

NR 180.14 Solid waste land spreading sites and facilities. (1) GENERAL. No person shall operate or maintain a solid waste land spreading site or facility unless the person has obtained an operating license from the department, except as otherwise provided in sub. (2).

(2) EXEMPTIONS. (a) The following land spreading sites and facilities are exempt from the requirements of this section, but must be developed, operated and maintained in a safe, nuisance-free manner:

1. Sites used for the land spreading of nonhazardous solid waste from a single family or household, a member of which is the owner, occupant, or lessee of the property used for solid waste disposal.

2. Farms on which only nonhazardous agricultural solid wastes resulting from the operation of a farm, including farm animal manure, are disposed.

3. Sites receiving only sludge from a publicly-owned treatment work or a privately-owned domestic sewage treatment work having a permit under ch. 147, Stats., providing the sludge disposal is accomplished in accordance with the requirements of the permit.

4. Sites used exclusively for the disposal of waste regulated under ch. NR 113.

5. Sites used for the disposal of treated liquid municipal or industrial wastewater approved under s. 144.04, Stats., and/or permitted under ch. 147, Stats.

6. Sites used for the land spreading of whey providing the whey is applied as a soil conditioner or fertilizer in accordance with accepted agricultural practices.

7. Sites used for the land spreading of by-products from canned, frozen or preserved fruit and vegetable processing operations providing the by-products are applied as soil conditioners or fertilizers in accordance with accepted agricultural practices.

8. Nonagricultural or nonsilvicultural sites used for the land spreading of solid waste or solid waste derived products with demonstrated soil conditioning or fertilizer value providing the material is applied for soil amendment purposes. Examples of such sites are golf courses or public parks where compost material is land spread.

9. Sites used for the land spreading of lime sludges from papermills providing the sludge is applied as a soil conditioner or fertilizer in accordance with accepted agricultural practices.

10. Sites used exclusively for the land spreading of nonhazardous sludges determined under this paragraph to have value as a soil conditioner or fertilizer and if repeated applications of the sludge would not result either in excessive accumulation of toxic or hazardous substances in the soil or vegetation, or in detrimental effects to groundwater or surface water quality, provided that the sludges are generated at industrial wastewater treatment facilities which have been approved or permitted in accordance with s. NR 214.11. In determining whether sludge has value as a soil conditioner or fertilizer, the department shall require, at a minimum, a chemical and physical analysis of the waste. The department may on a case-by-case basis require greenhouse or experimental

field studies and may consider federal regulations, technical guidelines, and other related research in determining whether a sludge has value as a soil conditioner or fertilizer.

11. Sites used for the land spreading of other wastes similar in nature to those identified in subds. 1-10 providing written approval is obtained from the department.

12. Sites used exclusively for the disposal of waste regulated under ch. NR 206.

(b) The following land spreading sites and facilities are exempt from the licensing requirements of this section, but must obtain approval in writing from the department pursuant to sub. (4) prior to their establishment and operation and must meet all other applicable provisions of this section:

1. Agricultural or silvicultural sites used for the land spreading of non-hazardous solid waste demonstrated to have soil conditioning and/or fertilizer value, providing the waste is applied as a soil conditioner or fertilizer in accordance with accepted agricultural practices.

2. Land spreading sites utilized on a limited, controlled, experimental basis for the purpose of studying the feasibility of using a solid waste as a soil conditioner or fertilizer.

(c) Land spreading sites used solely for research purposes under the direction of a Wisconsin registered professional engineer or a scientist employed by a university located within this state are exempt from the licensing and plan submittal requirements of this section provided that they meet the following requirements:

1. The net plot area, excluding plot borders and buffer strips, shall not exceed 4 acres.

2. The available nitrogen and heavy metal additions averaged over the total plot area shall not exceed the rates recommended by the department for municipal sewage sludges.

3. The site shall be developed, operated, and maintained in a safe, nuisance-free manner consistent with the intent of this section.

4. Copies of the research proposal shall be provided to the department in advance of initiating the research and all reports and research publications pertaining to the site shall be provided to the department.

(3) **LOCATIONAL CRITERIA.** No person shall establish, construct, operate, maintain or permit the use of property as a land spreading site or facility within the following areas:

(a) Within wetlands.

(b) Within 100 feet of any navigable body of water. A vegetative buffer strip shall be maintained between the navigable water and the application site.

(c) Within critical habitat areas.

(d) Within an area where the department after investigation finds that there is a reasonable probability that disposal of solid waste within such an area will have a detrimental effect on any surface water.

(e) Within an area where the department after investigation finds that there is a reasonable probability that disposal of solid waste within such an area will have a detrimental effect on groundwater quality.

(f) Within 10,000 feet of any airport runway used or planned to be used by turbojet aircraft or within 5,000 feet of any airport runway used only by piston type aircraft or within such other areas where a substantial potential bird hazard to aircraft would be created, unless a waiver is granted by the federal aviation administration, but this criteria is only applicable where such site or facility is used for disposing of putrescible waste such that a bird hazard to aircraft would be created.

(g) Within 1,000 feet of public water supply wells and/or 200 feet of private water supply wells.

(h) Within 500 feet of any residence, except that this distance may be reduced for the residence of the property owner on whose land solid waste is spread.

(4) **SOLID WASTE LAND SPREADING PLAN.** No person shall establish or construct a solid waste land spreading site or facility or expand an existing site or facility without first obtaining written approval from the department of a solid waste land spreading plan except as otherwise provided herein. The land spreading plan shall include in a detailed and understandable fashion the following:

(a) A description and analysis of each waste type proposed for deposition at a land spreading facility. Data on waste types shall include, at a minimum the following information:

1. The sources, processes, and/or treatment systems from which the wastes originate.

2. Waste pretreatment or waste processing techniques required prior to land spreading.

3. The volumes of solid waste to be land spread, stored, and/or disposed.

4. The physical and chemical characteristics of the waste obtained from representative waste samples. The parameters to be analyzed for shall be consistent with the waste material and shall in general, include but not be limited to, the following:

a. Physical characteristics including solids fraction and organic fraction.

b. pH.

c. Nutrient content including nitrogen, phosphorous, and potassium.

d. Metals content including arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc.

e. Salt content including chlorides, fluorides and sulfates.

f. Biological populations including total coliform, fecal coliform and any virus known to exist in the waste material.

g. Other parameters such as oils and greases, phenolics, pesticides, toxic substances and persistent organics, if present in the waste material.

(b) An assessment and analysis of data including conclusions drawn concerning the potential benefits and adverse effects of the land spreading program. Such assessment shall include a demonstration that the waste has value as a soil conditioner or fertilizer. Demonstration methods may include:

1. Documentation of previous successful uses of the solid waste, or other solid wastes with similar compositions, properties, and characteristics.

2. Documentation of compliance with existing Wisconsin department of agricultural, trade and consumer protection regulations pertaining to the licensing and marketing of fertilizers or soil conditioners.

3. Successful completion of an approved experimental solid waste land spreading program.

4. Other justification for use of the solid waste subject to written department approval.

(c) A description of information on the characteristics of the sites to be used for the land spreading program including, at a minimum, the following:

1. The site locations including copies of soils maps, plat maps and USGS topographic maps.

2. A description of the contracts or agreements covering use of the land including owner's name, address and telephone number.

3. A description of on-site land uses and current land uses on surrounding properties.

4. A description of the geology and hydrogeology of the site including the identification of all homes and/or private wells located within ¼ mile of the site.

5. A description of the crops to be grown or dominant vegetation on the site.

6. Soil test results from samples taken on-site. Parameters to be analyzed shall include soil pH, organic matter, available phosphorus, available potassium, and other parameters deemed necessary for analysis and design of the proposed operation.

7. A description of other soil additives to be used.

(d) Information on site design, site development and operating plans including, at a minimum, the following:

1. Provisions for interim waste storage and/or disposal when normal land spreading sites are unavailable or inaccessible, including:

a. Type of storage or disposal

- b. Location of storage or disposal facility
 - c. Capacity of storage or disposal facility
 - d. Construction details
 - e. Property interest or contractual agreement allowing use of the storage or disposal facility.
 - f. Future anticipated use of the storage or disposal facility.
 - g. Evaluation of environmental effects resulting from use of the storage or disposal facility.
2. Proposed mode of waste transportation, including:
 - a. The transporter of the waste
 - b. The method of transportation
 - c. The type of vehicle used for waste transportation
 - d. Spill contingency plans and notification procedures
 3. Proposed waste application rates, techniques, disposal frequencies and locations.
 4. Proposed maximum rates of application (annual and cumulative) for nitrogen, cadmium, and other heavy metals.
 5. Proposed crop monitoring, soil, groundwater and surface water monitoring.
 6. Proposed record keeping and reporting procedures to be used for monitoring waste volumes applied, application rates, disposal locations, and cumulative waste loading applied to each site.

(e) For sites and facilities required to be licensed, proposed site closure, maintenance, and long-term care procedures, and final land use plans for each land spreading site.

(f) For sites and facilities required to be licensed, proof of financial responsibility as specified in NR 180.15.

(5) OPERATING REQUIREMENTS. No person shall operate or maintain a solid waste land spreading site or facility, except in conformance with an approved solid waste land spreading plan, if required, and the following minimum requirements:

(a) Only approved waste types shall be disposed at the site. Plans to accept additional waste types require separate written approval from the department.

(b) The solid waste land spreading plan may be amended at any time, subject to written approval of the department. Any proposed amendment shall contain the same type of information required in the original land spreading plan. The amended plan may not be put into effect until it has been approved by the department.

(c) No solid waste shall be land spread in a manner that causes detrimental effects on ground or surface water quality.

(d) Depending on the type of operation to be conducted, solid waste materials shall be plowed, disced, or otherwise incorporated into the surface soil layer at appropriate intervals as specified in the solid waste land spreading plan to minimize surface water runoff and surface leaching and to control objectionable odors.

(e) No solid waste shall be deposited in areas containing ponded or standing water.

(f) Maximum one time and/or cumulative application rates for cadmium and/or other heavy metals shall be strictly observed for disposal on land used for growing food chain crops.

(g) Waste materials with significant pathogen contents shall be properly stabilized prior to land spreading.

(h) Food chain crops grown on solid waste land spreading sites which have received waste applications containing pesticides or persistent organic materials shall not be marketed or used for human or animal consumption unless the crops meet all applicable contaminant levels as established by the United States food and drug administration.

(6) **MONITORING.** The owner or operator of every solid waste land spreading facility with an approved solid waste land spreading plan shall submit monitoring reports to the department on a frequency established in the land spreading plan. The report shall include the following information for each site utilized during the preceding reporting period:

(a) The amount of solid waste applied in tons per acre on a dry weight basis.

(b) The amount of nitrogen applied in pounds per acre on a dry weight basis.

(c) The amount of cadmium applied in pounds per acre on a dry weight basis.

(d) The total amount of each specific metal applied in pounds per acre as requested by the department on a dry weight basis.

(e) Other site monitoring results as specified in the approved land spreading plan.

(f) A description of any adverse environmental, health, or social effects that occurred due to solid waste disposal.

(g) A description of any action not in conformance with the approved land spreading plan.

(7) **CLOSURE.** Any person who operates or maintains a licensed land spreading facility, or permits the use of property for such purpose shall accomplish closure, maintenance and long-term care of the facility in accordance with any solid waste land spreading plan approval issued by the department and with the following minimum practices:

(a) At least 120 days prior to the closing of a licensed solid waste land spreading facility, the owner or operator shall notify the department, in writing, of the intent to close the site. This notice shall include the following information:

1. The proposed final date by which all solid waste disposal or land spreading operations will be terminated.
2. The current waste types, sources, and volumes of solid wastes being deposited at the site.
3. The cumulative volumes of waste which were applied to the site during active operations.
4. The reasons and/or intent for closing the site.
5. The proposed future land uses of those areas previously used for waste deposition.
6. Special precautions to be utilized, if appropriate, to limit access to the facility, and to insure that no further solid waste materials are deposited after the closure date.
7. The proposed site closure, site monitoring, and long-term care procedures to be implemented following site closure. These procedures shall be in accordance with the approved solid waste land spreading plan or any proposed modifications to the plan.
8. The alternate licensed sites or approved facilities to be utilized for waste disposal and/or land spreading purposes following closure of the facility.

(b) The department will review the notice of intent to close the facility and will approve or disapprove in writing the proposed closure procedures. The department may require additional information, or may require additional closure, maintenance, and/or long-term care procedures to be implemented to insure proper closure of the site.

1. If the facility to be closed was initially licensed under this section, site closure, maintenance, and long-term care procedures shall be conducted in accordance with the approved solid waste land spreading plan unless subsequently modified, or unless otherwise specified by the department.

2. If the facility to be closed was not initially licensed under this section, a final site closure and long-term care and monitoring plan shall be prepared and submitted to the department for approval as part of the notice of intent for site closure.

(c) No person shall deposit any solid waste materials at a closed site without the prior written authorization of the department, and the approval of the site owner.

(d) Within 90 days of the final closure date of a site, all closure work shall be completely and finally performed in accordance with this subsection.

(e) Complete and proper final closure of a land spreading site may include, but not be limited to, the following:

1. Discing, plowing, or otherwise incorporating all deposited solid waste materials into the surface soil layers, or covering all land spreading areas with an adequate thickness of final earth cover material.

2. Providing for the control of surface water runoff to minimize adverse effects on surface and/or groundwater quality.

3. Establishing a vegetative cover to promote evapotranspiration and to control soil erosion, and/or otherwise preparing the land surface for the intended future land use.

4. Continuing to grow crops and conducting the associated monitoring work.

5. Performing the required environmental monitoring work associated with the approved final closure and long-term care plans.

(f) The department shall require long-term care as defined in s. 144.441, Stats., only of licensed land spreading facilities for which waste management fund monies may be expended in accordance with s. 144.44(3), Stats. The department may require the following provisions:

1. Erosion control and maintenance of vegetation.
2. Control of surface drainage.
3. Ground and/or surface water quality monitoring.
4. Gas monitoring.
5. Soils and/or crop testing programs.
6. The preparation and submittal of monitoring data and/or reports.

(8) WASTE MANAGEMENT FUND. Land spreading sites and facilities which are exempt from licensing are not required to contribute to the waste management fund.

(9) PUBLIC PARTICIPATION. For sites requiring approval of a solid waste land spreading plan, the department prior to approval shall prepare an environmental impact assessment screening worksheet and provide opportunity for public comment according to the procedures established in ch. NR 150, except that the notice shall be published as a class 1 notice under ch. 985, Stats. The department shall hold a hearing on the proposed land spreading plan if a written request for a hearing is filed by any county, city, village or town, or by any 6 persons within 30 days from the time the notice is published. A hearing under this subsection shall be held within 60 days after receipt of the request and shall be conducted as provided in s. 227.022, Stats. The hearing shall be held in an appropriate place designated by the department in one of the counties, cities, villages or towns which could be affected by the operation of a proposed site.

(10) Prior to licensing a site, the owner or operator shall submit proof that a notation of the existence of the site has been recorded in the office of the register of deeds in each county in which a portion of the site is located.

History: Cr. Register, February, 1980, No. 290, eff. 3-1-80; renum. (2) (a) 10. to be 11. and am., cr. (2) (a) 10., Register, January, 1983, No. 325, eff. 2-1-83; cr (2) (a) 12., Register, March, 1985, No. 351, eff. 4-1-85.

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NR 180.15 Financial responsibility for closure and long-term care. (1)
DEFINITIONS. (a) "Actual dollar inpayments" means equal annual pay-
ments made by the facility owner into a long-term care account.