EPA requirements for interim status facilities. The clay cover specifications routinely required in closure plan approvals for these facilities have been codified.
- S. Changes have been made to the standards for the landfilling of free liquids and containerized waste to reflect new federal requirements.
- T. The schedule for plan modification fees has been expanded to provide greater specificity.
- U. The rules that apply to expansion and major and minor modifications are changed to follow federal public participation procedures as required by EPA.
- V. The closure performance standards for waste piles have been revised by adding specific criteria to clearly reflect the federal requirements as well as department policy.
- W. The storage capacity limit of 1,000 galions for underground spill containment tanks has been repealed, at the direction of the legislature.
- X. As a response to comments, industrial ethyl alcohol that is reclaimed is excluded from hazardous waste regulation. Industrial ethyl alcohol is regulated from cradle to grave by the federal Bureau of Alcohol, Tobacco and Firearms. Please refer to Page 14 of the Comment Response memo, attached.
- Y. Finally, changes have been made to correct cross references, typographical errors and other "housecleaning" problems.

SECTION I. NR 181.02(2) Note is amended to read:

Note: The provisions of this chapter are consistent with, and in some instances identical to, federal regulations found in 40 CFR parts 124, 260 through 266 and 270, July 1, +983 1986.

SECTION 2. NR 181.04(lg) is created to read:

NR 181.04(1g) "Active life" or "active life of a facility" means the period from initial receipt of hazardous waste at the facility until the department receives and approves of the certification of final closure required under s. NR 181.42(8)(1).

SECTION 3. NR -181.04(6r) and (28) are amended to read:

NR 181.04(6r) "Boiler" means an enclosed device using controlled flame combustion and having the following design characteristics:

- (a) The unit has provision for heat recovery; and
- (b) The combustion chamber and heat recovery section are of integral design. The combustion chamber and heat recovery sections are of integral design if formed physically into one manufactured or assembled unit. (A unit in which the furnace or combustion chamber and heat recovery section are joined by ducts or connections carrying flue gas is not integrally designed); and
- (c) Significant heat recovery of 25 to 35% of the total heat recovered by the unit takes place in the combustion chamber section by radiant transfer of heat to the transfer medium;
- (d) The unit continuously maintains an energy efficiency of at least 60%, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

(e) The unit exports and utilizes at least 75% of the recovered energy, calculated on an annual basis. This excludes recovered heat used internally in the same unit to, for example, preheat fuel or combustion air.

Note: Examples of a transfer medium are water, steam, molten salt and chemical heat transfer fluid.

(28) "DOT identification number" means the hazardous materials identification number assigned by the DOT in 49 CFR 172.101 and 172.102, 0ctober-+;-+983 November 1, 1985.

SECTION 4. NR 181.04(32t) is created to read:

NR 181.04(32t) "Final closure" means the closure of all units, operating units, regulated units or hazardous waste management units at a facility in accordance with the approved facility closure plan and all applicable closure requirements under this chapter, so that hazardous waste management activities under subch. V are no longer conducted at a facility.

SECTION 5. NR 181.04(39) and (42) are amended to read:

NR 181.04(39) "Free liquids" means liquids which readily separate from the solid portion of a waste under ambient temperature and pressure. To demonstrate the absence or presence of free liquids, the EPA test method 9095, the paint filter liquids test, described in SW-846, "Test Methods for Evaluating Solid Waste", second edition, 1982, as amended by update I in April, 1984 and update II in April 1985, shall be used.

Note: This publication may be obtained from:

Government Printing Office

Washington, D.C. 20402

This publication is available for inspection at the offices of the department, the secretary of state, and the revisor of statutes.

(42) "Generator" means any person, owning-or-operating-a by generation site, whose act or process produces a hazardous waste identified or listed in subch. II or whose act first causes a hazardous waste to become subject to regulation under this chapter.

SECTION 6. NR 181.04(48m) is created to read:

NR 181.04(48m) "Household waste" means any material (including garbage, trash and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas).

SECTION 7. NR [81.04(70m) is repealed.

SECTION 8. NR 181,04(71m) and (75)(a) are amended to read:

NR 181.04(71m) "Partial closure" means the closure of a discrete-part-of unit, hazardous waste management unit, operating unit or regulated unit at a facility that contains other such units in accordance with the applicable closure requirements of this chapter.

Note: Partial closure may include the closure of a particular unit, such as a landfill cell or trench, while other parts of the same facility continue to operate or-witt-be-ptaced-in operation-in-the-future.

(75)(a) For water effluent, "point source" has the meaning specified under s. 147.015 + 8 + (12), Stats.; and

SECTION 9. NR 181.04(81m) is amended to read:

NR 181.04(81m) "Resource conservation and recovery act" or "RCRA" has the meaning specified under s. 144.61(9m), Stats.

SECTION 10. NR 181.04(89) is repealed and recreated to read:

NR 181.04(89) "Small quantity generator" means a generator who generates less than 1000 kilograms (2,205 pounds) of hazardous waste in a calendar month.

SECTION 11. NR 181.04(93) is amended to read:

NR 181.04(93) "Storage facility" means a facility, or part of a facility, which stores hazardous waste, except for a generation site where a generator stores its own waste in compliance with s. NR 181.21 (5) or 181.13 (1), a-small-quantity-accumulation-facility or a transfer facility.

SECTION 12. NR 181.04(95)Note, (107t) and (109m) are created to read:

Note: Other unit operations, such as presses, filters, sumps and other types of processing equipment may be tanks.

NR 181.04(107+) "Unit", "hazardous waste management unit", "operating unit" or "regulated unit" means a portion of a facility that performs a treatment, storage or disposal function, and is a contiguous area of land on or in which hazardous waste is placed, or the largest portion in which there is a significant likelihood of mixing hazardous waste constituents in the same

area. A single container is not included in this definition. Containers and the land or pad upon which they are placed are included. A single container and the pad upon which it is placed is included in the definition.

Note: For example, a separate landfill cell, surface impoundment, container storage area, storage or treatment tank and its associated piping and underlying containment system is included in this definition.

(109m) "Used oil" means any petroleum-derived or synthetic oil which, as a result of use or management, is contaminated. "Used oil" includes, but is not limited to, the following:

- (a) Engine, turbine and gear lubricants.
- (b) Hydraulic fluid, including transmission fluid.
- (c) Metalworking fluid, including cutting, grinding, machining, rolling, stamping, quenching and coating oils.
  - (d) Insulating fluid or coolant.

SECTION 13. NR 181.04(111m) Note is amended to read:

Note: Certain wastewater treatment sludge treatment management units which-treat-hazardous studges-from-wastewater-treatment-units may also be considered wastewater treatment units under this definition. For example, plate and frame and filter presses and, belt presses for-treating hazardous and dryers that treat or generate sludges are-considered to that are hazardous wastes may be wastewater treatment units.

SECTION 14. NR 181.05 is amended to read:

NR 181.05 ALTERNATIVE REQUIREMENTS. (1) GENERAL. Exemptions from the requirements of ss.

NR 181.42 through 181.49 may be granted by the department for hazardous waste facilities in

relation to location, engineering design, and operations, except as otherwise provided in those sections. A person may apply for an exemption by providing the department with a request and documentation justifying the need for an exemption in writing. Such-a-request-shaft-be-inctuded in-the-applicant's-feasibility-report-or-feasibility-and-plan-of-operation-report-to-allow-the department-to-provide-sufficient-public-notice-as-required-by-s:-i44-44;-Stats: A person applying for an exemption has the burden of showing and documenting that the proposed alternative requirement provides the same level of control and protection as the requirements of ss. NR 181.42 through 181.49. Prior to granting an exemption, the department shall make a determination that the proposed alternative requirement does not pose an increased threat to human health or the environment, taking into consideration such factors as the quantity, composition and degree of hazard of the waste to be managed, any potential degradation of the environment and potential nuisance conditions. All exemptions pertaining to a hazardous waste facility shall be granted in writing by the department in-the-final-determination-of feasibility. Exemptions shall be reviewed periodically with regard to any potential nuisance, hazard to public health and safety, or potential degradation of the environment.

(2) FEASIBILITY REPORTS AND FEASIBILITY AND PLAN OF OPERATION REPORTS. Persons who wish to request an exemption at the time reports and plans for an operating license under subch. V are submitted shall include the request in the applicant's feasibility report or joint feasibility report and plan of operation to allow the department to provide sufficient public notice as required by s. 144.44, Stats. Exemptions may only be granted in writing by the department in the final determination of feasibility.

SECTION 15. NR 181.06(1) to (3) are amended to read:

NR 181.06(1) EXISTING ACTIVITIES. Any person who on the effective date of these rules, or any amendment thereof, generates or transports hazardous waste, or owns or operates a recycling

facility or a facility for the treatment, storage or disposal of a hazardous waste, shall, within 90 days of the effective date of the applicable rule, notify the department and EPA of such activities, unless that person has previously notified the EPA in compliance with the preliminary notification requirements of 42 U.S.C. s. 6930, or is otherwise exempted from this requirement under s. NR 181.13(2).

(2) NEW ACTIVITIES. Any person who intends to generate or transport hazardous waste, or intends to own or operate a recycling facility or a facility for the treatment, storage or disposal of hazardous waste shall, within 30 days prior to the initiation of these activities, notify the department and EPA of such activities, unless the person is otherwise exempted from this requirement under s. NR 181.13(2).

Note: Section NR 181.13 does not exempt small quantity generators who recycle, treat or dispose of their waste on-site from the notification requirements of this section. Such generators are considered owners or operators of a recycling, treatment or disposal facility under this chapter.

(3) SEPARATE FORMS REQUIRED. Separate notification forms shall be submitted to the department and EPA in accordance with sub. (1) or (2) for each generation site, transportation service, recycling facility and hazardous waste facility.

SECTION 16. NR 181.08(1)(a) is amended to read:

NR [8].08([)(a) Hazardous waste or hazardous waste constituents have been discharged at the facility; or

SECTION 17. NR 181.10 is created to read:

NR 181.10 INCORPORATION BY REFERENCE. (1) CODE OF FEDERAL REGULATIONS. The federal regulations or appendix materials in effect on April 23, 1987 listed in this Subsection are

incorporated by reference in the corresponding Subdivisions of this Subsection. Copies of these materials are available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin or may be purchased for personal use from:

The Superintendent of Documents

U.S. Government Printing Office

Washington, D.C. 20402.

- 33 CFR 153.203, July I, 1986, notice of discharge for oil and hazardous substances, for
   NR 181.36(2).
- 2. 40 CFR 60, Appendix A, Reference Methods i to 5 and 10, U.S. Environmental Protection

  Agency regulations on reference methods for the analysis of stack gases from stationary sources,

  for s. NR 181.45(3)(b)i.j. and (4)(o)6.
- 3. 40 CFR II2, July I, 1986, U.S. Environmental Protection Agency regulations on the preparation and implementation of Spill Prevention Control and Countermeasure (SPCC) Plans, for s. NR 181.42(4)(a)6.
- 4. 40 CFR 263, Subpart B, July I, 1986, U.S. Environmental Protection Agency regulations on compliance with the manifest system and recordkeeping, for s. NR 181.34(2) and (3).
- 5. 40 CFR 264, Appendix IV, July I, 1986, definition of Cochran's Approximation to the Behrens-Fisher Student's T-Test, for s. NR 181.49(6)(h)1.a.
- 6. 40 CFR 265, Appendix IV, July I, 1986, definition of the student's t-test, for s. NR 181.49(5)(a).
- 7. 49 CFR 17i.16, October i, 1986, report discharge of hazardous waste during transportation, for s. NR 18i.36(1)(b).
- 8. 49 CFR 172, October 1, 1986, U.S. Department of Transportation regulations on packaging, labeling, marking and placarding of hazardous materials shipments, for ss. NR 181.26(2)(intro), (2)(b), (3) and (4) and 181.37(3) and (4).

- 9. 49 CFR 172.101, 172.102, 172.202 and 172.203, October 1, 1986, U.S. Department of Transportation regulations on the description of hazardous material on shipping papers, for ss. NR 181.04(28) and 181.23(2)(h)6.
- 10. 49 CFR 173, October 1, 1986, U.S. Department of Transportation regulations on general requirements of shippers for shipments and packagings, for ss. NR 181.26(1), NR 181.37(2) and NR 181.44(10)(f)3.a. and b.
- 11. 49 CFR 173.51, October 1, 1986, definition of "forbidden explosives", 49 CFR 173.53, October 1, 1986, definition of "Class A explosives" and 49 CFR 173.88, October 1, 1986, definition of "Class B explosives, for s. NR 181.15(4)(a)8.
- 49 CFR 173.300, October I, 1986, definition of "compressed gas", for
   NR 181.15(2)(a)3.
- 13. 49 CFR 178, October 1, 1986, U.S. Department of Transportation regulations on general requirements of shippers for shipments and packagings, for ss. NR 181.26(1) and 181.44(10)(f)3.a. and b.
- 14. 49 CFR 179, October 1, 1986, U.S. Department of Transportation regulations on general requirements of shippers for shipments and packagings, for ss. NR 181.26(1) and 181.44(10)(f)3.a. and b.
- (2) OTHER MATERIALS. The materials listed in this Subsection are incorporated by reference in the corresponding Paragraphs noted. Some materials that are incorporated by reference in other references are hereby incorporated by reference and made a part of this subsection. The materials are available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin or may be purchased for personal use at the corresponding address noted.
  - (a) American Society for Testing and Materials (ASTM)
    i916 Race Street

Philadelphia, Pennsylvania 19103

- 1. ASTM standard D-93-79, "Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester", for s. NR 181.15(2)(a)1.
- 2. ASTM standard D-93-80, "Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester". for s. NR 181.15(2)(a)1.
- 3. ASTM standard D-3278-78, "Standard Test Methods for Flash Point of Liquids by Setaflash Closed Tester", for s. NR 181.15(2)(a)1.
- 4. ASTM standard D-323-82, "Standard Test Method for Vapor Pressure of Petroleum Products (REID Method)". from the Annual Book of ASTM Standards 1980, for s. NR 181.15(2)(a)3.
- 5. ASTM standard D-346-78, "Standard Method of Collection and Preparation of Coke Samples for Laboratory Analysis", for s. NR 181.55(Appendix 1)(2).
- 6. ASTM standard D-2234-76, "Standard Method for Collection of a Gross Sample of Coal", for s. NR 181.55(Appendix 1)(5).
- 7. ASTM standard D-140-70 (reapproved 1981), "Standard Methods of Sampling Bituminous Materials", for s. NR 181.55(Appendix 1)(1).
- 8. ASTM standard D-420-69 (reapproved 1979), "Standard Recommended Practice for Investigating and Sampling Soil and Rock for Engineering Purposes", for s. NR 181.55(Appendix 1)(3).
- 9. ASTM standard D-1452-80, "Standard Practice for Soil Investigation and Sampling by Auger Borings", for s. NR 181.55(Appendix I)(4)
- 10. ASTM standard D-2487-69 (reapproved 1975), "Standard Test Method for Classification of Soils for Engineering Purposes", for ss. NR 181.04(7r), 181.44(3)(a)8.b., (10)(h)3.c. and 4.e. and (13)(a)4.b.
- II. ASTM standard D-422-63 (reapproved 1972), "Standard Method for Particle-Sized Analysis of Soils", for s. NR 181.44(6)(a)8.b.1)., (7)(b)2.b.3)h) and 5)c) and (10)(h)4.c.
- 12. ASTM standard D-1140-54 (reapproved 1971), "Standard Test Method for Amount of Material In Soils Finer Than the No. 200 (75-um) Sieve", for s. NR 181.44(6)(a)8.b.2), (7)(b)2.b.3)i), (10)(h)4.c. and d.

- 13. ASTM standard D-423-66 (reapproved 1972), "Standard Test Method for Liquid Limits of Soils", for s. NR 181.44(6)(a)8.b.3), (7)(b)2.b.3)f) and (10)(h)4.f.
- 14. ASTM standard D-424-59 (reapproved 1971), "Standard Test Method for Plastic Limit and Plasticity Index of Soils", for s. NR 181.44(6)(a)8.b.4), (7)(b)2.b.3)g) and (10)(h)4.g.
- 15. ASTM standard D-1556-82, "Standard Test Method for Density of Soil in Place by the Sand-Cone Method", for s. NR 181.44(7)(b)2.b.3)c) and 5)d).
- 16. ASTM standard D-1557-78, "Standard Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10-16. (4.54 kg) Rammer and 18 in. (457 mm) Drop", for s. NR 181.44(7)(b)2.b.3)d), (10)(h)4.h., (12)(a)1.b.2) and (13)(a)5.c.
- 17. ASTM standard D-2922-81, "Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)", for s. NR 181.44(7)(b)2.b.3)c).
- 18. ASTM standard D-2937-71 (reapproved 1976), "Standard Test Method for Density of Soil in Place by the Drive-Cylinder Method", for s. NR 181.44(7)(b)2.b.3)c) and 5)d).
- 19. ASTM standard D-698-78, "Standard Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 5.5 lb. (2.49 kg) Rammer and 12 in. (305 mm) Drop", for s. NR 181.44(7)(b)2.b.3)d).
- 20. ASTM standard D-2216-80, "Standard Method for Laboratory Determination of Water (Moisture) Content of Soil, Rock, and Soil-Aggregate Mixtures", for s. NR 181.44(7)(b)2.b.3)e).
- 21. ASTM standard D-240-76 (reapproved 1980), "Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter", for s. NR 181.16(2)(a) F500.
- 22. ASTM standard D-1693-70 (reapproved 1980), "Standard Test Method for Environmental Stress-Cracking of Ethylene Plastics", incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for s. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).
- 23. ASTM standard D-1790-62 (reapproved 1976), "Standard Test Method for Brittleness
  Temperature of Plastic Film by Impact", Incorporated by reference in National Sanitation

Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for ss. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).

- 24. ASTM Standard D-3083-76 (reapproved 1980), "Standard Specification for Flexible Poly (vinyl chloride) Plastic Sheeting for Pond, Canal, and Reservoir Lining", incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for s. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).
- 25. ASTM standard D-746-79, "Standard Test Method for Brittleness Temperature of Plastics and Elastomers by Impact", incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for s. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).
- 26. ASTM standard D-751-79, "Standard Methods for Testing Coated Fabrics", incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for s. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).
- 27. ASTM standard D-792-66 (reapproved 1979), "Standard Test Methods for Specific Gravity and Density of Piastics by Displacement", Incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for s. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).
- 28. ASTM standard D-882-81, "Standard Test Methods for Tensile Properties of Thin Plastic Sheeting", incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for ss. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).
- 29. ASTM standard D-1004-66 (reapproved 1981), "Standard Test Method for Initial Tear Resistance of Plastic Film and Sheeting", incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for s. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).
- 30. ASTM Standard D-1203-67 (reapproved 1981), "Standard Test Methods for Volatile Loss from Plastics using Activated Carbon Methods", incorporated by reference in National Sanitation

Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for s. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).

- 31. ASTM standard D-1204-78, "Standard Test Method for Linear Dimensional Changes of Nonrigid Thermoplastic Sheeting or Film at Elevated Temperature", incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for s. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).
- 32. ASTM standard D-1593-81, "Standard Specification for Nonrigid Vinyl Chloride Plastic Sheeting", incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners". November, 1983, for s. NR 181,44(5)(b)5,b.(intro). (6)(a)7, and (7)(b)2,b.4).
- 33. ASTM standard D-638-82a, "Standard Test Method for Tensile Properties of Plastics", Incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for s. NR 181.44(5)(b)5.b.(Intro), (6)(a)7. and (7)(b)2.b.4).
- 34. ASTM standard D-1239-55 (reapproved 1982), "Standard Test Method for Resistance of Plastic Films to Extraction by Chemicals", incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for s. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).
- 35. ASTM standard D-618-61 (reapproved 1981), "Standard Methods of Conditioning Plastics and Electrical Insulating Materials for Testing", incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for ... S. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).
- 36. ASTM standard D-4/3-82, "Standard Test Methods for Rubber Property-Adhesion to Flexible Substrate", Incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for s. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).
- 37. ASTM standard D-2i36-66 (reapproved 1978), "Standard Method of Testing Coated Fabrics Low Temperatures Bend Test", incorporated by reference in National Sanitation Foundation
  Standard 54, "Flexible Membrane Liners", November, 1983, for s. NR 181.44(5)(b)5.b.(intro),

  (6)(a)7. and (7)(b)2.b.4).

- 38. ASTM standard D-412-80, Standard Test Methods for Rubber Properties in Tension", incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for s. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).
- 39. ASTM standard D-624-81, "Standard Test Method for Rubber Property-Tear Resistance", incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for s. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).
- 40. ASTM standard D-471-79, "Standard Test Method for Rubber Property-Effect of Liquids", Incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for s. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).
- 41. ASTM standard D-2240-81, "Standard Test Method for Rubber Property-Durometer Hardness", incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for s. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).
- 42. ASTM standard D-1149-81, "Standard Test Method for Rubber Deterioration Surface Ozone Cracking in a Chamber (Flat Specimen)", incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for s. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).
- 43. ASTM standard D-573-81, "Standard Test Method for Rubber Deterioration in an Air Oven", incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for s. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).
- 44. ASTM standard D-297-81, "Standard Methods for Rubber Products Chemical Analysis", incorporated by reference in National Sanitation Foundation Standard 54, "Flexible Membrane Liners", November, 1983, for s. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).
  - (b) U.S Environmental Protection Agency
    Office of Solid Waste

Available from:

The Superintendent of Documents

U.S. Government Printing Office

Washington, D.C. 20402

- I. SW-846, "Test Methods for Evaluating Solid Waste", second edition, 1982, as amended by update I in April, 1984 and update II in April, 1985, for ss. NR 181.04(39), 181.15(3)(a)1. and 2., 181.16(2)(a) F500, 181.18(1), (2), (4)(a), (b) and (c), 181.44(10)(e)2., 181.45(2)(a)4.b., 5.a.3) and 4) and 181.55(Appendix 1)(6) and (7).
- 2. EPA-600/8-84-002, Report on "Sampling and Analysis Methods for Hazardous Waste Combustion" (on Microfiche), for s. NR 181.45(2)(a)4.b., 5.a.3) and 4), (3)(b)1.j. and (4)(o)6.

National Technical Information Service

U.S. Department of Commerce

Springfield, Virginia 22161

(c) National Sanitation Foundation

P.O. Box 1468

Also Available from:

Ann Arbor, MI 48106

National Sanitation Foundation Standard 54 for Flexible Membrane Liners, as prepared by the Joint Committee on Flexible Membrane liners and Recommended for Adoption by the NSF Council of Public Health Consultants, Adopted by the NSF Board of Trustees, November, 1983, for s. NR 181.44(5)(b)5.b.(intro), (6)(a)7. and (7)(b)2.b.4).

(d) Superintendent of Documents

U.S. Government Printing Office

Washington, D.C. 20402

The Standard Industrial Classification (SIC) Manual, 1972, as amended by the 1977 Supplement (U.S. Government Printing Office Stock Numbers 4101-0066 and 003-005-00176-0, respectively), for s. NR 181.16, Table III, K062.

(e) National Fire Prevention Association

Batterymarch Park

Quincy, MA 02269

Recommended practice number 329-1987, precision test for underground storage tank leaks, for s. NR [81.43(7)(n)3.

SECTION 18. NR 181.12(1)(b)6. is created to read:

NR [8].[2(])(b)6. It is a mixture of nonhazardous solid waste and a hazardous waste that is listed in s. NR [8].[6] solely because it exhibits one or more of the characteristics of hazardous waste identified in s. NR [8].[5], unless the resultant mixture no longer exhibits any characteristic of hazardous waste identified in s. NR [8].[5].

Nóte: The process of mixing a nonhazardous solid waste and a hazardous waste may require a license under subch. V for hazardous waste treatment.

SECTION 19. NR 181.12(3)(c) is created to read:

NR 181.12(3)(c) is no longer a solid waste.

SECTION 20. NR 181.12(4)(a) is amended to read:

NR 181.12(4)(a) Household waste, including waste that has been collected, transported, stored, treated, disposed of, recovered or reused, except if the hazardous waste in this stream is separated and accumulated for later treatment, storage or disposal by a person other than:

1. A member of the household where the waste is generated; or

2. A municipality which accumulates household waste for 5 days or less in a clean sweep program as defined in s. NR 187.03 (1). However, this exclusion does not apply to the household waste upon its removal from the accumulation area for further management.

Note: The accumulation, treatment, storage and disposal of household wastes which are not excluded under this paragraph are subject to regulation under this chapter.

SECTION 21. NR 181.12(4)(j) is created to read:

NR 181.12(4)(j) industrial ethyl alcohol that is reclaimed.

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SECTION 22. NR 181.13 is repealed and recreated to read:

NR 181.13 ALTERNATIVES AND EXEMPTIONS FOR SMALL QUANTITY GENERATORS. (1) LESS THAN 1,000 KILOGRAMS. Except as provided in sub. (2), a generator who generates in a calendar month a total of less than 1,000 kilograms (2,205 pounds) of hazardous wastes, and does not accumulate at any time quantities of hazardous wastes greater than 6,000 kilograms (13,230 pounds), is subject to regulation as a generator under subch. III, but may comply with this subsection in lieu of s. NR 181.21(5)(a) and (b) and is exempt from ss. NR 181.19(3)(b) and (c) and 181.24(1)(f) and (g) and (2). In addition, a generator subject to this subsection and in existence on July 1, 1985 need not have complied with s. NR 181.06(1) until September 28, 1985. This subsection does not apply to a generator subject to sub. (3) or s. NR 181.195.

- (a) [Reserved.]
- (b) In lieu of compliance with s. NR 181.21(5)(a), the generator may accumulate hazardous waste on-site, in containers or above ground tanks, but not underground tanks, without a storage license, provided that the generator complies with the following conditions:
  - 1. Within 180 days or less, unless subd. 14. applies, the accumulated waste is either:
  - a. Shipped off-site to a facility which meets the requirements of s. NR 181.21(4)(a)2.; or
- b. Treated, stored or disposed of in an on-site hazardous waste facility or an on-site recycling facility that has received an operating license, interim license, variance or waiver, or is exempt from licensing under s. NR 181.42(1)(a) and is approved to accept the waste under the operating license, interim license, variance, waiver or exemption.
  - 2. If the waste is placed in containers, the generator meets the following conditions:
- a. The generator complies with the packaging, labeling, marking and placarding requirements in s. NR 181.26.
- b. The generator inspects all containers used for storing hazardous waste at least weekly for evidence of leakage, corrosion or deterioration of the containers or discharge confinement structures, such as dikes.

- c. The generator records the inspections under subpar. b. in an inspection log or summary.

  These records shall be kept for at least 3 years from the date of the inspection. At a minimum, these records shall include the date and time of inspection, the name of the inspector, a notation of the observation made, and the date and name of any repairs or other remedial actions.
- d. If a container is not in good condition or if the contents of the storage container begin to leak, the hazardous waste in the container is recontainerized in a storage container in good condition.
- e. A container holding hazardous waste is always kept closed during storage except when it is necessary to add or remove waste.
- f. A container holding hazardous waste is not opened, handled or stored in a manner which may rupture the container or cause it to leak.
- g. Storage containers holding hazardous waste which is incompatible with any waste or other materials stored nearby in other containers, waste piles, open tanks or surface impoundments are kept separated from them by means of a dike, berm, wall or other device.
- h. Hazardous waste is not placed in an unwashed container that previously held an incompatible waste or material, unless s. NR 181.42 (1) (m)2., is compiled with.
- i. The container is made or lined with materials which will not react with, and are otherwise compatible with the hazardous waste to be stored.
- 3. If the waste is placed in above ground tanks, the generator meets the following conditions:
- a. The generator inspects all tanks used for storing hazardous waste at least weekly for evidence of leakage, or corrosion or deterioration of the tank or discharge confinement structures, such as dikes.
- b. The generator inspects tanks used to store hazardous waste once each operating day to ensure that discharge control equipment, such as the waste feed cutoff, is in good working order, to ensure that the tank is being operated according to its design by gathering data from

monitoring equipment, such as pressure or temperature gauges and to ensure that the level of the waste in the tank complies with subpar. f.

- c. The generator records the inspections under subpar. a. in an inspection log or summary. These records shall be kept for at least 3 years from the date of the inspection. At a minimum, these records shall include the date and time of inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.
- d. Incompatible waste is not placed in the same tank unless s. NR 181.42 (1) (m)2. is compiled with.
- e. Storage tanks which contain volatile waste comply with chs. NR 419, 420 and 421, regarding the control of organic compound emissions.
  - f. Uncovered tanks are operated to ensure at least 2 feet of freeboard.
- g. Hazardous waste is not placed in a tank if the waste could cause the tank or its inner liner to rupture, leak, corrode or otherwise fail before the end of its intended life.
- h. Ignitable or reactive waste may not be placed in a tank unless the waste is treated, rendered, or mixed before or immediately after placement in the tank so that the resulting waste mixture; or dissolution of material no longer meets the definition of ignitable or reactive waste in s. NR 181.15 (2) or (4); or compliance with s. NR 181.42 (1) (m)2. Is ensured; or the waste is stored or treated in such a way that it is protected from any condition which may cause the waste to ignite or react; or the tank is used solely for emergencies.
- i. The owner or operator of a facility which stores ignitable or reactive waste in covered tanks complies with the buffer zone requirements for tanks set forth in ch. ind. 8.
- j. Where hazardous waste is continuously fed into a tank, the tank is equipped with a means to stop this inflow, such as a waste feed cutoff system or a bypass system to a stand-by tank.
- 4. The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container or tank.

- 5. The generator compiles with the preparedness and prevention procedures in s. NR 181.42(4)(b).
- 6. The identity and location of all stored hazardous waste is known throughout the entire accumulation period.
- 7. The storage of hazardous waste is conducted in a manner so that no discharge of hazardous waste occurs.
- 8. If the department determines that there is a potential for discharge of the hazardous waste or hazardous constituents or determines that a discharge has occurred at the generation site, the generator complies with any of the requirements of subch. V specified by the department, as provided in s. NR 181.08.
- 9. At all times there is at least one employee on the premises or available to respond to an emergency by reaching the generation site, within a short period of time, with the responsibility for coordinating all emergency response measures specified in subd. 13. This employee is the emergency coordinator.
- 10. The generator posts the following information next to any telephone that may be used by the emergency coordinator when responding to an emergency:
  - a. The name and telephone number of the emergency coordinator;
- b. The location of fire extinguishers and spill control material, and, if present, fire alarm; and
- c. The telephone number of the fire department, unless the generation site has a direct alarm.
- !!. The generator ensures that all employees are properly trained and thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
- 12. If the generator accumulates 1000 kilograms or more of hazardous waste, but not more than 6,000 kilograms of hazardous waste, the generator:
  - a. Maintains a written description of the training program required under subd. !!.;

- b. Ensures that all employees required to be trained under subd. II. take part in an annual review of the training required under subd. II.; and
- c. Maintains records that document that the training required under subd. II. and the annual review under subpar. b. have been given to and completed by all employees required to be trained under subd. II.
- 13. The emergency coordinator or designee responds to any emergencies that arise. The applicable responses are as follows:
- a. In the event of a fire, call the fire department and, if appropriate, attempt to extinguish it using a fire extinguisher;
- b. In the event that the generation site has, or there is an imminent threat that the generation site may have a discharge or spill of hazardous waste or a fire or explosion that has the potential for damaging human health or the environment, the facility's emergency coordinator or designee shall:
- 1) Activate internal facility alarms or communications systems to notify all personnel of an imminent or actual emergency situation, where applicable;
- 2) In the event of a discharge or a spill, contain the flow of hazardous waste to the extent possible;
- 3) As soon as is practicable, arrange for the clean up of the hazardous waste and any contaminated materials or soil. The removal and subsequent containerization, transportation, treatment, storage and disposal of spilled hazardous waste shall be in compliance with the provisions of this chapter.
- 4) Telephone the division of emergency government and comply with the requirements of s. 144.76, Stats., and ch. NR 158.
- Note: The division of emergency government's 24-hour number is (608) 266-3232, collect calls accepted.
- 5) Take all reasonable measures necessary to ensure that fires, explosions, and discharges do not occur, reoccur, or spread to other parts of the facility. The measures shall include,

where applicable, stopping processes and operations, collecting and containing discharged waste, and removing or isolating containers.

- 14. In lieu of compliance with subd. 1., the generator may accumulate hazardous waste on-site for 270 days or less, provided that:
- a. All such waste is shipped to an off-site facility that meets the requirements of
   s. NR !81.2!(4)(a)2.;
- b. The generator finds it necessary to transport, or offer the waste for transportation over a distance of 200 miles or more from the generation site; and
- c. The generator has selected the off-site facility the waste is to be shipped to under subpar. a., and maintains written documentation of the selection decision.

Note: Examples of such documentation include copies of manifests for past shipments, disposal or recycling contracts and other written materials, such as telephone logs or letters indicating that the generator has made a decision to select a particular facility that is 200 miles or more away.

Note: Generators who have not selected a facility or who are uncertain where the waste will be shipped are subject to the i80 days accumulation limit in subd. i.

- (c) The generator complies with the following requirements in lieu of s. NR 181.21(5)(b):
- I. A generator who accumulates hazardous waste for more than 180 days, or 270 days if par. (b)14. applies, in containers or above ground tanks, or who accumulates hazardous waste in quantities exceeding 6,000 kilograms, is an operator of a hazardous waste storage facility and is subject to the facility requirements of subch. V and the licensing requirements of subch. VI, unless the generator has been granted an extension to the accumulation period under subd. 2.
- 2. Extensions to the accumulation periods specified in par. (b) may be granted by the department if hazardous waste will remain on-site for longer than 180 days, or 270 days if par. (b)14. applies, due to unforeseen, temporary and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the department on a case-by-case basis. Extensions under this subdivision:

- a. Shall be applied for in writing. Written requests shall be submitted to the department and shall state the unforeseen, temporary and uncontrollable circumstances that caused the generator to apply.
  - b. Shall be issued in writing.
- c. May be revoked by the department at any time if it determines that revocation is appropriate to protect human health and the environment.
- (2) LESS THAN 100 KILOGRAMS. Except as provided in sub. (3) or s. NR 181.195, a generator who generates in a calendar month a total of less than 100 kilograms (220 pounds) of hazardous waste, and does not accumulate at any time quantities of hazardous waste greater than 1000 kilograms is exempt from the requirements of subch. III and s. NR 181.06 except those requirements referenced in pars. (a) to (e), if the generator complies with the following:
  - (a) The generator complies with s. NR 181.22; and
- (b) The generator treats, stores or disposes of the waste in an on-site facility or recycles the waste in an on-site recycling facility which has received an operating license, interim license, variance or waiver, or is exempt from licensing under sub. (5) or s. NR 181.42 (1) (a); or ensures delivery to an off-site treatment, storage, disposal or recycling facility which:
- i. For facilities located outside of Wisconsin, is permitted by the EPA, is exempt from permitting or has interim status under RCRA or is permitted or approved by an authorized state;
- 2. Has been issued an operating license as a hazardous waste facility under this chapter or has an interim license, variance, waiver, or exemption from licensing under s. NR 181.42 (1) (a);
- . 3. Is licensed as a solid waste disposal facility under ch. NR 180 and has approval under sub. (7) to accept these wastes; or
- (c) If a generator sends hazardous waste to a solid waste disposal facility in accordance with par. (b) 3., the generator:
- Provides the solid waste disposal facility operator with the results of the hazardous waste determination required by s. NR 181.22; and

- 2. Notifies the solid waste disposal facility operator when the waste is delivered.
- (d) The generator complies with the manifest requirements of s. NR 181.23, if the generator chooses to use the manifest.
- (e) The generator shall comply with the notification requirements of s. NR 181.06, if the generator chooses to use the manifest.
- (3) ACUTE HAZARDOUS WASTE. Any generator who generates in a calendar month, or accumulates at any time, any of the hazardous wastes described in this subsection in quantities greater than those set forth in par. (a) or (b), is not exempt under sub. (i) or (2).
- (a) A total of one kilogram (2.2 pounds) of any acute hazardous waste listed in tables II or III of s. NR I8I.16(2), or one kilogram of those commercial products or manufacturing chemical intermediates listed in table IV in s. NR I8I.16 (3), which are discarded or are intended to be discarded, and those off-specification commercial chemical products or manufacturing chemical intermediates which, if they met specifications, would have a generic name listed in table IV in s. NR I8I.16 (3) which are discarded or are intended to be discarded.
- (b) One hundred kilograms (220 pounds) of any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in table II or III of s. NR 181.16(2), or any commercial chemical product or manufacturing chemical intermediate listed in table IV in s. NR 181.16 (3), or any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any off-specification commercial chemical products or manufacturing chemical intermediates which, if they met specifications, would have a generic name listed in table IV in s. NR 181.16(3).
  - (4) QUANTITY OF WASTE GENERATED. In determining the quantity of hazardous waste generated:
- (a) Hazardous waste which has already been counted to determine the quantity generated within the calendar month at the time of generation need not be counted again when it is removed from on-site storage; and

- (b) Hazardous waste produced by on-site treatment of hazardous waste which was generated on-site need not be included, provided that the hazardous waste originally treated was counted once.
- (5) ON-SITE ACCUMULATION. A small quantity generator exempt under sub. (2), may accumulate hazardous waste on-site in accordance with this subsection. If the generator accumulates at any time more than 1,000 kilograms (2,205 pounds) of hazardous waste, all those accumulated wastes are subject to regulation under subchaps. V and VI unless exempt under sub. (1). The time periods of sub. (1) and s. NR 181.21 (5) for accumulation of wastes on-site begins when the accumulated wastes exceed the applicable exclusion level.
- (6) SOLID WASTE DISPOSAL FACILITIES. Any person who operates or maintains a solid waste disposal facility licensed under ch. NR 180 that has approval under sub. (7) to accept small quantities of specific hazardous wastes is exempt from the requirements of subchs. V and VI if:
- (a) Hazardous wastes that are excluded from regulation under sub. (2) are the only hazardous wastes treated or disposed of by the facility;
- (b) All the conditions of approval under sub. (7) are met, including, but not limited to operational requirements and cumulative waste quantity limits;
- (c) Annual reports are submitted to the department no later than 90 days after the close of each previous calendar year, listing the hazardous waste types and quantities of waste accepted at the facility in during the calendar year and the generators and transporters of that waste; and
- (d) Waste management fund fees at the rate specified in s. NR 181.42 (12) are paid for the hazardous waste quantities accepted at the facility at the same time and in the same manner as waste management fund fees required under s. NR 180.16 are to be paid.
- (7) APPROVAL TO ACCEPT HAZARDOUS WASTE. Any person who operates or maintains a solid waste disposal facility licensed under ch. NR 180, shall apply for and obtain written departmental approval under this subsection before accepting hazardous wastes which are excluded from

regulation under sub. (2). The department shall advise the applicant in writing of the receipt of an application for such approval. The department shall advise the applicant in writing as to whether the application is complete or incomplete within 65 business days after receipt of the application. The department shall advise the applicant of the approval or disapproval of the application within 65 business days after finding the application complete. Approval under this subsection constitutes a license under subch. VI.

(8) MIXTURES. Hazardous waste exempt under sub. (2) may be mixed with non-hazardous waste and remain exempt under sub. (2) even though the resultant mixture exceeds the quantity limitations of sub. (2), unless the mixture meets any of the characteristics of hazardous waste identified in s. NR 181.15.

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SECTION 23. NR 181.135(3)(intro.) and (5)(intro.) are amended to read:

NR 181.135(3)(intro.) A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is <u>listed as an acute</u>

hazardous waste in table II or III in s. NR 181.16(2), or identified in table IV in s. NR 181.16

(3), is empty if:

(5)(Intro.) A container or an inner liner removed from a container that has held a <u>an acute</u> hazardous waste <u>listed in table II or III in s. NR 181.16(2)</u>, or identified in table IV in s. NR 181.16 (3) Is empty If:

SECTION 24. NR 181.15(2)(a)2. and 3., (3)(a)1. and 2., and (4)(a)7. and 8. are amended to read:

NR 181.15(2)(a)2. It is not a liquid and is capable, at a temperature of  $\theta^{2}\theta$   $25^{\circ}C$  and a pressure of one atmosphere, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

3. It is an ignitable compressed gas as defined in 49 CFR 173.300, Octr-+7-1983 November 1, 1985, and as determined by the test methods described in that regulation, ASTM standard D-323, or equivalent test methods approved by EPA.

(3)(a)1. It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using either an EPA test method or an equivalent test method approved by EPA. The EPA test method for pH is specified as method 5.2 9040 in SW-846, "Test Methods for the-Evatuation-of Evaluating Solid Wester" Waster, second edition, 1982, as amended by update 1 in April, 1984 and update 11 in April, 1985.

Note: This publication may be obtained from: U.S. Government Printing Office Washington, D.C. 20402

This publication is available for inspection at the offices of the department, the secretary of state and the revisor of statutes.

2. It is a liquid and corrodes plain carbon steel with a carbon content of 0.20% at a rate greater than 6.35 mm (0.250-inch) per year at a test temperature of 55°C (130°F) as determined by the test method specified in NACE (National Association of Corrosion Engineers) standard TM-01-69 as standardized in SW-846, "Test Methods for the-Evaluation-of Evaluating Solid Waste", second edition, 1982, as amended by update I in April, 1984 and update II in April, 1985, or an equivalent test method approved by EPA.

(4)(a)7. It is readily capable of detonation or explosive decomposition or reaction at a temperature of  $\theta^2\theta$  25°C and a pressure of one atmosphere.

8. It is a forbidden explosive as defined in 49 CFR 173.51, October-+;-+983 November 1, 1985, or a Class A explosive as defined in 49 CFR 173.53, Oct--+;-+983 November 1, 1985, or a Class B explosive as defined in 49 CFR 173.88, Oct--+;-+983 November 1, 1985.

SECTION 25. NR 181.16(1)(e) is created to read:

NR 181.16(1)(e) The following hazardous wastes listed in table 11 of sub. (2) are acute hazardous wastes subject to the exclusion limits established in s. NR 181.13(3):

- 1. Hazardous waste numbers F020, F021, F022, and F023; and
- 2. Hazardous waste numbers F026 and F027.

## Table II Hazardous Waste from Nonspecific Sources

Hazardous Waste Number	Hazardous Waste	Hazardous Code
Generic		
Generie FOOI	The spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, i, i, i-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons, any-mixture-of-these solvents-or-mixtures-of-these-solvents-and-the-spent-solvents-f002; F003,-F004-or-F005-and-studges-from-the-recovery-of-these-solvents-th degreasing-operations all spent solvents mixtures/blends used in degreasing containing, before use, a total of 10% or more, by volume, of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F002	The spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, I,I,I-trichloroethane, chlorobenzene, I,I,2-trichloro-I, 2, 2-trifluoroethane, ortho-dichlorobenzene, and trichlorofluoromethane, any-mixture-of-these-solvents-or-mixtures-of these-solvents-and-the-spent-solvents-F001, F003, F004-or-F005-and-the stitl-bottoms-from-the-recovery-of-these-solvents and i,I,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of 10% or more, by volume, of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F003	The spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, n-butyl-atechot;-cyclohexanone;-methanot; and-methyl-isobutyl-ketone;-any-mixtures-of-these-solvents-or-mixtures of-these-solvents-and-the-spent-solvents-F001;-F002;-F004-or-F005-and the-still-bottoms-from-the-recevery-of-these-solvents methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of 10% or more, by volume, of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(1)

Hazardous Waste Number	Hazardous Waste	Hazardous Code
F004	The spent non-halogenated solvents: cresols, cresylic acid, and nitrobenzene, any-mixtures-of-these-solvents-and-the-spent-solvents F00+;-F002;-F003-or-F005-and-the-stitt-bottoms-from-the-recovery-of these-solvents all spent solvent mixtures/blends containing, before use, a total of 10% or more, by volume, of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F005	The spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, and pyridine, any-mtxtures-of-these solvents-or-mixtures-of-these-solvents-and-the-spent-solvents-F00t; F002;-F003-or-F005-and-the-st+th-bottoms-from-the-recovery-of-these solvents benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use a total of 10% or more, by volume, of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I, T)
F006	Wastewater treatment sludges from electropiating operations, except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning or stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.	(T)
F007	Spent cyanide plating bath solutions from electropiating operations. Note: Electroplating operations are considered to include common and precious metals electropiating, anodizing, chemical etching and milling, and cleaning and stripping when associated with these processes. For more information, refer to 51 FR 43350 to 43351, Tuesday, December 2, 1986.	(R, T)
F0 08	Plating bath studges residues from the bottom of plating baths from electropiating operations where cyanides are used in the process; except-for-precious-metals-electropiating-plating-bath-studges.	(R, T)
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process,—except—for—prectons metals—electroplating—spent—stripping—and—cleaning—bath—solutions.	(R, T)
F010	Quenching bath studge residues from oil baths from metal heat treating operations where cyanides are used in the process,—except—for—precious metals—heat—treating—quenching—bath—studges.	(R, T)

Hazardous Waste Number	Hazardous Waste	Hazardous Code
FOII	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations,—except-for-prectous-metals-heat-treating-spent cyantde-sotutions-from-satt-bath-pot-cteaning.	(R, T)
F012	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process,—except-for-prectous metals—heat-treating-quenching-wastewater-treatment-studges.	(T)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum.	(T)
<u>F020</u>	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of trior tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-trichlorophenol.	<u>(H)</u>
F021	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.	<u>(H)</u>
<u>F022</u>	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexa-chlorobenzenes under alkaline conditions.	<u>(H)</u>
F023	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachiorolphenois. This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-trichlorophenoi.	<u>(H)</u>
F024 -	Wastes including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes from the production of chlorinated allphatic hydrocarbons, having carbon content from one to 5, utilizing free radical catalysed processes. This listing does not include light ends, spent filters and filter aids, spent desiccants, wastewater, wastewater treatment sludges, spent catalysts and waste listed in table lil in s. NR 181.16(2)(b).	(Т)
F0 26	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions.	<u>(H)</u>

Hazardous Waste Number	Hazardous Waste	Hazardous Code
<u>F027</u>	Discarded, used or unused formulations containing tri-, tetra-, or pentachiorophenol or discarded used or unused formulations containing compounds derived from these chlorophenols. This listing does not include formulations containing hexachiorophene synthesized from prepurified 2,4,5-trichiorophenol as the sole component.	<u>(H)</u>
<u>F028</u>	Residues resulting from the incineration or thermal treatment of soil contaminated with hazardous wastes F020, F021, F022, F023, F026, or F027.	<u>(T)</u>
F500	Waste contaminated with the halogenated compounds tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, ortho-dichlorobenzene, dichlorodifluoromethane, 1,1,2-trichloro-1, 2, 2-trifluorethane, trichlorofluoromethane, 1,1-dichloroethylene, and 1,2-dichloroethylene at greater than 1% (10,000 ppm) solvent concentration. This listing includes any combination of the above named halogenated compounds where the total concentration of the sum of the concentrations of the individual compounds exceeds 1% or 10,000 ppm on a weight to weight basis. Halogenated solvent concentration shall be determined using EPA methods 8010 or 8240 for halogenated volatile organics as specified in SW-846, "Test Methods for Evaluating Solid Waste" or total chloride analysis of bomb washings from ASTM D 240-76, "Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter."	,

Note: The publication SW-846, "Test Methods for Evaluating Solid Waste", may be obtained from:

The Superintendent of Documents

U.S. Government Printing Office

Washington, D.C. 20402

The publication containing the ASTM method may be obtained from:

American Society for Testing and Materials

1916 Race Street

Philadelphia, PA 19103

The publications are available for inspection at the offices of the department, the secretary of state and the revisor of statutes.

Table III
Hazardous Waste from Specific Sources

Hazardous Waste Number	Hazardous Waste	Hazard Code
Wood Preser	rvation	
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote or pentachlorophenol.	(T)
Inorganic F	Pigments	
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments.	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments.	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments.	(T)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).	(T)
K007	Wastewater treatment sludge from the production of iron blue pigments.	(T)
K008	Oven residue from the production of chrome oxide green pigments.	(T)
Organic Che	emicals	
K009	Distillation bottoms from the production of acetaldehyde from ethylene.	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene.	(T)
KOII	Bottom stream from the wastewater stripper in the production of acrylonitrile.	(R, T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.	(R, T) .
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.	(T)
K015	Still bottoms from the distillation of benzyl chloride.	(T)

Hazardous Waste Number	Hazardous Waste	Hazard Code	
K016	Heavy ends or distillation residues from the production of carbon tetrachloride.	(T)	
K017	Heavy ends or still bottoms from the purification column in the production of epichlorohydrin.	(T)	
K018	Heavy ends from the fractionation column in ethyl chloride production.	(T)	
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	(T)	
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	(T)	
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.	(T)	
K022	Distillation bottom tars from the production of phenoi or acetone from cumene.	(T)	
K023	Distillation light ends from the production of phthalic anhydride from napthalene.	(T)	
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.	(T)	
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene.	(T)	
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	(T)	
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.	(T)	
K026	Stripping still tails from the production of methyl ethyl pyridines.	(T)	
K027	Centrifuge and distiliation residues from toluene diisocyanate production.	(R, T)	
. <u>.</u> K028	Spent catalyst from the hydrochlorinator reactor in the production of i, i, i-trichloroethane.	(T)	
К029	Waste from the product stream stripper in the production of I, I, I-trichloroethane.	(T) ·	
K095	Distillation bottoms from the production of I, I, I-trichloroethane.	(T)	
			(

Hazardous Waste Number	Hazardous Waste	Hazard Code
K096	Heavy ends from the heavy ends column from the production of I, I, I-trichloroethane.	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.	(T)
K083	Distillation bottoms from aniline production.	(T)
K085	Distillation or fractionating column bottoms from the production of chlorobenzenes.	(T)
K103	Process residues from aniline extraction from the production of aniline.	(T)
K104	Combined wastewater streams generated from nitrobenzene/aniline production.	(T)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	(T)
KIII	Product washwaters from the production of dinitrotoluene via nitration of toluene.	(C, T)
<u>K112</u>	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	<u>(T)</u>
<u>K113</u>	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	<u>(T)</u>
<u>K114</u>	Vicinals from the purification of toluenedlamine in the production of toluenedlamine via hydrogenation of dinitrotoluene.	<u>(T)</u>
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	<u>(T)</u>
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.	<u>(T)</u>
<u>K117</u>	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.	<u>(T)</u>
K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	<u>(T)</u>
<u>K136</u>	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	<u>(T)</u>

Hazardous Waste Number	Hazardous Waste	Hazard Code
Pesticides		
K031	By-products saits generated in the production of MSMA and cacodylic acid.	(T)
K032	Wastewater treatment sludge from the production of chlordane.	(T)
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.	(T)
K034	Filter solids from the filtration of hexachloro-cyclopentadiene in the production of chlordane.	(T)
K097	Vacuum stripper discharge from the chlordane chlorination in the production of chlordane.	(T)
K035	Wastewater treatment sludges generated in the production of creosote.	(T)
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.	(T)
К037	Wastewater treatment sludges from the production of disulfoton.	(T)
K038	Wastewater from the washing and stripping of phorate production.	(T)
K039	Filter cake from the filtration of diethylphosphoro-dithioic acid in the production of phorate.	(T)
K040	Wastewater treatment sludge from the production of phorate.	(T)
K041	Wastewater treatment sludge from the production of toxaphene.	(T)
K098	Untreated process wastewater from the production of toxaphene.	(T)
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.	(T)
K043	2,6-Dichlorophenol waste from the production of 2,4-D.	(T)
K099	Untreated wastewater from the production of 2,4-D.	(T)
Explosives		
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.	(R)
K045	Spent carbon from the treatment of wastewater containing explosives.	(R)
K04 <u>6</u>	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	(T)

Waste Number		
K047	Pink or red water from TNT operations.	(R)
Petroleum	Refining	
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.	(T)
K049	Slop oil emulsion solids from the petroleum refining industry.	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.	(T)
K051	American Petroleum Institute (API) separator sludge from the petroleum refining industry.	(T)
K052	Tank bottoms (leaded) from the petroleum refining industry.	(T)
lron and S	tte <del>e</del> l	
K061	Emission control dust or sludge from the electric furnace production of steel.	(T)
K062	Spent pickle liquor from generated by steel finishing operations of facilities within the iron and steel industry identified by the SIC codes 331 and 332.	(C,T)
Secondary	Lead	
K069	Emission control dust or sludge from secondary lead smelting.	. (T)
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	(T)
lnorganic	Chemicals	
K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.	(T)
K073	Chlorinated hydrocarbon wastes from the purification step of the diaphragm cell process using graphite anodes in chlorine production.	(T) -
K106	Wastewater treatment sludge from the mercury cell process in chlorine production.	(T)
ink Formul	ation	
K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments; driers, soaps, and stabilizers containing chromium	(T)

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Hazardous Waste Number	Hazardous Waste	Hazard Code
Veterinary	Pharmaceuticals Pharmaceuticals	
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
KIOI	Distiliation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
· K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
Coking		
K060	Ammonia still lime sludge from coking operations.	(T)
K087	Decanter tank tar sludge from coking operations.	(T)

SECTION 28. NR 181.16(3)(a) and (b)(intro) are amended to read:

NR i81.16(3) Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof. (a) The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded, when they are mixed with used oil or other solid waste and applied to the land for dust suppression or road treatment, or when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel:

- 1. Any commercial chemical product or manufacturing chemical intermediate having  $\frac{+he}{a}$  a generic name listed in tables table IV or V.
- 2. Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have a generic name listed in tables table IV or V.
- 3. Any restdue-remaining-in-a container or an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having a generic

name listed in table IV, or off-specification chemical product or manufacturing chemical intermediate which, if it met specifications, would have a generic name listed in table IV, unless the container is empty as defined in s. NR 181.135(4)(5).

4. Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any commercial chemical product or manufacturing chemical intermediate having the a generic name listed in table IV or V, or any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any off-specification chemical product and or manufacturing chemical intermediate which, if it met specifications, would have the a generic name listed in table IV or V.

Note: The phrase "commercial chemical product or manufacturing chemical intermediate" refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a waste, such as a manufacturing process waste, that contains any of the substances listed in tables IV or V. Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in tables IV or V, such waste will be listed in sub. (2), or will be identified as a hazardous waste by the characteristics set forth in s. NR 181.15.

(b)(intro.) The commercial chemical products, manufacturing chemical intermediates er, off-specification commercial chemical products or manufacturing chemical intermediates described in par. (a)1. or 2. or materials or items described in par. (a)3. or 4. listed in table IV are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in s. NR 181.13 (3). These wastes and their corresponding hazardous waste numbers are:

Table IV
Acute Hazardous Commercial Chemical Products and
Manufacturing Chemical Intermediates

Hazardoı	ıs Waste	Hazardous Waste	
Number	Substance	Number	Substance
P023	Acetaldehyde, chloro	P103	Carbamimidoselenoic acid
P002	Acetamide, N-(aminothioxomethyi)	P022	Carbon bisulfide
P057	Acetamide, 2-Fluoro	P022	Carbon disulfide
P058	Acetic acid, fluoro-, sodium salt	P095	Carbonyl chloride
P066	Acetimidic acid, N-I (methylcar-	P033	Chlorine cyanide
	bamoyl)oxylthio-, methyl ester	P023	Chloroacetaldehyde
P001	3-(alpha-acetonylbenzyl)-4-	P024	p-Chioroaniline
	hydroxycoumarin and saits, when	P026	l-(o-Chlorophenyi)thlourea
	present at concentrations greater	P027	3-Chloropropionitrile
	than 0.3%.	P029	Copper cyanides
P002	I-Acety I-2-thiourea	P030	Cyanides (soluble cyanide saits),
P003	Acrotein		not elsewhere specified
P070	Aldicarb	P031	Cyanogen
P004	Aldrin	P033	Cyanogen chloride
P005	Allyl alcohol	P036	Dichlorophenylarsine
P006	Aluminum phosphide	P037	Dieldrin
P007	5-(Aminomethyl)-3-isoxazolol	P038	Diethylarsine
P008	4-aAminopyridine	P039	0,0-Diethyi S-[2-(ethyithio)ethyi]
P009	Ammonium picrate (R)		phosphorodithicate
P119	Ammonium vanadate	P041	Diethyl-p-nitrophenyl phosphate
P010	Arsenic acid	P040	0,0-Diethyl O-pyrazinyl
P012	Arsenic (III) oxide		phosphorothicate
POLI	Arsenic (V) oxide	P043	Di-isopropylfluorophosphate
P011	Arsenic pentoxide	P044	Dimethoate
P012	Arsenic trioxide	P045	3,3-Dimethyl-l-(methylthio)-2-
P038	Arsine, diethyl-		butanone-0 ((methylamino)
P054	Aziridine		carbonyil oxime
P013	Barium cyanide	P071	0,0-Dimethyl 0-p-nitrophenyl
P024	Benzenamine, 4-chloro-		phosphorothioate
P077	Benzenamine, 4-nirto-	P082	Dimethylnitrosamine
P028	Benzene, (chloromethyl)-	P046	alpha, alpha-Dimethylphenethylamine
P042	1,2-Benzenedioi, 4-(1-hydroxy-2-	P047	4,6-Dinitro-o-cresol and saits
-	(methyl-amfno)ethyll-	P034	4,6-Dinitro-o-cyclohexylphenol
P014	Benzenethioi	P048	2, 4-Dinitrophenol
P028	Benzyl chloride	P020	Dinoseb
P015	Beryllium dust	P085	Diphosphoramide, octamethyl
P016	Bis(chloromethyl) ether	P039	Disulfoton
P017	Bromoacetone	P049	2,4-Dithiobluret
P018	Brucine	P109	Dithiopyrophosphoric acid,
P021	Calcium cyanide		tetraethyl ester
P123	Camphene, octachloro-	P050	Endosulfan

Hazardo	us Waste	Hazardo	us Waste
Number	Substance	Number	Substance
P088	Endothall	P071	Methyl parathion
P051	Endrin	P072	alpha-Naphthylthiourea
P042	Epinephrine	P073	Nickel carbonyl
P046	Ethanamine, i,l-dimethyl-2-phenyl	P074	Nickel cyanide
P084	Ethenamine, N-methyl-N-nitroso	P074	Nickel (II) cyanide
P101	Ethyl cyanide	P073	Nickel tetracarbony!
P054	Ethylenimine	P075	Nicotine and saits
P097	Famphur	P076	Nitric oxide
P056	Fluorine	P077	p-Nitroaniline
P057	Fluoroacetamide	P078	Nitrogen dioxide
P058	Fluoroacetic acid, sodium salt	P076	Nitrogen (i!) oxide
P065	Fulminic acid, mercury(  ) salt (R,T)	P078	Nitrogen (IV) oxide
P059	Heptachior	P081	Nitroglycerine (R)
P051	1,2,3,4,10,10-Hexachloro-6,7-epoxy-	P082	N-Nitrosomethylamine
	1,4,4a,5,6,7,8,8a-octahydro-endo,	P084	N-Nitrosomethylvinylamine
	endo-1,4:5,8-dimethanonaphthalene	P050	5-Norbornene-2,3-dimethanol,
P037	1,2,3,4,10,10-Hexachloro-6,7-epoxy-		1,4,5,6,7,7-hexachloro, cyclic sulfite
	1,4,4a,5,6,7,8,8a-octahydro-endo,	P085	Octamethylpyrophosphoramide
	exo-1,4:5,8-demethanonaphthalene	P087	Osmium oxide
P060	1,2,3,4,10,10-Hexachioro-1,4,4a,5,8,	P087	Osmium tetroxide
	8a-hexahydro-1,4:5,8-endo-	P088	7-Oxabicycio [2.2.1] heptane-2,
	dimethanonaphthalene		3-dicarboxylic acid
P004	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,	P089	Parathion
	8a-hexahydro-1,4,:5,8-endo,exo-	P034	Phenol, 2-cyclohexyl-4,6-dinitro
	dimethanonaphthalene	P048	Phenol, 2,4-dinitro
P060	Hexachlorohexahydro-exo,	P047	Phenol, 2,4-dinitro-6-methyl
	exo-dimethanonaphthalene	P020	Phenoi, 2,4-dinitro-6(1-methylpropyl)
P062	Hexaethyl tetraphosphate	P009	Phenol, 2,4,6-trinitro-, ammonium
P116	Hydrazinecarbothioamide		sait (R)
P068	Hydrazine, methyl-	P036	Phenyl dichloroarsine
P063	Hydrocyanic acid	P092	Phenylmercuric acetate
P063	Hydrogen cyanide	P093	N-Phenyithiourea
P096	Hydrogen phosphide	P094	Phorate
P064	Isocyanic acid, methyl ester	P095	Phosgene
P007	3(2H)-Isoxazolone, 5-(aminomethyi)-	P096	Phosphine
P092	Mercury, (acetato-0) phenyl-	P041	Phosphoric acid, diethyl
P065	Mercury fulminate (R,T)	• •	p-nitrophenyl ester
P016	Methane, oxybis tehtore (chloro-	P044	Phosphorodithioic acid, 0,0-dimethyl
PII2	Methane, tetranitro-(R)		S-(2-(methylamino)-2-oxoethyllester
PI18	Methanethiol, trichloro-	P043	Phosphorofluoric acid,
P059	4,7-Methano-IH-indene, 1,4,5,6,7,8,		bis(I-methylethyl)-ester
	8-heptachloro-3a,4,7,7a-tetrahydro-	P094	Phosphorothioic acid, 0-0-diethyl
P066	Methomy I		S-(ethyithio)methyi ester
P067	2-Methylaziridine		0,0-diethyi 0-(p-nitrophenyi) ester
P068	Methyl hydrazine	P089	Phosphorothioic acid,
P064	Methyl isocyanate		0,0-diethyl 0-(p-nitro-phenyl) ester
P069	2-Methyllactonitrile	P040	Phosphorothioic acid, 0-0-diethyl
	= 1.5.11/11.2015	, + 10	0-pyrazinyi ester
			V P7. 0211171 03101

Hazardous Waste Ha:			rdous Waste	
Number	Substance	Number	Substance	
P097	Phosphorothioic acid, 0-0-dimethyl	P108	Strychnine and salts	
	O-[p-((dimethylamino)-sulfonyl)	P115	Suifuric acid, thallium (I) salt	
	phenyl! ester	P109	Tetræthyldithlopyrophosphate	
PIIO	Plumbane, tetraethyl	P110	Tetraethyi iead	
P098	Potassium cyanide	PIII	Tetraethylpyrophosphate	
P099	Potassium silver cyanide	P112	Tetranitromethane (R)	
P070	Propanal, 2-methyl-2(methylthio)-,	P062	Tetraphosphoric acid, hexaethyl ester	
	0-((methylamino)carbonylloxime	P113	Thailic oxide	
PIOI	Propanenitrile	P113	Thaliium (III) oxide	
P027	Propanenitrile, 3-chloro	P114	Thailium (1) seienite	
P069	Propanenitrile, 2-hydroxy-2-methyl	P115	Thallium (1) sulfate	
P081	1,2,3-Propanetrioi, trinitrate-(R)	P045	Thiofanox	
P017	2-Propanone, 1-bromo-	P049	Thiomidodicarbonic diamide	
P102	Propargyi alcohol	P014	Thiopheno!	
P003	2-Propenal	P116	Thiosemicarbazide	
P005	2-Propen-1-ol	P026	Thiourea (2-chlorophenyl)-	
P067	1,2-Propylenimine	P072	Thiourea, i-naphthalenyl-	
P102	2-Propyn-i-ol	P093	Thiourea, phenyl-	
P008	4-Pyridinamine	P123	Toxaphene	
P075	Pyridine, (S)-3-	P118	Trichioromethanethiol	
	(I-methyl-2-pyrrolldinyl)-, and salts	P119	Vanadic acid, ammonium sait	
PIII	Pyrophosphoric acid, tetraethyl ester	P120	Vanadium pentoxide	
P103	Selenourea	P120	Vanadium (V) oxide	
P104	Silver cyanide	P001	Warfarin, when present at	
P105	Sodium azide		concentrations greater than 0.3%	
P106	Sodium cyanide	P121	Zinc cyanide	
P107	Strontium suifide	P122	Zinc phosphide (R,T)	
P108	Strychnidin-10-one, and saits	P122	Zinc phosphide, when present at	
P018	Strychnidin-10-one, 2,3-dimethoxy-		concentrations greater than 10%	

SECTION 30. NR 181.16(3)(c)(intro.) is amended to read:

NR 181.16(3)(c)(Intro.) Biscarded The commercial chemical products, off-specification species, containers; and spitt-residues of manufacturing chemical intermediates,

off-specification commercial chemical products or manufacturing chemical intermediates;

described in par. (a)1. or 2. or materials or items described in par. (a)3. or 4. listed in table V are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in s. NR 181.13(2). These wastes and their corresponding hazardous waste numbers are:

Table V
Toxic Commercial Chemical Products and
Manufacturing Chemical Intermediates

Hazardous Waste		Hazardous Waste	
lumber	Substance	Number	Substance
U001	Acetaldehyde (I)	UO   4	Benzenamine, 4,4'-carbonimidoyibis
U034	Acetaldehyde, trichloro-	0014	(N,N-dimethyl)-
U187	Acetamide, N-(4-ethoxyphenyl)-	U049	Benzenamine, 4-chloro-2-methyl-
U005	Acetamide, N-9H-fluoren-2-yi-	U093	Benzenamine, N, N'-dimethyl-
UI 12	Acetic acid, ethyl ester (1)	0000	4-phenylazo-
U   44	Acetic acid, lead salt	U158	Benzenamine, 4,N'-methylenebis
U214	Acetic acid, thallium (+) (1) sait	0150	(2-chloro-
U002	Acetone (1)	U222	Bensenamine Benzenamine, 2-methyl-,
U003	Acetonitrile (1,T)	0222	hydrochloride
U248	3-(aipha-Acetonyibenzyi)-4-	U181	Benzenamine, 2-methyl-5-nitro
0240	hydroxycoumarin and saits, when	0101	Benzene (I, T)
	present at concentrations of 0.3%	UQ38	Benzeneacetic acid, 4-chioro-alpha-
	or less	0000	-
U004	Acetophenone		<pre>(4-chlorophenyi)-alpha-hydroxy, ethyi ester</pre>
U005	2-Acetylaminofiuorene	U030	
U005	Acetyl chloride (C, R, T)	U037	Benzene, I-bromo-4-phenoxy- Benzene, chloro-
U007	Acrylamide	U190	-
U008	•	0190	1,2-Benzenedicarboxylic acid
	Acrylic acid (1)	U028	anhydride
J009	Acrylonitrile	0020	i,2-Benzenedicarboxylic acid,
J150	Alanine, 3-(p-bis(2-	11060	[bis(2-ethyl-hexyl)]ester
1700	chloroethyi)aminol phenyi-,L-	U069	1,2-Benzenedicarboxylic acid, dibutyl
U328	2-Amino-1-methy ibenzene	11000	ester
J353	4-Amino-i-methyibenzene	U088	1,2-Benzenedicarboxylic acid, diethyl
U011	Amitrole		ester
U012	Aniline (1,T)	U102	1,2-Benzenedicarboxylic acid,
J014	Auramine		dimethyl ester
U015	Azaserine	U107	1,2-Benzenedicarboxylic acid,
010	Azirino (21, 31: 3, 4)		di-n-octyl ester
	pyrrolo (1, 2-a) indole-4, 7-dione,	U070	Benzene, i,2-dichloro-
	6-amino-8-((amino-carbonyl)	U071	Benzene, 1,3-dichloro-
	oxy)methyl]-i,la,2,8,8a,8b-hexahydro-	U072	Benzene, 1,4-dichloro-
	8a-methoxy-5-methy!-	UO17	Benzene, (dichloromethyl)-
U157	Benzijliaceanthrylene,	U223	Benzene, 1,3-dlisocyanatomethyl-
	1,2-dihydro-3-methyl		(R, T)
U016	Benziclacridine	U239	Benzene, dimethyl-(1,T)
J016	3,4 Benzacridine	U201	i,3-Benzenediol
U017	Benzal chloride	U127	Benzene, hexachloro-
0018	Benz(a)anthracene	U056	Benzene, hexahydro-(1)
U018	1,2-Benzanthracene	U188	Benzene, hydroxy-
U094	l,2-Benzanthracene, 7,12-dimethyl-	U220	Benzene, methyl
U012	Benzenamine (1,T)	U105	Benzene, i-methyl-1-2,4 dinitro-

Hazardous Waste		Hazardous Waste	
Number	Substance	Number	Substance
U106	Benzene, I-methyl-2,6-dinitro-	U032	Calcium chromate
U203	Benzene, 1,2-methylenedloxy-4-allyl-	U238	Carbamic acid, ethyl ester
U141	Benzene 1,2-methylenedloxy-4-propenyl-	U178	Carbamic acid, methylnitroso-, ethyl
U090	Benzene, 1,2-methylenedloxy-4 propyl-		ester
U055	Benzene, (1-methylethyl)-(1)	U176	Carbamide, N-ethyl-N-nitroso-
U169	Benzene, nitro-(1,T)	U177	Carbamide, N-methyl-N-nitroso-
U183	Benzene, pentachloro-	U219	Carbamide, thio-
U185	Benzene, pentachloro-nitro-	U097	Carbomoyi chloride, dimethyl-
U020	Benzenesulfonic acid chloride (C,R)	U215	Carbonic acid, dithallium (1) salt
U020	Benzenesuifonyl chloride (C,R)	U156	Carbonochioridic acid, methyl ester
U207	Benzene, 1,2,4,5-tetrachloro-		(1,T)
U023	Benzene, (trichloromethyl)-(C,R,T)	U033	Carbon oxyfluoride (R,T)
U234	Benzene, 1,3,5-trinitro-(R,T)	U211	Carbon tetrachioride
U021	Benzidine	U033	Carbonyl fluoride (R, T)
U202	1,2-Benzisothiazolin-3-one,	U034	Chloral
	l,l-dioxide	U035	Chlorambucil
U120	Benzo (j,kl fluorene	U036	Chlordane, technical
U022	Benzo(a)pyrene	U026	Chlornaphazine
U022	3,4-Benzopyrene	U037	Chlorobenzene
U197	p-Benzoquinone	U039	4-Chloro-m-cresol
U023	Benzotrichloride (C, R, T)	U041	I-Chloro-2, 3-epoxypropane
U050	1,2-Benzphenanthrene	U042	2-Chloroethyl vinyl ether
U085	2,2'-Bioxirane (1,T)	U044	Chloroform
U021	(i, l'-Biphenyl)-4,4'-diamine	U046	·Chioromethy! methy! ether
U073	(1,1'-Biphenyl)-4,4'-diamine,	U047	beta-Chloronaphthalene
	3,3'-dichloro-	U048	o-Chlorophenol
U091	( , '-Biphenyi)-4,4'-diamine,	U049	4-Chioro-o-toluidine hydrochioride
	3,3'-dimethoxy-	U032	Chromic acid, calcium salt
U095	(1,1'-Biphenyl)-4,4'-diamine,	U050	Chrysene
	3,3'-dimethyl-	U051	Creosote
U024	Bis(2-chloroethoxy)methane	U052	Cresols
U027	Bis(2-chloroisopropy)) ether	U052	Cresylic acid
U244	Bis(dimethylthiocarbamoyl) disulfide	U053	Crotonaldehyde
U028	Bis(2-ethylhexyl) phthalate	U055	Cumene (1)
U246	Bromine cyanide	U246	Cyanogen bromide
U225	Bromoform	U197	1,4-Cyclohexadienedione
U030	4—Bromophenyl phenyl ether	U056	Cyclohexane (1)
U128	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	U057	Cyclohexanone (1)
U172	I-Butanamine, N-butyl-N-nitroso-	U130	1,3-Cyclopentadlene,
U035	Butanoic acid, 4-(Bis(2-chloroethyl)		1,2,3,4,5,5-hexachloro-
	aminol benzene-	U058	Cyclophosphamide
U031	l-Butanol (1)	U240	2,4-D, salts and esters
U159	2-Butanone (1,T)	U059	Daunomycin
U160	2-Butanone peroxide (R,T)	U060	DDD
U053	2-Butenal	U061	DDT
U074	2-Butene, 1,4-dichloro-(1,T)	U142	Decachloroctahydro-1,3,4-metheno-2H-
U031	n-Butyl alcohol (1)		cyclobuta [c,d]-pentalen-2-one
U136	Cacodylic acid	U062	Diallate
•	·		

Hazardous Waste			Hazardous Waste	
Number	Substance	Number	Substance	
U133	Diamine (R,T)	U102	Dimethyl phthalate	
U221	Diaminotoluene	U103	Dimethyl sulfate	
U063	Dibenz(a,h)anthracene	U105	2,4-Dinitrotoluene	
U063	1,2:5,6-Dibenzanthracene	U106	2,6-Dinitrotoluene	
U064	i,2:7,8-Dibenzopyrene	U107	Di-n-octyl phthalate	
U064	Dibenzla, ilpyrene	U108	i,4-Dioxane	
U066	1,2-Dibromo-3-chioropropane	U109	i,2-Diphenyihydrazine	
U069	Dibutyi phthalate	0110	Dipropyiamine (I)	
U062	S-(2,3-Dichloroally1)	Ulli	Di-N-propyInitrosamine	
	diisopropylthiocarbamate	1000	Ethanai (1)	
U070	o-Dichlorobenzene	U174	Ethanamine, N-ethyl-N-nitroso-	
U071	m-Dichlorobenzene	U067	Ethane, 1,2-dibromo-	
U072	p-Dichlorobenzene	U076	Ethane, I, I-dichloro-	
U073	3,3'-Dichlorobenzidine	U077	Ethane, i,2-dichloro-	
U074	l,4-Dichioro-2-butene (l, T)	U114	1,2-Ethanediyibiscarbamodithioic acid	
U075	Dichlorodifiuoromethane	U131	Ethane, 1,1,1,2,2,2-hexachioro-	
U192	3,5-Dichloro-N-(1,1-dimethyl-	U024	Ethane, !,!'-[methylenebis(oxy)]	
	2-propynyl) benzamide		bis(2-chloro)-	
U060	Dichloro diphenyl dichloroethane	U003	Ethanenitrile (1,T)	
U061	Dichloro diphenyl trichloroethane	U117	Ethane, I, I'-oxybis-(I)	
U078	1,1-Dichioroethylene	U025	Ethane, I, I'-oxybis[2-chloro]-	
U079	1,2-Dichloroethylene	U184	Ethane, pentachioro-	
U025	Dichloroethyl ether	U208	Ethane, 1,1,1,2-tetrachloro-	
U081	2, 4-Dichlorophenol	U209	Ethane, 1,1,2,2-tetrachloro-	
U082	2,6-Dichlorophenoi	U218	Ethanethioamide	
U240	2,4-Dichlorophenoxyacetic acid, salts	U227	Ethane, i,1,2-trichloro-	
	and esters	U247	Ethane, i,i,i-trichloro-2,2-bis	
U083	1,2-Dichloropropane		(p-methoxyphenyi)	
U084	1,3-Dichloropropene	U043	Ethene, chloro-	
U085	1,2:3,4-Diepoxybutane (1,T)	U042	Ethene, 2-chloroethoxy-	
U108	1,4-Diethylene dioxide	U078	Ethene, I,I-dichioro-	
U086	N,N-Diethyihydrazine	U079	Ethene, trans-1,2-dichloro-	
U087	0, 0-Diethyl-S-methyl-dithiophosphate	U210	Ethene, 1,1,2,2-tetrachloro-	
U088	Diethyl phthalate	U173	Ethanol, 2,2'-(nitrosolmino)bis-	
U089	Diethylstilbestrol	U004	Ethanone, 1-phenyl-	
U148	1,2-Dihydro-3,6-pyradizinedione	U006	Ethanoyl chloride (C,R,T)	
U090	Dihydrosafrole	U359	2-Ethoxyethanol	
U091	3,3'-Dimethoxybenzidine	U112	Ethyl acetate (1)	
U091	Dimethylamine (I)	U113	Ethyl acerdie (I)	
U093	Dimethylaminoazobenzene		. Ethyl carbamate (urethan)	
U094	7, 12-Dimethy ibenzialanthracene	U038	-	
	•		Ethyl 4,4'-dichlorobenzilate	
U095	3,3'-Dimethylbenzidine	U114	Ethylenebis(dithiocarbamic acid)	
U096	alpha, alpha-	U067	Ethylene dibromide	
11007	Dimethylbenzylhydroperoxide (R)	U077	Ethylene dichloride	
U097	Dimethylcarbamoyl chloride	<u>U359</u>	Ethylene glycoi monoethyl ether	
U098	i, i-Dimethy i hydrazine	UI 15	Ethylene oxide (I, T)	
U099	1,2-Dimethylhydrazine	U116	Ethylene thiourea	
U101	2,4-Dimethyiphenol	U117	Ethyl ether (1)	

Hazardous Waste Hazardous Waste			
Number	Substance	Number	Substance
		=	
U076	Ethylidene dichloride	U148	Maleic hydrazide
0118	Ethylmethacrylate	U149	Malononitrile
UI 19	Ethyl methanesulfonate	U150	Melphalan
U139	Ferric dextran	U151	Mercury
UI 20	Fluoranthene	U152	Methacrylonitrile (1, T)
U122	Formal dehyde	U092	Methanamine, N-methyl-(1)
U123	Formic acid (C, T)	U029	Methane, bromo-
U124	Furan (1)	U045	Methane, chloro-(1,T)
U125	2-Furancarboxaldehyde (I)	U046	Methane, chloromethoxy-
U147	2,5-Furandione	U068	Methane dibromo-
U213	Furan, tetrahydro-(1)	080U	Methane, dichloro-
U125	Furfural (1)	U075	Methane, dichlorodifluoro-
U124	Furfuran (1)	U138	Methane, iodo-
U206	D-Glucopyranose, 2-deoxy-2(3-methyl-	U119	Methanesulfonic acid, ethyl ester
	3-nitrosoureido)-	U211	Methane, tetrachioro-
U126	Glycidylaldehyde	U121	Methane, trichlorofluoro-
U163	Guanidine, N-nitroso-N-methyl-NFnitro-	U153	Methanethiol (1,T)
U127	Hexachlorobenzene	U225·	Methane, tribromo-
U128	Hexachlorobutadiene	U044	Methane, trichloro-
U129	Hexachlorocyclohexane (gamma isomer)	U121	Methane, trichlorofluoro-
U130	Hexachlorocyclopentadiene	U123	Methanoic acid (C,T)
U131	Hexachioroethane	U036	4,7-Methanoindan,1,2,4,5,6,7,8,
U132	Hexachlorophene		8-octachloro-3a,4,7,7a-tetrahydro-
U243	Hexachloropropene	U154	Methanol (1)
U133	Hydrazine (R, T)	U155	Methapyrilene
U086	Hydrazine, 1,2-diethyl-	U247	Methoxychior
U098	Hydrazine, I,i-dimethyi-	U154	Methyl alcohol (1)
U099	Hydrazine, 1,2-dimethyl-	U029	Methyl bromide
U109	Hydrazine, 1,2-diphenyl-	U186	I-Methylbutadlene (I)
U134	Hydrofluoric acid (C, T)	U045	Methyl chloride (1,T)
U134	Hydrogen fluoride (C,T)	U156	Methyl chlorocarbonate (1,T)
U135	Hydrogen sulfide	U226	Methylchloroform
U096	Hydroperoxide, I-methyl-	U157	3-Methylcholanthrene
	I-phenylethyl-(R)	U158	4,4'-Methylenebis(2-chloroaniline)
U136	Hydroxydimethylarsine oxide	U132	2,2'-Methylenebis
U116	2-Imidazolidinethione		(3,4,6-trichlorophenol)
U137	Indeno [1,2,3-cd]pyrene	U068	Methylene bromide
U139	Iron dextran	U080	Methylene chloride
U140	Isobutyi alcohol (I, T)	U122	Methylene oxide
U141	Isosafrole -	U159	Methyl ethyl ketone (1,T)
<b>Ū142</b>	Kepone	U160	Methyl ethyl ketone peroxide (R,T)
U143	Lasiocarpine	U138	Methyl iodide
U144	Lead acetate	U161	Methyl isobutyl ketone (1)
U145	Lead phosphate	U162	Methyl methacrylate (1, T)
U146	Lead subacetate	U163	N-Methyl-NF-nitro-N-nitrosoguanidine
U129	Lindane	U161	4-Methyl-2-pentanone (1)
U147	Maleic anhydride	U164	Methylthiouracil
V171	majoro dilitydi ido	0104	morny i iniour doi i

Hazardous Waste		Hazardous Waste		
lumber	Substance	Number Substance		
U010	Mitomycin C	UI88 Phenol		
U059	5,12-Naphthacenedione, (8S-cis)	U048 Phenol, 2-chloro-		
	8-acety1-10-1(3-amino-2,3,6-trideoxy-	U039 Phenol, 4-chloro-3-methyl-		
	alpha-L-lyxo-hexopyranosyl)oxyl1-7,8,	U081 Phenol, 2,4-dichloro-		
	9,10-tetrahydro-6,8,11-trihydroxy-1-	U082 Phenol, 2,6-dichloro-		
	methoxy-	UIOI Phenoi, 2,4-dimethyi-		
U165	Naphthalene	U170 Phenol, 4-nitro-		
U047	Naphthalene, 2-chloro-	<del>U242</del> <u>See F027</u> Phenoi, pentachloro-		
U166	t,4-Naphthatendtone	W2+2 See F027 Phenol, 2,3,4,6-tetrachioro-		
	1,4 Naphthalenedione	<del>U230</del> <u>See F027</u> Phenoi, 2,4,5-trichloro-		
U236	2,7-Naphthalenedisulfonic acid,	W23+ See F027 Phenol, 2,4,6-trichloro-		
	3,3'-[3,3-dimethyl-(1,1'-biphenyl)-	UI37 I, 10-(1,2-phenylene)pyrene		
	4,4'diyi)l-bis(azo)bis(5-amino-4-	U145 Phosphoric acid, Lead salt		
	hydroxy)-,tetrasodium salt	U087 Phosphorodithioic acid, 0,0-diethyl-		
U166	1,4-Naphthoquinone	S-methylester		
U167	I-Naphthy lamine	UI89 Phosphorous sulfide (R)		
U168	2-Naphthylamine	U190 Phthalic anhydride		
U167	alpha-Naphthylamine	UI9I 2-Picoline		
U168	beta-Naphthylamine	U192 Pronamide		
U026	2-Naphthylamine, N,N'-bis	UI94 I-Propanamine (I,T)		
	(2-chloromethyl)-	UIIO I-Propanamine, N-propyl-(I)		
U169	Nitrobenzene (I, T)	U066 Propane, 1,2-dibromo-3-chloro-		
U170	p-Nitrophenol	U149 Propanedinitrile		
U171	2-Nitropropane (+)-(i, T)	U171 Propane, 2-nitro-(+) (1, T)		
U172	N-Nitrosodi-n-butylamine	U027 Propane, 2,2'-oxybisi2-chioro-		
U173	N-Nitrosodiethanolamine	U193 1,3-Propane sultone		
U174	N-Nitrosodiethylamine	U235 1-Propanol, 2,3-dibromo-,		
UIII	N-Nitroso-N-propylamine	phosphate (3:1)		
U176	N-Nitroso-N-ethylurea	U126 I-Propanol, 2,3-epoxy-		
U177	N-Nitroso-N-methylurea	U140  -Propanol, 2-methyl-(1,T)		
U178	N-Nitroso-N-methylurethane	U002 2-Propanone (1)		
U179	N-Nitrosopiperidine	U007 2-Propenamide		
U180	N-Nitrosopyrrolidine	U084 Propene, 1,3-dichloro-		
U181	5-Nitro-o-toluidine	,		
U193	1,2-0xathiolane, 2,2-dioxide			
U058		•		
0000	2H-1,3,2-0xazaphosphorine,	Ui52 2-Propenenitrile, 2-methyl-(1,T) U008 2-Propenoic acid (1)		
	2-[bis(2-chloro-ethyl)amino)	·		
111.15	tetrahydro-, oxide 2-	UII3 2-Propendic acid, ethyl ester (1)		
U115	Oxirane (I,T)	UII8 2-Propenoic acid, 2-methyl-,ethyl		
U041	Oxirane, 2-(chloromethy))-	ester		
U182	Paraldehyde	U162 2-Propenoic acid, 2-methyl-, methyl		
U183	Pentachtoroethane Pentachtorobenzene	ester (I,T)		
U184:5	Pentachtorobenzene Pentachtoroethane	U233 See F027 Propionic acid, 2-(2,4,		
U185	Pentachloronitrobenzene	5-trichlorophenoxy)-		
	ee F027 Pentachiorophenol	U194 n-Propylamine (1, T)		
U186	1,3-Pentadiene (1)	U083 Propylene dichloride		
U187	Phenacetin	Ul96 Pyridine		

Hazardous Waste		Hazardous Waste	
Number	Substance	Number	Substance
U155	Pyridine, 2-12-(dimethylamino)	U218	Thioacetamide
	2-thenyla-minol-	U153	Thiomethanol (1,T)
U179	Pyridine, hexahydro-N-nitroso-	U219	Thiourea
U191	Pyridine, 2-methyl-	U244	Thiram
U164	4(IH)-Pyrimidinone, 2,3-dihydro-	U220	Toluene
	6-methy1-2-thioxo-	U221	Toluenediamine
0180	Pyrrole, tetrahydro-N-nitroso-	U223	Toluene dilsocyanate (R,T)
U200	Reserpine	<u>U328</u>	o-Toluidine
U201	Resorcinoi	U353-	p-Toluidine
U202	Saccharin and saits	U222	O-Toluidine hydrochloride
U203	Safrole	0011	IH-1,2,4-Triazol-3-amine
U204	Selenious acid	U226	l,l,l-Trichloroethane
U204	Selenium dioxide	U227	1,1,2-Trichloroethane
U205	Selenium disulfide (R, T)	U228	Trichloroethene
U015	L-Serine, diazoacetate (ester)	U228	Trichloroethylene
4233 S	ee F027 Slivex	U121	Trichloromonofluoromethane
U089	4,4'-Stilbenediol, alpha,	₩ <del>230</del> Se	ee F027 2,4,5-Trichlorophenol
	alphaF-diethyl-		ee F027 2,4,6-Trichlorophenol
U206	Streptozotocin	<del>8232</del> S∈	ee F027 2,4,5-Trichlorophenoxyacetic acid
U135	Sulfūr hydride	U234	sym-Trinitrobenzene (R, T)
U103	Sulfuric acid, dimethyl ester	U182	1,3,5-Trioxane,2,4,5-trimethyl-
U189	Sulfur phosphide (R)	U235	Tris (2,3-dibromopropy))phosphate
U205	Sulfur selenide (R,T)	U236	Trypan blue
<del>8232</del> S	ee F027 2,4,5-T	U237	Uracil, 5(bis(2-chloromethyl)aminol-
U207	1,2,4,5-Tetrachiorobenzene	· U237	Uracii mustard
U208	1,1,1,2-Tetrachloroethane	U043	Vinyl chloride
U209	1,1,2,2-Tetrachloroethane	U248	Warfarin, when present at
U210	Tetrachloroethylene		concentrations of 0.3% or less
<del>⊎2+2</del> S	ee F027 2,3,4,6-Tetrachiorophenoi	U239	Xylene (I)
U213	Tetrahydrofuran (1)	U200	Yohimban-16-carboxylic acid, II,
U214	Thallium (I) acetate		17-dimethoxy-18-((3,4,5-trimethoxy-
U215	Thallium (1) carbonate		benzoyl)oxyl-, methyl ester
U216	Thailium (1) chloride	U249	Zinc phosphide, when present at
U217	Thallium (1) nitrate		concentrations of 10% or less

## Table VI Hazardous Constituents

Acetonitrile (Ethanenitrile) Barium cyanide Acetatophenone (Ethanone, I-phenyl) Benziclacridine (3,4-Benzacridine) 3-(alpha-Acetonylbenzyl)-4-hydroxycoumarin Benz[a]anthracene (1,2-Benzanthracene) and saits (Warfarin) Benzene (Cyclohexatriene) 2-Acetylaminofluorene (acetamide, N-(9H-Benzene, 2-amino-i-methyl (o-Toluidine) fluoren-2-yi)-) Benzene, 4-amino-1-methyl (p-Toluidine) Acetyichioride (Ethanoyi chloride) Benzenearsonic acid (Arsonic acid, phenyl-) Benzene, dichloromethyi-(Benzai chloride) I-Acety I-2-thiourea (Acetamide, N-(aminothioxomethy()-) Benzenethiol (Thiophenol) Benzidine ([i,|'-Biphenyi]-4,4'diamine) Acrolein (2-Propenal) Acrylamide (2-Propenamide) Benzolblfluoranthene (2,3-Benxofluoranthene) Acrylonitrile (2-Propenenitrile) Benzo[j]fluoranthene (7,8-Benzofluoranthene) Benzolalpyrene (3,4-Benzopyrene) Aflatoxins Aldrin (1,2,3,4,10,10-Hexachlorop-Benzoquinone (1,4-Cyclohexadienedione) 1,4,4a,5,8,8a,8b-hexahydro-endo, exo-Benzotrichioride (Benzene, trichioromethyl-) Benzyl chloride (Benzene, (chloromethyl)-) (1,4:5,8-Dimethanonaphthalene) Allyl alcohol (2-Propen-1-ol) Berylilum and compounds, N.O.S. Aluminum phosphide Bis(2-chioroethoxy)methane (Ethane, i,i'-4-Aminobiphenyl([1,1'-Biphenyl]-4-amine) [methylenebis(oxy)]bis[2-chloro-]) 6-Amino-1, la, 2, 8, 8a, 8b-hexahydro-8-Bis(2-chloroethyl) ether (Ethane, 1,1'-(hydroxymethyi)-8a-methoxy-5-methyioxybis(2-chloro-1) carbamate azirino [21, 31: 3, 41 pyrrolo N, N-Bis(2-chioroethyi)-2-napthyiamine (1, 2-al alindole-4, 7-dione, (ester) (Chiornaphazine) (Mitomycin C) Azirino[2F3F:3,4]pyrrolo Bis(2-chioroisopropyi) ether (Propane, 2,2'-(1,2-a)indole-4,7-one, 6-amino-8-[((aminooxybis[2-chioro-1 carbonyl)oxy)methyl]-i,la,2,8,8a,8b-Bis(chloromethyi) ether (Methane, hexahydro-8a-methoxy-5-methyl-) oxybis(chioro-1) 5-(Aminomethyl)-3-isoxazolol (3(2H)-Bis(2-ethylhexyl) phthalate (1,2isoxazolone, 5-(aminomethyi)-) 4-Aminopyri-Benzenedicarboxylic acid, bis(2-ethyldine(4-Pyridinamine) hexyl)ester) Amitrole (IH-1,2,4,-Triazol-3-amine) Bromoacetone (2-Propanone, 1-bromo-) Aniline (Benzenamine) Bromomethane (Methyl bromide) Antimony and compounds, N.O.S. 4-Bromophenyi phenyi ether (Benzene, i-bromo-Aramite (Sulfurous acid, 2-chloroethyl-,2-[4-4-phenoxy-) (i, I-dimethylethyl)phenoxyl-I-methylethyl Brucine (Strychnidin-iO-one, 2,3-dimethoxy-) ester) 2-Butanone peroxide (Methyl ethyl ketone, Arsenic and compounds, N.O.S. peroxide) Arsenic acid (Orthoarsenic acid) Butyl benzyl phthaiate (1,2-Arsenic pentoxide (Arsenic (V) Oxide) Benzenedicarboxylic acid, butyl Arsenic trioxide (Arsenic (III) oxide) phenyl-methyl ester) Auramine (Benzenamine, 4,4F-2-sec-Butyi-4,6-dinitrophenol (DNBP) (Phenoi, carbonimidoyibis[N,N-Dimethyl-, mono-2,4-dinitro-6-(1-methylpropyl)-) hydrochioride) Cadmium and compounds, N.O.S. Azaserine (L-Serine, diazoacetate (ester)) Calcium chromate (Chromic acid, calcium sait) Barium and compounds, N.O.S. Calcium cyanide

Carbon disulfide (Carbon bisulfide) Carbon oxyfluoride (Carbonyl fluoride) Chloral (Acetaldehyde, trichloro-) Chlorambucil (Butanoic acid, 4-[bis(2chloroethyi)aminolbenzene-) Chlordane (alpha and gamma isomers) (4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachioro-3,4,7,7a-tetrahydro-) (alpha and gamma (somers) Chlorinated benzenes, N.O.S. Chorinated ethane, N.O.S. Chlorinated fluorocarbons, N.O.S. Chiorinated napthalene, N.O.S. Chlorinated phenol, N.O.S. Chioroacetaldehyde (Acetaldehyde, chioro-) Chloroalkyl ethers, N.O.S. p-Chioroaniline (Benzenamine, 4-chioro-) Chlorobenzene (Benzene, chloro-) Chiorobenzilate (Benzeneacetic acid, 4-chioroalpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester) 2-Chloro-1,3-butadiene (chloroprene) p-Chloro-m-cresol (Phenol, 4-chloro-3-methyl) I-Chloro-2,3-époxypropane (Oxirane, 2-(chioromethyl)-) 2-Chioroethyl vinyl ether (Ethane, (2-chiorooethoxy)-) Chloroform (Methane, trichloro-) Chioromethane (Methyl chioride) Chloromethyl methyl ether (Methane, chioromethoxy-) 2-Chloronaphthalene (Naphthalene, betachioro-) 2-Chlorophenol (Phenol, o-chloro-) i-(o-Chlorophenyi)thiourea (Thiourea, (2chloropheny()-) 3-Chloropropene (allylchloride) 3-Chloropropionitrile (Propanenitrile, 3-chloro-) Chromium and compounds, N.O.S. Chrysene (1,2-Benzphenanthrene) Citrus red No. 2 (2-Naphthoi, I-1(2,5dimethoxyphenyi)azoi-) Coal tars Copper cyanide Creosote (Creosote, wood) Cresols (Cresylic acid) (Phenol, methyl-) Crotonaldehyde (2-Butenal) Cyanides (soluble saits and complexes), N.O.S. Cyanogen (Ethanedinitrile)

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Cyanogen bromide (Bromine cyanide)
Cyanogen chloride (Chlorine cyanide)
Cycasin (beta-D-Giucopyranoside, (methyl-
  ONN-azoxy)methy(-)
2-Cyclohexyl-4, 6-dinitrophenol (Phenol, 2-
  cyclohexyi-4,6-dinitro-)
Cyclophosphamide (2H-1,3,2,-Oxazaphos-
  phorine, [bis(2-chloroethyl)aminol-tetra-
  hydro-, 2-oxide
Daunomycin (5,12-Naphthacenedione, (8S-cis)-
  8-acety|-|0-|(3-amino-2,3,6-trideoxy)-alpha-
  L-lyxo-hexopyranosyl)oxyl-7,8,9,10-
  tetrahydro-6,8,11-trihydroxy-1-methoxy-)
DDD (Dichlorodiphenyidichloroethane) (Ethane.
  1,1-dichioro-2,2-bis(p-chioro-phenyl)-)
DDE (Ethylene, i, l-dichloro-2, 2-bis(4-chlor-
  opheny()-)
DDT (Dichiorodiphenyltrichioroethane)
  (Ethane, I, I, I-trichloro-2, 2-bis(p-chloro-
  pheny()-)
Dialiate (S-(2.3-dichloroallyl)
  dilsopropyithiocarbamate)
Dibenz(a, h)acridine (1,2,5,6-Dibenzacridine)
Dibenzía, jlacridine (1,2,7,8-Dibenzacridine)
Dibenzia, hlanthracene (1,2,5,6-Dibenzanth-
  racene)
7H-Dibenzolc, glcarbazole (3,4,5,6-
  Dibenzcarbazole)
Dibenzola, elpyrene (1,2,4,5-Dibenzpyrene)
Dibenzola, hlpyrene (1,2,5,6-Dibenzpyrene)
Dibenzola, ilpyrene (i.2,7.8-Dibenzpyrene)
1, 2-Dibromo-3-chioropropane (Propane, 1, 2-
  dibromo-3-chioro-)
i, 2-Dibromoethane (Ethylene dibromide)
Dibromomethane (Methylene bromide)
Di-n-butyi phthalate (1,2-Benzenedicarboxylic
  acid, dibutyl ester)
o-Dichiorobenzene, (Benzene, 1,2-dichioro-)
m-Dichlorobenzene, (Benzene, 1,3-dichloro-)
p-Dichlorobenzene, (Benzene, i,4-dichloro-)
Dichlorobenzene, N.O.S. (Benzene, dichloro-,
3,3'-Dichlorobenzidine ([1,1'-Biphenyl]-4-4'-
  diamine, 3,3'-dichloro-)
1,4-Dichioro-2-butene (2-Butene, 1,4-
  dichloro-)
Dichlorodifiuoromethane (Methane,
  dichlorodifluoro-)
i, i-Dichioroethane (Ethylidene dichioride)
1,2-Dichioroethane (Ethylene dichioride)
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trans-i, 2-Dichloroethene (i,2-
Dichloroethylene)
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- Dichloroethylene, N.O.S. (Ethene, dichloro-, N.O.S.)
- 1, !-Dichloroethylene (Ethene, !,!-dichloro-)
  Dichloromethane (Methylene chloride)
- 2,4-Dichlorophenol (Phenol, 2,4-dichloro-)
- 2.6-Dichlorophenoi (Phenoi, 2,6-dichloro-)
- 2,4-Dichlorophenoxyacetic acid (2,4-D), saits
  and esters (Acetic acid), 2,4-dichlorophenoxy-, saits and esters)
- Dichlorophenylarsine (Phenyl dichloroarsine)
  Dichloropropane, N.O.S. (Propane, dichloro-,
  N.O.S.)
- 1,2-Dichloropropane (Propylene dichloride)
  Dichloropropanol, N.O.S. (Propanol, dichloro-,
  N.O.S.)
- Dichloropropene, N.O.S. (Propene, dichloro-, N.O.S.)
- 1,3-Dichloropropene (1-Propene, 1,3-dichloro-)
  Dieldrin (1,2,3,4,10,10-hexachloro-6,7-epoxy1,4,4a,5,6,7,8,8a-octa-hydro-endo, exo1,4:5,8-Dimethanonaphthalene)
- 1,2:3,4-Diepoxybutane (2,2'-Bioxirane)
- Diethylarsine (Arsine, diethyl-)
- N,N-Diethylydrazine (Hydrazine, 1,2-diethyl)
- O, O-Diethyl S-methyl ester of phosphorodithioic acid (Phosphorodithioic acid,
- 0,0-diethyi S-methyl ester
- 0,0-Diethylphosphoric acid, 0-p-nitro-phenyl
   ester (Phosphoric acid, diethyl
   p-nitrophenyl ester)
- Diethyl phthalate (1,2-Benzenedicarboxylic acid, diethyl ester)
- 0,0-Diethyl 0-2,pyrazinyl phosphorothioate
   (Phosphorothioic acid, 0,0-diethyl
   0-pyrazinyl ester
- Diethylstilbesterol (4,4F-Stilbenediol, alpha, alpha-diethyl, bis(dihydrogen phosphate, (E)-)
- Dihydrosafrole (Benzene, 1,2-methylene-dioxy-4-propyi-)
- 3,4-Dihydroxy-alpha-(methylamino)methyl
  benzyl alcohol (1,2-Benzenediol, 4,-(1hydroxy-2(methylamino)ethyll-)
- Diisopropyifiuorophosphate (DFP)
  (Phosphorofiuoridic acid, bis(I-methylethyl)
  ester)
- Dimethoate (Phosphorodithioic acid, 0,0-dimethy! S-[2-(methylamino)-2-oxoethyll ester

- 3,3'-Dimethoxybenzidine ([1,1'-Biphenyi]4,4'diamine, 3-3'-dimethoxy-)
- p-Dimethylaminoazobenzene (Benzenamine, N.N-dimethyl-4-(phenylazo)-)
- 7, 12-Dimethylbenz(alanthracene (1,2-Benzanthracene, 7,12-dimethyl-)
- 3,3'-Dimethylbenzidine ([1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-)
- Dimethy.lcarbamoy! chloride (Carbamoy! chloride, dimethy!-)
- i,!-Dimethylhydrazine (Hydrazine, !,!dimethy!-)
- i,2-Dimethylhydrazine (Hydrazine, 1,2dimethyl-)
- 3,3-Dimethyl-i-(methylthio)-2-butanone)0-[(methylamino) carbonylioxime (Thiofanox) aipha, aipha-Dimethylphenethylamine (Ethanamine, i,i-dimethyl-2-phenyl-)
- 2,4-Dimethylphenol (Phenol, 2,4-dimethyl-)
- Dimethyi phthalate (i,2-Benzenedicarboxylic acid, dimethyl ester)
- Dimethyl sulfate (Sulfuric acid, dimethyl
- Dinitrobenzene, N.O.S. (Benzene, dinitro-,N.O.S.)
- 4,6-Dinitro-o-cresol and salts (Phenol, 2,4-dinitro-6-methyl-, and salts)
- 2, 4-Dinitrophenol (Phenol, 2,4-dinitro-)
- 2,4-Dinitrotoluene (Benzene, I-methyl-2,4-dinitro-)
- 2,6-Dinitrotoluene (Benzene, I-methyl-2,6-dinitro-)
- Di-n-octyl phthalate(i,2-Benzenedicarboxylic
   acid, dioctyl ester)
- i,4-Dioxane (1,4-Diethylene oxide)
- Diphenylamine (Benzenamine, N-phenyl-)
- 1,2-Diphenylhydrazine (Hydrazine, 1,2diphenyl-)
- Di-n-propylnitrosamine (N-Nitroso-di-n-propylamine)
- Disulfoton (0,0-diethyl S-12-(ethylthio)ethyllphosphorodithioate)
- 2,4-Dithiobiuret (Thioimidodicarbonic diamide)
- Endosulfan (5-Norbornene, 2,3-dimethanol,
- 1,4,5,6,7,7-hexachioro-, cyclic sulfite)
- Endrin and metabolites (1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo, endo-1,4:5,8
  - dimethanonaphthalene, and metabolites)
- Ethyl carbamate (Urethan) (Carbamic acid, ethyl ester)

Ethyl cyanide (propanenitrile) Hydrazine (Diamine) Hydrocyanic acid (Hydrogen cyanide) Ethylenebisdithiocarbamic acid, saits and Hydrofiuoric acid (Hydrogen fluoride) esters (1,2-Ethanediyibiscarbamodithioic Hydrogen sulfide (Sulfur hydride) acid, saits and esters) Ethylene, glycol monoethyl ether (Ethanol, 2-Hydroxydimethylarsine oxide (Cacodylic acid) Indeno (1, 2, 3-c, d)pyrene (1,10-(1,2ethoxy) phenylene)pyrene) Ethyleneimine (Aziridine) Ethylene oxide (Oxirane) lodomethane (Methyl iodide) Ethylenethiourea (2-Imidazolidinethione) Iron dextran (Ferric dextran) Ethyl methacrylate (2-Propenoic acid, 2-Isocyanic acid, methyl ester (Methyl methyi-, ethyi ester) isocyanate) isobutyl alcohol (i-Propanol, 2-methyl-) Ethyl methanesulfonate (Methanesulfonic acid, Isosafrole (Benzene, 1,2-methylenedioxyethyl ester) Fluoranthene (Benzo[j,k]fluorene) 4-aliyi-) Kepone (Decachioroctahydro-1,3,4-Methano-Fluorine 2-Fluoroacetamide (Acetamide, 2-fluoro-) 2H-cyclobuta(cd)pentalen-2-one) Fluoroacetic acid, sodium salt (Acetic acid, Lasiocarpine (2-Butenoic acid, 2-methyl-, 7fluoro-, sodium salt) ((2,3-dlhydroxy-2-2(l-methoxyethyl)-3-Formaldehyde (Methylene oxide) methy l-1-oxobutoxy) methy l[-2,3,5,7a-Formic acid (Methanoic acid) tetrahydro-IH-pyrrolizin-i-yl-ester) Glycidylaidehyde (i-Propanol-2,3-epoxy) Lead and compounds, N.O.S. Lead acetate (Acetic acid, lead sait) Halomethane, N.O.S. Heptachior (4,7-Methano-iH-indene, Lead phosphate (Phosphoric acid, lead sait) 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-Lead subacetate (Lead, bis(acetato-0)tetrahydroxytri-) tetrahydro-) Heptachlor epoxide (alpha, beta, and gamma Maleic anhydride (2,5-Furandione) Maleic hydrazide (1,2-Dihydro-3,6isomers) (4,7-Methano-IH-Indene, 1,4,5,6,7,8,8-heptachioro-2,3-epoxypyridazin-edione) 3a,4,7,7-tetrahydro-, aipha, beta, and Malononitrile (Propanedinitrile) Meiphalan (Alanine, 3-(p-bis(2gamma isomers) Hexachlorobenzene (Benzene, hexachloro-) chloroethyl)aminolphenyl-, L-) Hexachlorobutadiene (1,3-Butadiene, Mercury fulminate (Fulminic acid, mercury 1,1,2,3,4,4-hexachloro-) salt) Hexachiorocyclohexane (all isomers) (Lindane Mercury and compounds, N.O.S. and isomers) Methacryionitrile (2-Propenenitrile, 2-Hexachlorocyclopentadlene (1,3methy(-) Cyclopentadiene, 1,2,3,4,5,5-hexachloro-) Methanethiol (Thiomethanol) Hexachlorodibenzo-p-dioxins Methapyrilene (Pyridine, 2-Hexachlorodibenzofurans [dimethylamino)ethyl]-2-thenylamino-) Hexachloroethane (Ethane, i,1,1,2,2,2-Methomyl (Acetimidic acid, Nhexachloro-) [(methylcarbamoyl)oxylthio-, methyl ester 1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-Methoxychlor (Ethane, 1,1,1-trichloro-2,2'hexahydro-1,4:5,8-endo, endobis)p-methoxyphenyl)-) \_dimethanonaphthalene (Hexachlorohexahydro-2-Methylaziridine (1,2-Propylenimine) endo-endo-dimethanonapthalene) 3-Methylcholanthrene (benzijlaceanthrylene, Hexachiorophene (2,2'-Methylenebis i,2,-dihydro-3-methyi-) (3,4,6-trichlorophenol) ) Methyl cholocarbonate (Carbonochloridic acid, Hexachloropropene (1-Propene, 1,1,2,3,3,3methyl ester) hexachioro-) 4,4'-Methylenebis(2-chloroaniline) Hexaethyl tetraphosphate (Tetraphosphoric (Benzenamine, 4,4'-methylenebis-(2-chloro-) acid, hexaethyl ester) Methyl ethyl ketone (MEK) (2-Butanone)

N-Nitrolsodimethylamine (Dimethylnitrosamine) Methyl hydrazine (Hydrazine, methyl-) N-Nitroso-N-methylurea (Carbamide, N-ethyl-2-Methyllactonitrile (Propanenitrile, 2-N-nitroso-) hydroxy-2-methy!-) Methyl methacrylate (2-Propenoic acid, 2-N-Nitrosodiphenylamine (Ethanamine, N-methylmethyl-, methyl ester) N-nitroso-) Methyl methanesulfonate (Methanesulfonic acid, N-Nitroso-N-methylurea (Carbaminde, N-methyl-N-nitroso-) methyl ester) 2-Methyl-2-(methylthio)propionaldehydeo-N-Nitroso-N-methylurethane (Carbamic acid, (methylcarbonyi) oxime (Propanai, 2-omethylmethylnitroso-, ethyl ester) 2-(methyithio)-, N-Nitrosomethylvinylamine (Ethenamine, Nmethyl-N-nitroso-) 0-((methylamino)carbonylloxime N-Nitrosomorpholine (Morpholine, N-nitroso-) N-Methyl-N'-nitro-N-nitrosoguanidine (Guanidine, N-nitroso-N-methyl-N'-nitro-) N-Nitrosonornicotine (Nornicotine, N-nitroso-) Methyl parathion (0,0-dimethyl 0-(4-nitro-N-Nitrosopiperidine (Pyridine, hexahydro-, phenyl)phosphorothicate) N-nitroso-) Methylthiouracil (4-iH-Pyrimidinone, 2,3-N-Nitrosopyrrolidine (Pyrrole, tetrahydro-, dihydro-6-methyl-2-thioxo-) N-nitroso-) Mustard gas (Sulfide, bis(2-chloroethyl)-) N-Nitrososarcosine (Sarcosine, N-nitroso-) 5-Nitro-o-toluidine (Benzenamine, 2-methyl-5-Napthalene i,4-Naphthoguinone (i,4-Naphthaiene-dione) i-Napthylamine (alpha-Naphthylamine) Octamethylpyrophosphoramide (Diphosphoramide, octamethy(-) 2-Napthylamine (beta-Naphthylamine) I-Napthyl-2-thiourea (Thiourea, I-Osmium tetroxide (Osium(VIII)oxide) 7-Oxabicyclo[2.2.]]heptane-2,3-dicarboxylic naphthaleny1-) Nickel and compounds, N.O.S. acid (Endothai) Nickel carbonyl(Nickel) tetracarbonyl Paraldehyde (1,3,5-Trioxane, 2,4,6-trimethyl-) Nickei cyanide(Nickei(II)cyanide Parathion (Phosphorothioic acid, 0,0-diethyl Nicotine and salts(Pyridine, (S)-3-0-(p-nitrophenyl)ester (I-methyl-2-pyrrolidinyl)-, and salts Pentachiorobenzene (Benzene, pentachioro-) Nitric oxide (Nitrogen (II) oxide) Pentachlorodibenzo-p-dioxins p-Nitroaniline (Benzenamine, 4-nitro-) Pentachiorodibenzofurans Nitrobenzene (Benzene), nitro-) Pentachioroethane (Ethane, pentachioro-) Nitrogen dioxide (Nitrogen (IV) oxide) Pentachioronitrobenzene (PCNB) (Benzene, Nitrogen mustard and hydrochioride sait pentachioronitro-) (Ethanamine, 2-chloro-,N-(2-chloroethyi)-Pentachiorophenol (Phenol, pentachioro-) N-methyl-, and hydrochloride sait) Phenacetin (Acetamide, N-(4-ethoxy-phenyl)-) Nitrogen mustard N-oxide and hydrochloride Phenoi (Benzene, hydroxy-) sait (Ethanamine, 2-chioro, N-(2-Phenylenediamine (Benzenediamine) chloroethyl)-N-methyl-, and hydrochloride Phenylmercury acetate (Mercury, acetatosalt phenyi-) Nitroglycerine (1,2,3-Propanetriol, N-Phenyithiourea (Thiourea, phenyi-) trinitrate) Phosgene (Carbonyl chloride) 4-Nitrophenoi (Phenoi, 4-nitro-) Phosphine (Hydrogen phosphide) 2-Nitropropane (Propane, 2-nitro) Phosphorothioic acid, 0,0-diethy! S-4-Nitroquinoline-i-oxide (Quinoline, 4-nitro-[(ethylthio)methyllester(Phorate) l-oxide-) Phosphoroticic acid, 0,0-dimethyl 0-(p-Nitrosamine, N.O.S. ((dimethylamino)sulfonyl) phenyll N-Nitrosodi-n-butylamine (I-Butanamine, Nester (Famphur) Phthalic acid esters, N.O.S. (Benzene, 1,2butyi-N-nitroso-) N-Nitrosodiethanolamine (Ethanol, 2,2Fdicarboxylic acid, esters, N.O.S.) Phthalic anhydride (1,2-Benzenedicarboxylic (nitrosoimino)bis-) N-Nitrosodiethylamine (Ethanamine, N-ethylacid anhydride) N-nitroso-) 2-Picoline (Pyridine, 2-methyl-)

Polychiorinated biphenyi, N.O.S. Tetraethyl lead (Plumbane, tetraethyl-) Tetraethyipyrophosphate (Pyrophosphoric acid, Potassium cyanide tetraethyl ester) Potassium silver cyanide (Argentate(i-), Tetranitromethane (Methane, tetranitro-) dicyano-, potassium) Thallium and compounds, N.O.S. Pronamide (3,5-Dichioro-N-(1,1-dimethy1-2-Thallic oxide (Thallium(III)oxide) propynyl) benzamide Thailium (I) acetate (Acetic acid. 1,3-Propane suitone (1,2-Oxathiolane, 2,2dioxide) thailium(1)sait) n-Propylamine (1-Propanamine) Thailium (1) carbonate (Carbonic acid, Propylthiouracil (undecamethylenediamine, dithallium(1)salt) N,NF-bis(2-chiorobenzyl)-, dihydrochioride Thailium (I) chloride 2-Propyn-i-oi (propargyi alcohoi) Thallium (I) nitrate (Nitric acid. thallium(1)salt) Pryidine Reserpine (Yohimban-16-carboxylic acid, 11, 17-Thallium selenite dimethoxy-18-(3,4,5-trimethoxybenzoyl)oxyl, Thallium (I) sulfate (Sulfuric acid, thaillum(1)salt) methyl ester) Resorcinol (1.3-Benzenediol) Thioacetamide (Ethanethiomide) Thiosemicarbazide (Hydrazinecarbothioamide) Saccharin and salts (1,2-Benzoisothiazolin-3-one, i, i-dioxide, and salts) Thiourea (Carbamide thio-) Thiuram (Bis(dimethylthiocarbamoyl) di-Safrole (Benzene, 1,2-methylenedloxy-4-allyi-) Selenious acid (Selenium dioxide) suifide) Selenium and compounds, N.O.S. Toluene (Benzene, methyl-) Selenium sulfide (Sulfur selenide) 2,4 Toluenediamine Selenourea(Carbamimidoseienoic acid) 2,6 Toluenediamine Silver and compounds, N.O.S. 3,4 Toluenediamine Toluenediamine , N.O.S. (Diaminotoluene, N.O.S.) Silver cyanide o-Toluidine hydrochloride (Benzenamine, 2-Sodium cvanide Streptozotocin (D-Glucopyranose, 2-dioxymethyi-, hydrochioride) 2-(3-methyl-3-nitrosoureido)-) Tolylene diisocyanate (Benzene, i,3-diiso-Strontium sulfide cyanatomethy (-) Strychnine and saits (Strychnidin-10-one, Toxaphene (Camphene, octachioro-) and salts) Tribromomethane (Bromoform) 1,2,4,5-Tetrachlorobenzene (Benzene, 1,2,4,5-1,2,4-Trichlorobenzene (Benzene, 1,2,4tetrachloro-) trichioro-) 2,3,7,8-Tetrachiorodibenzo-p-dioxin (TCDD) 1,1,1-Trichioroethane (Methyl chioroform) (Dibenzo-p-dioxin,2,3,7,8-tetrachloro-) 1,1,2-Trichloroethane (Ethane, 1,1,2-Tetrachiorodibenzo-p-dioxins trichioro-) Thrichioroethene (Trichioroethylene) Tetrachiorodibenzofurans Tetrachloroethane, N.O.S. (Ethane, Trichioromethanethiol (Methanethiol, tetrachloro-,N.O.S.) trichioro-) 1,1,1,2-Tetrachloroethane (Ethane, 1,1,1,2-Trichloromonofluoromethane (Methane. tetrachioro-) trichlorofluoro-) 1,1,2,2-Tetrachioroethane (Ethane, 1,1,2,2-2,4,5-Trichlorophenol (Phenoi, 2,4,5tetrachloro-) trichioro-) Tetrachloroethene (Ethene, 1,1,2,2,-2,4,6-Trichlorophenol (Phenol, 2,4,6tetrachioro-) trichioro-) Tetrachioromethane (Carbon tetrachioride) 2,4,5-Trichiorophenoxyacetic acid (2,4,5-T) 2, 3, 4, 6-Tetrachlorophenol (Phenol, 2,3,4,6-(Acetic acid, 2,4,5-trichlorophenoxy-) tetrachloro-) 2,4,5-Trichlorophenoxypropionic acid (2,4,5-TP) (Silvex) (Propionoic acid, 2-(2,4,5-Tetraethylidithlopyrophosphate (Dithiopyrophosphoric acid, tetraethyitrichiorophenoxy)-)

ester)

Trichloropropane, N.O.S. (Propane, trichloro-,N.O.S.) 1, 2, 3-Trichloropropane (Propane, 1,2,3trichioro-) 0,0,0-Triethyl phosphorothloate (Phosphorothioic acid, 0,0,0-triethy! ester) sym-Trinitrobenzene (Benzene, 1,3,5-trinitro-) Tris(I-azridinyI) phosphine sulfide (Phosphine sulfide, tris(l-aziridnyl-) Tris(2,3-dibromopropyi) phosphate (I-Propanol, 2,3-dibromo-,phosphate) Trypan blue (2,7-Naphthalenedisulfonic acid, 3.3F-[3,3F-dimethy](1,1F-biphenyi)-4,4Fdiyi)bis(azo)lbis(5-amino-4-hydroxy-, tetrasodium sait) Uracii mustard (Uracii 5-(bis)2chloroethyl)aminol-) Vanadic acid, ammonium sait (ammonium vandadate) Vanadium pentoxide (Vanadium(V)oxide) Vinyl chloride (Ethene, chloro-) Zinc cyanide Zinc phosphide

SECTION 33. NR 181.18(1)(a) Note, (2)(a) Note and (4) are amended to read:

Note: For detailed guidance on conducting the various aspects of the toxic extraction procedure see <u>SW-846</u>, "Test Methods for the <u>Evaluation of Evaluating Solid Waste</u>", <u>SW-846 second edition</u>, 1982, as amended by update 1 in April, 1984 and update 11 in April, 1985. This publication is available from: The Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402, and is available for inspection at the offices of the department, the secretary of state and the revisor of statutes.

For further guidance on filtration equipment for procedures see SW-846, "Test Methods for Evaluating Solid Waster" Waster, second edition, 1982, as amended by update 1 in April, 1984 and update 11 in April, 1985. This publication is available from: The Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402, and is available for inspection at the offices of the department, the secretary of state and the revisor of statutes.

NR 181.18(4) Analytical procedures for analyzing extract contaminants. The test methods for analyzing the extract are as follows:

- (a) For arsenic, barium, cadmium, chromium, lead, mercury, selenium or silver: "Methods for Chemical Analysis of Water and Wastes," as contained in SW-846, "Test Methods for the-Evatuation of Evaluating Solid Wastes,-Physicat/Shemicat-Methods," SW-846,-May,-1980,-EPA,-Office-of-Solid Wastes second edition, 1982, as amended by update 1 in April, 1984 and update 11 in April, 1985.
- (b) For endrin; lindane; methoxychlor; toxaphene; 2,4-D; 2,4,5-TP Silvex; in "Methods for Benzidine, Chlorinated Organic Compounds, Pentachlorophenoi and Pesticides in Water and Wastewater," as contained in SW-846 "Test Methods for the-Evatuation-of Evaluating Solid Waster."

  Waste", second edition, 1982, as amended by update 1 in April, 1984 and update 11 in April, 1985.
- (c) For all analyses, the method of standard addition shall be used for the quantification of species concentration. This method is described in SW-846, "Test Methods for the Evatuation of Evaluating Solid Waster" Waster, second edition, 1982, as amended by update 1 in April, 1984 and update 11 in April, 1985.

Note: This publication may be obtained from: Government Printing Office, Washington, D.C. 20402

This publication is available for inspection at the offices of the department, the secretary of state, and the revisor of statutes.

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SECTION 34. NR [8].[9(])(a), (b) and (d), (2)(b) and (3)(intro), (b) and (c) and (4)(a)5. are amended to read:

NR 181.19 RECYCLING. (1) GENERAL. (a) Except as provided in sub. (2), the owner or operator of a hazardous waste recycling facility which that meets the requirements of this section may be exempted from all of the requirements of subch. V, except those requirements specifically made applicable in this section, in one of 2 ways:

- The owner or operator of a recycling facility which that meets the requirements of sub.
   is exempt from regulation under subch. V and is not required to apply for a written exemption under this section.
- 2. The owner or operator of a recycling facility which that is not exempt under sub. (3) may apply to the department for a written exemption from regulation under subch. V. The following provisions apply to the owner or operator of a recycling facility who applies for a written exemption from the requirements of subch. V under sub. (4), (5) or (6):
- a. The owner or operator of a recycling facility who obtained an operating license, interim license, variance or waiver for the recycling activities prior to July 1, 1985 may continue to operate the recycling facility under the terms and conditions of the applicable approval, or may request an exemption under this section to replace that approval.
- b. The owner or operator of a recycling facility in existence on July 1, 1985 who did not obtain an operating license, interim license, variance or waiver shall, within-180-days-of duty-1,-1985 by December 28, 1985, request an exemption under this section, apply for an interim license under s. NR 181.53(2) or terminate the hazardous waste recycling activity and decontaminate or remove all hazardous waste and hazardous waste residues, regardless of whether the facility was exempt from regulation under this section as it existed prior to July 1, 1985.

  Receipt of a request for an exemption under this section by the department with-180-days-after duty-1,-1985 by December 28, 1985 shall allow such a facility to continue to operate until the

exemption request is approved or denied by the department, provided that the owner or operator complies with the following requirements:

- 1) The security requirements specified in s. NR 181.42 (3) (a).
- 2) The inspection requirements specified in s. NR 181.42(7).
- 3) Operation requirements specified in s. NR 181.42 (i) (m).
- 4) Recordkeeping and reporting requirements specified in s. NR 181.42 (6) (b) and (c).
- 5) The hazardous waste discharge reporting requirements specified in s. NR 181.42 (4) (c)3.
- 6) Incinerators burning only hazardous waste for the primary purpose of heat recovery shall comply with the operational requirements specified in s. NR 181.45(4).
- 7) This temporary exemption applies only to the actual recycling activity and not to other hazardous waste management activities. Applicable generator, transporter, storage, treatment and disposal requirements shall be complied with unless the fact+++y activity is specifically exempted elsewhere in this chapter.
- c. The owner or operator of a proposed recycling facility may request an exemption under this section from certain requirements of subch. V for the proposed recycling activities. The owner or operator of a proposed recycling facility may not construct or operate such a facility until the department approves the exemption request in writing.
- (b) The department shall advise the applicant in writing of the receipt and approval or disapproval of any exemption request. Disapproval of an exemption request shall require the owner or operator to terminate the existing hazardous waste recycling activity and decontaminate or remove all hazardous waste and hazardous waste residues, unless the facility can be operated under an existing department approval under par. (a)2. The department shall advise the applicant, in writing w++h within 65 business days after receipt of the exemption request, of whether the exemption request is complete or incomplete. Failure to provide a complete exemption request w++h within 65 business days after the date of the written advisory that the request is incomplete may be a basis for denial of the request. The department may extend the

period to provide a complete exemption request if the applicant can show that such an extension is necessary to develop the required information to complete the request. The department shall advise the applicant of the approval or disapproval of the exemption request within 65 business days after finding the request complete.

(d) Any recycling exemption applies only to the actual recycling activity, and not to other hazardous waste management activities. Applicable generator, transporter, storage, treatment and disposal requirements shall be compiled with unless the factority is specifically exempted elsewhere in this chapter.

Note: Any hazardous waste generated from by a recycling activity is regulated under this chapter. For example, wastes generated from the processing of used <a href="lead-acid">lead-acid</a> batteries, such as acid, lead plates and battery cases must be properly managed at an approved hazardous waste facility.

- (2)(b) Except as provided in sub. (4), the burning of hazardous waste in incinerators as defined in s. NR 181.04(51). Notwithstanding sub. (4), the burning of hazardous waste in cement kilns located within the boundaries of incorporated municipalities with a population greater than 500,000, using the latest census data, is not eligible for an exemption under this section.
- (3) Legitimate recovery or reclamation. The legitimate recovery or reclamation of hazardous waste, as defined in s. NR 181.04 (61g), is exempt from regulation under subch. V., provided that the owner or operator of such a recycling facility complies with the following requirements:

Note: Certain units that perform recovery or reclamation may be exempt from regulation under subch. V if they meet the definition of a totally enclosed treatment facility, as defined in s. NR 181.04(99). An example of such a unit is an enclosed still which is directly connected to a process that produces waste for recovery in the still.

(b) The contingency plan requirements in s. NR 181.42 (4), except that these requirements do not apply to any generator who recycles only waste generated on-site and who generates and

accumulates hazardous waste in quantities less than those specified in s. NR 181.13, except as provided in s. NR 181.13(1).

(c) The personnel training requirements in s. NR 181.42 (5) (a) and (b), except that these requirements do not apply to any generator who recycles only waste generated on-site and who generates and accumulates hazardous waste in quantities less than those specified in s. NR 181.13, except as provided in s. NR 181.13(1).

(4)(a)5. A description of how the requirements of par. (b) will be complied with, including a copy of the facility's contingency plan as required under s. NR i81.42(4) and a description of how the facility will close in accordance with sub. (i)(f), except that this-description-is these descriptions are not required for facilities which burn hazardous waste for energy recovery in a boiler or industrial furnace as defined in s. NR i81.04(6r) and (52m), in amounts less than 1,000 kilograms per month, provided that the only hazardous waste burned exhibits only the characteristic of ingnitability, and no other characteristic listed in s. NR i81.15, or is listed under s. NR i81.16 solely because it exhibits the characteristic of ignitability.

SECTION 35. NR 181.19(4)(b)10. is renumbered NR 181.19(4)(b)11.

SECTION 36. NR 181.19(4)(b)10. is created to read:

NR 181.19(4)(b)10. If the facility is accepting waste from off-site for recycling, the following additional requirements apply:

- a. The general waste analysis requirements in s. NR 181.42 (1) (d).
- b. The waste analysis plan requirements in s. NR 181.42 (i) (e).
- c. The applicable storage requirements in s. NR 181.43.

SECTION 37. NR 181.19(5)(b)10. is renumbered NR 181.19(5)(b)11.

SECTION 38. NR 181.19(5)(b)10. is created to read:

NR 181.19(5)(b)10. If the facility is accepting waste from off-site for recycling, the following additional requirements apply:

- a. The general waste analysis requirements in s. NR 181.42 (1) (d).
- b. The waste analysis plan requirements in s. NR 181.42 (1) (e).
- c. The applicable storage requirements in s. NR 181.43.

SECTION 39. NR 181.195 is created to read:

## NR 181.195 STANDARDS FOR THE MANAGEMENT OF LEAD-ACID BATTERIES DESTINED FOR RECYCLING.

- (I) GENERAL. Persons who generate, transport, or store waste lead-acid batteries destined for recycling but do not recycle them are not subject to regulation under this chapter, except to the extent such requirements apply under this section, provided that:
- (a) The waste lead-acid batteries are managed to prevent breakage, spills or discharges to the environment; and
- (b) Any waste discharged during the management of waste lead-acid batteries is managed in accordance with this chapter. Such waste is not subject to the exemption from regulation in this subsection.
- (2) STORAGE PRIOR TO RECYCLING. Owners or operators of lead-acid battery recycling facilities storing lead-acid batteries at the recycling facility before recycling them are subject to the applicable requirements of this chapter including the requirements under ss. NR 181.42 and 181.43 for that storage, except that they are exempt from the waste analysis requirements of s. NR 181.42(1)(d) and (e), and the manifest requirements of s. NR 181.42(6)(a).
- (3) SPECIAL REQUIREMENTS. (a) The department may require the owner or operator of any facility managing lead-acid batteries which is otherwise exempt under this section, to comply

with all or part of the requirements of subch. V under s. NR 181.08(1), where compliance with .

such requirements is necessary to protect public health, safety or welfare, or the environment.

- (b) The department may require any generator or transporter of lead-acid batteries who is otherwise exempt under this section, to comply with all or part of the requirements of subch. V under s. NR 181.08(2), where compliance with such requirements is necessary to protect public health, safety or welfare or the environment.
- (4) The actual recycling of lead-acid batteries is regulated under s. NR 181.19 and not under this section.

Note: Any hazardous waste generated by a recycling activity is regulated under this chapter. For example, wastes generated from the processing of lead-acid batteries, such as acid, lead plates and battery cases must be properly managed at an approved hazardous waste facility.

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SECTION 40. NR 181.21(1) is amended to read:

NR 181.21(1) APPLICABILITY. All generators of solid waste shall determine if that their waste is hazardous using the procedures specified in s. NR 181.22. Generators of solid waste who find their waste to be hazardous following such evaluation, and who meet the definition of a generator in s. NR 181.04 (42), shall comply with the requirements of this subchapter, except as provided in sub. (2). Any person who imports hazardous waste from abroad into Wisconsin shall comply with the requirements of this subchapter. Except as provided in s. NR 181.395, the owner or operator of a hazardous waste facility who initiates a shipment of hazardous waste from that facility shall comply with the requirements of this subchapter, regardless of whether the waste was originally generated at that facility.

SECTION 41. NR 181.21(2)(b) is repealed and recreated to read:

NR 181.21(2)(b) A person who generates waste lead-acid batteries that are destined for recycling and who complies with s. NR 181.195 is exempt from the requirements of this subchapter with respect to the waste lead-acid batteries.

SECTION 42. NR 181.21(2)(c) is amended to read:

NR 181.21(2)(c) Persons who generate waste pesticide containers which are a hazardous waste and who triple rinse each emptied pesticide container in accordance with s. NR 181.135 (4)(5) and dispose of the pesticide rinsate on their own property in accordance with the prescribed dosage rate, in a manner which is consistent with its original use and which will not contaminate the waters of the state or create a hazard to persons or property, including fish and wildlife, are not required to comply with the requirements of subch. Y or VI or any of the requirements of this subchapter except s. NR 181.22.

SECTION 43. NR 181.21(4)(title) is amended to read:

NR 181.21(4)(+1+1e) STORAGE, TREATMENT, DISPOSAL AND TRANSPORTATION.

SECTION 44. NR 181.21(4)(c) is created to read:

NR 181.24(4)(c) Except as provided in s. NR 181.32(1), generators may offer hazardous waste for transportation only to a person who has obtained a transportation service license from the department in accordance with s. NR 181.55.

SECTION 45. NR [8].21(5)(a)(intro.), 2.e., 3.e. and 4., (b)(intro.) and 1. are amended to read:

NR 181.21(5)(a) On-site accumulations. (intro.) A Except as provided in s. NR 181.13, a generator may accumulate hazardous waste on-site in containers or above ground tanks, but not underground tanks, without a storage license, for 90 days or less provided that the generator complies with the following requirements conditions:

- 2.e. A container holding hazardous waste shall always be closed during storage except with when it is necessary to add or remove waste.
- 3.e. Storage tanks which contain volatile waste shall compty be operated in compliance with s.-NR-+54.+3 chs. NR 419, 420 and 421, regarding the control of organic compound emissions.
- 4. The date upon which each period of accumulation begins shall be clearly marked and visible for inspection on each container or tank;.

(5)(b)(intro.) Extension of 90-day period. A Except as provided in s. NR 181.13(1)(c), a generator who accumulates hazardous waste for more than 90 days in containers or above ground tanks is an operator of a hazardous waste storage facility and is subject to the facility requirements of subch. V and the licensing requirements of subch. VI, unless the generator has

been granted an extension to the 90 day period. Such an extension may be granted by the department if hazardous wastes must remain on-site for longer than 90 days due to unforeseen, temporary and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the department on a case-by-case basis. Such extensions:

1. Shall be applied for in writing. Written requests shall be submitted to the department and shall state what the unforeseen, temporary and uncontrollable circumstances are-which that caused the generator to apply.

SECTION 46. NR 181.21(5)(c) is created to read:

NR 181.21(5)(c) <u>Satellite accumulation</u>. A generator may accumulate as much as 55 galions of hazardous waste or one quart of acutely hazardous waste listed in s. NR 181.16(2)(a), table II or (3)(b), table IV in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a storage license and without complying with par. (a) or s. NR 181.13(1)(b), provided that the generator complies with the following requirements:

- l. If a container is not in good condition or if the contents of the storage container begin to leak, the hazardous waste in the container shall be recontainerized in a storage container in good condition.
- 2. A container holding hazardous waste shall always be closed during storage except when it is necessary to add or remove waste.
- 3. A container holding hazardous waste may not be opened, handled or stored in a manner which may rupture the container or cause it to leak.
- 4. The container shall be made or lined with materials which will not react with and are otherwise compatible with the hazardous waste to be accumulated.
- 5. The generator shall mark the containers either with the words "Hazardous Waste" or with other words that identify the contents of the containers.

- 6. A generator who accumulates either hazardous waste or acutely hazardous wastes listed in s. NR i81.16(2)(a), table if or (3)(b), table IV in excess of the amounts allowed under this paragraph at or near the point of generation shall, with respect to that amount of excess waste, comply within 3 days with par. (a), s. NR i81.13(1)(b) or other applicable provisions of this chapter. During the 3-day period, the generator shall continue to comply with subds. i. to 5. The generator shall also mark each container holding this excess accumulation with the date the excess amount began accumulating.
- 7. Any hazardous waste removed from the accumulation area shall be managed in accordance with par. (a), s. NR 181.13(1)(b) or other applicable provisions of this chapter.

SECTION 47. NR 181,21(6)(e) is amended to read:

(e) The generator shall comply with the applicable tank requirements in part sub. (5)

(a)3.a. through j.; and

SECTION 48. NR 181.21(6)(b) is repealed.

SECTION 49. NR 181.21(6)(c) to (f) are renumbered to be NR 181.21(6)(b) to (e).

SECTION 50. The following note is added to NR 181.21(6)(e):

Note: A material that does not initially meet the definition of hazardous waste in s. NR 181.13 can become a hazardous waste after it is spilled or leaked. This would be true if:

1) there is no intent to use the spilled or leaked material, without treatment, for its originally intended purpose, and;

2) that material is listed in s. NR 181.16 and has not been excluded from the lists under
s. NR 181.17, or it exhibits any of the characteristics of hazardous waste identified in
s. NR 181.15.

For example, a spilled or leaked commercial chemical product having a generic name listed in s. NR 181.16(3)(b), Table IV or (3)(c), Table V, would be hazardous waste if there is no intent to use It, without treatment, for its originally intended use.

SECTION 51. NR 181.22(4) is renumbered NR 181.22(5).

SECTION 52. NR 181.22(4) is created to read:

NR 181.22(4) If a generator changes any processes in a way that could affect the characteristics of any solid waste produced, the generator shall again follow the hazardous waste determination procedures of this section.

SECTION 53. NR 181.23(2)(f), (h)6., 10.(intro) and ii. are amended to read:

NR 181.23(2)(f) The generator shall initiate the use of the manifest. The generator shall fill out all required information and sign the manifest. After the transporter signs and dates the manifest, the generator shall retain one copy, shall, within 5 business days, send a copy to the department within-5-working-days,-shall-send and a copy to the consignment state, if the consignment state is not Wisconsin and shall give the remaining copies to the transporter to accompany the hazardous waste shipment.

(h)6. The U.S. DOT description of the waste including the proper shipping name, hazard class and identification number required by 49 CFR [72.10], [72.102, [72.202, and [72.203, 9ctober-+;-+983 November ], [985.

iO.(intro.) One primary hazardous waste number corresponding to the name of the waste being shipped, that-is selected using the following criteria where more than one waste number may correspond to the name of the waste:

II. Certification that the uniform manifest form is accurately filled out and, that the material is properly described, packaged, marked, labeled and in proper condition to be transported or has been received and accepted in accordance with this chapter and the generator has complied with the waste minimization requirements of 42 U.S.C. s. 6922(b).

SECTION 54. NR 181.23(2)(1) is renumbered NR 181.23(2)(k).

SECTION 55. NR 181.23(2)(j) is created to read:

NR 181.23(2)(j) A generator subject to par. (i) who uses a manifest from a consignment state that is not Wisconsin shall send a photocopy of the copy received from the operator of the facility to which the hazardous waste is shipped, to the department within 5 business days of receiving the copy from that facility.

SECTION 56. NR 181,24(1)(intro.) and (2) are amended to read:

NR 181.24(1)(intro.) Except as provided in substact2)-and-(3) sub. (4), generators of hazardous waste shall complete an annual report form and file it with the department no-tater than-March-t-for within 90 days after the close of the preceding calendar year. The annual report shall cover generator activities during the previous calendar year and shall, at a minimum, contain the following information:

(2) Any generator who treats, stores or disposes of hazardous wastes on-site shall submit quarterty annual reports, regarding all hazardous wastes managed, in accordance with

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s. NR 181.42 (6) (c), except for waste managed solely in an on-site accumulation area in accordance with s. NR 181.21(5) or 181.13(1).

SECTION 57. NR 181.24(1)(f) is renumbered NR 181.24(1)(h).

SECTION 58. NR 181.24(1)(f) and (g) are created to read:

NR 181.24(1)(f) A description of the efforts made during the calendar year to reduce the volume and toxicity of hazardous waste generated.

(g) A description of the changes in volume and toxicity of waste actually achieved during the calendar year in comparison to previous years, to the extent such information is available for the years prior to 1984.

SECTION 59. NR 181.24(3) is repealed and recreated to read:

NR 181.24(3) A small quantity generator exempted under s. NR 181.13 is exempt from sub. (i)(f) and (q).

SECTION 60. NR 181.26(4) is renumbered NR 181.26(3).

SECTION 61. NR 181.26(1), (2)(title) and (intro.), (a) and (b) and (3) as renumbered are amended to read:

NR 181.26(1) PACKAGING. Every generator shall place the hazardous waste to be shipped in packages in accordance with DOT regulations on packaging in 49 CFR Parts 173, 178 and 179, 9ctober-+;-+983 November 1, 1985.

- (2) LABELING AND MARKING. Before transporting or offering hazardous waste for transportation off-site, a generator shall label each package in accordance with applicable DOT regulations on hazardous materials in 49 CFR Part 172, October-+7-+983 November 1, 1985.
- (a) Before placing hazardous waste in an accumulation area pursuant to s. NR 181.21 (5) (a) or 181.13(1)(b) or placing hazardous waste in an ene-site on-site storage facility pursuant to s. NR 181.21 (4) (a) 1., a generator shall mark each container in accordance with sub- par. (c), with the words "HAZARDOUS WASTE," or with other words that identify the contents of the container as hazardous waste.
- (b) Before transporting, or offering hazardous waste for transportation off-site, a generator shall mark each package of hazardous waste in accordance with DOT regulations on hazardous materials in 49 CFR Part 172, October-17-1983 November 1, 1985.
- (3) PLACARDING. Before transporting hazardous waste, or offering hazardous waste for transportation off-site, a generator shall offer the initial transporter the appropriate placards required by DOT regulations for hazardous materials in 49 CFR Part 172, Subpart F, 9ctober-1,-1983 November 1, 1985.

SECTION 62. NR 181.31(3) is amended to read:

NR 181.31(3) Transportation services collecting only hazardous wastes that do not require a manifest as specified in s. NR 181.13(2) shall comply with all the requirements of this subchapter except the manifest requirements specified in s. NR 181.34 unless the small quantity generator chooses to use the manifest.

SECTION 63. NR 181.32(3) is created to read:

NR 181.32(3) A person who transports waste lead-acid batteries destined for recycling and who complies with s. NR 181.195.

SECTION 64. NR 181.34(1) to (3) are amended to read:

NR 181.34(1) Transporters collecting hazardous wastes subject to the special requirements of s. NR 181.13(2) are exempt from the provisions of this section for those wastes unless the small quantity generator chooses to use the manifest.

- (2) Hazardous waste which was generated out of state and is being transported through Wisconsin for delivery to an out-of-state hazardous waste facility shall be accompanied by a manifest that meets the requirements of 40 CFR Part 263, Subpart B, July I, +983;-as-amended-by 49-FR-+0490-+0510;-March-20;-+984 1986.
- (3) The transporter shall be responsible for ensuring that a copy of a manifest meeting the requirements of 40 CFR Part 263, Subpart B, July I, +983;-as-amended-by-49-FR-+0490-+05+0;-March 20;-+984 1986, signed by the generator, accompanies the shipment of hazardous waste at all times, except as provided in sub. (1).

SECTION 65. NR 181.36(1)(b) and (2) are amended to read:

NR 181.36(1)(b) Report in writing as required by 49 CFR 171.16, October-1;-1983 November i,

1985, to the director, office of hazardous materials regulations, materials transportation

bureau, DOT, Washington, D.C. 20590.

(2) A water (bulk shipment) transporter who as discharged hazardous waste shall give the same notice as required by 33 CFR 153.203, July 1, +983 1986, for oil and hazardous substances.

SECTION 66. NR 181.37(2) to (4) and amended to read:

NR 181.37(2) PACKAGING. A transporter may not move a transport vehicle containing hazardous waste unless the hazardous waste is packaged in accordance with the applicable requirements of 49 CFR Part 173, October-+,-+983 November 1, 1985.

- (3) LABELING AND MARKING. A transporter may not transport hazardous waste unless the hazardous waste packages are labeled and marked in accordance with the applicable requirements of 49 CFR Part 172, 0ctober-1;-1983 November 1, 1985.
- (4) PLACARDING. A transporter may not move a transport vehicle containing hazardous waste unless it is placarded in accordance with the applicable requirements of 49 CFR Part i72, 9ctober-1;-1983 November 1, 1985.

SECTION 67. NR 181.38(3) Note is amended to read:

Note: DOT regulations concerning operational aspects of transportation of hazardous materials on public highways are given in 49 CFR Part 177, October-1;-1983 November 1, 1985.

SECTION 68. NR [81.395(2) and (11) are amended to read:

NR 181.395(2) Within 10 days, all accumulated waste shall be shipped to a facility which meets the requirements of s. NR 181.21 (4) (a) 2., except it may not be shipped to another transfer facility or-a-small-quantity-accumulation-facility in Wisconsin.

(ii) The facility shall be designed, constructed, maintained, and operated to minimize the possibility of a fire, explosion, or any discharge of hazardous waste or hazardous waste constituents to the atr, tand, or surface environment which could be harmful to human health or the environment. The transporter shall comply with the hazardous waste discharge requirements of s. NR 181.36 with respect to the accumulation of hazardous waste.

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SECTION 69. NR 181.41(1) Note is repealed.

SECTION 70. NR 181.41(1) and (3) are amended to read:

NR 181.4i(1) GROUNDWATER, HUMAN HEALTH AND ENVIRONMENTAL STANDARD. A hazardous waste facility may not be located, designed, constructed or operated in such a manner that the department after investigation or review finds that there is a reasonable probability that management of hazardous waste within such an area will have a detrimental effect on groundwater quality or will cause a violation of groundwater standards adopted under ch. +60;-Stats NR 140.

(3) AIR, HUMAN HEALTH AND ENVIRONMENTAL STANDARD. A hazardous waste facility shall be located, designed, constructed, and operated in such a manner as to prevent air emissions from such facilities from causing a violation of standards or regulations in chr-NR-+54 chs. NR 400 to NR 499.

SECTION 71. NR 181.415 (title) is repealed and recreated to read:

## NR 181.415 PROHIBITED ACTIVITIES.

SECTION 72. NR 181.415(3) and (4) are created to read:

NR 181.415(3) The use of soild waste, used oil or other material which is contaminated or mixed with any hazardous waste for dust suppression or road treatment is prohibited. The use of soild waste, used oil or other material which is defined as a hazardous waste itself under s. NR 181.12, for dust suppression or road treatment is prohibited.

(4) The placement of any noncontainerized or bulk hazardous waste in any sait dome formation, underground mine or cave is prohibited.

SECTION 73. NR |81.42(1)(a)1.(intro.), 2.(intro.) and 4. are amended to read:

NR 181.42(1)(a)1.(!ntro.) The owner or eperators operator of a wastewater treatment unit as defined in s. NR 181.04 (!!im) provided that the owner or operator of such a unit which treats waste from off-site compiles with subpars. a. through d. This exemption does not apply to the treatment, storage or disposal of sludges, residues or other hazardous waste produced during the treatment process when this material is removed from the wastewater treatment unit or when the treatment process ceases. This exemption shall apply to the wastewater treatment units which treat waste from off-site provided that the owner or operator compiles with the following requirements:

- 2.(Intro.) The owner or operator of a POTW which accepts hazardous waste for treatment or recycling, provided that the owner or operator complies with subpars. a. through d f. This exemption does not apply to the treatment, storage or disposal of sludges, residues or other hazardous waste produced during the treatment process when the material is removed from the POTW treatment units or whent when the treatment process ceases. To be exempt under this subdivision, the owner or operator shall:
- 4. The owner or operator of a solid waste disposal facility licensed under ch. NR i80, provided that the only hazardous waste the facility treates treats, stores or disposes is excluded from regulation under this subchapter by s. NR i81.13(2) and the facility has been approved under s. NR i81.13 (7) to accept small quantities of hazardous wastes.

SECTION 74. NR 18i.42(i)(a)12. is repealed and recreated to read:

NR 181.42(i)(a)12. A small quantity generator accumulating waste on-site in compliance with s. NR 181.13(1).

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SECTION 75. NR 181.42(1)(a)16. is created to read:

NR 181.42(1)(a)16. A person who stores waste lead-acid batteries that are destined for recycling and who complies with s. NR 181.195.

SECTION 76. NR 181.42(1)(d)(title) is created to read:

NR 181.42(1)(d)(title) General waste analysis.

SECTION 77. NR 181.42(i)(d)i., (e)6., (2)(b), (4)(a)6. and (c)i.d., (6)(a)2.b. and c., 4.f., 6.b., (b)(title) and (b)1.i. are amended to read:

NR 181.42(i)(d)1. Before an owner or operator treats, stores, or disposes of any hazardous waste, a detailed chemical and physical analysis of a representative sample of the waste shall be obtained from the generator. At a m+n+m+m minimum, this analysis shall contain all the information which must be known in order to treat, store, or dispose of the waste in accordance with the requirements of this chapter or the conditions of an interim license, variance or approved plan of operation.

- (e)6. Where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in ss. NR i81.42(i)(m), 181.43(7)(i), 181.43(9)(c), 181.44(10)(e) and (g), 181.45(4)(o) and 181.46(5)(b) and (c).
  - (2)(b) A hazardous waste facility shatt may not be located in a wetland.
- (4)(a)6. If the owner or operator has already prepared a spill prevention, control, and countermeasures (SPCC) plan in accordance with 40 CFR Part II2, July 1, +983 1986, this plan need only be amended to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this subchapter.

(c)I.d. Assess possible hazards to human health or the environment that which may result from the discharge, fire, or explosion. This assessment shall consider both direct and indirect effects of the discharge, fire or explosion such as the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemctat chemical agents used to control fire and heat induced explosions.

(6)(a)2.b. Each container and portable tank containing hazardous waste is properly marked and labeled.

- c. The manifests, the markings and the labels are consistent.
- 4.f. Send a copy of each manifest, which contains all the information required in s. NR 181.23(2)(h) or (i), as appropriate, to the department within 5 working days.

6.b. Upon discovering a significant discrepancy, the owner or operator shall attempt to reconcile the discrepancy discrepancy with the waste generator or transporter, such as with telephone conversations. If the discrepancy is not resolved within 15 days after receiving the waste, the owner or operator shall <a href="Immediately">Immediately</a> submit to the department a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

(6)(b)(title) Recordkeeping.

(b)1.i. Closure or, and for disposal facilities, long-term care cost estimates required under by s. NR 181.42(10)(d).

SECTION 78. NR 181.42(6)(b)1.j. is created to read:

NR i8i.42(6)(b)1.j. A certification signed by the owner or operator no less often than annually that a program is in place to reduce the volume and toxicity of hazardous waste generated to the degree determined by the owner or operator to be economically practicable; and the proposed method of treatment, storage or disposal is that practicable method currently available to the owner or operator which minimizes the present and future threat to human health and the environment.

SECTION 79. NR 181.42(6)(c)1., 2.(intro.), c. and 3. and (7)(b)4. are amended to read:

NR 181.42(6)(c)1.(titie) 'Annual reports'. The owner or operator shall prepare and submit a-quarterty an annual report to the department within 30 90 days of after the close of each reporting-quarter calendar year. The quarterty annual report shall cover facility activities during the previous reporting quarter and shall, at a minimum, contain the following information:

- a. The identification number, name and address of the facility;
- b. The closing date of the reporting quarter calendar year;
- c. For off-site facilities, the identification number of each hazardous waste generator from which a hazardous waste was received during the reporting-quarter calendar year. For imported shipments, the name and address of the foreign generator;
- d. A description and the quantity of each hazardous waste the facility received during the reporting-quarter calendar year. For off-site facilities, this information shall be listed by identification number of each generator;
  - e. The method of treatment, storage, or disposal for each hazardous waste; and
- f. The most recent closure cost estimate, and for disposal facilities, the most recent long-term care cost estimate required by s. NR 181.42(10)(d);
- g. For generators who treat, store or dispose of waste on-site, a description of the efforts undertaken during the calendar year to reduce the volume and toxicity of hazardous waste generated;
- h. For generators who treat, store or dispose of waste on-site, a description of the changes in volume and toxicity of waste actually achieved during the calendar year in comparison to previous years to the extent such information is available for the years prior to 1984; and
- fi. A certification signed by the owner or operator of the facility, or authorized representative as specified in s. NR 181.55 (3), stating that "I certify under penalty of law

that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- 2. 'Unmanifested waste report'. If a facility accepts for treatment, storage or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described in s. NR 181.34(8)(9)(b), and if the waste is not excluded from the manifest requirement by s. NR 181.13(2), then the owner or operator shall prepare and submit a report to the department within 15 days of receiving the waste. The report shall, at a minimum, contain the following information:
- c. The identification number, name, and address of the generator of and transporter, if available;
- 3. 'Additional reports'. In addition to submitting the-quarterly annual reports and unmanifested waste reports described in subds. I. and 2., the owner or operator shall also report to the department discharges, fires and explosions as specified in sub. (4) (c) 3. Reports of monitoring data as specified in ss. NR 181.44 and 181.49 shall be submitted within 30 days of the close of each reporting quarter, or more frequently if required by an license, variance or plan approval for landfills, surface impoundments and other sites or facilities where monitoring may be required.

(7)(b)4. The frequency of inspection may vary for the items on the schedule. However, it should be based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if the deterioration or malfunction of or any operator error goes undetected between inspections. Areas subject to spills, such as loading and

unloading areas, shall be inspected dally when in use. At a minimum, the inspection schedule shall include the items and frequencies called for in ss. NR 181.43 (6);-+8+:43 and (7), 181.44 (10), 181.45 (4), and 181.46 (5), where inspection requirements are specified.

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SECTION 80. NR 181,42(8)(a) and (b)(intro.) are amended to read:

NR 181.42(8)(a) This paragraph defines the closure performance standard for all hazardous waste facilities. The owner or operator of a facility shall close the facility in a manner that:

- 1. Minimizes the need for further maintenance;
- 2. Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post closure escape of wastes, hazardous leachate, contaminated rainfall, or waste decomposition products to ground or surface waters, or to the atmosphere; and
- 3. Meets the additional closure requirements for landfills and surface impoundments as specified in s. NR 181.44 (12), tf-appticable: where required for all disposal facilities, or other facilities where required under s. NR 181.08, 181.43, 181.44, 181.46 or 181.47, where such facilities have not obtained an operating license under s. NR 181.55;
- 4. Meets the additional closure requirements for landfills and surface impoundments as specified in s. NR 181.44(13), where required for all disposal facilities or other facilities where required under s. NR 181.08, 181.43, 181.44, 181.46 or 181.47, where such facilities have obtained an operating license under s. NR 181.55; and
- 5. Complies with the requirements of this subchapter, including, but not limited to, the requirements of ss. NR 181.43(10), 181.45(5), 181.46(6) and 181.47(14).
- (b) The owner or operator of a facility shall have a written closure plan demonstrating compliance with this paragraph. The plan shall be submitted to the department for approval as part of the application for an interim license under s. NR 181.53. The plan shall also be submitted to the department for approval as part of the reports or plans required for an initial operating license, where specifically required under this subchapter. Closure plans may be required by the department for a facility which is no longer in operation, if the facility was in existence on August 1, 1981 and has not been properly closed. A copy of the approved plan and all revisions to the plan shall be provided to the department upon request, including a written

request by mail, and kept at the facility until final closure is completed and certified in accordance with par. (h). The plan shall identify the steps necessary to completely finally or partially close the facility at any point during its intended operating life and to completely finally close the facility at the end of its intended operating life. The closure plan shall include, but not be limited to:

SECTION 81. NR 181.42(8)(b) and (c) are repealed and recreated to read:

NR [8].42(8)(b)). A description of how each hazardous waste management unit at the facility will be closed in accordance with par. (a);

- 2. A description of how final closure of the facility will be conducted in accordance with par. (a). The description shall identify the maximum extent of the operations which will be unclosed during the active life of the facility;
- 3. An estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the facility and a detailed description of the methods to be used during partial closures and final closure, including, but not ilmited to, methods for removing, transporting, treating, storing, or disposing of all hazardous wastes, and identification of the types of the off-site hazardous waste management units to be used, if applicable;
- 4. A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during partial and final closure, including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy the closure performance standard;
- 5. A detailed description of other activities necessary during the closure period to ensure that all partial closures and final closure satisfy the closure performance standards,

including, but not limited to, groundwater monitoring, leachate collection, and run-on and run-off control;

6. A schedule for closure of each hazardous waste management unit and for final closure of the facility. The schedule shall include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities which will allow tracking of the progress of partial and final closure;

Note: For example, in the case of a landfill unit, estimates of the time required to treat or dispose of all hazardous waste inventory and of the time required to place a final cover shall be included.

- 7. For facilities subject to par. (a)3. or 4. and required to provide long-term care in accordance with sub. (9), the anticipated time until final closure and any anticipated partial closures and the time required for any intervening closure activities which will allow tracking of the progress of closure;
  - 8. The most recent closure cost estimates required under sub. (10)(d) and (g);

(12) and (13), 181.45 (5), 181.46 (6) and 181.47 (14) will be met.

- 9. A description of how the requirements of pars. (e), (f), (g) and (h) will be met; and 10. A description of how the applicable closure requirements in ss. NR 181.43 (10), 181.44
- approval to the department in accordance with s. NR 181.55(6) and (8)(e). Requests shall be submitted at least 60 days prior to any proposed change in facility design or operation that affects the closure plan, or no later than 60 days after an unexpected event has occurred that affects the closure plan. If an unexpected event that affects the closure plan occurs during the time a partial or final closure is being conducted, the owner or operator shall submit the request no later than 30 days after the unexpected event. Owners or operators of a surface impoundment or waste pile that do not have an approved closure plan allowing for any hazardous waste or waste contaminated materials to be disposed of in-place in accordance with

s. NR 181.43(10)(e)2. or 181.44(12)(a)4. or (13)(d) who determine that they intend to request department approval for disposal of hazardous waste or waste contaminated materials in-place at closure shall submit an amendment to the closure plan to the department no later than 60 days after the date the owners or operators make such a determination of intent, or no later than 30 days from that date if the determination of intent is made during the time a partial or final closure is being conducted.

Note: Subsection (9)(f) and ss. NR 181.43(10)(e)2. and 181.44(12)(a)4. and (13)(d) require additional submittals, including a long-term care plan, in addition to an amended closure plan, when a request for approval for in-place disposal is made.

- 2. The owner or operator shall submit a request for modification of a closure plan approval in accordance with subd. I. whenever:
  - a. Changes in operating plans or facility design affect the closure plan;
  - b. There is a change in the expected year of closure;
- c. In conducting partial or final closure activities, unexpected events require an amendment of the closure plan; or
- d. The department requests an amendment to the closure plan to meet any of the closure requirements of this subchapter, any plan approval requirements or license conditions.
- 3. The owner or operator may submit a request for modification of a closure plan approval in accordance with subd. I. at any time prior to the notification to the department of partial or final closure under par. (d). After such notification, a request may be submitted by the owner or operator only for the reasons specified in subd. 2.c. or d.

SECTION 82. NR 181.42(8)(d) to (1) are amended to read:

NR 181.42(8)(d) At least 180 days prior to beginning the <u>final</u> closure or any partial closure of a facility, the owner or operator shall notify the department in writing of the

intent to close the facility. No later than this date, for final closures, the owner or operator shall notify current users of the facility of the intent to close the facility. When, after July I, 1985, such notice is received by the department for a facility which has applied for or received an interimilicense under ss. NR 181.53 and 181.54, but which has not obtained an operating license under s. NR 181.55, the department shall provide the public, through a newspaper notice, the opportunity to submit written comments on, and request modifications of, the closure plan within 30 days of the date of the notice. The department may also, in response to a request, or at its own discretion, hold an informational hearing pursuant to s. 144.431 (2), Stats., whenever such a hearing might clarify one or more issues concerning a closure plan. The department shall give public notice of the hearing at least 30 days before it occurs. Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the 2 notices may be combined. The department shall approve, conditionally approve or disapprove the closure plan within 65 business days after the close of the comment period or 65 business days after the public hearing, whichever is later, regardless of any prior approval under s. NR 181.54. Department action on requests for modification of an approved closure plan shall follow the procedure under s. NR 181.55(6)(e). If the department disapproves the closure plan, the owner or operator shall submit a revised or new plan for approval within 30 days. A new or revised plan, if required, shall be approved, conditionally approved or modified by the department within 65 business days of receipt. If the department modifies the plan, this modified plan becomes the approved closure plan.

Note: Closure should be begin within 30 days of receiving the final volume of waste.

(e) Within 90 days after receiving the final volume of hazardous wastes at the facility or any unit, or 90 days after approval of the closure plan under par. (d), if that is later, the owner or operator shall remove from the stee facility or unit, or manage on site, all hazardous wastes in accordance with requirements of this chapter and an approved closure plan as specified in par. (b). Prior to the end of the 90 day period, the owner or operator may obtain department

approval for a longer period, in accordance with par. (c), if the owner or operator demonstrates that:

- i. All steps necessary to prevent threats to human health and environment have been taken and will continue to be taken; and
- 2. The activities required to comply with this paragraph will, of necessity, take longer than 90 days to complete; or
- 3. The facility or unit has the capacity to receive additional wastes, there is a reasonable likelihood that a person other than the owner or operator will recommence operation of the stte facility or unit, and closure of the facility or unit would be incompatible with continued operation of the site.
- (f) The owner or operator shall complete partial and final closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of wastes at the facility or any unit. Prior to the end of the 180 day period, the owner or operator may obtain department approval for a longer period, in accordance with par. (c), if the owner or operator demonstrates that:
- I. All steps necessary to prevent threats to human health and the environment from the unclosed but Inactive facility have been taken and will continue to be taken; and
  - 2. The closure activities will, of necessity, take longer than 180 days to complete; or
- 3. The facility <u>or unit</u> has the capacity to receive additional wastes, there is reasonable likelihood that a person other than the owner or operator will recommence operation of the site facility or unit, and closure of the facility <u>or unit</u> would be incompatible with continued operation of the site.
- (g) At-completion-of-closure During any partial or final closure, all contaminated soil, equipment and structures used-in-the-operation-of-the-facility shall be properly disposed of or decontaminated by removal of all hazardous waste and residues in accordance with this chapter, except as provided in s. NR 181.43(10)(e)2., 181.44(12)(a)4. or (13)(d).

- (h) At completion of closure of the facility or any unit, all required equipment shall be provided and arrangements shall be made to implement the long term care provisions contained in the approved long-term care plan.
- shall submit to the department a certification both statement by the owner or operator and-by-an independent-registered-professional-engineer that the facility or unit has been closed in accordance with the requirements of this subchapter, the approved closure plan, any plan approval, any plan of operation and all applicable license conditions. The department may require submittal of a certification statement by an independent registered engineer for facilities or units that have the potential to impact public health, safety or weifare or the environment at the time of final or partial closure.
- 2. Within 60 days after completion of partial closure of each hazardous waste surface impoundment, waste pile or landfill unit, or the completion of final closure of each hazardous waste surface impoundment, waste pile or landfill facility, the owner or operator shall submit to the department:
- a. A certification statement, signed by both the owner or operator and an independent registered professional engineer, that the facility has been closed in accordance with the requirements of this subchapter, the approved closure plan, any plan approval, any plan of operation and all applicable license conditions; and
- b. A construction documentation report that meets the applicable requirements of s.

  NR 18i.44(8), documenting all the aspects of closure work, including the placement of any covers over disposal facilities or units.

SECTION 83. NR 181.42(9)(a), (c)(intro.) and (e) are amended to read:

NR 181.42(9)(a) The requirements of this subsection shatt apply to all disposal facilities, and to other facilities where required under set s. NR 181.08, 181.43, 181.44 or 181.47. The

owner of such a facility shall provide long-term care for a period of 30 years from the date partial or final closure is completed under s. 144.441, Stats.

- (c)(intro.) The <u>Subsequent</u> use of a site on or in which hazardous waste remains after closure shall-never-be-altowed-to-disturb may not disturb the integrity of the final cover, liner, or any other component of any containment system, or the facility's monitoring system, unless the owner or operator can demonstrate to the department that the disturbance:
- (e) The owner or operator of a disposal facility shall have a written long-term care plan demonstrating compilance with this paragraph. In addition, certain other facilities are required, under ss. NR 181.08, 181.43, 181.44, and 181.47, to have a long-term care plan demonstrating compilance with this paragraph. The plan shall be submitted to the department for approval as part of the application for an interim license under s. NR 181.53. The plan shall also be submitted to the department for approval as part of the reports or plans required for an initial operating license, where specifically required under this subchapter. A copy of the approved plan and all revisions to the plan shall be provided to the department upon request, including a written request by mail, and be kept at the facility until final closure is completed and certified in accordance with sub. (8)(1), and the long-term care period begins. After final closure has been certified, the plan shall be kept at the office or location specified in subd.
- 2.c. This plan shall identify the activities that will be carried on out after any partial or final closure and the frequency of these activities and include, but not be limited to:
- I. A description of the planned monitoring activities and frequencies at which they will be performed to comply with the requirements of this subchapter during the long-term care period; and
- 2. A description of the planned maintenance activities and frequencies at which they will be performed to ensure:
- a. The integrity of the cap and final cover or other containment system in accordance with the requirements of this subchapter;

- b. The function of the facility monitoring equipment in accordance with the requirements of this subchapter; and
- c. The name, address, and phone number of the person or office to contact during the long-term care period. This person or office shall keep an updated long-term care plan during the long-term care period; and
  - 3. The most recent long-term care cost estimates required under sub. (10)(d) and (g).

SECTION 84. NR 181.42(9)(f) is repealed and recreated to read:

NR 181.42(9)(f)i. The owner or operator shall submit any request for modification of a long-term care plan approval to the department in accordance with s. NR 181.55(6) and (8)(e). Requests shall be submitted at least 60 days prior to any proposed change in facility design or operation that affects the long-term care plan, or no later than 60 days after an unexpected event has occurred that affects the long-term care plan. Owners or operators of a surface impoundment or waste pile that do not have an approved closure plan allowing for any hazardous waste or waste contaminated materials to be disposed of in-place in accordance with s. NR 181.43(10)(e)2., 181.44(12)(a)4. or (13)(d) who determine that they intend to request department approval for disposal of hazardous waste or waste contaminated materials in-place at closure shall submit a long-term care plan to the department at the same time an amendment to the closure plan is submitted in accordance with the time periods specified in sub. (8)(c)1.

- 2. The owner or operator shall submit a request for modification of a long-term care plan approval in accordance with subd. I. whenever:
  - a. Changes in the operating plans or facility design affect the long-term care plan;
  - b. There is a change in the expected year of final closure;
- c. Events occurring during the active life of the facility, including partial and final closures, affect the long-term care plan; or

- d. The department requests an amendment to the long-term care plan to meet any of the long-term care requirements of this subchapter, any plan approval requirements or license conditions.
- 3. The owner or operator may submit a request for modification of a long-term care plan approval in accordance with subd. I. at any time during the active life of the facility. The owner may submit a request for modification of the long-term care plan approval in accordance with subd. I. at any time during the long-term care period.

SECTION 85. NR 181.42(9)(h) to (j) are amended to read:

NR 181.42(9)(h) Withhin-90-days-after At the time the certification of closure is-completed under sub. (8)(i) is submitted to the department, or as provided in s. NR 181.51 (2) (k), whichever is earlier, the owner of a disposal facility shall file with the office of the register of deeds in each county in which a portion of the facility was located, and with the department, a survey plat, indicating the location and dimensions of landfill cells or other disposal areas units with respect to permanently surveyed benchmarks. This plat shall be prepared and certified by a professional land surveyor. The plat filed with each office of the register of deeds shall contain a note, prominently displayed, which states the owner's obligation to restrict disturbance of the site as specified in par. (c). In addition, at the time the certification under sub. (8)(1) is submitted to the department, the owner shall submit to the office of the register of deeds in each county in which a portion of the facility was located, and to the department, a record of the type, location, and quantity of hazardous wastes disposed of within each cell or area unit of the facility. For wastes disposed of before these regulations were promulgated, the owner shall identify the type, location and quantity of the wastes to the best of the owner's knowledge and in accordance with any records the owner has kept. Any changes in the type, location, or quantity of hazardous wastes disposed of within each cell or area of the facility that occur after the survey plat and record of wastes have been filed shall be reported to the office of the register of deeds in each county in which a portion of the facility was located and to the department.

- (i) The owner of the property on which a disposal facility is located shall, at the time the certification of closure under sub. (8)(i) is submitted to the department, record, in accordance with applicable requirements for the recording of documents in the office of the register of deeds under ss. 59.51 to 59.575, Stats., a notation on the deed to the facility property, or on some other instrument which is normally examined during a title search, that will in perpetuity notify any potential purchaser of the property that:
  - 1. The land has been used to manage hazardous wastes;
  - its use is restricted under par. (c);-and;
- 3. The survey plat and record of the type, location, and quantity of hazardous waste disposed of within each cell or area of the facility required in par. (e) have been filed with the office of the register of deeds in each county in which a portion of the facility was located and with the department; and
- 4. Submit a certification to the department, signed by the owner of the property, that the owner of the property has recorded the notation specified in this paragraph including a copy of the document in which the notation has been placed.
- upon which a hazardous waste <u>disposal</u> facility was or unit is located removes proposes to remove the waste and waste residues, the liner, if any, and all contaminated underlying and surrounding soil, the <u>owner or operator shall submit a request to modify the long-term care plan to the department for prior approval in accordance with s. NR 181.55(6) and (8)(e). The owner or operator shall demonstrate that the removal of these materials will satisfy the criteria specified in par. (c). By removing these materials, the owner or operator may become a generator of hazardous waste, and shall manage these materials in accordance with this chapter.</u>

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If such a proposal is approved by the department, the owner or operator may then request that
the department approve either the removal of the notation on the deed to the facility property
or other instrument normally examined during a title search may-be-removed, or the addition of a
notation to the deed or instrument indicating the removal of the waste may-be-added.

SECTION 86. NR 181.42(9)(k) is created to read:

NR 181.42(9)(k) Within 60 days after the completion of the long-term care period for the disposal facility or any disposal unit, the owner shall submit to the department, by registered mail, a certification that the long-term care period for the facility or unit was performed in accordance with the specifications in the approved long-term care plan. The certification shall be signed by the owner and an independent registered professional engineer. Documentation supporting the independent engineer's certification shall be furnished to the department upon request until the department releases the owner from the financial assurance requirements for long-term care under sub. (10).

SECTION 87. NR 181.42(10)(a)6m. is created to read:

NR 181.42(10)(a)6m. "Parent corporation" means a corporation which directly holds at least 50% of the voting stock of the corporation which is the facility owner; the latter corporation is deemed a "subsidiary" of the parent corporation.

SECTION 88. NR 181.42(10)(b)3. and (d) are amended to read:

NR 181.42(10)(b)3. 'Successors in interest'. Any person acquiring rights of ownership, possession or operation of a licensed hazardous waste storage, treatment, or disposal facility

shall be subject to all requirements of the license for the facility and shall provide any required proof of financial responsibility to the department in accordance with this subsection. The previous owner is responsible for closure and long-term care, and shall maintain any required proof of financial responsibility, until the person acquiring ownership, possession or operation of the facility establishes any required proof of financial responsibility in accordance with s. NR 181.55(4)(c).

Note: See s. NR 181.55(4)(c) for transference of responsibility procedures.

- (d) Cost estimates. i. For the purpose of determining the amount of proof of financial responsibility that is required in par. (a), the owner shall estimate the total cost of closure for the point in the operation of the facility when the extent or manner of its operation make closure most expensive in accordance with subds. 2., 4. and 5., estimate the annual cost of long-term care of the facility for the period of owner responsibility in accordance with subds. 3., 4. and 5., and submit the estimated closure and long-term costs, together with all necessary justification to the department for approval; as part of an interim the estimated closure and on a per unit basis. The source of the estimates shall be reported in current dollars and on a per unit basis. The source of the estimates shall be indicated. The owner of the facility shall submit the cost estimates required under this paragraph to the department:
  - a. As part of an interim license application under s. NR 181.53;
  - b. As part of a plan of operation submittal or feasibility and plan of operation submittal;
  - c. As part of the initial license application under s. NR 181.55;
  - d. As part of the annual report required under s. NR 181.42(6)(c);
  - e. When required under par. (g);
  - f. As part of a closure plan under sub. (8); or
  - g. As part of a long-term care plan under sub. (9).
- 2. At a minimum, closure costs shall include the cost of closing the facility in accordance with sub. (8) and this chapter, any necessary cover material, topsoil, seeding, fertilizing,

mulching, labor, and disposal or decontamination of hazardous waste and residues on equipment and structures. Closure cost estimates:

- a. Shall equal the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive, as indicated by the closure plan under sub. (8);
- b. Shall be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither a parent corporation nor a subsidiary of the owner or operator. The owner or operator of a disposal facility may use costs for on-site disposal if the owner or operator can demonstrate that on-site disposal capacity will exist at all times over the life of the facility;
- c. May not incorporate any salvage value that may be realized with the sale of hazardous wastes, facility structures or equipment, land or other assets associated with the facility at the time of partial or final closure; and
  - d. May not incorporate a zero cost for hazardous wastes that may have economic value.
- 3. At a minimum, long-term care costs shall include the costs to provide long-term care in accordance with sub. (9) and this chapter, land surface care; gas monitoring; leachate pumping, transportation, monitoring and treatment; groundwater monitoring, collection and analysis; maintenance of facility monitoring and waste containment devices; and security requirements necessary to prevent hazards to human health. Long-term care cost estimates:
- a. Shall be based on the costs to the owner of hiring a third party to conduct long-term care activities. A third party is a party who is neither a parent corporation nor a subsidiary of the owner; and
- b. Shall be calculated by multiplying the annual long-term care cost estimate by the number of years of long-term care required under sub. (9) and this chapter.
- 4. The estimated annual rate of inflation shall be the latest percent change in the annual gross national product implicit price deflator published in the survey of current business by the bureau of economic analysis, U.S. department of commerce.

5. The estimated annual rate of interest shall be the rate specified by the financial institution managing the fund or deposit.

SECTION 89. NR 181.42(10)(e) is repealed and recreated to read:

NR i81.42(i0)(e) Formulas for calculating the amount of the proof of financial responsibility. The owner shall, in accordance with par. (d) or (g), perform the calculation of the formula for the chosen method of providing proof of financial responsibility for closure and long-term care.

i. 'Deposits in escrow, trust or department accounts for closure'. The formula for interest bearing accounts for closure shall be:

$$D = C \frac{(1+f)}{(1+1)}$$

in which:

- D = unknown deposit for closure
- C = the estimated cost of closure in today's dollars for the maximum area to be open at any point in time
- f = the estimated annual rate of inflation, expressed as a decimal
- i = the estimated annual rate of interest, expressed as a decimal
- 2. 'Deposits in escrow, trust or department accounts for long-term care'. The following information used in calculating the amounts deposited to the interest bearing accounts for long-term care shall be specified in the submittals required under par. (d) or (g): the rate of outpayment during the period of long-term care, expressed in equal annual outpayments or unequal annual outpayments, and the equal annual rate of inpayment, expressed as either real dollar inpayments or actual dollar inpayments.
- a. When equal annual outpayments, actual dollar inpayments and a closure period are used, the formula shall be expressed as:

$$A = \left[ R (1+f)^{SL} \left( \frac{1+f}{1+(f+.02)} \right)^{C} \left( \frac{\frac{1-(1+f)}{1+(f+.02)}}{\frac{1+(f+02)}{1+f}} \right)^{-1} \right] \cdot \left[ (1+1)^{C} \left( \frac{(1+f)^{C}}{1+f} \right)^{C} \right]$$

b. When equal annual outpayments, actual dollar inpayments and no closure period are used, the formula shall be expressed as:

$$A = \left[ R(1 + f) SL \left( \frac{\frac{1 + f}{1 + (f + .02)}}{\frac{1 + (f + .02)}{1 + f}} \right) - \frac{1}{1} \right]$$

c. When unequal annual outpayments, actual dollar inpayments and a closure period are used, the formula shall be expressed as:

$$A = \left[\sum_{i=1}^{n} \left(\frac{1+f}{1+(f+.02)}\right)^{x+c}\right] \frac{1}{i} \left[\frac{(1+f)^{n}}{i}\right]$$

d. When unequal annual outpayments, actual dollar inpayments and no closure period are used, the formula shall be expressed as:

$$A = \left[\sum_{R_{\times}} \left(1 + f\right)^{SL} \left(\frac{1 + f}{1 + (f + .02)}\right)^{X}\right] \stackrel{\cdot}{\rightarrow} \left[\left(1 + i\right) \left(\frac{(i + i)^{R_{\perp}} - i}{i}\right)\right]$$

e. When equal annual outpayments, real dollar inpayments and a closure period are used, the formula shall be expressed as:

$$A = \begin{bmatrix} R & (1 + f) \\ SL & (1 + f) \\ \hline & (1 + (f + .02)) \end{bmatrix}^{C} \begin{bmatrix} \frac{1 + f}{1 + (f + .02)} \\ \frac{1 + (f + .02)}{1 + f} \end{bmatrix}^{-1} \begin{bmatrix} (1 + f) \\ \hline & (1 + f) \\ \hline & (1 + f) \end{bmatrix}^{RL} + 1 \begin{bmatrix} \frac{1 + f}{1 + (f + .02)} \\ \hline & (1 + f) \end{bmatrix}^{RL}$$

f. When equal annual outpayments, real dollar inpayments and no closure period are used, the formula shall be expressed as:

$$A = \begin{bmatrix} R & (1+f)^{SL} \left( \frac{1-f}{1+(f+.02)} \right) - 1 \end{bmatrix} - \begin{bmatrix} (1+f)^{RL} + 1 & \left( \frac{1-f}{1+f} \right) \\ \frac{1-f}{1+f} \end{bmatrix}$$

g. When unequal annual outpayments, real dollar inpayments and a closure period are used, the formula shall be expressed as:

$$A = \left[\sum_{R_{X}} \left(i + f\right) SL\left(\frac{i + f}{i + (f + .02)}\right) \times + c\right] \frac{1}{\cdot} \left[\left(i + i\right) RL + i\left(\frac{i - \left(\frac{i + f}{i + i}\right) RL}{i - f}\right)\right]$$

h. When unequal annual outpayments, real dollar inpayments and no closure period are used, the formula shall be expressed as:

$$A = \left[ \sum_{R_{X}} \left( 1 + f \right) SL \left( \frac{1+f}{1+(f+.02)} \right) \right] \right] \cdot \left[ \left( 1 + 1 \right) RL + 1 \left( \frac{1+f}{1-f+1} \right) RL \right]$$

in which:

A = the unknown inpayment for long-term care per year of active facility life

i = the estimated annual rate of interest, expressed as a decimal

f = the estimated annual rate of inflation, expressed as a decimal

SL = the estimated active life of the facility in years

(f + .02) = the estimated rate of infiation plus 2% expressed as a decimal

RL = the estimated remaining life of the facility in years rounded to the nearest whole number,

i.e., SL less the number of years long-term care payments have been made

R = the estimated annual costs

R = the estimated unequal annual costs

x = the year of long-term care

- LTC = the period of long-term care

c = the closure period as a fraction of one year, expressed as a decimal

 $\sum$  = the sum from year I through the last year of LTC

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3. 'Bonds and letters of credit for closure'. The formula for noninterest bearing accounts for closure shall be:

$$CB = C (1 + f)$$

in which:

CB = the unknown amount of the bond or letter of credit for closure

C = the estimated closure cost

f = the estimated annual rate of inflation, expressed as a decimal

- 4. 'Bonds and letters of credit for long-term care'. For noninterest bearing accounts for long-term care, the rate of outpayment shall be as specified in subd. 2. and the rate of inpayment shall be in equal actual dollar inpayments.
- a. When equal annual outpayments, actual dollar inpayments and a closure period are used, the formula shall be expressed as:

$$PB = \begin{bmatrix} & & & & \\ & &$$

b. hen equal annual outpayments, actual dollar inpayments and no closure period are used, the formula shall be expressed as:

c. When unequal annual outpayments, actual dollar inpayments and a closure period are used, the formula shall be expressed as:

$$PB = \left[\sum_{\substack{R^{-} \\ X}} \left(1 + f\right)^{SL} \left(\frac{1 + f}{1 + (f + .02)}\right)^{X + c}\right] \qquad \qquad \frac{\left(1 + 1\right)^{RL} - 1}{1}$$

d. When unequal annual outpayments, actual dollar inpayments and no closure period are used the formula shall be expressed as:

$$PB = \left[ \sum_{R_{X}} \left( 1 + f \right)^{SL} \left( \frac{1 + f}{1 + (f + .02)} \right)^{X} \right] \qquad \qquad \left( \frac{(1 + 1)^{RL} - 1}{1} \right)^{X}$$

in which:

- PB = the unknown bond or letter of credit amount for long-term care to increase per year of active facility life
- i = the estimated annual rate of interest, expressed as a decimal

f = the estimated annual rate of inflation, expressed as a decimal

(f + .02) = the estimated rate of inflation plus 2% expressed as a decimal

SL = the estimated active life of the facility in years

R = the estimated annual costs

 $R_{\downarrow}$  = the estimated unequal annual costs

LTC = the long-term care period

RL = the estimated remaining life of the facility in years rounded to the nearest whole number,
i.e., SL less the number of years long-term care payments have been made

x = the year of long-term care

c = the closure period as a fraction of one year, expressed as a decimal

 $\Sigma$  = the sum from year I through the last year of LTC

5. 'Insurance to cover closure'. The formula for closure shall be:

$$C1 = C(1+f)$$

in which:

C1 = the unknown amount of the closure insurance

C = the estimated closure cost

f = the estimated annual rate of inflation, expressed as a decimal

- 6. 'Insurance to cover long-term care'. The rate of outpayment shall be as specified in subd. 2.
  - a. When equal annual outpayments are used, the formula shall be:

INS = 
$$\begin{bmatrix} R(1+f)^{SL+1+c} & \left(\frac{(1+f)^{LTC}-1}{f}\right) \end{bmatrix}$$

b. When unequal annual outpayments are used, the formula shall be:

INS = 
$$\sum_{R_{v}} (1 + f)^{SL+x+c}$$

in which:

INS = the unknown amount of the long-term care insurance

f = the estimated annual rate of inflation, expressed as a decimal

SL = the estimated active life of the facility in years

R = the estimated annual costs

 $R_{\perp}$  = the estimated unequal annual costs

LTC = the long-term care period

x = the year of long-term care

c = the closure period as a fraction of a year, expressed as a decimal

 $\Sigma$  = the sum of year 1 through the last year of LTC

SECTION 90. NR 181.42(10)(g) is repealed and recreated to read:

NR 181.42(10)(g) Adjustment of cost estimates and financial responsibility. I. The owner or operator of a hazardous waste facility shall prepare and submit to the department a new closure cost estimate during the active life of the facility:

- a. When the requirements of sub (8)(c) apply. The new cost estimates shall be contained in the submitted closure plan;
- b. Within 30 days after the department approves a request for modification of the closure plan approval, provided that the modification increases the cost of closure above the cost estimate amount included in the closure plan;
- c. To adjust for inflation, submitted within 60 days before the anniversary date of the establishment of proof of financial responsibility for closure under this subsection. For owners or

operators of disposal facilities using the net worth test under par. (c)6., the closure cost estimate shall be updated for inflation within 30 days after the close of the company's fiscal year and before the submittal of the annual reapplication under s. 144.443(5)(d), Stats.; or

- d. When required by the department to meet the requirements of sub. (8) and this chapter. The department may require an adjustment in the cost estimate and the amount of required proof of financial responsibility for closure based on prevailing or projected interest and inflation rates.
- 2. The owner or operator of a hazardous waste facility shall prepare and submit to the department a new long-term care cost estimate during the active life of the facility:
- a. When the requirements of sub. (9)(f) apply. The new cost estimate shall be contained in the submitted long-term care plan;
- b. Within 30 days after the department approves a request for modification of the long-term care plan approval, provided that the modification increases the cost of long-term care above the cost estimate amount included in the long-term care plan;
- c. To adjust for inflation, submitted within 60 days before the anniversary date of the establishment of proof of financial responsibility for long-term care under this subsection. For owners or operators of disposal facilities using the net worth test under par. (c)6., the long-term care cost estimate shall be updated for inflation within 30 days after the close of company's fiscal year and before the submittal of the annual reapplication under s. 144.443(5)(d), Stats.; or
- d. When required by the department to meet the requirements of sub. (9) and this chapter. The department may require an adjustment in the cost estimate and the amount of required proof of financial responsibility for long-term care based on prevailing or projected interest and inflation rates.
- 3. The owner shall submit to the department proof of the increase in the amount of all bonds, letters of credit, escrow accounts and trust accounts established under this subsection:
  - a. Annually, to account for increases in cost estimates based on adjustments for inflation; or
- b. Within 60 days after a new cost estimate submitted in accordance with subd. 1. or 2. is approved by the department.

SECTION 91. NR 181.42(10)(1) is amended to read:

NR 181.42(10)(1) Authorization to release funds. i. 'Closure'. When an owner or operator has completed final or partial closure, the owner may apply to the department for release of a bond or letter of credit or return of money held on deposit, in escrow, or in trust for closure of the facility. The application shall be-accompanied-by consist of the certification and other submittals required under sub. (8)(1) and an itemized list of costs incurred. Upon determination by the department that complete closure has been accomplished, the department shall in writing authorize release and return of all funds accumulated in such accounts or give written permission for cancellation of a bond or letter of credit. Determinations shall be made within 90 days of the application.

2. 'Long-term care'. One year after final or partial closure, and annually thereafter for the period of owner responsibility, the owner, who has carried out all necessary long-term care during the preceding year, may make application to the department for reimbursement from an escrow account, trust account, deposit with the department, or other approved methods, or for reduction of the bond, insurance or letter of credit equal to the estimated costs for long-term care for that year. The application shall be accompanied by an itemized list of costs incurred. Upon determination that the expenditures incurred are in accordance with the long-term care requirements anticipated in the approved plan of operation, or if no approved plan of operation exists, are in accordance with the requirements in sub. (9), the department may authorize in writing the release of the funds or approve a reduction in the bond or letter of credit. Prior to authorizing a release of the funds or a reduction of the bond or letter of credit, the department shall determine that adequate funds exist to complete required long-term care work for the remaining period of owner responsibility. Beterminations—shall—be-mode—within—90-deys-of-the-application. Any The department may authorize the release of any funds remaining in an escrow account, trust account, or on deposit with the department at the termination of the

period owner responsibility shatt-be-reteased to the owner based on a determination made on a final application for reimbursement. The final application shall consist of the certification required under sub. (9)(k) and an itemized list of costs incurred. Determinations shall be made within 90 days of any application for reimbursement under this subdivision.

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NR 181.42(II)(a) <u>Definitions</u>. The department intends the meaning of terms used in this subsection to be the same as their common meaning within the insurance industry. The following definitions are intended to assist in understanding the requirements of this subsection and are not intended to limit the meaning of the defined terms in a way that conflicts with general insurance industry usage:

- i. "Accidental occurrence" means an accident which results in bodily injury or property damage neither expected nor intended from the standpoint of the insured.
- "Assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity.
- 3. "Current assets" means cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.
- 4. "Current liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.
- 5. "Independently audited" means an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.
- 6. "Legal defense costs" means any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.
- 7. "Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.
  - 8. "Net working capital" means current assets minus current liabilities.
- 9. "Net worth" means total assets minus total ilabilities and is equivalent to owner's equity.

- 10. "Nonsudden accidental occurrence" means an accidental occurrence which takes place over time and involves continuous or repeated exposure.
- II. "Sudden accidental occurrence" means an accidental occurrence which is not continuous or repeated in nature.
- 12. "Tangible net worth" means the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties.

SECTION 93. NR 181.42(11)(d) to (f) are amended to read:

NR i81.42(ii)(d) Demonstration of coverage. The owner or operator shall demonstrate the financial responsibility required under pars. (b) and (c) by-having-tiabitity-insurance in one of the following ways:

- in the owner or operator may demonstrate the required inability coverage by having liability insurance. Each insurance policy shall be amended by attachment of a hazardous waste facility liability endorsement or evidenced by a certificate of liability insurance. The wording of an endorsement shall be identical to the wording specified in par. (h). The wording of a certificate of insurance shall be identical to the wording specified in par. (h). At a minimum, the agent or broker shall be licensed as a surplus lines insurance agent or broker. The department shall determine the acceptability of a surplus lines insurance company to provide coverage for both sudden and nonsudden accidental occurrences. The department shall base the determination on any evaluations prepared, in accordance with s. 618.41 (6) (d), Stats., by the office of the commissioner of insurance.
- 2. The owner or operator may demonstrate the required liability coverage by passing a financial test for liability coverage as specified in par. (i).
- 3. The owner or operator may demonstrate the required liability coverage through use of both the financial test under par. (i) and insurance under par. (h). The amounts of coverage demonstrated shall total at least the minimum amounts required in pars. (c) and (d).

- (e) Period of coverage. Sub. I. applies to owners or operators who obtain liability insurance in accordance with par. (h). Sub. 2. applies to owners and operators who use the financial test to demonstrate liability coverage, and obtain department approval of the financial test, in accordance with par. (i).
- 1. The owner or operator shall continuously provide ilability insurance as required by this subsection until the department authorizes cancellation of the policy or policies. If the insurance company becomes bankrupt or insolvent or if the company receives an unfavorable evaluation under s. 618.41 (6) (d), Stats., the owner or operator shall, within 30 days after receiving written notice thereof, deliver to the department demonstration of ilability coverage as required by par. (d). When an owner or operator has completed closure in accordance with s.

  NR 181.52, the owner or operator may apply to the department for authorization to cancel the ilability insurance required by this subsection. This application may be made jointly with the application necessary for the release of proof of financial responsibility for closure under sub. (10) (g). Upon determination by the department that closure has been completed in accordance with s. NR 181.52, the department shall authorize the owner to cancel any ilability insurance required under this subsection. The department shall approve or deny the application within 90 days of receipt of the application.
- 2. The owner or operator shall continuously provide liability coverage as required by this subsection until the owner or operator has completed closure in accordance with s. NR 181.52, and the department approves of the closure certification required to be submitted under s. NR 181.42(8).
- (f) Required submittals. The owner or operator of a facility which that has obtained a variance under s. NR 181.55 (10) or obtained or applied for an interim license shall submit the signed duplicate original of the hazardous waste facility liability endorsement or the certificate of liability insurance within-180-days-after-Juty-1;-1985 as specified in par. (h) by December 28, 1985. The owner or operator of such a facility, or a facility subject to

subd. I., may submit the items specified under par. (i), and seek a department allowance to replace all or part of the ilability insurance coverage specified in par. (h), after (the effective date of this amendment), in accordance with par. (i)8. The owner or operator of a proposed facility shall submit the signed duplicate original of the hazardous waste facility ilability endorsement or the certificate of ilability insurance in accordance with par. (h), or the items specified under par. (i), as part of the initial operating license application. If requested by the department, the owner or operator shall provide a signed duplicate original of all insurance policies. The owner or operator of an existing facility which has not obtained an interim license due to the withdrawal or denial of the interim license application or which no longer has an interim license or a variance, and has not received a written determination from the department that closure was completed in accordance with s. NR 181.52, shall within-188 days-after-Juty-t by December 28, 1985, either:

- i. Submit the signed duplicate original or the hazardous waste facility liability endorsement or the certificate of liability insurance as specified in par. (h); or
- 2. Apply for department authorization to cancel the liability insurance requirement in accordance with par. (e), provided that closure has been completed in accordance with s.

  NR 181.52.

SECTION 94. NR 181.42(11)(1) is created to read:

NR i81.42(ii)(i) Financial test for liability coverage. The owner or operator may satisfy the requirements of this subsection by demonstrating that the owner or operator passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the criteria of subd. 1. or 2.

- i. The owner or operator has:
- a. Net working capital and tangible net worth each at least 6 times the amount of liability coverage to be demonstrated by this test;

- b. Tangible net worth of at least \$10 million; and
- c. Assets in the United States amounting to either: at least 90% of the owner's or operator's total assets; or at least 6 times the amount of liability coverage to be demonstrated by this test.
  - 2. The owner or operator has:
- a. A current rating for the most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's;
  - b. Tangible net worth of at least \$10 million;
- c. Tangible net worth at least 6 times the amount of liability coverage to be demonstrated by this test; and
- d. Assets in the United States amounting to either: at least 90% of the owner's or operator's total assets; or at least 6 times the amount of liability coverage to be demonstrated by this test.
- 3. The phrase "amount of liability coverage" as used in this paragraph refers to the annual aggregate amounts for which coverage is required under par. (b) or (c).
- 4. The owner or operator shall submit the following 3 items to the department to demonstrate that this test is met:
- a. A letter signed by the owner or operator's chief financial officer as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted: [Address to the department]

[Fill out the following paragraph regarding facilities and liability coverage. For each facility, include its EPA identification number, name and address.]

The owner or operator identified above is the owner or operator of the following facilities for which liability coverage is being demonstrated through the financial test specified in Section NR 181.42(II)(I), Wis. Adm. Code.

This owner or operator (insert "is required" or "is not required") to file a Form IOK with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this owner or operator ends on [month, day]. The figures for the following items marked with an asterisk are derived from this owner or operator's independently audited, year-end financial statements for the latest completed fiscal year ended [date].

## LIABILITY COVERAGE FOR ACCIDENTAL OCCURRENCES

[Fill in Alternative I if the criteria of Section NR 181.42(11)(1)1., Wis. Adm. Code are used. Fill in Alternative II if the criteria of Section NR 181.42(11)(1)2., Wis. Adm. Code are used].

ALTERNATI	/E					
1.	Amount of annual aggregate liability coverage to be demonstrated	\$				
*2.	Current assets	\$				
*3.	Current liabilities	\$\$ \$\$				
4.	Net working capital (line 2 minus line 3)					
*5.	Tangible net worth					
*6.	if less than 90% of assets are located in the					
	U.S., give total U.S. assets	\$				
		YES	NO			
7.	is line 5 at least \$10 million?					
8.	Is line 4 at least 6 times line 1?					
- 9.	Is line 5 at least 6 times line 1?	-				
*10.	Are at least 90% of assets located in the U.S.? If not,					
	complete line II.					
11.	Is line 6 at least 6 times line 1?					

## ALTERNATIVE II

	Amount of annual aggregate liability coverage to be demonstrated Current bond rating of most recent issuance and name of	\$	·
-•	rating service		
3.	Date of issuance of bond		
4.	Date of maturity of bond		
*5.	Tangible net worth	\$	
*6.	Total assets in U.S. (required only if less than 90%		
	of assets are located in the U.S.)	\$	
		YES	NO
7.	Is line 5 at least \$10 million?		
8.	Is line 5 at least 6 times line !?		
*9 <b>.</b>	Are at least 90% of assets located in the U.S.?		
	If not, complete line 10.		
10.	Is line 6 at least 6 times line 1?		<u>-</u> -

I hereby certify that the wording of this letter is identical to the wording specified in Section NR 181.42(11)(i)4.a., Wis. Adm. Code, as such regulations were constituted on the date shown immediately below.

[Signature]

[Name]

[Title]

(Date)

- b. A copy of the independent certified public accountant's report on examination of the owner or operator's financial statements for the latest completed fiscal year.
- c. A special report from the owner or operator's independent certified public accountant to the owner or operator stating that the accountant has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and in connection with that procedure, no matter came to the accountant's attention which caused the accountant to believe that the specified data should be adjusted.

- 5. The owner or operator of a proposed facility shall submit the items specified in subd. 4. in accordance with par. (f).
- 6. After the initial submission of items specified in subd. 4., the owner or operator shall send updated information to the department within 90 days after the close of each succeeding fiscal year. This information shall consist of all 3 items specified in subd. 4.
- 7. If the owner or operator no longer meets the requirements of subd. 1. or 2., the owner or operator shall obtain insurance for the entire amount of required liability coverage as specified in this subsection. Evidence of insurance shall be submitted to the department within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the test requirements.
- 8. The department may allow or disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in the accountant's report on examination of the owner or operator's financial statements. An adverse opinion or a disclaimer of opinion will be cause for disallowance. The department will evaluate other qualifications on an individual basis. The owner or operator shall provide evidence of insurance for the entire amount of required liability coverage as specified in this subsection within 30 days after notification of disallowance.

SECTION 95. NR 181.42(12)(a)1. Is amended to read:

NR 181.42(12)(a)1. All owners or operators of licensed hazardous waste disposal facilities shall pay to the department a tonnage fee for each ton of hazardous waste or solid waste received and disposed of at the facility, or a minimum waste management fund base fee of \$100, whichever is greater, until the facility no longer receives waste and begins closure activities, except as otherwise provided in s. 144.441(3)(b) or (c), Stats. The department shall deposit all tonnage and waste management base fees into the waste management fund provided for in s. 25.45, Stats.

SECTION 96. NR 181.43(2)(d) is repealed and recreated to read:

NR 181.43(2)(d) A small quantity generator for accumulating waste on-site in containers or above-ground tanks in compliance with s. NR 181.13(1) or (5).

SECTION 97. NR 181.43(2)(e) is amended to read:

NR 181.43(2)(e) The owner or operator of a solid waste disposal facility licensed under ch.

NR 180, provided that only hazardous waste the facility stores is excluded from regulation under this subchapter by s. NR 181.13(2) and the facility has been approved under s. NR 181.13(7) to accept small quantities of hazardous waste.

SECTION 98. NR 181.43(2)(j) is created to read:

NR 181.42(2)(j) A person who stores waste lead-acid batteries that are destined for recycling and who complies with s. NR 181.195.

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SECTION 99. NR 181.43(7)(a)3., (h)2.(intro.), (n)2. and 3., (n)3. Note, (o) and (p), and (i0)(e)1. and 2. are amended to read:

NR 181.43(7)(a)3. Storage tanks which contain volatile waste shall eempty be in compliance with sr-NR-154.13 chs. NR 419, 420 and 421 regarding the control of organic compound emissions.

(h)2.(intro.) Wastes and other materials such as treatment reagents, which are compatible incompatible with the material of construction of the tank may not be placed in the tank unless the tank is protected from accelerated corrosion, erosion or abrasion through the use of:

(n)2. Underground storage tanks and piping which do not meet the requirements of pars.
(b) through (e) shall be tested to determine tightness in accordance with subd. 3. within-one
year-of by July 1, 1985 1986 and at least once every year thereafter.

3. The underground storage tank leak test shall be capable of detecting a tank or piping leak as small as 0.05 gallons theore per hour accounting for all variables including vapor pockets; thermat-expansion-of-the-waste; temperature; stratification, evaporation; pressure-and tank end deflection and volume changes of the contents of the tank and associated piping due to temperature changes during the test period. The finat precision test of the national fire protection association, recommended practice number 329-1937 as or other test of equivalent or superior accuracy as approved by the department shall be used to comply with the testing requirement. The department may grant an exemption from this testing requirement or allow a test of lesser accuracy for uncovered in-ground tanks. Such requests shall be submitted in writing to the department. The department shall review and approve, deny or deem incomplete request for an exemption within 65 business days after receiving the request.

Note: The publication containing this standard may be obtained from:

The National Fire Protection Association

Batterymarch Park

Quincy, Mass. MA 02269

The publication containing these standards is available for inspection at the offices of the department, the secretary of the state and the revisor of statutes.

- (o) As part of the inspection schedule to required in s. NR i8i.42(7)(b) and in addition to the requirements of par. (m), the owner or operator shall develop a schedule and procedure for assessing the condition of the tank. When the tank or associated piping is equipped with cathodic protection, a schedule and procedure for assessing the cathodic protection system shall be developed. A schedule for assessing the leak detection system shall also be established. The schedule and procedure shall be adequate to detect cracks, leaks, corrosion or erosion which may lead to cracks or leaks or wall thinning to less than the thickness required under par. (a). Procedures for emptying a tank to allow entry and inspection of the interior shall be established when necessary to detect corrosion or erosion of the tank sides and bottom. The frequency of these assessments shall be based on the material of construction of the tank, type of corrosion or erosion protection used, rate of corrosion or erosion observed during previous inspections and the characteristics of the waste being treated or stored.
- (p) The owner or operator shall establish, as part of the contingency plan required under s. NR 181.42 (4) (a), the procedures to respond to tank discharges or leaks, including procedures and timing for expeditious removal of leaked or spilled waste and contaminated soil and repair of the tank. Before placing a repaired underground tank back into service, a test for tightness shall be conducted. The test shall meet the requirements of par. (a)3.
- (10)(e)i. The owner or operator shall, at completion of final or any partial closure, remove all waste residues, contaminated containment system components, liners, contaminated subsoils and structures and equipment contaminated with hazardous waste, hazardous waste residues or leachate, and manage them as a hazardous waste in accordance with the requirements of this chapter, unless s. NR 181.12(3) applies.
- 2. The owner or operator may propose to leave some contaminated subsoils in place in lieu of removing all of this material as required in subd. 1. Such proposals shall be submitted to the

department for approval prior to completion of closure, as a request for modification to the closure plan approval required-under in accordance with s. NR 181.42 (8). The owner or operator shall also submit a post-closure plan that meets the requirements of s. NR 18i.42 (9) with the proposal. The department with shall consider such proposals on a case-by-case basis. If any contaminated subsoil is approved by the department to remain in place, the department may shall require that the owner or operator comply with the applicable requirements for closure, monitoring and long term care under ss. NR 181.42 (9) and 181.44 (11), (12), (13) and (14) and 181.49. The department may not approve such proposals unless it determines that not all contaminated subsoils can be practicably removed or decontaminated. The department may compare the costs and relative environmental and public health risks of removal or decontamination versus leaving contaminated subsoils in place when determining which subsoils are practicable to remove or decontaminate. The department may require some contaminated subsolis to be removed or decontaminated at the same time other contaminated subsolis are approved to remain in place, depending on the department's determination of which subsoils are practicable to remove or decontaminate. The department shall consider, at a minimum, the following criteria when making a determination on which subsolls can be practicably removed or decontaminated:

- a. The depth of contamination;
- b. The depth to the nearest aquifer;
- c. Current site uses;

Note: For example, excavations next to certain buildings or structures may cause a structural failure.

- d. The feasibility of decontamination technologies for the type of contamination present;
- e. The soli types present; and
- f. The feasibility of excavation technologies.

SECTION 100. NR 181.435(3)(b) is amended to read:

NR 181.435(3)(b) Within 60 days after a feasibility and plan er of operation report is submitted, the department shall either determine that the report is complete or notify the applicant in writing that the report is not complete, specifying the information which the applicant shall submit before the report is deemed complete. The department will determine whether or not the feasibility and plan of operation report is complete by determining whether or not the minimum requirements in par. (a) have been met. Additional information may be required of the applicant after a determination that the report is complete only if the department establishes that a detailed review of the report indicates that feasibility cannot be determined or the report is insufficient in the absence of such additional information.

SECTION 101. NR 181.44(2)(b) is amended to read:

NR 181.44(2)(b) The owner or operator of a solid waste disposal facility that is licensed under ch. NR 180 provided that the only hazardous waste the facility disposes of is excluded from regulation under this subchapter by s. NR 181.13(2) and the facility has been approved under s. NR 181.13 (7) to accept small quantities of hazardous waste.

SECTION 102. NR 181.44(3)(a)4. Note is repealed.

SECTION 103. NR 181.44(3)(a)4, and 8.c. and (7)(b)2.b.3)(intro) and 9) are amended to read:

NR 18i.44(3)(a)4. Within an area where the department after investigation finds that there is a reasonable probability that disposal of hazardous waste within such an area will have a detrimental effect on any surface water or groundwater quality or will cause a violation of groundwater standards adopted under ch. 160;—State NR 140.

8.c. Have a median infield permeability of  $IXIO^{-6}$   $IXIO^{-6}$  cm/sec as determined by single well response tests.

(7)(b)2.b.3).(intro.) A proposed testing schedule to document that the secondary liner and the compacted clay portion of the final cover are constructed in accordance with the requirements of sub. (10)(h)4. and sub. (+2)(a)3.c.2) (13)(a)5. respectively. At a minimum, this program shall include testing to document the following:

sequence of events for site closing to meet the requirements of sub. (12) or (13), or both, as appropriate, and a discussion of those actions necessary to prepare the site for long-term care and final use taking into account the following factors: type and amount of hazardous waste and hazardous waste constituents in the landfill or surface impoundment; the mobility and expected rate of migration of the hazardous waste and hazardous waste constituents; site location, topography, and surrounding land use, with respect to the potential effects of pollutant migration, such as proximity to groundwater, surface water, and drinking water sources; climate, including amount, frequency, and permeability, slope, length of run of slope, and type of vegetation on the cover; and geological and soil profiles and surface and subsurface hydrology of the site.

SECTION [04. NR [8].44([0)(e), (f)2. and 3.a. and b. are amended to read:

NR 181.44(10)(e) Bulk or non-containerized ilquid waste or, waste containing free liquids

shatt or any liquid that is not a hazardous waste, including solid waste liquid, may not be
placed in a landfill, unless:

i. The landfill has a liner which that is chemically and physically resistant to the added liquid, and a functioning leachate collection and removal system with a capacity sufficient to remove all leachate produced; and

2. Before placement in the landfill, the liquid waste or, waste containing free liquids or the liquid that is not a hazardous waste, including solid waste liquid, is treated or stabilized,—chemically—or-physically,—such—as-by—mixing—with—an-absorbent—solid using a treatment or stabilization method that does not use absorbents or adsorbents, so that free liquids are no longer present. To demonstrate the absence or presence of free liquids, the EPA test method 9095, the paint filter liquids test, described in SW-846, "Test Methods for Evaluating Solid Waste", second edition, 1982, as amended by update I in April, 1984 and update I in April, 1985, shall be used.

Note: This publication may be obtained from:

Government Printing Office

Washington, D.C. 20402

This publication is available for inspection at the offices of the department, the secretary of state, and the revisor of statutes.

Note: Methods that do not use absorbents or adsorbents to treat or stabilize liquid waste are described in statutory interpretative guidance documents available from EPA.

(f)2. A container holding waste may not be placed in a landfill, unless the placement of containers is specifically allowed in the plan of operation approval and:

a:--The-p+acement-of-containers-is-specifically-attowed-in-the-ptan-of-operation-approvat.

b.a. The container is designed to hold liquids or free liquids for a use other than storage, such as a battery or capacitor;

erb. The container is very small, such as an ampule; or

dic. The container is a lab pack as defined in subd. 3. and is disposed of in accordance with subd. 3. and pars. (b) and (c).

3.a. Hazardous waste shall be packaged in non-leaking inside containers. The inside containers shall be of a design and constructed of a material, that will not react dangerously with, be decomposed by, or be ignited by the contained waste. Inside containers shall be tightly

and securely sealed. The inside containers shall be of the size and type specified in the DOT hazardous materials regulations specified in 49 CFR Parts 173, 178 and 179, 9ctober-+;-+983

November I, 1985, if those regulations specify a particular inside container for the waste.

b. The inside containers shall be overpacked in an open head DOT specification metal shipping container specified in 49 CFR Parts 173, 178 and 179, 0etober-1,-1983 November 1, 1985, of no more than 416-liter (110 gallon) capacity specified in and surrounded by, at a minimum, a sufficient quantity of absorbent material to completely absorb all of the liquid contents of the inside containers. The metal outer container shall be full after packing with inside containers and absorbent material.

SECTION 105. NR 181.44(12)(a)(intro.), 3. and 4. are amended to read:

NR 181.44(12)(a)(intro.) In addition to the closure requirements in s. NR 181.42 (8), unless specifically exempted in sub. (2), any person who maintains or operates a hazardous waste landfill or surface impoundment, without an operating license under s. NR 181.55, or who permits use of property for such a facility shall, when the fill area er, a portion thereof or any unit reaches final grade or when the department determines that closure is required, cease to accept waste and close the facility er, portion thereof or any unit in accordance with any plan approval issued by the department and the following requirements:

3. Following final or any partial closure, the facility shall be inspected and maintained by the owner or operator until it becomes stabilized or until the responsibility of the owner or operator terminates. The department may require installation of groundwater and leachate monitoring wells or other devices, groundwater and leachate quality sampling and analysis programs, gas monitoring and sampling and provisions for the protection against detrimental effects of leachate and gas migration from any landfill and surface impoundment in accordance with sub. (ii) and s. NR 181.49.

4. Upon final or any partial closure, all hazardous waste and hazardous waste residues including standing iliquids, the ilner underlying and surrounding contaminated soil and structures and equipment contaminated with waste or leachate shall be removed from surface impoundments not approved for final disposition of such wastes and shall be disposed of in accordance with this chapter. Requests for department approval to allow any such materials to be disposed of in place shall be submitted to the department prior to completion of closure, as a request for modification of a closure plan approval in accordance with s. NR 181.42(8).

Closure of these facilities shall be accomplished in accordance with the provisions of the approved plan of operation and with all applicable requirements of this section. If necessary to support the final cover specified in the approved closure plan, the owner or operator shall treat remaining liquids, residues, and soils by removal of liquids, drying, or other means.

SECTION 106. NR 181.44(12)(a)1.a. to c. are renumbered NR 181.44(12)(a)1.b. to d., respectively and amended to read:

- b. The entire <u>unit or</u> area previously used for disposal purposes shall be covered with at least 2-feet 60 cm (2 feet) of compacted earth <u>clay</u>, sloped adequately to allow surface water runoff. Specific-fine-grain-soft-types-needed-to-minimize-infifthration-may-be-required-by-the department-for-this-2-feet-tayer. Slopes shall be no less than 2% and no steeper than 33%.

  This 60 cm (2-foot) clay layer shall meet the following specifications:
  - i) Have a saturated undistributed hydraulic conductivity of not more than i  $\times$  10  $^{-7}$  cm/sec.
- 2) Be compacted to 90% modified proctor density, as determined by the test method specified

  In ASIM D-1557-78.
  - 3) Be constructed in lifts which do not exceed 20 cm (8 inches) after compaction.

Note: The publications containing these standards may be obtained from:

American Society for Testing and Materials

1916 Race Street

Philadelphia, PA 19103

The publications containing these standards are available for inspection at the offices of the department, the secretary of state and the revisor of statues.

- c. Surface water shall be diverted to limit the potential for erosion and sedimentation. Wherever possible, surface water shall be diverted around previously filled areas. Where it is necessary to divert drainage over previously filled areas, drainage shall be conveyed by lined drainage swales having a minimum of 2-feet 60 cm (2 feet) of clay.
- d. The finished surface of the filled area shall be covered with a minimum of 6-inches 15 cm (6 inches) of topsoil.

SECTION 107. NR 181.44(12)(a)1.a. is created to read:

NR i8i.44(i2)(a)i.a. At final closure of the facility or upon closure of any unit or cell, the owner or operator shall cover the facility, unit or cell with a final cover designed and constructed to:

- i) Provide long-term minimization of migration of liquids through the closed facility;
- 2) Function with minimum maintenance;
- 3) Promote drainage and minimize erosion or abrasion of the cover;
- 4) Accommodate settling and subsidence so that the cover's integrity is maintained; and
- 5) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

SECTION 108. NR 181.44(13)(intro.), (a)4.a., b., and d., (c) and (d) are amended to read:

- (i3) CLOSURE OF FACILITIES WITH OPERATING LICENSES. In addition to the closure requirements in s. NR 181.42 (8), unless specifically exempted in sub. (2), any person who maintains or operates a hazardous waste landfill or surface impoundment, with an operating license under s. NR 181.55, or who permits use of property for such a facility shall, when the fill area er, a portion thereof or any unit reaches final grade or when the department determines that closure is required, cease to accept waste and close the facility er-portton thereof, portion thereof or any unit in accordance—accordance with the plan approval issued by the department and the following requirements:
- (a)4.a. Consist of material which is designed, constructed and installed to prevent the migration of any liquid  $\frac{1}{10}$  into the material during the entire long-term care period.
- b. Be protected from damage by at least 15 cm (6 Inches) of bedding material classified as SP under the unified soil classification system specified in ASTM standard D-2487-69 (1975), both above and below the tow-permeability layer required in subpar. a. The bedding material shall be free of rock, fractured stone, angular grains, debris, cobbies, rubbish, roots or any other materials which could potentially damage the tow-permeability layer required in subpar. a. The middle drainage layer may also serve as the upper bedding material if it meets the specifications contained herein.
- d. Be located at least ene-feet 30 cm (one foot) below the maximum recorded depth of frost penetration in the area.
- (c) Following final or any partial closure, the facility shall be inspected and maintained by the owner or operator until it becomes stabilized or until the responsibility of the owner or operator terminates. The department may require installation of groundwater and leachate monitoring wells or other devices, groundwater and leachate quality sampling and analysis programs, gas monitoring and sampling provisions for the protection against detrimental effects

of leachate and gas migration from any landfill and surface impoundment in accordance with sub.

([]) and s. NR [8].49.

(d) Upon final or any partial closure, all hazardous waste and hazardous waste residues including standing iliquids, the iliner, underlying and surrounding contaminated soil and structures and equipment contaminated with waste and leachate shall be removed from surface impoundments not approved for final disposition of such wastes and shall be disposed of in accordance with this chapter. Requests for department approval to allow any such materials to be disposed of in place shall be submitted to the department prior to completion of closure, as a request for modification of the closure plan approval, in accordance with s. NR 181.42(8). Closure of these facilities shall be accomplished in accordance with the provisions of the approved plan of operation and with all applicable requirements of this section. If necessary to support the final cover specified in the approved closure plan, the owner or operator shall treat remaining liquids, residues, and soils by removal of liquids, drying, or other means.

SECTION 109. NR 181.44(14)(c) is repealed.

SECTION 110. NR 181.45(1)(b) and (4)(m)4. are amended to read:

NR 181.45(1)(b) As provided in s. NR 181.19 (1) and (4), a person burning hazardous waste for energy recovery in boilers or industrial furnaces, except as provided in s. NR 181.19(2)(b), may be exempt from the requirements of this section if a written exemption is obtained from the department.

(4)(m)4. An incinerator shall be operated in such a manner that emissions of particulate matter do not exceed the limits specified in s. NR  $\pm 54\pi \pm 1\pm 5$  415.07.

SECTION III. NR 181.46(1), (3)(a)2.c. and (5)(L) are amended to read:

NR 181.46(1) GENERAL. Except as provided in s. NR 181.45(4)+q+(+), treatment facility standards apply to facilities that thermally treat hazardous waste in devices other than incinerators and to facilities that treat hazardous wastes by some chemical, physical or biological means in other than surface impoundments. Except as provided in sub. (2), no person may operate or maintain a hazardous waste treatment facility unless the person has obtained an interim license, operating license, variance or walver from the department, in accordance with the requirements of s. NR 181.53 or 181.55. Any person intending to establish or construct a hazardous waste treatment facility shall contact the department to arrange for an initial site inspection.

(3)(a)2.c. Existing site conditions map. The extent of coverage shall be the entire site and the area within N mile of the site boundaries. The minimum scale shall be one inch = 200 feet. Map details shall include proposed site boundary, property lines, easements and rights-of-way; buildings, foundations, roads, utilities and other structures, topography, for site only unless needed to define drainage patterns around facility, drainage swales, surface wastes waters, wetlands, floodplains and similar drainage features; wooded areas; location of soil borings and test pits; features of historical and archaelogical significance; and other physical site features as appropriate.

(5)(L) Thermal treatment facilities shall be designed and operated to provide adequate temperature and residence time in the combustion chamber to assure complete processing and be equipped with necessary air pollution control equipment to produce a noncombustible residue, result in an odor free operation and meet state air pollution control regulations found in the Chr.-NR-+54 chs. NR 400 to NR 499.

SECTION 112. NR 181.47(4)(h) is created to read:

NR 181.47(4)(h) The security requirements specified in s. NR 181.42(3).

SECTION 113. NR 181.47(4)(p)2.a., 3.a., 4. and 7.d. are amended to read:

NR [81.47(4)(p)2.a. The owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this subparagraph. Each insurance policy shall be amended by attachment of the hazardous waste facility liability endorsement or evidenced by a certificate of liability insurance. The wording of the endorsement shall be identical to the wording specified in s. NR 181.42 (11) (h)1. The wording of the certificate of insurance shall be identical to the wording specified in s. NR 181.42 (ii) (h)2. The owner or operator shall submit a signed duplicate original of the endorsement or the certificate of insurance to the department. If requested by the department, the owner or operator shall provide a signed duplicate original of the insurance policy. The owner or operator of a facility which has obtained or applied for an interim license shall submit the signed duplicate original of the hazardous waste facility liability endorsement or the certificate of liability insurance w++h+n +80-days-after-Juty-+ by December 28, 1985. An owner or operator of a proposed facility shall submit the signed duplicate original of the hazardous waste facility liability endorsement or the certificate of liability insurance to the department at least 60 days before the date on which hazardous waste is first received for treatment, storage or disposal. The insurance shall be effective before this initial receipt of hazardous waste. Each insurance policy shall be Issued by an Insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states.

3.a. The owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this subparagraph. Each insurance policy shall be amended

by attachment of the hazardous waste facility liability endorsement or evidenced by a certificate of liability insurance. The wording of the endorsement shall be identical to the wording specified in s. NR 181.42 (II)(h)i. The wording of the certificate of insurance shall be identical to the wording specified in s. NR 181.42 (II)(h)2. The owner or operator shall submit a signed duplicate original of the endorsement or the certificate of insurance to the department. If requested by the department, the owner or operator shall provide a signed duplicate original of the insurance policy. The owner or operator of a facility which has obtained or applied for an interim license shall submit the signed duplicate original of the hazardous waste facility ilability endorsement or the certificate of liability insurance within the department of the agent or broker shall be licensed as a surplus lines insurance agent or broker.

4. "Request for variance.' If an owner or operator can demonstrate to the satisfaction of the department that the levels of financial reasponsibility required by subd. 2. or 3. are not consistent with the degree and duration of risk associated with treatment, storage or disposal at the facility or group of facilities, the owner or operator may obtain a variance from the department. The request for a variance shall be submitted to the department as part of the interim or operating license application for a facility that does not have an interim or operating license, or pursuant to the procedures for a plan modification under subch. VI. For existing facilities with interim licenses or variances, the request shall be submitted within-90 days-after-July-+ by October 29, 1985. The time periods for department review specified in s. NR 181.55 (10) (e) shall apply to these requests. If granted, the variance will take the form of an adjusted level of required liability coverage, such level to be based on the department's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The department may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the department to determine a level of financial responsibility other than that required by subd. 2. or 3.

- 7.d. The owner or operator shall submit the following 3 items to the department to demonstrate that this test is met:
- 1) A letter signed by the owner's owner or operator's chief financial officer as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

[Address to the department]

i am the chief financial officer of [ewner+s owner or operator's name and address]. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage as specified in s. NR +8+-49 | 81.47 (4) (p).

[Fill out the following paragraph regarding facilities and liability coverage. For each facility, include its EPA identification Number, name and address.]

The owner or operator identified above is the owner or operator of the following facilities for which liability coverage is being demonstrated through the financial test specified in Section NR +8+:49 181.47 (4) (p), Wis. Adm. Code.

This owner or operator (insert "is required" or "is not required") to file a Form IOK with the Securities and Exchange Commission (SEC) for the tastest fiscal year.

The fiscal year of this owner or operator ends on [month,day]. The figures for the following items marked with an asterisk are derived from this owner's owner or operator's independently audited, year-end financial statements for the latest completed fiscal year ended [date].

## LIABILITY COVERAGE FOR ACCIDENTAL OCCURRENCES

[Fili in Alternative I if the criteria of Section NR +8++49 | 181.47 (4) (p) 7.a., Wis. Adm.

Code are used. Fill in Alternative II if the criteria of Section NR +8++49 | 181.47 (4) (p) 7.b.,

Wis. Adm. Code are used].

ALTERNAT I	VE I		
1.	Amount of annual aggregate liability coverage to be demonstrated	\$	
*2.	Current assets	\$	
*3.	Current liabilities	\$	
4.	Net working capital (line 2 minus line 3)	\$	
*5.	Tangible net worth		
*6.	If less than 90% of assets are located in the U.S., give		
	total U.S. assets	\$	
		YES	NO
7.	Is line 5 at least \$10 million?		
8.	Is line 4 at least 6 times line i?		
9.	Is line 5 at least 6 times line 1?		
*10.	Are at least 90% of assets located in the U.S.?		
	If not, complete line ii.	•	
11.	Is line 6 at least 6 times line !?		
ALTERNAT I	VE II		
1.	Amount of annual aggregate liability coverage to be demonstrated	\$	
2.	Current bond rating of most recent issuance and name of		<del></del>
	rating service	\$	
3.	Date of Issuance of bond	\$	
4.	Date of maturity of bond	\$	
*5.	Tangible net worth	\$	
*6.	Total assets in U.S. (required only if less than 90% of		
	assets are located in the U.S.)	\$	
		YES	NO
7.	Is line 5 at least \$10 million?		
8.	Is line 5 at least 6 times line 1?		
*9.	Are at least 90% of assets located in the U.S.?		<del></del>
	If not, complete line 10.		
10.	Is line 6 at least 6 times line !?		
	•		
l her	eby certify that the wording of this letter is identical to the word	ding specifi	ed in
Section N	R $+8+.49$ 181.47 (4) (p) 7.d.l), Wis. Adm. Code, as such regulations	were constl	tuted on
the date	shown immediately below.		
[Sign	aturel	•	
( Name	1		
[T1+]	e]		

[Date]

- 2) A copy of the independent certified public accountant's report on examination of the owner's owner or operator's financial statements for the latest completed fiscal year.
- 3) A special report from the owner's owner or operator's independent certified public accountant to the owner or operator stating that the accountant has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and in connection with that procedure, no matter came to the accountant's attention which caused the accountant to believe that the specified data should be adjusted.

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NR 181.49(2)(a) The owner or operator of a solid waste disposal facility that is licensed under ch. NR 180, provided that the only hazardous waste the facility disposes of is excluded from regulation under this subchapter by s. NR 181.13(2) and the facility has been approved under s. NR 181.13(7) to accept small quantities of hazardous waste.

- (3)(b) All landfills and surface impoundments which accepted hazardous wastes after November 19, 1980 but not after January-25,-+983 July 26, 1982 shall be subject to the monitoring requirements of subs. (4) and (5). All landfills and surface impoundments which accepted or are proposing to accept hazardous wastes after January-25,-+983 July 26, 1982 shall be subject to the monitoring requirements of subs. (4) and (6).
- (4)(a)4. All groundwater wells and other groundwater sampling devices shall be properly developed in accordance with s. NR i8i.44(6)+b+3++(a)3.j.
- (5)(intro.) EXISTING FACILITY MONITORING REQUIREMENTS. The following monitoring requirements apply to all landfills and surface impoundments which accepted hazardous wastes after November 19, 1980, but not after January-257-+983 July 26, 1982 and to other facilities where required under s. NR 181.08 or 181.43.
- (6)(intro.) NEW FACILITY MONITORING REQUIREMENTS. The following monitoring requirements apply to all landfills and surface impoundments which accepted hazardous wastes or are proposing to accept wastes after <del>January-25,-1983</del> <u>July 26, 1982</u> and to other facilities where required under s. NR 181.08 or 181.43.
- (b) Groundwater protection standard. The owner or operator shall comply with conditions specified by the department that are designed to ensure that hazardous constituents under par.

  (c) entering the groundwater from a regulated unit do not exceed the concentration limits under par. (d) in any aquifer underlying the waste management area at or beyond the boundary of the

design management zone under par. (e) during the compliance period under par. (f). The department shall establish this groundwater protection standard when hazardous constituents have entered the groundwater from a regulated unit. In no case may a standard established under this subsection be less stringent than that established by-rute under ch. +607-Stats NR 140.

Note: -- Groundwater-standards-can-be-found-in-ch:-NR-140;

- (d)i.d. May not exceed the standards established by-rute under ch. +60;-5+a+s NR i40.

  Note:--Groundwater-standards-can-be-found-in-ch:-NR-+40;
- (d)2. The department may establish an alternate concentration limit for a hazardous constituent if it finds that the constituent will not pose a substantial present or potential hazard to human health or the environment provided that the alternate concentration limit is not exceeded. In establishing alternate concentration limits, the department shall consider the factors listed under par. (c)2. In no case may an alternate concentration limit be established which is inconsistent with ch. 160, Stats., or rules-adopted-by-the-department-under-that chapter ch. NR 140.
- (f)3. If the compliance period ends before the long-term care period is completed, the owner or operator shall return to detection monitoring as out++ne outlined in par. (+) (i).
- (i)7.(intro.) The owner or operator shall determine whether there is a statistically significant increase over background values for any parameter of or constituent specified in the plan of operation approval each time the owner or operator determines groundwater quality under par. (i)4.

SECTION 115. NR 181.49(4)(1) is created to read:

NR 181.49(4)(1) Compatibility with ch. NR 140. An owner or operator who performs groundwater monitoring in accordance with this section will meet or exceed the groundwater quality requirements in ch. NR 140, and is not required to evaluate groundwater monitoring through ch. NR 140, except as follows:

- I. If the background concentration established under sub. (5)(a) or (6)(g), for a substance in Table I or 2 of ch. NR I40, exceeds the ch. NR I40 preventive action limit or enforcement standards, the facility may apply for an exemption under s. NR I40.28.
- 2. If a parameter identified under sub. (5)(g) or (6)(1) 8.a. is included in Table 1 or 2 of ch. NR 140, the notice required under sub. (5)(q) or (6)(2)8.a. shall include a determination of whether or not the concentration exceeds the preventive action limit or the enforcement standard.

SECTION | 16. NR | 81.49(6)(j)6. Note is created to read:

Note: Analytical methods may not exist for some of the Table VI hazardous constituents.

Owners and operators should contact the department for additional information on these methods.

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SECTION 117. NR 181.51(1)(c)3.b.8) is repealed and recreated to read:

NR 181.51(i)(c)3.b.8) Plan sheets shall be no smaller than 24 inches x 36 inches. All other documents shall be no larger than 24 inches x 36 inches and no smaller than 8 i/2 inches x ii inches.

SECTION 118. NR 181.51(2)(f)5., (h) and (k) are amended to read:

NR 181.51(2)(f)5. Prevent undue exposure of personnel to hazardous waste such-as-protective clothing.

Note: An example of a method to prevent undue exposure is protective clothing.

- (h) Traffic pattern, estimated volume and control. If applicable, show turns across traffic tand lanes and stacking lanes, describe access road and bearing capacity and traffic control signals.
- (k) For facilities or units where hazardous wastes were disposed of before the submittal of the feasibility report, a copy of the survey plat and record of the type, location and quantity of those wastes, and documentation that this was submitted to the register of deeds, as required by s. NR 181.42 (9)(h) and (i).

SECTION 119. NR 181.52 is amended to read:

NR 181.52 TERMINATION OF REGULATED ACTIVITY. Any person who owns or operates a hazardous waste facility and who wishes or is required to terminate the regulated activity shall submit a closure plan for department approval and implement a an approved closure plan which that meets the requirements specified in s. NR 181.42(8), as well as the requirements of s. NR 181.43(9)(10) for storage facilities, s. NR 181.44(12) or, if applicable s. NR 181.44(13),

for landfills and surface impoundments, s. NR 181.45(6)(5) for incinerators, s. NR 181.46(6) for treatment facilities, or s. NR 181.47(14) for surface impoundments. Any person who owns or operates a disposal facility and who wishes or is required to terminate the regulated activity shall submit a long-term care plan for approval and implement an approved long-term care plan that meets the requirements specified in s. NR 181.42(9), as well as the requirements of s. NR 181.44(14). In accordance with ss. NR 181.43(10)(e), 181.44(12)(b) and (13)(d), long-term care plans may be required for certain waste piles or surface impoundments where the department approves of in-place disposal of wastes.

SECTION 120. NR 181.53(4)(0), (q) and (r) and (6) are amended to read:

NR 181.53(4)(o) Manifest, recordkeeping and reporting requirements in s. NR 181.42(6), except s. NR 181.42(6)(b)1.j.

- (q) Closure requirements in ss. NR 181.42 (8), 181.43 (10), 181.45 (6), 181.46 (6) and 181.49 181.47 (14).
  - (r) Long term care requirements in ss. NR 181.42 (9), 181.44 (14) and +8++49 181.47 (15).
- (6) LIABILITY INSURANCE. Except as provided in sub. (2), an owner or operator who has submitted an interim license application to the department shall submit to the department a signed duplicate original of the hazardous waste facility liability endorsement or a certificate of liability insurance, for each insurance policy, as required by s. NR 181.42 (11), w++h+n-+80 days-after-duty-+ by December 28, 1985, or within the time periods specified in s. NR 181.47(4)(p) for surface impoundments with discharges regulated under ch. 147, Stats.

SECTION 121. NR 181.53(7)(title) is created to read:

NR 181.53(7) OPERATION WHILE APPLICATION IS PENDING.

SECTION 122. NR 181.54(5) and (6)(a) and (b) are amended to read:

NR 181.54(5) The owner or operator of a hazardous waste facility operating under an interim license shall submit to the department a signed duplicate original of the hazardous waste facility liability endorsement or a certificate of liability insurance, for each insurance policy, as required by s. NR 181.42 (11), withher-180-days-after-Juty-1 by December 28, 1985, or within the time periods specified in s. NR 181.47 (4) (p) for surface impoundments with discharges requiated under ch. 147, Stats.

- (6)(a) Submit the signed duplicate original of the hazardous waste facility liability endorsement or the certificate of liability insurance, within-t80-days-after-June-t by

  December 28, 1985, or within the time periods specified in s. NR 181.47 (4) (p) for surface impoundments with discharges regulated under ch. 147, Stats.; or
- (b) Apply for department authorization to cancel the Hability insurance requirement in accordance with s. NR 181.42 (II) (e), provided that closure has been completed in accordance with s. NR 181.52 within-180-days-after-July-1 by December 28, 1985.

SECTION 123. NR 181.55(4)(c), (5)(a) and (c) are amended to read:

NR 18i.55(4)(c) Whenever rights of ownership, possession or operation in a licensed hazardous waste transportation service, or licensed hazardous waste facility, including facilities with interim licenses, are transferred, licensing shall be in accordance with s.

144.444, Stats. Written documentation of the acquisition of rights and a written agreement containing a specific date of transfer of responsibility shall be submitted to the department.

For facilities with interim or operating licenses, the new owner or operator shall submit 2 revised part A forms in accordance with s. NR 181.53(3)(a) and the required notifications to comply with s. NR 181.06, within 90 days prior to the scheduled transfer of responsibility. For

facilities with operating licenses, the new owner or operator shall submit a transfer of license application form, within 90 days prior to scheduled transfer of responsibility. If a transfer of license application form is not available from the department the new owner or operator shall submit an application for an operating license, on a form available from the department. Transfer of responsibility requests shall be submitted as a request to modify a license or plan approval under s. NR 181.55(6)(e)1. The previous owner shall be responsible for compliance with the closure, long-term care, financial responsibility and liability coverage requirements for the facility specified in subch. V, including s. NR 181.42(8) to (11), until the person acquiring the rights of ownership, possession or operation has demonstrated compliance with the closure, long-term care, financial responsibility and liability requirements for the facility specified in subch. V, including s. NR 181.42(8) to (11), to the department, and the department notifies the previous owner, in writing, that an adequate demonstration has been made. The person acquiring the rights of ownership, possession or operation shall demonstrate to the department compliance with the closure, long-term care, financial responsibility and liability coverage requirements in subch. V, including s. NR 181.42(8) to (11) within 6 months after the transfer of responsibility. The previous owner shall continue to be responsible for compliance with the closure, long-term care, financial responsibility and liability coverage requirements in subch. V, including s. NR 181.42(8) to (11), if the person acquiring the rights of ownership, possession or operation fails to demonstrate compliance with those requirements.

- (5)(a) This subsection is not applicable to interim licenses issued under ss. NR 181.53 and 181.54 except for the fees specified in Table +X XII and the provisions of par. (e). The applicant shall pay the fee specified for an interim license or a variance under sub. (10) prior to its issuance. These fees shall be paid in addition to any plan review fee required.
- (c) Application for initial licensing of a new hazardous waste facility may be submitted at any time during the year. Fees for initial licensing are proratable. The license period is divided into 4, 6-month periods, with 1/4 of the 2-year license fee applied to each period. The

applicant for initial licensing of a facility shall submit the appropriate fees as shown in Table +X XII, "Fee Schedule". Proof of financial responsibility as specified in s. NR 181.42(10) and demonstration of liability coverage as specified in s. NR 181.42(11) shall be included with the initial operating license application for hazardous waste facilities with prans-of-operation-approved-under-this-chapter that meet the requirements of sub. (2)(a).

Table XII
FEE SCHEDULE

					Plan	Review Fees (1)	•			License Fees Operating License					
NR 181	Facility Type	License Required	Plan Review Required	Feasibility Report and Feasibility and plan of Operation Report (4)	Plan of Operation	Site Construction Documentation	Closure Plan (5)	Plan Modification (3)	0-6 months	6-12 months	12-18 months	18-24 months and 2 yr renewals	Interim License	Vari- ance	
.43	Storage	Yes	Yes	500	500	200	200	100	175	350	525	700	700	350	
.435	Small Storage	Yes	Yes	500		200	200	100	175	350	525	700	700	350	
Part IV	Transportation	Yes	No						100	200	300	400			
.44	Landfill	Yes	Yes	10000	10000	1000	1500	1500	5000	10000	15000	20000	20000		
.44 and 47	Surface Impoundment	Yes	Yes	10000	10000	1000	1500	1500	5000	10000	15000	20000	20000		
.45	Incineration (2)	Yes	Yes	1400		300	200	<u>100</u>	450	900	1350	1800	1800	900	
.46	Treatment (2) Plan Modification (3)	Yes No	Yes <del>Yes</del>	1400 -500	1400 -500	300	200 500	<u>100</u>	450	900	1350	1800	1800	900	
.48	<b>Other</b>	Yes	Yes	1400	1400	300	200	100	450	900	1350	1800	1800	900	

<sup>(1)</sup> The plan review fees specified in Table XII cover the department's review from initial submittal through approval or denial of the report or plan. An applicant may revise or supplement a report or plan deemed incomplete and resubmit it without paying an additional review fee. The applicant shall pay a plan review fee as specified in Table XII for resubmittal of a plan which has been previously denied or withdrawn after having been determined to be complete. The department may waive any plan review fee if it determines that the total review time is not likely to exceed 4 hours.

<sup>(2)</sup> The department shall waive the plan review fees and license fees for a recycling facility which is exempt under s. NR 181.19.

<sup>(3)</sup> A plan modification, as referred to in Table XII, is a submittal which proposes to modify a feasibility report, plan of operation, interim license, variance or closure plan previously approved by the department.

<sup>(4)</sup> Certain small storage facilities may not be required to submit a feasibility and plan of operation report in accordance with s. NR 181.435 (2). Applicants who submit a feasibility and plan of operation report at the same time for treatment and storage facilities, but not for landfills, surface impoundments and waste piles, shall only pay the feasibility report plan review fee.

<sup>(5)</sup> Applicants submitting a closure plan with a plan of operation or a feasibility and plan of operation report may not be required to pay the closure plan review fee.

SECTION 125. NR (81.55(6) is repealed and recreated to read:

- (6) FACILITY EXPANSIONS; MODIFICATION OF LICENSES AND PLAN APPROVALS; DISTINGUISHING
  FACILITY MODIFICATIONS FROM EXPANSIONS; PROCEDURE. Pursuant to sub. (8)(e), the department
  shall advise the owner or operator of an existing facility, in writing, of the receipt of and
  the department's findings on any request for a determination of whether a proposed change at a
  facility or in a license or plan of operation constitutes an expansion, major modification or
  minor modification. The department shall advise the owner or operator, in writing, of whether
  the request is complete within 65 business days after receiving it. The department shall advise
  the owner or operator of its determination within 65 business days after finding the request
  complete. Expansions of existing facilities under par. (a) are subject to the additional public
  participation procedures of s. NR 181.56(2) or (3). Major modifications of licenses and plan
  approvals under par. (b) and minor modifications of licenses and plan approvals under pars. (c)
  and (d) are subject to the procedures of par. (e).
- (a) Expansions. No person may expand a hazardous waste facility without first obtaining written approval of the necessary plans and reports required in subch. V. All changes which do not constitute expansion are modifications. Changes that are expansions include the following:
- i. Material and substantial alterations or additions to a facility or activity, including the addition of any new treatment, storage or disposal process or unit.
  - 2. Increases in the design capacity of any treatment, storage or disposal process or unit.
- 3. Any addition of any new hazardous waste to the list of hazardous wastes that the facility is authorized by the department to manage. This change may not be considered an expansion if the department determines that the new waste to be managed is not substantially different than any of the wastes which the facility is aiready authorized to manage, and the addition of the new waste will not significantly affect the facility's operation any other way.

- 4. Increases in the maximum inventory of waste specified in the facility's closure plan, if the increase causes an increase in the design capacity of any treatment, storage or disposal process or unit.
- (b) Major Modifications. Major modifications of licenses and plan approvals include only those changes for facilities with operating licenses which are made for the following reasons, but do not include changes which are also minor modifications under par. (c):
- !. The owner or operator proposes to change the facility's operation in such a way so as to not constitute an expansion.
- 2. The department determines that good cause exists for modification of a compliance schedule at the licensee's request, such as an act of God, strike, flood, or materials shortage or other events over which the licensee has little or no control and for which there is no reasonably available remedy.
- 3. The department has established that one or more of the conditions in s. [44.44(3)(d), Stats., exists, necessitating a modification of the design or construction requirements of the facility's plan approval.
- 4. The operational requirements on which the license, plan approval or interim license were based have been changed by promulgation of amendments or revisions to this chapter.
- 5. The department has received new information that was not available previously, such as information revealed in monitoring results, reports, plans, submittals, records and inspection results, provided that the cause specified in subd. 6. also exists.
- 6. The department determines that a modification is necessary in order for the licensee to meet the conditions of the facility's plan approval, the requirements of this chapter, or any of the additional requirements specified in sub.(8)(a).
- (c) Minor modifications for facilities with operating licenses. Minor modifications of licenses and plan approvals may be made only with the consent of the owner or operator if the change is for a facility which has an operating license issued under this chapter. If the owner

or operator of a facility with an operating license does not consent to a plan approval or license change listed in this paragraph, the change shall be treated as a major modification under par. (b). For facilities with operating licenses, minor modifications may only:

- 1. Correct typographical errors,
- 2. Require more frequent monitoring or reporting by the owner or operator,
- 3. Change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing license or plan approval and the change does not interfere with attainment of the final compliance date requirement,
- 4. Allow for a change in ownership or operational control of a facility where the department determines that no other change in the license or plan approval is necessary, provided that a written agreement containing a specific date for transfer of license or plan approval responsibility, coverage, and liability between the current and new owner or operator has been submitted to the department,
- 5. Change the lists of facility emergency coordinators or equipment in the owner or operator's contingency plan,
  - 6. Change estimates of maximum inventory under s. NR 181.42(8)(b)4.,
- 7. Change estimates of expected year of closure or schedules for final closure under s. NR 181.42(8)(b)2.,
  - 8. Approve periods longer than 90 days or 180 days under s. NR 181.42(8)(e) and (f),
- 9. Change the operating requirements set in the license or plan approval for conducting a trial burn, provided that the change is not significant, or
- io. Change the ranges of the operating requirements set in the license or plan approval to reflect the results of a trial burn, provided that the change is not significant,
- II. Grant one extension of the time period for determining operational readiness following completion of construction, for up to 720 hours operating time for treatment of hazardous waste.

- (d) Minor modifications for facilities without operating licenses. Minor modifications of interim licenses and plan approvals may be made by the department if the change is for a facility which does not have an operating license issued under this chapter. For facilities without an operating license, minor modifications may authorize or require any change at the facility provided that the change is not an expansion under par. (a).
- (e) <u>Procedure.</u> In addition to any procedures required or authorized by ss. 144.431(2)(a) and 144.44, Stats., for modification of licenses or plan approvals, the procedures of this paragraph apply.
- I. Requests and time for department response'. Licenses, including Interim licenses, and plan approvals may be modified either at the request of any interested person, including the licensee, or upon the department's initiative. All requests shall be in writing and shall contain facts or reasons supporting the request. The department shall determine if a request is complete within 30 business days after receiving the request. The department shall review and approve, conditionally approve or deny a request and issue its final determination within 105 business days after receiving a complete request. The department shall advise, in writing, the requestor and the owner or operator if the owner or operator is a different person, of the receipt of the request and its determination on the request.
- 2. 'Preliminary determination and notice'. a. Upon determining that a request is complete or upon initiating a modification, the department shall issue its preliminary determination on the modification. If the department initiates or proposes to approve or conditionally approve a major modification the preliminary determination shall include but need not be limited to the information required to be contained in RCRA draft permits under 40 CFR 124.6(d) as of July 1, 1986.
- b. Upon issuing its preliminary determination on a modification, the department shall also issue a notice of its preliminary determination.

. . .

- c. If the department initiates or proposes to approve or conditionally approve a major modification, the notice shall include but need not be limited to the information required to be contained in RCRA notices under 40 CFR 124.10(d) as of July 1, 1986.
- d. Notice of a preliminary determination to disapprove a request need not be issued to anyone other than the requestor and the owner or operator. If the department initiates or proposes to approve or conditionally approve a major modification, it shall publish a class I notice under ch. 985, Stats., in the official newspaper designated under s. 985.04 or 985.05, Stats., if one exists, in a major local newspaper of general circulation in the area of the facility and by broadcast over local radio stations and it shall distribute the notice by malling a copy of it to the requestor, the owner or operator of the facility, the U. S. Environmental Protection Agency, the U. S. Fish and Wildlife Service, the Advisory Council on Historic Preservation, other state agencies having any authority with respect to the construction or operation of the facility, the cierk of each affected municipality, the main library in each affected municipality and persons on a mailing list (developed by including those who request in writing to be on the list, by soliciting persons for "area lists" from participants in past approval proceedings in that area, and by notifying the public of the opportunity to be put on the mailing list). In addition, the department may distribute the notice by any other method likely to give actual notice to persons potentially affected by it.
- e. If the department initiates or proposes to approve or conditionally approve a major modification, the notice shall invite the submission of written comments by any person within 45 days after the notice is published and shall describe the method by which an informational hearing under subd. 4.c. may be requested by any person.
- f. The department may disapprove major modifications and make minor modifications of licenses and plan approvals without inviting written comment or offering an opportunity for a public informational hearing. Notice of preliminary determinations on minor modifications and on disapprovals of major modifications shall be sent by first class mail to the owner or operator and the requestor.

- 3. 'Fact sheet'. The department shall prepare a fact sheet that briefly sets forth the principal facts and the significant factual, legal, methodological and policy questions considered in initiating or preparing the proposed approval or conditional approval of a major modification. The department shall send the fact sheet to the requestor, the owner or operator and, on request, to any other person. The fact sheet shall include:
- a. A brief description of the type of facility or activity which is the subject of the preliminary determination,
- b. The type and quantity of wastes which are being or are proposed to be treated, stored or disposed of,
- c. A brief summary of the basis for the proposed conditions of approval including references to applicable statutory or administrative code provisions and appropriate supporting references to the administrative record required by subd. 6,
- d. Reasons why any requested variances or alternatives to required standards do or do not appear justified;
- e. A description of the procedures for reaching a final determination including the beginning and ending dates of the comment period under subd. 2.e., the address where comments will be received, procedures for requesting a hearing and the nature of the hearing, and any other procedures by which the public may participate in the final determination; and
  - f. The name and telephone number of a person to contact for additional information.
- 4. 'informational hearing'. a. Under s. 227.42(5), Stats., informational hearings under this subdivision are not contested cases. Hearings under this subdivision are held as part of the process for approving a feasibility report, plan of operation or license under s. 144.44 or 144.64. Stats. and are therefore exempt from s. 227.42(1), Stats.
- b. The department shall hold an informational hearing whenever it finds, on the basis of requests, a significant degree of public interest in a proposed major modification of a license or plan approval.

- c. If, during the 45 day written comment period the department receives written notice of opposition to a department-initiated major modification or to a request for a major modification and its proposed approval or conditional approval accompanied by a request for an informational hearing, it shall hold an informational hearing on the proposed major modification of the license or plan approval. Requests for a hearing shall be in writing and state the nature of the issues to be raised in the hearing. Hearings under this subparagraph shall be held after at least 30 days' notice but no sooner than 30 days after the issuance of the notice under subd.

  2.b., and no later than 45 days after the close of the written comment period. The hearing shall be held in the area where the facility is located.
- d. Notwithstanding s. NR 2.i35, the conduct of hearings under this subdivision shall be governed by the procedures of this subparagraph. At a hearing held under this subdivision, the presiding officer will open the hearing and make a concise statement of its scope and purposes. Appearances may be entered on the record. Persons entering an appearance may make statements, present arguments or opinions, offer evidence or ask questions concerning the matter being heard, but the presiding officer may limit oral presentations if the hearing would be unduly lengthened by repetitious testimony. The presiding officer may continue the hearing on another date if it appears there will not be enough time for all who wish to speak. Statements may be submitted in oral or written form. Any person may submit a written statement within the time period allowed by the presiding officer. Statements need not be made under oath. The hearing shall be recorded by use of an electronic recording device. The recording is a public record under s. 19.35, Stats.
- 5. 'Response to comments'. The department shall issue a response to comments received during the written comment period and at any informational hearing. The department shall indicate any provisions in its preliminary determination that were changed in the final determination and the reason for the change and it shall briefly describe and respond to all significant comments.

6. 'Determination based on administrative record'. The department's final determination shall be based on an administrative record which includes the request and any supporting data furnished by the requestor; the preliminary determination; the fact sheet; all documents cited in the fact sheet; other documents contained in the supporting file for the preliminary determination; the notice; all comments received during the written comment period and at any informational hearing; the department's response to comments; and any other information which the department considered.

SECTION 126. NR 181.55(8)(k)1. and 4., (o)3. and (p) are amended to read:

NR [81.55(8)(k)]. Monitoring results shall be reported at the intervals and format specified in the approved plan of operation or license and in accordance with s. NR [81.42(6)(c)3.

- 4. The licensee shall retain records of all monitoring information, including all cability calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this license, and records of all data used to complete the application for this license, and, except for facilities operating under an interim license, the waste minimization certification required by so NR 181.42(6)(b)1.j., for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the department at any time. The licensee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations, for the active life of the facility, and for disposal facilities for the long-term care period as well.
- (o)3. 'Quarterty Annual report'. A-quarterty An annual report shall be submitted covering facility activities during the previous reporting-quarter calendar year as specified in s. NR [8].42(6)(c)].

(p) The license shall submit required documentation and take any action which-is necessary to ensure protection of human health and the environment. The department may require such documentation or action after inspecting the facility or reviewing any submittals, reports or plans.

SECTION 127. NR [81.55(9) (intro.) and (b) are amended to read:

- (9) WAIVER. (intro.) Notwithstanding any other provision in this chapter, in the event of an emergency condition threatening public health, safety or welfare or the environment, the department may issue a waiver to an unicensed facility or a facility licensed under ch. NR 180 or this chapter, to allow treatment, storage or disposal of hazardous waste not covered by a license, to waive compliance with any requirement of ss. 144.60 to 144.74, Stats., or to shorten any time period provided under ss. 144.60 to 144.74, Stats. Such a waiver:
  - (b) Shatt May not exceed 90 days in duration.

SECTION 128. NR 181.55((9)(f) is created to read:

NR 181.55(9)(f) Shall be accompanied by a public notice including:

- 1. The name and address of the department office granting the emergency waiver,
- 2. The name and location of the hazardous waste facility receiving the waiver,
- 3. A brief description of the waiver and the reasons for granting it, and
- 4. The duration of the waiver.

SECTION 129. NR |81.55(10)(b)2. and (c) are amended to read:

NR i81.55(10)(b)2. A report that contains the information in a feasibility and plan of operation report, submitted pursuant to s. NR i81.51, which meets the applicable requirements of

- s. NR 181.435 (3) for small storage facilities which meet the characteristics described in s. NR 181.435 (1) or 181.45 (2) for incinerators.
- 3. A report that contains the information in a plan of operation, submitted pursuant to s.

  NR 181.51, which meets the applicable requirements of s. NR 181.43 (4) for storage facilities or

  s. NR 181.46 (4) for treatment facilities.
- (c) The department may require that the variance application also contain the information required in a feasibility report, which meets the applicable requirements of s. NR 181.43 (3) for storage facilities or s. NR 181.46 (3) for treatment facilities. The department may also require that the application contain any additional information which is necessary to document compliance with any of the appropriate appropriate requirements of subch. V. The applicant is encouraged to contact the department in advance for a determination of what is required under this subdivision. However, the certainty of the department's response will depend on how much information the applicant can provide at the time of the contact.

SECTION 130. NR 181.56 is created to read:

NR 181.56 ADDITIONAL PUBLIC PARTICIPATION PROCEDURES. (1) PURPOSE. The procedures of this section apply to specified determinations of the department under this chapter and s. 144.44, Stats., in addition to any procedures required or authorized by ss. 144.431(2)(a) and 144.44, Stats., and supplement the decision making processes in order to conform with federal requirements.

- (2) ADDITIONAL PLAN OF OPERATION APPROVAL PROCEDURES. This subsection applies to the plan of operation stage of the approval process under s. 144.44, Stats., for expansions of existing hazardous waste facilities under s. NR 181.55(6)(a) and for new hazardous waste facilities.
- (a) <u>Preliminary determination and notice.</u> i. Upon determining that a complete plan of operation has been submitted, the department shall issue its preliminary determination to

approve, conditionally approve or disapprove the plan. If the preliminary determination is to approve or conditionally approve a plan for a new facility or an expansion or to disapprove a plan for a new facility it shall include but need not be limited to the information required to be contained in RCRA draft permits under 40 CFR 124.6(d) as of July 1, 1986.

- Upon issuing its preliminary determination, the department shall also issue notice of its preliminary determination.
- 3. If the preliminary determination is to approve or conditionally approve a plan for a new facility or an expansion or to disapprove a plan for a new facility the notice shall include but need not be limited to the information required to be contained in RCRA notices under 40 CFR 124.10(d) as of July 1, 1986.
- 4. Notice of a preliminary determination to approve or conditionally approve a plan for a new facility or an expansion or to disapprove a plan for a new facility shall be published by the department as a class I notice under ch. 985, Stats., In the official newspaper designated under s. 985.04 or 985.05, Stats., if one exists, in a major local newspaper of general circulation in the area of the facility and by broadcast over local radio stations and it shall distribute the notice by mailing a copy of it to the applicant, the U. S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the Advisory Council on Historic Preservation, other state agencies having any authority with respect to the construction or operation of the facility, the clerk of each affected municipality, the main public library in each affected municipality and persons on a mailing list (developed by including those who request in writing to be on the list, by soliciting persons for "area lists" from participants in past approval proceedings in that area, and by notifying the public of the opportunity to be put on the mailing list). In addition, the department may distribute the notice by any other method likely to give actual notice to persons potentially affected by it.
- 5. Notice of a preliminary determination to disapprove a plan for an expansion need not be issued to anyone other than the applicant.

- 6. Notice of a preliminary determination to approve or conditionally approve a plan for a new facility or an expansion or to disapprove a plan for a new facility shall invite the submission of written comments by any person within 45 days after the notice is published and shall describe the method by which an informational hearing under par. (c)3. may be requested by any person.
- (b) <u>Fact sheet</u>. The department shall prepare a fact sheet that briefly sets forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing a proposed approval or conditional approval of a plan for a new facility or an expansion and a disapproval of a plan for a new facility. The department shall send the fact sheet to the applicant and, on request, to any other person. The fact sheet shall include:
- A brief description of the type of facility or activity which is the subject of the proposed determination,
- 2. The type and quantity of wastes which are being or are proposed to be treated, stored or disposed of,
- 3. A brief summary of the basis for the proposed conditions of approval including references to applicable statutory or administrative code provisions and appropriate supporting references to the administrative record required by par. (e),
- 4. Reasons why any requested variances or alternatives to required standards do or do not appear justified;
  - 5. A description of the procedures for reaching a final determination including:
  - a. The beginning and ending dates of the comment period under par. (a)6.,
  - b. The address where comments will be received,
  - c. Procedures for requesting a hearing and the nature of the hearing,
  - d. Any other procedures by which the public may participate in the final determination; and
  - 6. The name and telephone number of a person to contact for additional information.
- (c) <u>Informational hearing.</u> i. Under s. 227.42(5), Stats., informational hearings under this paragraph are not contested cases. Hearings under this paragraph are held as part of the

process for approving a feasibility report, plan of operation or license under s. 144.44 or 144.64. Stats, and are therefore exempt from s. 227.42(1), Stats.

- 2. The department shall hold an informational hearing whenever it finds, on the basis of requests, a significant degree of public interest in a preliminary determination to approve or conditionally approve a plan for a new facility or an expansion or to disapprove a plan for a new facility.
- 3. If, during the 45 day written comment period the department receives written notice of opposition to the application and its proposed approval or conditional approval of a plan for a new facility or an expansion or disapproval of a plan for a new facility accompanied by a request for an informational hearing, it shall hold an informational hearing on the preliminary determination. Requests for a hearing shall be in writing and state the nature of the issues to be raised in the hearing. Hearings under this subdivision shall be held after at least 30 days' notice but no sconer than 30 days after the issuance of the notice under par. (a) and no later than 45 days after the close of the written comment period. The hearing shall be held in the area where the facility is or is proposed to be located.
- 4. Notwithstanding s. NR 2.135, the conduct of hearings under this paragraph shall be governed by the procedures of this subdivision. At a hearing held under this paragraph, the presiding officer will open the hearing and make a concise statement of its scope and purposes. Appearances may be entered on the record. Persons entering an appearance may make statements, present arguments or opinions, offer evidence or ask questions concerning the matter being heard, but the presiding officer may limit oral presentations if the hearing would be unduly lengthened by repetitious testimony. The presiding officer may continue the hearing on another date if it appears there will not be enough time for all who wish to speak. Statements may be submitted in oral or written form. Any person may submit a written statement within the time period allowed by the presiding officer. Statements need not be made under oath. The hearing shall be recorded by use of an electronic recording device. The recording is a public record under s. 19.35, Stats.

- (d) Response to comments. The department shall issue a response to comments received during the written comment period and at any informational hearing. The department shall indicate any provisions in its preliminary determination that were changed in the final determination and the reason for the change and it shall briefly describe and respond to all significant comments.
- (e) <u>Determination based on administrative record</u>. The department's final determination shall be based on an administrative record which includes the plan of operation and any supporting data furnished by the applicant; the preliminary determination; the fact sheet; all documents cited in the fact sheet; other documents contained in the supporting file for the preliminary determination; the notice; all comments received during the written comment period and at any informational hearing; the department's response to comments; and any other information which the department considered.
- (3) ADDITIONAL JOINT FEASIBILITY REPORT AND PLAN OF OPERATION PROCEDURES. This subsection applies to the joint feasibility report and plan of operation stage of the approval process under s. 144.44, Stats., for expansions of existing hazardous waste treatment or storage facilities under s. NR 181.55(6)(a) and for new hazardous waste treatment or storage facilities.
- (a) Preliminary determination and notice. I. Immediately after determining that a complete joint feasibility report and plan of operation has been submitted and issuing a preliminary determination that an environmental impact statement is not required or, if it is required, immediately after the department issues the environmental impact statement, the department shall, at the same time it issues the notice required by s. 144.44(2)(k), Stats., issue its preliminary determination to approve, conditionally approve or disapprove the joint report and plan. If the preliminary determination is to approve or conditionally approve a joint report and plan for a new facility or an expansion or to disapprove a joint report and plan for a new facility, it shall include but need not be limited to the information required to be contained in RCRA draft permits under 40 CFR 124.6(d) as of July 1, 1986.

- 2. If the preliminary determination is to approve or conditionally approve a joint report and plan for a new facility or an expansion or to disapprove a joint report and plan for a new facility, the notice required by s. 144.44(2)(k), Stats., shall also provide notice of the department's preliminary determination on the joint report and plan and shall include the information required to be contained in RCRA notices under 40 CFR 124.10(d) as of July 1, 1986.
- 3. In addition to distributing the notice to the persons specified under s. 144.44(4m), Stats., if the department proposes to approve or conditionally approve a joint report and plan for a new facility or an expansion or to disapprove a joint report and plan for a new facility, it shall also publish the notice by broadcast over local radio stations and it shall also distribute the notice by mailing a copy of it to the applicant, the U. S. Environmental Protection Agency, the U. S. Fish and Wildlife Service, the Advisory Council on Historic Preservation, other state agencies having any authority with respect to the construction or operation of the facility, and persons on a mailing list (developed by including those who request in writing to be on the list, by soliciting persons for "area lists" from participants in past approval proceedings in that area, and by notifying the public of the opportunity to be put on the mailing list). In addition, the department may distribute the notice by any other method likely to give actual notice to persons potentially affected by it.
- 4. Notice of a preliminary determination to disapprove a joint report and plan for an expansion need not be issued to anyone other than the persons specified in s. 144.44(4m), Stats.
- 5. Notice of a preliminary determination to approve or conditionally approve a joint report and plan for a new facility or an expansion or to disapprove a joint report and plan for a new facility shall invite the submission of written comments by any person within 45 days after the notice is published and shall describe the method by which an informational hearing under par.

  (c)3. may be requested by any person as well as describing the methods by which a hearing may be requested under s. 144.44(2)(1) and (m), Stats.

- (b) <u>Fact sheet</u>. The department shall prepare a fact sheet that briefly sets forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing a proposed approval or conditional approval of a joint report and plan for a new facility or an expansion or disapproval of a joint report and plan for a new facility. The department shall send the fact sheet to the applicant and, on request, to any other person. The fact sheet shall include:
- 1. A brief description of the type of facility or activity which is the subject of the preliminary determination,
  - 2. The type and quantity of wastes which are being or are proposed to be treated or stored,
- 3. A brief summary of the basis for the proposed conditions of approval including references to applicable statutory or administrative code provisions and appropriate supporting references to the administrative record required by par. (e),
- 4. Reasons why any requested variances or alternatives to required standards do or do not appear justified;
  - 5. A description of the procedures for reaching a final determination including:
  - a. The beginning and ending dates of the comment period under par. (a)5.,
  - b. The address where comments will be received,
  - c. Procedures for requesting a hearing and the nature of the hearing.
  - d. Any other procedures by which the public may participate in the final determination; and
  - 6. The name and telephone number of a person to contact for additional information.
- (c) <u>Informational hearing</u>. I. Under s. 227.42(5), Stats., informational hearings under this paragraph are not contested cases. Hearings under this paragraph are held as part of the process for approving a feasibility report, plan of operation or license under s. 144.44 or 144.64, Stats., and are therefore exempt from s. 227.42(1), Stats.
- 2. The department shall hold an informational hearing whenever it finds, on the basis of requests, a significant degree of public interest in a preliminary determination to approve or

conditionally approve a joint report and plan for a new facility or an expansion or to disapprove a joint report and plan for a new facility.

- 3. Unless the department holds an informational hearing under s. 144.44(2g), Stats., the department shall hold an informational hearing under this subdivision if during the 45 day written comment period the department receives written notice of opposition to the application and its proposed approval or conditional approval of a joint report and plan for a new facility or an expansion or disapproval of a joint report and plan for a new facility accompanied by a request for an informational hearing. Requests for a hearing shall be in writing and state the nature of the issues to be raised in the hearing. Hearings under this subdivision shall be held after at least 30 days' notice but no sooner than 30 days after the issuance of the notice under s. 144.44(2)(k), Stats., and no later than 45 days after the close of the written comment period. The hearing shall be held in the area where the facility is or is proposed to be located.
- 4. Notwithstanding s. NR 2.135, the conduct of hearings under this paragraph shall be governed by the procedures of this subdivision. At a hearing held under this paragraph, the presiding officer will open the hearing and make a concise statement of its scope and purposes. Appearances may be entered on the record. Persons entering an appearance may make statements, present arguments or opinions, offer evidence and ask questions concerning the matter being heard, but the presiding officer may limit oral presentations if the hearing would be unduly lengthened by repetitious testimony. The presiding officer may continue the hearing on another date if it appears there will not be enough time for all who wish to speak. Statements may be submitted in oral or written form. Any person may submit a written statement within the time period allowed by the presiding officer. Statements need not be made under oath. The hearing shall be recorded by use of an electronic recording device. The recording is a public record under s. 19.35, Stats.
- (d) Response to comments. The department shall issue a response to comments received during the written comment period and at any informational hearing. The department shall

indicate any provisions in its preliminary determination that were changed in the final determination and the reason for the change and it shall briefly describe and respond to all significant comments.

- (e) Administrative record; final determination to consider comments and response. i. if a contested case hearing under s. 144.44(2r), Stats., is not held, the department's final determination shall be based on an administrative record which includes the joint feasibility report and plan of operation and any supporting data furnished by the applicant; the preliminary determination; the fact sheet; all documents cited in the fact sheet; other documents contained in the supporting file for the preliminary determination; the notice; all comments received during the written comment period and at any informational hearing; the department's response to comments; and any other information which the department considered.
- 2. If a contested case hearing under s. 144.44(2r), Stats., is held on a joint feasibility report and plan of operation, the department's determination shall consider all comments received during the written comment period and at any informational hearing, including an informational hearing held under par. (c)2. or 3., and shall consider the department's response to comments.
- (4) TIMING OF RADIO ANNOUNCEMENT PRIOR TO ISSUANCE OF INITIAL OPERATING LICENSES. The department shall arrange for the radio broadcast required by s. 144.44(4)(c)2., Stats. to be made at least 45 days prior to license issuance.
- (5) RESPONSE TO COMMENTS UPON ISSUANCE OF INITIAL OPERATING LICENSE. The department shall issue a response to comments it receives following issuance of the notice of intent to issue an initial operating license under s. 144.44(4)(c), Stats.

## APPENDIX !! BASIS FOR LISTING HAZARDOUS WASTES

Hazardous Waste Number	Hazardous Constituents for Which Listed
F001	tetrachloroethylene, methylene chloride, trichloroethylene, l,l,l-trichloroethane,
	chlorinated fluorocarbons, carbon tetrachloride
F002	tetrachloroethylene, methylene chloride, trichloroethylene, I,I,I-trichloroethane, chlorobenzene, I,I,2-trichloro-I,2,2-trifluoroethane, o-dtchtorobenzene ortho-dichlorobenzene, trichlorofluoromethane, I,I,2-trichloroethane
F003	N.A.
F004	cresols and cresylic acid, nitrobenzene
F005	toluene, methyl <del>isobutyt</del> <u>ethyl</u> ketone, carbon disulfide, isobutanol, pyridine, 2-ethoxyethanol, benzene, 2-nitropropane
F006	cadmium, hexavalent chromium, nickel, cyanide (complexed)
F007	cyanide (salts)
F008	cyanide (saits)
F009	cyanide (salts)
F010	cyanide (salts)
FOII	cyanide (saits)
F012	cyanide (complexed)
F019	hexavalent chromium, cyanide (complexed)
F020	tetra- and pentachlorodibenzo-p-dioxins; tetra and pentachlorodi-benzofurans; tri-
	and tetrachlorophenois and their chlorophenoxy derivative acids, esters, ethers,
	amine and other saits
F021	penta-and hexachlorodibenzo-p-dioxins; penta-and hexachlorodibenzofurans;
	pentachlorophenol and its derivatives
F022	tetra-, penta-, and hexachiorodibenzo-p-dioxins; tetra-, penta-, and
	hexachlorodlbenzofurans
F023	tetra-, and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri-
	and tetrachiorophenois and their chiorophenoxy derivative acids, esters, ethers,
	amine and other saits
F024	chloromethane, dichloromethane, trichloromethane, carbon tetrachloride,
	chloroethylene, i,i-dichloroethane, i,2-dichloroethane, trans-i-2-dichloroethylene,
	l,l-dichioroethylene, l,l,l-trichloroethane, l,l,2-trichloroethane,
	trichloroethylene, I,I,I,2-tetrachloroethane, I,I,2,2-tetrachloroethane,
•	tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride
-	(3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene,
	hexachloro-1,3-butadiene, hexachlorocyclopentadiene, benzene, chlorobenzene,
	dichiorobenzene, 1,2,4-trichlorobenzene, tetrachlorobenzene, pentachlorobenzene,
	hexachiorobenzene, toluene, naphthalene
F026	tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and
	hexachlorodibenzofurans
F027	tetra-, penta-, and hexachiorodibenzo-p-dioxins; tetra-, penta-, and
	hexachlorodibenzo, tri-, tetra-, and pentachlorphenois and their chlorophenoxy
è	derivative acids, esters, ethers, amine and other saits

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F028
            tetra-, penta-, and hexachtorodibenzo-p-dloxins; tetra-, penta-, and
            hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenois and their
            chlorophenoxy derivative acids, esters, ethers, amine and other saits
F500
            Same as FOOI and FOO2
K001
            benzo(a)anthracene, benzo(a)pyrene, chrysene, naphthalene, phenoi, 2-chiorophenoi,
            2.4-dimethylphenyl, trichlorphenois, pentachlorophenoi, tetrachlorophenois,
            p-chloro-m-cresol, 2,4-dinitrophenol, creosote, fluoroanthene,
            benzo(b)fluoroanthene, indeno (1,2,3-cd) pyrene, dibenzo(a)anthracene,
            acenaphthalene, pentachiorophenol
K002
            hexavaient chromium, lead
K003
            hexavalent chromium, lead
K004
            hexavalent chromium
K005
            hexavalent chromium, lead
K006
            hexavalent chromium
            cyanide (complexed), hexavalent chromium
K007
K008
            hexavalent chromium
            chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic
K009
KOIO
            chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic
            acid, chioroacetaldehyde
KOLL
            acrylonitrile, acetonitrile, hydrocyanic acid
K013
            hydrocyanic acid, acrylonitrile, acetonitrile
K014
            acetonitrile, acrylamide
            benzyl chloride, chlorobenzene, toluene, benzotrichloride.
K015
            hexachiorobenzene, hexachiorobutadiene, carbon tetrachioride, hexachioroethane,
K016
            perchloroethylene
K017
            epichlorohydrin, chloroethers (bis(chloromethyl) ether and bis (2-chloroethyl)
            ethers), trichioropropane, dichioropropanols
K018
            1, 2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene
K019
            ethylene dichloride, i, i, i-trichloroethane, i, i, 2-trichloroethane,
            tetrachloroethanes (1, 1, 2, 2-tetrachloroethane and 1, 1, 1, 2-tetrachloroethane),
            trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyi
            chloride, vinylldene chloride
K020
            ethylene dichloride, i, i, l-trichloroethane, i, i, 2-trichloroethane,
            tetrachioroethanes (1, 1, 2, 2-tetrachioroethane and 1, 1, 1, 2-tetrachioroethane),
            trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl
            chloride, vinylidene chloride
K021
            antimony, carbon tetrachioride, chioroform
K022
            phenol, tars (polycyclic aromatic hydrocarbons)
K023
            phthalic anhydride, maleic anhydride
K024
            phthalic anhydride, 1,4 napthoquinone
K025
            meta-dinitrobenzene, 2, 4-dinitrotoluene
K026
            paraidehyde, pyridines, 2-picoline
K027
            toluene "dilsocyanate, toluene-2,4-diamine
K028
            1, 1, 1-trichioroethane, vinyl chloride
K029
            1, 2-dichioroethane, 1, 1, 1-trichioroethane, vinyl chloride, vinylidene chloride,
            chloroform
K030
            hexachiorobenzene, hexachiorobutadiene, hexachioroethane, i, i, i,
            2-tetrachloroethane, I, I, 2, 2-tetrachloroethane, ethylene dichloride
K031
            arsenic
K032
            hexachlorocyclopentadiene
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K033
            hexachiorocyclopentadiene
K034
            hexachlorocyclopentadiene
            creosote, benzo(b)fluoroanthene, benzo(a)pyrene, chrysene, naphthalene,
K035
            fluoroanthene, Indeno(1,2,3-cd)pyrene, benzo(a)anthracene, dibenzo(a)anthracene,
            acenaphthalene
            toluene, phosphorodithioic and phosphorothioic acid esters
K036
K037
            toluene, phosphorodithioic and phosphorothioic acid esters
K038
            phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters
K039
            phosphorodithioic and phosorothioic acid esters
K040
            phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters
K041
            toxaphene
K042
            hexachlorobenzene: ortho-dichlorobenzene
            2,4-dichlorophenol, 2,6-dichlorophenol, 2,4,6-trichlorophenol
K043
K044
            N.A.
K045
            N.A.
KQ46
            lead
K047
            N.A.
K048
            hexavalent chromium, lead
            hexavalent chromium, lead
K049
K050
            hexavalent chromium
K051
            hexavalent chromium, lead
K052
            lead
K060
            cyanide, naphthalene, phenolic compounds, arsenic
            hexavalent chromium, lead, cadmium
K061
K062
            hexavalent chromium, lead
K069
            hexavalent chromium, lead, cadmium
K071
            mercury
K073
            chloroform, carbon tetrachloride, hexachloroethane, trichloroethane,
            tetrachlorethylene, dichloroethylene, i,1,2,2-tetrachloroethane
K083
            aniline, nitrobenzene, diphenylamine, phenylenediamine
K084
            arsenic
K085
            benzene, dichlorobenzenes, trichlorobenzenes, tetrachiorobenzene,
            pentachiorobenzene, hexachiorobenzene, benzyl chioride
K086
            hexavalent chromium, lead
K087
            phenol, naphtalene
K093
            Phthalic anhydride, maleic anhydride
K094
            Phthalic anhydride
            1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane
K095
K096
            1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane
K097
            Chiordane, heptachior
K098
            Toxaphene
K099
            2,4-dichlorophenol, 2,4,6-trichlorophenol
K100
            Hexavaient chromium, leàd, cadmium
KI_01
            Arsenic
K102
            Arsenic
K103
            Aniline, nitrobenzene, phenylenedlamine
K104
            Aniline, benzene, diphenyiamine, nitrobenzene, phenyienediamine
K105
            Benzene, monochiorobenzene, dichlorobenzene, 2,4,6-trichlorophenol
K106
            Mercury
KIII
            2, 4-dinitrotoluene
K112
               4-toluenediamine, o-toluidine, p-toluidine, aniline
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K114	2, 4-toluenediamine, o-toluidine, p-toluidine
K115	2, 4-toluenediamine
K116	carbon tetrachloride, tetrachloroethylene, chloroform, phosgene
K117	ethylene dibromide
K118	ethylene dibromide
K136	ethylene dibromide
N.A.	Waste is hazardous because it meets either the ignitability, corrosivity or
	reactivity characteristics.
Board on _	oregoing rules were approved and adopted by the State of Wisconsin Natural Resources  ules shall take effect as provided in s. 227.22(2)(intro.), Stats.
THE I	2103 Shart Take Gilder as provided in 3. 227.22(27(1111) 0.7) Stars.
Dated	at Madison, Wisconsin
	STATE OF WISCONSIN, DEPARTMENT OF NATURAL RESOURCES
	- BY:
	CARROLL D. BESADNY, SECRETARY
(CEAL)	

2, 4-toluenediamine, o-toluidine, p-toluidine, aniline

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K113

K113	2, 4-totuenediamine, o-toluidine, p-toluidine, aniline
K114	2, 4-toluenediamine, o-toluidine, p-toluidine
K1 15	2, 4-toluenediamine
K116	carbon tetrachloride, tetrachloroethylene, chloroform, phosgene
K114 K115 K116 K117	ethylene dibromide
K1 18	ethylene dibromide
K136	ethylene dibromide
N.A.	Waste is hazardous because it meets either the ignitability, corrosivity or
	reactivity characteristics.

The foregoing rules were approved and adopted by the State of Wisconsin Natural Resources Board on June 25,1987 and October 29,1987

The rules shall take effect as provided in s. 227.22(2)(intro.), Stats.

Dated at Madison, Wisconsin Novembu 11,1987.

STATE OF WISCONSIN, DEPARTMENT OF NATURAL RESOURCES

CARROLL D. BESADNY. SECRETARY

(SEAL)

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