



NR 214

Filed April 27, 1976
3:45 pm J. L. Paulson

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Anthony S. Earl
Secretary

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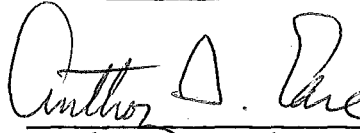
IN REPLY REFER TO: _____

STATE OF WISCONSIN)
)
DEPARTMENT OF NATURAL RESOURCES) ss

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Anthony S. Earl, 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. EL-24-76 was duly approved and adopted by this Department on February 19, 1976 and March 18, 1976. 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 Pyare Square Building in the Village of Shorewood Hills, this 13TH day of April, 1976.


Anthony S. Earl, Secretary

(SEAL)

STATE OF WISCONSIN NATURAL RESOURCES BOARD

.....
IN THE MATTER of creating Chapter NR 214 .
of the Wisconsin Administrative Code .
pertaining to land disposal of liquid .
wastes .
.....

EL-24-76

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD

CREATING RULES

Pursuant to authority vested in the State of Wisconsin Natural Resources Board by sections 147.04, 147.06, 147.07, 147.08(1) and 227.014(2)(a), Wisconsin Statutes, the Natural Resources Board hereby creates rules as follows:

SECTION 1 - Chapter NR 214 is created to read:

Chapter NR 214
Land Disposal of Liquid Wastes

NR 214.01 Purpose. The purpose of this chapter is to establish effluent limitations and monitoring requirements applicable in permits for discharges of liquid wastes to land disposal systems. Section 147.02, Wis. Stats., requires a permit for the lawful discharge of any pollutant into the waters of the state, which include ground waters by the definition set forth in section 147.015(13), Wis. Stats. Therefore permits are required for discharges from point sources to land areas where pollutants may percolate, seep, or be leached to ground waters.

NR 214.02 Applicability. (1) The discharge limitations, monitoring requirements, and other provisions of this chapter are applicable to discharges to land disposal systems of liquid wastes consisting of or resulting from:

- (a) Municipal waste and domestic waste,
- (b) Canned, frozen, and preserved fruit and vegetable processing,
- (c) Dairy products processing,
- (d) Meat and poultry products processing, and
- (e) The sand, gravel, stone, and concrete products industries.

(2) The discharge limitations, monitoring requirements, and additional limitations of this chapter are applicable to discharges to a land disposal system of liquid wastes from sources other than those identified in subsection (1) and shall be applied by the department on a case by case basis in accordance with section NR 214.08.

(3) The provisions of this chapter are not applicable to discharges:

(a) From domestic sewage systems defined as plumbing in section 145.01(1)(b), Wis. Stats.,

- (b) Of sludge from sewage treatment works,
- (c) Of wet or semiliquid wastes at a disposal site licensed pursuant to Wis. Adm. Code chapter NR 151.

(d) Of domestic waste handled and disposed of in accordance with Wis. Adm. Code chapter NR 113.

(4) The department may on a case by case basis exempt from the requirements on this chapter the hauling and disposal of industrial wastes handled in accordance with the provisions of Wis. Adm. Code chapter NR 113 except:

(a) In cases where industrial waste is hauled from one industrial source to one disposal site; or

(b) In cases where the industrial waste from any one source exceeds a volume of 10,000 gallons on any one day.

NR 214.03 Definitions. The following definitions are applicable to terms used in this chapter. Definitions of other terms and the meanings of abbreviations are set forth in Wis. Adm. Code chapter NR 205.

(1) "Land disposal system" means a facility for disposing of liquid wastes consisting of:

- (a) An absorption or seepage pond system,
- (b) A ridge and furrow system,
- (c) A spray irrigation system,
- (d) A spray runoff system,
- (e) A subsurface field absorption system, or
- (f) A surface spreading system,
- (g) Any other land area receiving liquid waste discharges.

(1) By evidence submitted at a public hearing following public notice by the department of the receipt of a complete application and intent to issue or modify a permit as provided in Wis. Adm. Code chapter NR 3, subchapter II, or

(2) By evidence presented at an adjudicatory hearing on the issued permit for such discharge as provided in Wis. Adm. Code chapter NP 3, subchapter III.

NR 214.06 Application of discharge limitations. The discharge limitations set forth in this chapter shall be used to establish the volume of liquid waste and the quantity or quality of pollutants or pollutant properties therein which may be discharged to a land disposal system, except as:

(1) They may be modified in accordance with section NR 214.05,

(2) They may be superseded by more stringent limitations necessary to achieve ground water quality standards or meet other legal requirements, or

(3) They may be supplemented or superseded by standards or prohibitions for toxic pollutants or by additional limitations required to achieve ground water quality.

NR 214.07 Discharge limitations and monitoring requirements. As specified in table 2, 3, or 4 for the appropriate size class set forth in table 1, one or more of the discharge limitations and monitoring requirements of the following subsections are applicable to discharges to a land disposal system of liquid wastes of the types identified in section NR 214.02(1). Also, in accordance with section NR 214.08, these discharge limitations and monitoring requirements are applicable to discharges of other types of liquid wastes.

(1) No discharge shall exceed the maximum hydraulic loading rate specified in the permit for the discharge nor shall it have a pH or contain quantities of organic materials or suspended solids which interfere with operation of the system. In determining the maximum hydraulic loading rate for a land disposal system the department will consider the hydraulic capacity of the system, past operating performance if any, site conditions including soil and geologic characteristics, the concentration and characteristics of pollutants in the discharge, and other relevant information.

(2) There shall be no discharge to a land disposal system except after treatment in a sewage treatment system which includes a secondary treatment system approved by the department and, in the case of discharge of municipal wastes, unless industrial wastes tributary to the municipal treatment works are in compliance with pretreatment standards applicable pursuant to Wis. Adm. Code section NR 211.30.

(3) The concentration of BOD₅ in discharges to the land disposal system shall not exceed 50 mg/l in more than 20 percent of the monitoring samples required during a calendar quarter.

(4) Discharge to a land disposal system shall be limited so that the discharge and precipitation which falls within the boundary of the disposal system during such discharge does not overflow the boundary of the system.

(5) Discharge shall be limited so that during irrigation all of the discharge and any precipitation falling or flowing onto the irrigation fields during such discharge does not overflow the perimeter of the system.

(14) Ground water shall be monitored, at locations specified in the permit, monthly for the first three months after the monitoring system is installed and twice annually thereafter except that the department may modify the twice annual requirement to once annually for land disposal systems receiving liquid wastes for a period of not more than four months annually.

(15) The department may require monitoring ground water for any or all of the following parameters; elevation, organic nitrogen, ammonia nitrogen, nitrate and nitrite nitrogen, chlorides, sulfates, dissolved solids, alkalinity, hardness, and pH.

(16) There shall be no discharge of liquid wastes from this category to this type of land disposal system.

(17) The discharge to the land disposal system shall be:

(a) Alternately distributed to individual sections of the land disposal system in a manner that allows sufficient resting periods to maintain a vegetative cover, and

(b) Limited so that it and any precipitation which falls within the area of the land disposal system is retained within the perimeter of the system except for any runoff which may be collected and discharged to a surface water in accordance with a WPDES permit for such discharge.

(18) The liquid waste shall be pretreated in a facility approved by the department prior to discharge to the land disposal system.

(19) Discharge to the land disposal system shall be limited so that during surface spreading all of the liquid waste and any precipitation falling onto or flowing onto the disposal field shall not overflow the perimeter of the system.

(20) Vehicles used for transporting and spreading the liquid wastes shall be in compliance with Wis. Adm. Code chapter NR 113.

(21) The permittee shall maintain a daily record of the volume of waste discharged.

NR 214.08 Additional limitations. (1) For discharges to a land disposal system of liquid wastes containing any substances or concentrations of substances normally associated with the types of discharge identified in section NR 214.02(1) the department may on a case by case basis impose one or more of the discharge limitations and monitoring requirements set forth in section NR 214.07.

(2) For discharges to a land disposal system of liquid wastes containing substances or concentrations of substances not normally associated with the types of discharge identified in section NR 214.02(1) the department may on a case by case basis impose one or more of the discharge limitations and monitoring requirements set forth in section NR 214.07 and:

(a) Impose limitations on the quantity or concentration of substances discharged;

(b) Require monitoring at more frequent intervals than set forth in section NR 214.07(13);

(c) Require monitoring for parameters in addition to those set forth in sections NR 214.07 (12) and (15);

(d) Require ground water monitoring at more frequent intervals than set forth in section NR 214.07(14) and for parameters in addition to those set forth in section NR 214.07(15); and

(e) Require treatment prior to discharge to the land disposal system and, for the purpose of evaluating such treatment, require monitoring;

1. Of the volume of flow before and/or after such treatment,

2. Of the concentration of critical parameters in such flow before and/or after such treatment, and

3. Of ground water in the vicinity of the system.

Table 1
 Size Classes for Specified Types of Discharges
 Hydraulic Loading Rate shown in Million gallons per day
 Determines Size Class of Discharge to Disposal System

Source of Discharge	Class I	Class II	Class IIA	Class IIB	Class III	Class IV
Municipal and domestic wastes	greater than 1.0	.05-1.0	0.1-1.0	0.05-0.1	0.01-0.05	less than 0.01
Canned, Frozen, Preserved Fruits and Vegetables	greater than 1.0	0.14-1.0	0.34-1.0	0.14-0.34	0.01-0.14	less than 0.01
Dairy Products Processing	greater than 1.0	0.05-1.0	0.08-1.0	0.05-0.08	0.01-0.05	less than 0.01
Meat and Poultry Processing	greater than 1.0	0.05-1.0	0.1-1.0	0.05-0.1	0.01-0.05	less than 0.01
Sand, Gravel, Stone and Concrete Products					more than 0.01	less than 0.01

Table 3

Discharge Limitations and Monitoring Requirements Applicable no later than July 1, 1983
 Numbers in this table specify applicable subsection in section NR 214,07

Type of Land Disposal System	Type of Discharge	Size Class	Absorption Pond	Ridge & Furrow	Spray Irrigation	Spray Runoff	Subsurface Field Abs.	Surface Spreading
Municipal waste and Domestic waste		I, II	1,2,3,4,12,14,15,	1,2,3,4,6,9,12,14,15	1,2,3,5,6,7,8,10,12,14,15	1,2,3,8,10,12,14,15,17	1,11,12,14,15,18	
		III, IV	1,2,3,4,12	1,2,3,4,6,9,12	1,2,3,5,6,7,8,10,12	1,2,3,8,10,12,17	1,11,12,18	
Canned, Frozen Preserved Fruits and Vegetables		I, II	1,4,13,14,15	1,4,6,9,13,14,15	1,5,6,7,8,13,14,15	1,8,13,14,15,17	1,11,13,14,15,18	1,6,7,14,15,19,20,21
		III, IV	1,4,13	1,4,6,9,13	1,5,6,7,8,13	1,8,13,17	1,11,13,18	1,6,7,19,20,21
Dairy Products Processing		I, II	1,4,13,14,15	1,4,6,9,13,14,15	1,5,6,7,8,13,14,15	1,8,13,14,15,17	1,11,13,14,15,18	1,6,7,14,15,19,20,21
		III, IV	1,4,13	1,4,6,9,13	1,5,6,7,8,13	1,8,13,17	1,11,13,18	1,6,7,19,20,21
Meat and Poultry Processing		I, II	1,4,13,14,15	1,4,6,9,13,14,15	1,5,6,7,8,10,13,14,15	1,8,10,13,14,15,17	1,11,13,14,15,18	1,6,7,14,15,19,20,21
		III, IV	1,4,13	1,4,6,9,13	1,5,6,7,8,10,13	1,8,10,13,17	1,11,13,18	1,6,7,19,20,21
Sand, Gravel, Stone Concrete Products		III, IV	1,4,13	1,4,9,13	1,5,7,8,13	1,8,13,17	1,11,13,18	1,7,19,20,21

The foregoing rules were approved and adopted by the State of Wisconsin Natural Resources Board on February 19, 1976 and March 18, 1976.

The rules contained herein shall take effect upon publication.

Dated at Madison, Wisconsin 13 April 1976

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

By Anthony S. Earl
Anthony S. Earl, Secretary

(SEAL)