

## Chapter NR 101

## REPORTS AND FEES FOR DISCHARGES OF INDUSTRIAL WASTES AND TOXIC AND HAZARDOUS SUBSTANCES

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**Note:** Chapter NR 101 as it existed on December 31, 1977 was repealed and a new chapter NR 101 was created effective January 1, 1978.

**NR 101.01 Purpose.** The purpose of this chapter is to establish, pursuant to s. 144.96, Stats., requirements for submission of reports and payment of discharge environmental fees by persons discharging industrial wastes or toxic and hazardous substances.

**Note:** This chapter does not establish any limitations on discharges of industrial wastes or toxic and hazardous substances. Persons owning or operating facilities having such discharges remain subject to any lawful limitations on such discharges imposed in accordance with federal, state or local regulatory programs. Air emissions fee and reporting requirements are contained in chs. NR 410 and 438, respectively.

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78; correction made under s. 13.93 (2m) (b) 7, Stats., Register, October, 1985, No. 358; am. Register, May, 1993, No. 449, eff. 6-1-93.

**NR 101.02 Applicability.** The provisions of this chapter are applicable to persons required to submit reports to the department as set forth in s. NR 101.11. This section requires reports of discharges of industrial wastes and toxic and hazardous substances which exceed specified reporting levels.

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78; am. Register, May, 1993, No. 449, eff. 6-1-93.

**NR 101.03 Definitions.** The following definitions are applicable to terms used in this chapter:

(1) "Person" means an individual, partnership, corporation, association, state agency, or interstate agency owning or operating a facility discharging effluents to a surface water, to a land disposal system, or to a publicly owned treatment works.

(2) "Facility" means an operating plant or establishment carrying on any manufacturing activity, trade, or business on a common site, including similar such plants under common ownership or control located on contiguous properties. Plants or establishments under common ownership or control located on separate sites shall be considered separate and individual facilities.

(3) "Effluent" means any discharge of process waste water, cooling water, or sanitary waste water, to a surface water including such discharge through a storm sewer, to a land disposal system, or to a publicly owned waste treatment works. Precipitation runoff and liquid agricultural wastes used as soil fertilizer are excluded from this definition unless

monitoring of such discharges is required under a WPDES discharge permit. Animal wastes regulated by ch. NR 243 are excluded unless, as the result of a discharge to waters of the state, a WPDES permit requires the construction of a treatment work.

(4) "Surface water" means those portions of Lake Michigan and Lake Superior within the boundaries of Wisconsin, all lakes, bays, rivers, streams, springs, ponds, impounding reservoirs, marshes, water courses, drainage systems and other surface water, natural or artificial, public or private within the state or under its jurisdiction, except those waters which are entirely confined and completely retained upon the property of a facility.

(5) "Land disposal system" means an absorption or seepage pond, a ridge and furrow, a spray irrigation, a spray runoff, a subsurface field absorption, a surface spreading, or other installation on a land area used for the disposal of effluent by absorption or percolation into the ground.

(6) "Publicly owned treatment works" means a sewage treatment plant owned by a municipality and the sewerage system tributary thereto.

(7) "Municipality" means, as defined in s. 144.01 (6), Stats., any city, town, village, county, county utility district, town sanitary district, public inland lake protection and rehabilitation district or metropolitan sewage district.

(8) "Process waste water" means any water, except cooling water, which comes into direct contact with or results from the production or use of any raw material, service item, intermediate product, finished product, byproduct, or waste product, and may contain in solution or suspension various components of such raw materials, items or products.

(9) "Cooling water" means any water which is used primarily for cooling of raw materials, products, or equipment.

(10) "Sanitary waste water" means waste water associated with personal hygiene, food preparation, or cleaning but does not include waste water from commercial or bulk production of goods or services such as, but not limited to, laundromats, commercial laundries, carwashes, food production, or other manufacturing activities.

(11) "WPDES permit" means a Wisconsin pollutant discharge elimination system permit issued by the department pursuant to ch. 147, Stats.

*Emergency*  
*1/6/93*  
History: Cr. Register, December, 1977, No. 264, eff. 1-1-78; am. (3), Register, February, 1984, No. 338, eff. 3-1-84; correction made in (7) under s. 13.93 (2m) (b) 7, Stats., Register, October, 1985, No. 358; emerg. am. (1) and (2), eff. 2-5-92; am. (1), r. (12), (14) to (16), Register, May, 1993, No. 449, eff. 6-1-93; renum. (13) to NR 400.02 (59m), Register, June, 1993, No. 450, eff. 7-1-93.

**NR 101.11 Required effluent reports.** (1) Each person owning or operating a facility for which a report is required by sub. (4) shall submit to the department an annual report for each such facility for effluent:

- (a) To a surface water, directly or through a storm sewer;
- (b) To a land disposal system; or

(c) To a publicly owned treatment works.

(2) Reports required pursuant to this section shall be submitted by February 1 of each year for effluents during the preceding calendar year. Persons unable to submit reports by February 1 for sufficient reasons shall, upon written request to the department, be granted an extension of 45 days for submission of such reports.

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(3) The form and content of effluent reports shall be as set forth in s. NR 101.12.

(4) A report is required for each facility, other than one owned and operated by a municipality, having an effluent to a surface water, to a land disposal system, or to a publicly owned treatment works if any such effluent on any one or more days in a calendar year:

(a) Contains any one or more of the industrial wastes or toxic and hazardous substances identified in Table 1 in either a concentration or daily quantity in excess of the reporting level set forth in that table, and either;

(b) Has a volume greater than 10,000 gallons per day, or

(c) Has a volume less than 10,000 gallons per day where,

1. The effluent is to a surface water from a facility required by a WPDES permit to monitor the effluent for other than volume and temperature, or

2. The effluent is to a land disposal system from a facility required by a WPDES permit to monitor either the effluent or underlying ground water for other than effluent volume, or

3. The effluent is to a publicly owned treatment works from a facility subject to a pretreatment standard, adopted by the department pursuant to s. 147.07(2), Stats., which limits the discharge of one or more of the substances identified in Table 1.

(5) For the purposes of sub. (4)(a) and of reports required by this section.

(a) The reporting level for thermal discharge is applicable only to effluent to a surface water, and

(b) Both the concentration and the daily quantity of industrial wastes or toxic and hazardous substances shall be determined in accordance with s. NR 101.12(4).

(6) For the purpose of determining the volume of effluent to a surface water, to a land disposal system, or to a publicly owned treatment works:

(a) The volume of sanitary waste water contained in any such effluent may be deducted from the total volume; and

(b) Where any such effluent consists of more than one effluent stream the volume shall be the total of the individual streams less the volume of any sanitary waste water contained therein.

(7) Any person required to file a report for an effluent to a publicly owned treatment works shall provide a copy of such report, or equivalent

data characterizing discharges to publicly owned treatment works, to the authority responsible for the operation of such works.

(8) Any person who establishes a new facility for which a report will be required in accordance with this section shall, within 90 days of commencing operation of such facility, register such new facility with the department.

History: Cr. Register, December, 1977, No. 264, eff. 1-1-78; emerg. am. (2) and (4), eff. 2-5-92; emerg. am. (6), eff. 2-12-92.

TABLE 1. Register of Industrial Wastes or Toxic and Hazardous Substances

SUBSTANCE	REPORTING LEVELS <sub>1</sub>	QUANTITY FEE FACTORS <sub>2</sub>		
		in dollars/lb/day for discharges to		
	Concentration (mg/l) and Quantity (lbs/day)	Surface Waters	Land Disposal Systems	Publicly Owned Treatment Works
<b>1. METALS</b>				
Antimony, total	0.20	\$ 2.50	\$ 2.00	\$ 2.00
Arsenic, total	0.05	2.50	2.00	2.00
Beryllium, total	0.10	5.00	4.00	4.00
Cadmium, total	0.05	25.00	20.00	20.00
Chromium, total	0.10	2.50	1.25	1.25
Copper, total	0.10	2.50	1.25	1.25
Lead, total	0.10	2.50	1.25	1.25
Manganese, total	0.10	2.50	1.25	1.25
Mercury, total	0.0025	500.00	250.00	250.00
Nickel, total	0.20	2.50	2.00	2.00
Selenium, total	0.05	2.50	2.00	2.00
Silver, total	0.10	2.50	1.25	1.25
Thallium, total	0.05	2.50	2.00	2.00
Zinc, total	0.20	2.50	1.25	1.25
<b>2. NUTRIENTS &amp; DISSOLVED IONS</b>				
Chloride	50	0.05	0.04	0.04
Cyanide, total	0.025	10.00	5.00	5.00
Fluoride	2	0.05	0.04	0.04
Nitrogen (Kjeldahl)	0.60	0.25	0.125	0.125
Nitrogen (Nitrate + Nitrite)	0.60	0.25	0.125	0.125
Phosphorus, total	0.10	1.00	0.50	0.50
Sulfate	30	0.05	0.04	0.04
Sulfide	1	2.00	0.20	0.20
<b>3. ORGANICS-GENERAL</b>				
Biochemical Oxygen Demand, five-day (BOD5)	5	0.25	0.00	0.025
Oil & Grease	5	1.00	0.30	0.30
Phenols	0.05	20.00	6.00	6.00
<b>4. ORGANICS-SPECIFIC</b>				
Aldrin	0.001	500.00	250.00	250.00
Chlordane	0.001	500.00	250.00	250.00
DDT	0.001	500.00	250.00	250.00
Dieldrin	0.001	500.00	250.00	250.00
Endrin	0.001	500.00	250.00	250.00
Hexachlorobenzene	0.001	500.00	250.00	250.00
Hexachlorocyclohexane	0.001	500.00	250.00	250.00
Methoxychlor	0.001	500.00	250.00	250.00
Pentachlorophenol	0.001	50.00	25.00	25.00
Polychlorinated Biphenyls	0.001	500.00	250.00	250.00
<b>5. OTHER SUBSTANCES &amp; MEASUREMENTS</b>				
Chlorine, total residual	1	5.00	0.50	0.50
Solids, total suspended	10	0.125	0.00	0.0125
Thermal Discharge <sup>3</sup>	1	0.25		

(1) The facility shall report, pursuant to s. NR 101.12 (4), any substance in its effluent that exceeds the concentration level or quantity level or both as listed in this table.

(2) To obtain the discharge fee required pursuant to s. NR 101.14 (3), the fee factors of this table are multiplied by the quantity of each respective industrial waste or toxic and hazardous substance discharged during a single day of facility operation, as determined in accordance with s. NR 101.12 (4). The fee factors of this table are such that the adjustment factor of s. NR 101.14 (4) is expected to be close to 1.3 for fees payable in 1979.

(3) Reporting level is one million british thermal units (BTU) per day, and the quantity fee factor is in dollars per million BTU per day.

**NR 101.12 Content of the effluent reports.** Effluent reports required by s. NR 101.11 shall contain the following information:

- (1) **FACILITY IDENTIFICATION.** The report shall include:
  - (a) The name and mailing address of the reporting facility;
  - (b) The location of the facility if different from its mailing address;
  - (c) The name and address of the parent company or corporation if different from that of the facility;
  - (d) A brief description of the nature of the business or other activity of the facility;
  - (e) The normal operation schedule of the facility in hours per day, days per week, days per year, and the percentage production by quarter; and
  - (f) The name and telephone number of the individual to be contacted regarding the effluent report.

- (2) **EFFLUENT STREAM IDENTIFICATION.** The report shall include a scaled map of the facility showing the location of all effluent streams leaving the facility and discharging to a surface water, to a land disposal system, or to a publicly owned treatment works, and identifying the points at which the effluent streams are sampled for the purposes of this chapter. This map shall be submitted with the first report required pursuant to s. NR 101.11, and shall be updated with any subsequent report showing changes in the number, location, receiving system, or sampling points of any effluent stream.

- (3) **EFFLUENT STREAM DATA.** The report shall include the following information for each effluent stream:

- (a) The average and maximum flow volumes, in gallons per day, based on days during the year when discharge occurs;
- (b) The percentage of the average effluent stream volume which is process, cooling, or sanitary waste water;
- (c) A statement on the presence or absence of runoff in the effluent stream during periods of precipitation;
- (d) A description of any waste treatment or pretreatment applied prior to discharge;
- (e) The average and maximum temperatures, and corresponding influent temperature, of effluent streams discharging to a surface water; and
- (f) The pH range of the effluent stream, except streams carrying only sanitary waste water;
- (g) The name of the surface water or publicly owned treatment works, or a description of the location and type of land disposal system receiving the effluent stream.

- (4) **EFFLUENT COMPOSITION.** The report shall include for each effluent for which a report is required pursuant to s. NR 101.11 the concentration and quantity of each industrial waste or toxic and hazardous substance which exceeds the reporting levels established in Table 1. The concentrations and quantities of each substance shall be reported as specified in this subsection:

(a) The concentration shall be in milligrams per liter (mg/l) and the quantity shall be in pounds per day, except that thermal discharges shall be reported in millions of BTU's per day;

(b) The concentration and quantity shall be determined using the sampling, flow measurement, and analytical procedures set forth in s. NR 101.13;

(c) The concentration and quantity may be reported either:

1. As a daily maximum based on samples for a single operating day of full facility production when all substances subject to the provisions of this chapter, including those in batch or periodic discharges, are present in the effluent, and where the quantity of each reported substance is the greatest daily quantity contributed to the effluent during the reporting year, or

2. As a daily maximum and a daily average based on separate samples for at least 3 days of operation where one of the days is of the type described in subdiv. 1., and the others are days of routine facility operation, except as provided in sub. (5).

(5) **MONITORING.** For a facility required by a WPDES permit or other program to provide more frequent periodic monitoring than required in sub. (4) (c) 2., all applicable data resulting from such monitoring shall be used to determine the maximum and average daily concentration of substances, and to determine the maximum and average daily flow volume for calculation of corresponding daily quantities.

(6) **DISCHARGE FEE.** Where the maximum daily quantity is determined in accordance with sub. (4) (c) 1, it shall be used to determine the annual discharge fee pursuant to s. NR 101.14 (3), and where the maximum and average daily quantities are determined in accordance with sub. (4) (c) 2, the average daily quantity shall be used to determine the annual discharge fee pursuant to s. NR 101.14 (3).

(7) **RAW MATERIALS REPORT.** The report shall include a list of the amounts of raw materials used annually which contribute the industrial wastes or toxic and hazardous substances reported. The list shall also indicate the general purpose for which each raw material is used: cleaning agent, boiler treatment, disinfectant, component of product, and the like.

(8) **REPORTING FORMS.** Forms for reporting information required by subs. (1), (3), and (4), shall be provided by the department.

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78; emerg. am. (2), (6) and (7), cr. (4) (c) 3., eff. 2-12-92.

**NR 101.13 Methods of effluent analysis.** (1) Persons required to file reports pursuant to s. NR 101.11 shall develop accurate and reliable data sufficient to enable verification of such reports. Records of such data shall include the time and place of sampling, flow measurement, and analyses together with the names of persons or firms responsible for each. Such records shall be retained for 3 years following the year in which the report is submitted.

(2) Effluent volumes, temperatures, pH ranges, effluent concentrations, and calculated quantities of industrial wastes or toxic and hazardous substances shall be determined and reported annually, except that

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the department may for relatively minor or constant effluents, approve less frequent determination of concentrations and pH ranges. The department shall not allow the continued use of the same effluent concentration or pH data for more than three consecutive annual reports.

(3) Effluent volumes, temperatures, and pH shall be determined by individual measurements in sufficient number to obtain representative average and maximum daily flow volumes, average and maximum annual discharge temperatures, and annual pH ranges.

(4) Effluent concentrations of industrial wastes or toxic and hazardous substances shall be determined on the basis of a composite sample of effluent to a surface water, to a land disposal system, or to a publicly owned treatment work:

(a) For effluent comprised of a single effluent stream a composite sample shall be taken at intervals of not more than one hour during a complete operating day either:

1. Such that the volume of each individual sample is proportional to the volume of stream flow during each interval, or

2. With prior approval by the department, such that each individual sample is of equal volume.

(b) For an effluent comprised of more than one effluent stream a composite sample of each individual stream shall be taken as provided in par., (a), and either:

1. Those composite samples shall be analyzed separately and the concentrations of substances in the effluent calculated from the ratio of the volume of each individual stream to the total volume of the effluent; or

2. Volumes of those composite samples proportional to the volume of each individual stream shall be combined into one sample representative of the total effluent volume and that sample analyzed to determine the concentration of substances in the effluent.

(5) Continuous measurement and continuous or proportional sampling conforming to the requirements of ch. NR 218 may be used in lieu of methods described in subs. (3) and (4) of this section, and shall be so used when required in the WPDES permit for a facility. Single grab sampling may be used in lieu of measurement and composite sampling required in subs. (3) and (4) only when such sampling is specified in the WPDES permit for a facility.

(6) Sanitary waste water may be excluded from the composite samples of sub. (4).

(7) Concentrations and quantities of industrial wastes or toxic and hazardous substances present in water influent to a facility may be deducted from effluent concentrations and quantities of such substances provided that the net difference represents all contributions of substances to the effluent by the reporting facility. Thermal discharges shall be reported as effluent heat content less influent heat content for corresponding volumes of discharge and intake water.

(8) Required pollutant analytical methodology and sample preservation procedures are in ch. NR 219 unless, on request, an alternate or

modified method or procedure has been approved previously in writing by the department.

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78; am. (8), Register, June, 1986, No. 366, eff. 7-1-86; emerg. am. (3) and (4), r. (6), renum. (7) and (8) to be (6) and (7) and am. (6), eff. 2-12-92.

**NR 101.14 Effluent fees.** (1) An annual effluent fee consisting of an annual \$100 administrative fee and an annual discharge fee shall be assessed for each facility which is required to submit an effluent report pursuant to s. NR 101.11.

(3) The discharge fee for each facility shall be based on effluent data reported by the facility for the year preceding that in which such fee is assessed and payable, and shall be the sum of the dollar amounts determined in accordance with pars. (a), (b) and (c) multiplied by an annual adjustment factor determined in accordance with sub. (4). Such dollar amounts shall be:

(a) For each substance discharged to a surface water that is required to be reported, the greater of either:

1. Five dollars, or
2. The dollar amount determined by multiplying the daily discharge quantity in pounds per day by the appropriate quantity fee factor listed in Table 1;

(b) For each substance discharged to a land disposal system that is required to be reported, the greater of either:

1. Five dollars, or
2. The dollar amount determined by multiplying the daily discharge quantity in pounds per day by the appropriate quantity fee factor listed in Table 1; and

(c) For each substance discharged to a publicly owned treatment works that is required to be reported, the greater of either:

1. Five dollars, or
2. The dollar amount determined by multiplying the daily discharge quantity in pounds per day by the appropriate quantity fee factor listed in Table 1.

(4) The adjustment factor shall be determined annually by the department on the basis of its cost for administration of water resource programs as specified in s. 144.96 (3) (c), Stats., by:

(a) Subtracting the total administrative fees required of all reporting facilities by this section from 30% of such costs for the last fiscal year preceding the calendar year in which the effluent fee is assessed and payable, and dividing the difference by;

(b) The total discharge fees of all reporting facilities, each determined in accordance with sub. (3).

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78; correction in (4) (intro.), made under s. 13.93 (2m) (b) 7, Stats., Register, October, 1985, No. 358; emerg. am. (4) (a) eff. 2-12-92; am. (1), r. (2), Register, May, 1993, No. 449, eff. 6-1-93.

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**NR 101.21 Required air emission reports.** History: Cr. Register, December, 1977, No. 264, eff. 1-1-78; emerg. am. (2) and (4) (intro.), eff. 2-12-92; r. Register, May, 1993, No. 449, eff. 6-1-93.

**NR 101.22 Content of air emission reports.** History: Cr. Register, December, 1977, No. 264, eff. 1-1-78; r. Register, May, 1993, No. 449, eff. 6-1-93.

**NR 101.23 Methods of air emission analysis.** History: Cr. Register, December, 1977, No. 264, eff. 1-1-78; r. Register, May, 1993, No. 449, eff. 6-1-93.

**NR 101.24 Air emission fee.** History: Cr. Register, December, 1977, No. 264, eff. 1-1-78; correction in (4) (intro.), made under s. 13.93 (2m) (b) 7, Stats., Register, October, 1985, No. 358; emerg. am. (4) (a), eff. 2-12-92; r. Register, May, 1993, No. 449, eff. 6-1-93.

**NR 101.31 Discharge environmental fees.** (1) Persons subject to the provisions of this chapter shall pay to the department an annual discharge environmental fee for each facility for which a report is required pursuant to s. NR 101.11.

(2) For each facility the discharge environmental fee shall be the effluent fee determined in accordance with s. NR 101.14.

(3) The department shall mail statements annually to persons owning or operating facilities required to pay discharge environmental fees. The first statements issued in accordance with the provisions of this section shall be mailed by May 1, 1979, and shall be based on calendar year 1978 discharges.

(4) Fees payable in accordance with this section shall be paid to the department within 30 days of the statement date.

History: Cr. Register, December, 1977, No. 264, eff. 1-1-78; am. (1) and (2), Register, May, 1993, No. 449, eff. 6-1-93.