

## Chapter NR 500

## GENERAL SOLID WASTE MANAGEMENT REQUIREMENTS

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**NR 500.01 Purpose.** The purpose of this chapter is to provide definitions, submittal requirements, exemptions and other general information relating to solid waste facilities. This chapter is adopted pursuant to ss. 144.43 to 144.47, and 227.11, Stats.

**History:** Cr. Register, January, 1988, No. 385, eff. 2-6-88.

**NR 500.02 Applicability.** (1) Except as otherwise provided, this chapter governs all solid waste facilities as defined in s. 144.43 (5), Stats., except hazardous waste facilities as defined in s. 144.61 (5m), Stats., and regulated under chs. NR 600 to 685, and metallic mining operations as defined in s. 144.81 (5), Stats., and regulated under ch. NR 182.

(2) This chapter does not apply to the design, construction or operation of industrial wastewater facilities, sewerage systems and waterworks treating liquid wastes approved under s. 144.04, Stats., or permitted under ch. 147, Stats., nor to facilities used solely for the disposal of liquid municipal or industrial wastes which have been approved under s. 144.04, Stats., or permitted under ch. 147, Stats., except for facilities used for the disposal of solid waste.

**History:** Cr. Register, January, 1988, No. 385, eff. 2-6-88; correction in (1) made under s. 13.93 (2m) (b) 7, Stats., Register, May, 1992, No. 437.

**NR 500.03 Definitions.** The following definitions as well as the definitions in ch. 144, Stats., are applicable to the terms used in chs. NR 500 to 536 unless the context requires otherwise.

(1) "Actual dollar inpayments" means equal annual payments made by the facility owner into a long-term care account.

(2) "Air curtain destructor" means a solid waste facility that combines a fixed wall, open pit and mechanical air supply which uses an excess of oxygen and turbulence to accomplish the smokeless combustion of clean wood wastes and similar combustible materials.

(3) "Anti-seep collar" means a device which is attached to a leachate transfer pipe to prevent the migration of leachate along the pipe.

(4) "Applicant" means a person applying for a license or approval for a solid waste facility.

(5) "Approved facility" has the meaning specified in s. 144.441 (1) (a), Stats.

(6) "Approved plan of operation" means a plan of operation approved under s. 144.44 (3), Stats.

(7) "Aquifer" means rock or sediment in a formation, group of formations or part of a formation which are saturated and sufficiently permeable to transmit economic quantities of water to wells and springs.

(8) "Asbestos" means any material which contains fibrous chrysotile, crocidolite, amosite minerals or the fibrous varieties of anthophyllite, tremolite and actinolite.

(9) "ASTM" means the American society for testing and materials.

(10) "Base grade" means the elevation of a facility or portion of a facility following placement of the liner but prior to the placement of any granular drainage blanket.

(11) "Beneficial use or reuse" means the recycling or use of solid waste in a productive use.

(12) "Bird hazard" means an increase in the likelihood of a bird and aircraft collision that may cause damage to the aircraft or injury to its occupants.

(12m) "Building materials" means non-combustible construction material including brick, concrete and drywall.

(12r) "Bulk blood and body fluids" means drippable or pourable quantities or items saturated with whole blood or blood components, blood specimens, semen, vaginal secretions, cerebrospinal fluid, synovial fluid, amniotic fluid, peritoneal fluid, peritoneal dialysate, pericardial fluid, pleural fluid and other body fluids visibly contaminated with blood.

(13) "Capital expenditures" has the meaning specified in s. 144.443 (1) (a), Stats.

(14) "Certificate of deposit" means a certificate issued by a bank or financial institution acknowledging receipt of a specified sum of money in a special kind of time deposit, drawing interest and requiring written notice for withdrawal.

(14g) "CFR" means the code of federal regulations.

(14m) "Chemotherapy waste" means item contaminated with antineoplastic chemotherapy drugs, including drug dispensing devices, gloves and other items that have come into contact with chemotherapy drugs.

(15) "Clay" means all soil particles less than .005 mm.

(15m) "Clinic" has the meaning given in s. 159.07 (7) (c) 1 a, Stats.

(16) "Closure" means those actions to be taken by the owner or operator of a solid waste facility to prepare the

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facility for long-term care and to make it suitable for other uses.

(17) "Closure period" means the 90-day period after the facility ceases to accept waste, unless otherwise specified in the approved plan of operation.

(18) "Closure plan" means a written report and engineering plans detailing those actions that will be taken by the owner or operator to effect proper closure of a solid waste facility.

(19) "Closing" has the meaning specified in s. 144.43 (1m), Stats.

(20) "COD" means chemical oxygen demand.

(21) "Collection and transportation service" means a solid waste facility which utilizes containers, vehicles or other means for the collection and transportation of solid waste.

(22) "Collection basin lysimeter" means a device which is constructed with a geomembrane for monitoring the unsaturated zone.

(23) "Company" has the meaning specified in s. 144.443 (1) (b), Stats.

(24) "Completeness determination" means a determination by the department that the minimum submittal requirements established by chs. NR 500 to 522 for a plan or report have been met.

(25) "Condensate" means the liquid which is generated due to a change in the temperature or pressure of landfill gas.

(26) "Conductivity" means the measurement of a water's ability to transmit an electrical current in micromhos/cm before correcting to 25°C.

(27) "Construct" means to engage in facility construction for a new or expanded solid waste facility including but not limited to the erection or building of new structures, replacement, expansion, remodeling, alteration or extension of existing structures, the acquisition and installation of equipment associated with the new, expanded or remodeled structures, and clearing, grading or liner construction.

(28) "Construction documentation report" means a written report submitted under the seal of a registered professional engineer in the state of Wisconsin, documenting that a solid waste facility has been constructed in substantial compliance with a department approved plan of operation or chs. NR 500 to 522.

(29) "Containerized storage facility" means a storage facility designed and operated to use containers for the storage and containment of solid waste.

(30) "Critical habitat areas" means any habitat determined by the department to be critical to the continued existence of any endangered or threatened species listed in ch. NR 27.

(30m) "Decontamination" means a process of removing disease-producing microorganisms and rendering an object safe for handling.

(31) "Demolition and construction material" means solid waste resulting from the construction, demolition or razing of buildings, roads and other structures. Demolition and construction material typically consists of concrete, bricks, bituminous concrete, wood, glass, masonry, roofing, siding and plaster, alone or in combinations. It does not include asbestos, waste paints, solvents, sealers, adhesives or similar materials.

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

(33) "Design capacity" means the total volume in-place in cubic yards of solid waste disposed of in a land disposal facility together with daily and intermediate cover utilized in the facility, but not including liner material, drainage blanket, final cover or topsoil.

(33m) "Design capacity for a facility which burns municipal solid waste" means the facility's rated capacity or any permit limitation, whichever is less, for burning municipal solid waste. The design capacity for facilities that burn multiple fuel types such as refuse derived fuel, wood and coal will be determined based on the municipal solid waste portion of the fuel.

(34) "Detection limit" means the lowest concentration for an analytical test method and sample matrix at which the presence of a substance can be identified in an analytical sample, with a stated degree of confidence, regardless of whether the concentration of the substance in the sample can be quantified.

(35) "Detrimental effect on ground or surface water" means having a significant damaging impact on ground or surface water quality for any present or future consumptive or nonconsumptive uses.

(35m) "Director" means the person in the highest ranking position in a medical facility, including but not limited to the administrator, chief executive officer or chair of the board of directors.

(36) "Discarded material" means material that is no longer of use to the generator of the material in the process from which it is generated.

(37) "Discharge area" means an area in which there are upward components of hydraulic head in the aquifer.

(37m) "Disinfection" means a process that kills or destroys most disease-producing microorganisms, except spores.

(38) "Distillate waste product" has the meaning specified in s. 144.438 (1) (a), Stats.

(39) "DNR" means department of natural resources.

(40) "Dredge material" means any solid waste removed from the bed of any surface water.

(41) "Environmentally sound storage facility" has the meaning specified in s. 144.438 (1) (b), Stats.

(41m) "EPA" or "USEPA" means the United States environmental protection agency.

(42) "Equal annual outpayments" means estimated payments for long-term care which are the same amount in each year of the period of owner responsibility for the long-term care of the facility.

(43) "Establish" means to bring a new or expanded solid waste facility into existence.

(44) "Expand an existing land disposal facility" means to construct a solid waste disposal facility or dispose of solid waste on land not previously licensed or to dispose of an additional volume of waste beyond the volume previously approved by the department. The term also includes the disposal of approved volumes of solid waste on existing licensed land if done in a manner not in accordance with a department plan approval or in a manner significantly different from past operations unless the department approves the proposed changes in writing.

(45) "Facility" means a solid waste facility.

(46) "Feasibility report" means a report required under s. 144.44 (2) (a), Stats., for a specific solid waste facility that describes the facility, surrounding area, and proposed operation in terms of land use, topography, soils, geology, groundwater, surface water, proposed waste quantities and characteristics, preliminary facility design concepts, environmental impacts, the need for the facility and waste reduction and recovery alternatives.

(47) "Fill area" means the area proposed to receive or which is receiving direct application of solid waste.

(48) "Filter pack" means the sand, gravel or both in direct contact with or directly above the well screen.

(49) "Final cover" means cover material that is applied upon closure of a landfill.

(50) "Fine-grained soil environment" means a soil environment in which a majority of the material within 25 feet of the proposed sub-base of the facility has at least 50% by weight passing the #200 sieve and which contains no extensive and continuous deposits of coarse-grained or non-plastic soils. This shall be determined based on an interpretation of soil stratigraphy after consideration is given to the deposition and origin of the deposits and their engineering classification under the unified soil classification system specified in ASTM standard D-2487-69 (1975).

(51) "Floodplain" means the land which has been or may be hereafter covered by flood water during the regional flood as defined in ch. NR 116, and includes the floodway and the flood fringe as defined in ch. NR 116.

(52) "Food chain crops" means tobacco and crops grown for human consumption, and pasture, forage and feed grain for animals whose products are consumed by humans.

(53) "Fracture frequency" means the number of natural fractures or bedding planes divided by the total length cored in feet.

(54) "Free liquids" means liquids which readily separate from the solid portion of a waste under ambient temperature and pressure. Free liquids shall be determined using the paint filter test as defined in an EPA document entitled: "Update II to SW-846".

Note: Copies of the test procedures are available for inspection at the offices of the department of natural resources, the secretary of state, and the revisor of statutes. Copies may be obtained from the Superintendent of Documents, U.S. Government Printing Office (GPO), Washington, D.C. 20401.

(55) "Garbage" has the meaning specified in s. 144.01 (4), Stats.

(56) "Geomembrane" means a highly impermeable membrane made from plastic or rubber-based material by polymerization.

(57) "Geotextile" means a porous fabric manufactured from synthetic materials.

(58) "Groundwater" means any waters of the state, as defined in s. 144.01 (19), Stats., occurring in a saturated subsurface geological formation of rock or soil.

(59) "Hazardous air contaminant" has the meaning specified in s. NR 445.02 (4).

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

(61) "Hazardous waste" has the meaning given in s. NR 600.03 (87).

(62) "High-volume industrial waste" has the meaning specified in s. 144.44 (7) (a) 1, Stats.

(62e) "Home generator of infectious waste" means a person who generates infectious waste through self-administration of medication or who receives injected medication at home from other members of the household or from employees of a home care or hospice program.

(62i) "Hospital" has the meaning given in s. 50.33 (2), Stats.

(62r) "Human tissue" means tissue removed from human beings. Human tissue does not include hair or nails, but does include teeth.

(63) "Hydraulic connection" means groundwater interflow within the zone of saturation occurring between 2 formations which may or may not be separated by an intermediate layer.

(64) "Hydrogeologist" means a person who is a graduate of an accredited institution of higher education and who has successfully completed 30 semester hours or 45 quarter hours of course work in geology. At least 6 semester hours or 9 quarter hours of the geology course work must be in hydrogeology, geohydrology or groundwater geology. This person shall also have acquired through education and actual field experience the ability to direct the drilling of borings, and the installation and development of wells; describe and classify geologic samples and evaluate and interpret geologic and hydrogeologic data in accordance with the requirements of chs. NR 508, 510 and 512.

(65) "Incinerator" means a processing facility designed and operated for controlled burning of solid wastes primarily to achieve volume and weight reduction or to change waste characteristics. Facilities which use solid waste as a supplemental fuel where less than 30% of the heat input to the facility is derived from such supplemental fuel are not classified as incinerators under this chapter.

(66) "Industrial waste" means any process waste which is the direct or indirect result of the manufacturing of a product or the performance of a service such as dry cleaners or paint shops.

(67) "Infectious waste" has the meaning given in s. 159.07 (7) (c) 1 c, Stats.

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(67g) "Infectious waste generator" means a person or group of persons under the same corporate ownership and located on the same property who produces infectious waste.

(67m) "Infectious waste treatment" means rendering an infectious waste non-infectious. For human tissue, this term means rendering the waste both non-infectious and unrecognizable as human tissue. For sharps, this term means rendering the sharp non-infectious and rendering the sharp broken and not able to be reused, such as by a grinding or shredding process.

(67t) "Infectious waste treatment facility" means a solid waste processing facility where infectious waste treatment is performed. Infectious waste treatment facilities include but are not limited to individual treatment units, such as autoclaves, and groups of treatment units within the same room. Infectious waste treatment facilities do not include the disinfection of an area after a spill and the disinfection of waste or reusable items in a small disinfectant soak pan.

(68) "In-field conditions report" means a report consisting of an evaluation to determine if a facility poses a potential hazard to public health, safety or welfare, or the environment.

(69) "Initial site report" means a report submitted under ch. NR 510 which describes a proposed solid waste disposal facility in sufficient detail to allow the department to give a written opinion on whether or not a feasibility report should be prepared.

(70) "In-situ testing" means hydraulic conductivity tests performed on the in-place soils.

(71) "Interest bearing accounts" means escrow accounts, trust accounts or cash deposits with the department.

(72) "Land disposal facility" means a solid waste facility where solid waste is placed in a land spreading facility, a landfill, or surface impoundment facility for disposal purposes.

(73) "Landfill" means a land disposal facility, not classified as a landspreading facility or surface impoundment facility, where solid waste is disposed on land by utilizing the principles of engineering to confine the solid waste to the smallest practical area, to reduce it to the smallest practical volume, and to cover it with a layer of earth or other approved material as required.

(74) "Landspreading facility" means a land disposal facility where solid waste is discharged, deposited, placed or injected in thin layers onto the land surface of the facility, or is incorporated into the top several feet of the surface soil, for agricultural, silvicultural or waste disposal purposes.

(75) "Leachate" means water or other liquid that has been contaminated by dissolved or suspended materials due to contact with solid waste or with gases generated by solid waste.

(76) "Leachate collection and removal system" means a system capable of collecting and removing leachate or other liquids from a solid waste facility.

(77) "Leachate monitoring system" means a system used to monitor the elevation, quantity or quality of leachate and other liquids generated within a solid waste facility.

(78) "Limits of filling" means the outermost limit at which waste from a facility has been disposed of, or approved or proposed for disposal.

(79) "Liner" means a constructed, continuous layer of natural or artificial materials placed beneath and on the sides of a surface impoundment, landfill, or landfill cell, which restricts the downward or lateral movement of leachate.

(80) "Lithostratigraphic unit" means a geologic formation that has a substantial degree of overall uniformity including such characteristics as color, mineralogic composition and grain size.

(81) "Long-term care" has the meaning specified in s. 144.43 (3), Stats.

(82) "Lysimeter" means a device used for sampling the unsaturated zone.

(83) "Major phase" means a horizontal portion of the landfill which is designed to be constructed at one time.

(84) "Major soil unit" means any soil layer which is greater than 2 feet thick, or is laterally extensive or affects the local hydrogeologic flow system.

(84c) "Manifest" has the meaning given in s. 144.48 (1) (am), Stats.

(84h) "Medical facility" means a hospital, clinic or nursing home.

(84i) "Medical waste" has the meaning given in s. 144.48 (1) (b), Stats.

Note: Medical waste does not mean all of the waste produced in a medical setting. Waste materials from a medical setting which do not meet the definition of "infectious waste" in statutes are considered to be "medical waste" only if the generator mixes them with infectious waste or manages them as though they are infectious waste.

(84o) "Medical waste incinerator" has the meaning given in s. 159.07 (7) (c) 1 cr, Stats.

(84s) "Medical waste reduction policy" is a policy developed by a medical facility and designed to reduce the amount of medical waste generated within that medical facility, to prevent the mixing of infectious waste with waste which is not infectious and to promote practical alternatives to disposable items in the medical setting.

(84w) "Microbiological laboratory waste" means cultures derived from clinical specimens or laboratory equipment which has come in contact with these cultures.

(89m) "Nursing home" has the meaning given in s. 50.01 (3), Stats.

(85) "Monitoring" means all procedures used to systematically inspect and collect data on the performance of a facility relating to leachate and gas production or the effect on the quality of the air, groundwater, surface water, unsaturated zone or soils.

(85m) "Monofill cell for residue produced by burning municipal solid waste" means a landfill or a specified area within a landfill for residue disposal which is designed to

prevent mixing of residue and wastes which produce acidic leachates and which is designed to prevent leachate from adjacent cells from coming into contact with the residue.

(86) "Municipal solid waste" means:

(a) Household waste, or

(b) Solid waste from commercial or industrial sources that does not contain hazardous waste and does not contain any process waste which is the direct or indirect result of the manufacturing of a product or the performance of a service such as dry cleaners or paint shops. "Municipal solid waste" does not include waste wood, papermill sludge, sewage sludge, tires or industrial process wastes.

(86m) "Municipal solid waste combustor" means any solid waste treatment facility that is used to burn municipal solid waste or products derived from municipal solid waste, alone or in conjunction with other materials.

(87) "Noncombustible materials" means solid waste which will not support combustion in the ambient atmosphere.

(88) "Noncontainerized storage facility" means a storage facility which is not a containerized storage facility.

(89) "Noninterest bearing accounts" means letters of credit, performance bonds or forfeiture bonds.

(90) "One-time disposal" means the disposal of no more than 10,000 cubic yards of approved types of agricultural or demolition solid waste on a one-time basis over a project life of not more than 6 months. Examples are the disposal of concrete, brick, stone, asphalt, wood, trees, logs, brush and material from demolished buildings.

(91) "Open burning" has the meaning specified in s. 144.436 (1) (b), Stats.

(92) "Operator" has the meaning specified in s. 144.442 (9), Stats.

(93) "OSHA" means the occupational safety and health administration.

(94) "Owner" has the meaning specified in s. 144.442 (9), Stats.

(95) "Paint filter test" means the test used for determining whether a waste contains free liquid as specified by EPA in a document entitled: "Update II to SW-846".

Note: Copies of the test procedures are available for inspection at the offices of the department of natural resources, the secretary of state, and the revisor of statutes. Copies may be obtained from the Superintendent of Documents, U.S. Government Printing Office (GPO), Washington, D.C. 20401.

(96) "Parent material" means the slightly altered or unweathered material from which the soil was formed.

(96m) "Patient day" means a period of service between the census-taking hours on 2 successive calendar days, including in-patient census and out-patient census surgical days.

(97) "Percent recovery" means the volume of soil or rock remaining in a sampling device relative to the total volume of soil or rock penetrated by the sampler.

(98) "Piezometer" means a well which is used to measure groundwater elevations and water quality within an aquifer. A piezometer is sealed within the aquifer and typically has a well screen of 2 to 5 feet.

(99) "Piezometer nest" means 2 or more piezometers within 10 feet of each other at the ground surface which are screened at different depths.

(100) "Piezometric surface" means a surface that represents the level to which water will rise in a piezometer.

(101) "Place of public gathering" means a structure which is open to the public.

(102) "Plan of operation" means a report submitted for a solid waste facility that describes its location, design, construction, documentation, monitoring, sanitation, operation, maintenance, closing and long-term care.

(103) "Population equivalent" has the meaning specified in s. 144.436 (1) (c), Stats.

(104) "Private alcohol fuel production system" has the meaning specified in s. 144.438 (1) (c), Stats.

(105) "Processing facility" means a solid waste facility at which solid waste is baled, shredded, pulverized, composted, classified, separated, combusted or otherwise treated or altered by some means to facilitate further transfer, processing, utilization or disposal. Processing facilities do not include operations conducted by scrap metal, paper, fiber or plastic processors which are excluded from the definition of "solid waste facilities" in this section.

(106) "Proof of financial responsibility" means a bond, letter of credit, deposit, escrow account, trust account, net worth method, or other financial commitment made payable to or for the benefit of the department and approved by the department, ensuring that sufficient funds will be available to comply with the closure and long-term care requirements of chs. NR 500 to 520 and the approved plan of operation.

(107) "Putrescible waste" means solid waste which contains organic matter capable of being decomposed by microorganisms and of such a character and proportion as to be capable of supporting a vector population or attracting or providing food for birds.

(107i) "Radioactive material" has the meaning given in s. HSS 157.02 (112).

(107r) "Radioactive waste" means those wastes defined in federal code 10 CFR 60.2 and 61.3 and s. HSS 157.12.

(108) "Real dollars inpayments" means payments made by the facility owner, which increase each year at the rate of inflation, into a long-term care account.

(109) "Recharge zone" means an area in which there are downward components of hydraulic head in the aquifer.

(109m) "Recyclable materials" means the items listed in s. 159.07 (1m) to (4), Stats.

(110) "Recycling" has the meaning specified in s. 144.44 (7) (a) 2, Stats.

(111) "Recycling facility" means a facility where waste is recycled and may include a facility where waste has been generated.

(112) "Refuse" has the meaning specified in s. 144.43 (4), Stats.

(113) "Registered professional engineer" means a professional engineer registered with the Wisconsin examining board of architects, professional engineers, designers and land surveyors.

(114) "Representative sample" means any sample of a universe or whole, such as groundwater or soils, which reliably exhibits the average properties of the universe or whole.

(114m) "Residue produced by burning municipal solid waste" means the residue produced in a municipal solid waste combustor designed and operated for controlled burning of solid wastes primarily to achieve volume and weight reduction or to change waste characteristics. This includes facilities such as boilers which also capture energy in the form of steam, electricity, heat, gas, oil or char from the burning of waste. Residue produced by burning municipal solid waste includes, but is not limited to, slag, ash, flyash, reacted and unreacted scrubber lime, and soot. Residue produced by burning municipal solid waste does not include bypass waste which is rejected prior to burning.

(115) "Run-off" means any rainwater, leachate or other liquid that drains over land, from any part of a solid waste facility.

(116) "Run-on" means any rainwater, leachate, or other liquid that drains over land onto any part of a solid waste facility.

(116m) "Salvageable material" means junk cars, machinery or equipment, scrap metal or other junk or scrap materials which are of further usefulness mainly as a raw material for reprocessing, or as imperfect stock from which replacement or spare parts can be extracted.

(117) "Saturated zone" means that part of the earth's crust in which all voids are filled with water excluding the capillary zone.

(118) "SCS" means the United States soil conservation service.

(119) "Seasonal population" means the seasonal transient population in addition to the year round population.

(119m) "Sharps" means medical equipment or clinical laboratory articles that may cause punctures or cuts. Sharps include, but are not limited to, contaminated, unused and disinfected items listed in s. NR 526.05 (1) (a).

(120) "Sludge" means any solid, semi-solid or liquid waste generated from a municipal, commercial or industrial wastewater treatment plant, water supply treatment plant or air pollution control facility.

(121) "Small demolition facility" means a landfill with a design capacity of less than 50,000 cubic yards and used for the disposal of only demolition wastes.

(122) "Soil" means material that has been physically and chemically derived from the bedrock by nature.

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

(124) "Solid waste disposal" has the meaning specified in s. 144.43 (4r), Stats.

(125) "Solid waste facility" has the meaning specified in s. 144.43 (5), Stats.

(126) "Solid waste storage" has the meaning specified in s. 144.43 (7g), Stats.

(127) "Solid waste treatment" has the meaning specified in s. 144.43 (7r), Stats.

(128) "Specific conductance" means the measurement of a water's ability to transmit an electrical current in micromhos/cm corrected to 25°C.

(129) "Stabilization of waste" means any chemical, physical or thermal treatment of a waste, either alone or in combination with biological processes, which results in a significant reduction of pathogenic organisms including viruses.

(130) "Stabilization of a land disposal facility" means the process of waste settlement and associated land surface maintenance to insure that the majority of settlement has occurred, that pockets or depressions caused by settlement have been refilled or regraded, and that the final land surface contours represent a stable condition for closure and facility maintenance purposes.

(130m) "Sterilization" means a process by which all forms of microbial life, including spores, viruses and fungi, are destroyed.

(131) "Storage facility" means a solid waste facility for the storage of solid waste, on a temporary basis in such a manner as not to constitute ultimate disposal of solid waste.

(132) "Sub-base grade" means the elevation of the facility or portion of the facility which has been excavated to its lowest level prior to the placement of any liner system.

(133) "Sub-soil horizon" means the soil horizon adjacent to and usually directly below the topsoil.

(134) "Surface impoundment facility" means a storage or land disposal facility with a natural topographic depression, artificial excavation or dike arrangement which is used for storage or disposal of waste fluids, semi-solids or wastes containing free liquids.

(135) "Tank" means a stationary device not including manholes, designed to contain an accumulation of leachate or other waste which is constructed primarily of nonearthen materials, such as wood, concrete, steel or plastic, which provide structural support.

(136) "10-year, 24-hour storm" means a storm of 24-hour duration with a probable recurrence interval of once in 10 years as determined under s. NR 205.05.

(137) "Termination" has the meaning specified in s. 144.43 (8), Stats.

(138) "Topsoil" means natural loam, sandy loam, silt loam, silty clay loam or clay loam humus-bearing soils or other material that will easily produce and sustain dense growths of vegetation capable of preventing wind and

water erosion of the material itself and of other materials beneath.

(139) "Transfer facility" means a solid waste facility at which transferring of solid waste from one vehicle or container to another, generally of larger capacity, occurs prior to transporting to the point of processing or disposal.

(139m) "Treatment area" has the meaning given in s. 159.07 (7) (c) 1 e, Stats.

(140) "Ultra low-level radioactive waste" means a waste generated at a wastewater or water treatment facility treating groundwater containing radium.

(141) "Underground tank" means a tank with 10% or more of its storage capacity below the final ground elevation. This term includes uncovered in-ground tanks. This term does not include tanks which are an integral part of a leachate collection system which are placed or constructed above the landfill liner system or within other approved containment systems.

(142) "Unequal annual outpayments" means estimated payments for long-term care which are higher in the early years of the period of owner responsibility for long-term care than they are later in the long-term care period after the facility has stabilized.

(143) "Uniformity coefficient" means the number resulting from dividing the grain size diameter in millimeters at the point where 60% of the material is finer by weight by the grain size diameter in millimeters at the point where 10% of the material is finer by weight.

(144) "U.S. government securities" means treasury bills, treasury bonds, treasury certificates, treasury notes and treasury stocks guaranteed by the federal government.

(145) "Unsaturated zone" means the zone between the land surface and the water table in which the pore spaces contain water at less than atmospheric pressure, as well as air and other gases.

(146) "Unsaturated zone monitoring system" means a system used to measure soil moisture quantity or quality in the unsaturated zone beneath a regulated facility.

(147) "USCS" means the unified soil classification system.

(148) "USDA" means the United States department of agriculture.

(149) "USGS" means the United States geological survey.

(149m) "UW" means the university of Wisconsin.

(150) "U.W.-extension" means the university of Wisconsin extension.

(151) "VOC" means volatile organic compounds.

(152) "Water table" means the upper surface of the saturated zone where the hydrostatic pressure is equal to atmospheric pressure.

(153) "Well" means any drillhole or other excavation or opening constructed for the purpose of obtaining or monitoring groundwater.

(154) "Well nest" means 2 or more wells installed within 10 feet of each other at the ground surface and constructed to varying depths.

(155) "Wetlands" means those areas where water is at, near or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation, and which have soils indicative of wet conditions.

(155m) "White goods" means large and medium sized metal appliances including stoves and refrigerators.

(156) "WPDES permit" means a Wisconsin pollution discharge elimination system permit issued by the department under ch. 147, Stats., for the discharge of pollutants.

(157) "WSGNHS" means the Wisconsin state geologic and natural history survey.

(158) "Zone-of-saturation landfill" means a landfill where the base grade is located below the water table in a fine-grained soil environment and is designed and operated to maintain inward groundwater gradients.

(159) "Zoonotic infectious agent" means an infectious agent which can be transmitted from an animal to a human. Zoonotic infectious agents include anthrax, brucellosis, psittacosis, Q fever, rabies, *Mycobacterium bovis* and *Mycobacterium tuberculosis*.

History: Cr. Register, January, 1988, No. 385, eff. 2-6-88; am. (86), cr. (12m), (33m), (41m), (85m), (86m), (114m), (149m) and (155m), Register, May, 1992, No. 437, eff. 6-1-92; cr. (116m), Register, September, 1993, No. 453, eff. 10-1-93; am. (intro.), (61), (67), cr. (12r), (14g), (14m), (15m), (30m), (35m), (37m), (62e), (62i), (62r), (67g), (67m), (67t), (84d), (84h), (84i), (84o), (84s), (84v), (89m), (96m), (107i), (107r), (109m), (119m), (130m), (139m), (159), Register, October, 1994, No. 466, eff. 11-1-94.

**NR 500.04 Initial inspection.** Any person intending to establish a new solid waste disposal facility or expand an existing solid waste disposal facility shall contact the department's district or area office as appropriate to arrange for an initial inspection for the purpose of evaluating compliance with the location and performance standards of s. NR 504.04. This inspection shall be completed prior to submittal of an initial site report or a feasibility report.

History: Cr. Register, January, 1988, No. 385, eff. 2-6-88.

**NR 500.05 General submittal requirements.** Unless otherwise specified, all submittals for review and approval of any initial site report, feasibility report, plan of operation, infield conditions report, construction documentation report or closure plan shall include the following:

(1) **REVIEW FEE.** The review fee specified in s. NR 520.04 in check or money order payable to the department. The fee shall be sent to the department's district or area office as appropriate.

(2) **COVER LETTER.** A letter detailing the desired department action or response.

(3) **NUMBER OF COPIES.** Unless otherwise specified, 5 copies of the plan or report prepared pursuant to the appropriate section of chs. NR 500 to 522. Two copies shall be submitted to the department's field office responsible for the area in which the facility is located and 3 copies shall be submitted to the bureau of solid waste management in Madison.

(4) **CERTIFICATION.** The report and plan sheets shall be under the seal of a registered professional engineer. Ini-

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tial site reports, feasibility reports, plans of operation, infield conditions reports and any other reports where interpretation of geology or hydrogeology is necessary shall be signed by a hydrogeologist.

(5) **TECHNICAL PROCEDURES.** All technical procedures used to investigate a solid waste facility shall be the current standard procedures as specified by the American society for testing materials, United States geologic survey, standard methods for the examination of water and wastewater, or other equivalent or appropriate methods approved by the department. Test procedures used shall be specified. Any deviation from a standard method shall be explained in detail with reasons provided.

(6) **VISUALS.** Maps, figures, photographs and tables to clarify information or conclusions. The visuals shall be legible. All maps, plan sheets, drawings, isometrics, cross-sections and aerial photographs shall meet the following requirements:

(a) No larger than 24 inches × 36 inches and no smaller than 8½ inches × 11 inches.

(b) Be of appropriate scale to show all required details in sufficient clarity.

(c) Be numbered, referenced in the narrative, titled, have a legend of all symbols used, contain horizontal and vertical scales, where applicable, and specify drafting or origination dates.

(d) Use uniform scales.

(e) Contain a north arrow.

(f) Use USGS datum as a basis for all elevations.

(g) Contain a survey grid based on monuments established in the field which is referenced to state plane coordinates.

(h) Show original topography and the grid system on plan sheets showing construction, operation or closure topography.

(i) Show survey grid location and reference major plan sheets on all cross-sections. A reduced diagram of a cross-section location plan view map shall be included on the sheets with the cross-sections.

(7) **TABLE OF CONTENTS.** A table of contents listing all sections of the submittal.

(8) **APPENDIX.** An appendix listing names of all references, all raw data, testing and sampling procedures and calculations.

*History:* Cr. Register, January, 1988, No. 385, eff. 2-6-88.

**NR 500.06 License applications.** Unless otherwise specified, no person may operate or maintain a solid waste facility without a license from the department. A submittal for initial licensing or relicensing of any solid waste facility shall include:

(1) **REVIEW FEE.** The appropriate fee as specified in s. NR 520.04 in check or money order payable to the department. The fee shall be sent to the department's district or area office as appropriate. Plan review fees are not transferable, prorable or refundable.

*Register, May, 1995, No. 473*

(2) **APPLICATION FORM.** A completed copy of the appropriate application form.

(3) **FINANCIAL RESPONSIBILITY.** For all land disposal facilities with plans of operation approved under s. 144.44 (3), Stats., proof of financial responsibility as specified in s. NR 520.05.

(4) **AFFIDAVIT OF FACILITY REGISTRY.** Submittal on form 4400-67 that proof that a notation of the existence of the facility has been recorded in the office of the register of deeds in each county in which a portion of the facility is located.

*Note:* This form may be obtained from the Department of Natural Resources, Bureau of Solid Waste Management, 101 S. Webster Street, Natural Resources Building, Madison, WI 53707.

*History:* Cr. Register, January, 1988, No. 385, eff. 2-6-88.

**NR 500.07 Review times.** Except as otherwise provided in chs. NR 500 to 522, the department shall review and approve, deny or deem incomplete requests for plan approvals or exemptions within 65 business days after receiving the request. For the purposes of determining department compliance with review times specified in chs. NR 500 to 522 and ch. 144, Stats., the review time starts when the appropriate copies and review fee are received.

*History:* Cr. Register, January, 1988, No. 385, eff. 2-6-88.

**NR 500.08 Exemptions.** (1) **GENERAL.** The following facilities are exempt from all requirements of chs. NR 500 to 522:

(a) Facilities used for the disposal of solid waste from a single family or household on the property where it is generated.

(b) Riprapping projects using inert solid waste materials approved by the department under s. 30.12, Stats., or in submerged shorelands in Lake Michigan, the title to which has been granted by the state to a municipality.

(2) **OTHER FACILITIES.** The following facilities must be established in conformance with the locational requirements of s. NR 504.04 (3) (c) and (4) (a) to (e) and must be operated and maintained in a nuisance-free and aesthetic manner but are exempt from licensing and the requirements of chs. NR 500 to 522:

(a) Facilities where only clean soil, brick, building stone, concrete, reinforced concrete, broken pavement, and unpainted or untreated wood are disposed.

(b) Facilities for the exclusive disposal of spoils from sand, gravel or stone and crushed stone quarry operations and similar nonmetallic earth materials.

(c) Facilities for the disposal of wood residue from a saw mill, debarker or equivalent industry which produces less than 5,000 board feet of lumber per year or equivalent and the total disposal facility volume is less than 500 cubic yards of wood residue.

(3) **DREDGED MATERIAL EXEMPTIONS.** The following facilities are exempt from the licensing and plan review requirements of chs. NR 500 to 522 but must be developed in accordance with the following requirements:

(a) Dredged material determined by the department to be clean according to ch. NR 347 and designated for in-



water disposal provided the project meets all provisions specified in ch. NR 347.

(b) Facilities for the disposal of nonhazardous dredged material consisting of less than 3000 cubic yards from Lake Michigan, Lake Superior, the Wisconsin river, the Sheboygan river, the Milwaukee river, the Brule and Menomonee rivers, the Fox river, the Mississippi river, or from any inland lakes or ponds treated with arsenicals provided the facility complies with the performance standards specified in s. NR 504.04 (4).

(c) Facilities for the disposal of nonhazardous dredged material from inland lakes or ponds that have not been treated with arsenicals provided the facility complies with the performance standards specified in s. NR 504.04 (4).

(4) **EXEMPTIONS FROM SOLID WASTE RULES.** Exemptions from the requirements of chs. NR 500 to 522 may be granted in writing by the department in special cases except as otherwise provided. A person may apply for an exemption by providing the department with a written request along with the appropriate documentation which demonstrates that the proposal will not cause environmental pollution as defined in s. 144.01 (3), Stats. The department shall take into account such factors as the population of the area being served, the amount of waste being generated, the geologic and hydrogeologic conditions at the facility, the design of the facility, the operational history of the facility, the physical and chemical characteristics of the waste and any other information which may be appropriate. The department shall review and make a written determination on the exemption request within 65 business days of receipt of a complete request and the appropriate review fee under ch. NR 520 unless a different time period is provided by law.

(5) **BENEFICIAL REUSE.** The department may grant exemptions from the requirements of ss. 144.43 to 144.47, Stats., for the purpose of allowing or encouraging the recycling of solid wastes. Any exemptions granted under this section shall be issued in writing in accordance with the requirements of s. 144.44 (7) (b), (c), (f) and (g), Stats.

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

(a) Facilities for the treatment, storage or disposal of solid waste which is excavated for the primary purpose of conducting a site investigation or implementing an in-

terim or remedial action in compliance with the requirements of chs. NR 700 to 726 and which is returned to the same property from which it was excavated in compliance with the requirements of ch. NR 718; and

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

*History:* Cr. Register, January, 1988, No. 385, eff. 2-6-88; cr. (6), Register, April, 1994, No. 460, eff. 5-1-94.

**NR 500.09 Construction inspection.** The department may require as a condition of the approval of a feasibility report, plan of operation, groundwater monitoring plan, closure plan, in-field conditions report or a modification to any approval that critical construction steps of a facility, as specified in the approval, be inspected by the department. The applicant shall pay an inspection fee as specified in s. NR 520.04 (5).

*History:* Cr. Register, January, 1988, No. 385, eff. 2-6-88.

**NR 500.10 Exemption for use of municipal solid waste as a fuel.** The department may grant exemptions in writing from any of the requirements of chs. NR 500 to 520 for municipal solid waste combustors and any other solid waste facilities which manage the residue from municipal solid waste combustors. The department also may issue an approval for solid waste which has been processed into a fuel for a municipal solid waste combustor which exempts the combustor and any facility which manages the combustor residue from regulation under chs. NR 500 to 520. Such exemptions may be granted under this section. The department shall consider the following criteria in determining whether an exemption shall be granted under this section:

- (1) The source of the waste to be used as fuel.
- (2) The variability of the waste to be used as fuel.
- (3) The physical and chemical properties of the waste to be used as fuel.
- (4) The quantity of the waste to be used as fuel.
- (5) The percentage of the total fuel mix contributed by the municipal solid waste.
- (6) The physical and chemical properties of the residue.

*History:* Cr. Register, May, 1992, No. 437, eff. 6-1-92; correction made under s. 13.93 (2m) (b) 1., Stats., Register, May, 1995, No. 473.