

## Chapter NR 108

## REQUIREMENTS FOR PLANS AND SPECIFICATIONS SUBMITTAL FOR REVIEWABLE PROJECTS AND OPERATIONS OF COMMUNITY WATER SYSTEMS, SEWERAGE SYSTEMS AND INDUSTRIAL WASTEWATER FACILITIES

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**History:** Chapter NR 108 as it existed on November 30, 1974 was repealed and a new Chapter NR 108 was created effective December 1, 1974.

**NR 108.01 Applicability.** The rules herein presented govern the submission of plans and specifications for any reviewable project and the general operation and control of community water systems, sewerage systems and industrial wastewater facilities.

**History:** Cr. Register, November, 1974, No. 227, eff. 12-1-74; am. Register, March, 1978, No. 267, eff. 4-1-78.

**NR 108.02 Definitions. (1)** "Approval" means the written approval of the department for any project requiring approval pursuant to s. 281.41, Stats., and s. NR 108.03.

**(2)** "Community water system" means a public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.

**(2m)** "Construction" means any placement, assembly or installation of facilities or equipment at the premises where such equipment will be used.

**(3)** "Compliance determination systems" means devices, such as flow meters and mechanical sampling equipment, used to determine whether a discharge is complying with permit conditions.

**(4)** "Department" means the department of natural resources.

**(5)** "Groundwater monitoring system" means wells, piezometers or other equipment used to determine groundwater quality or elevation.

**(6)** "Industrial pretreatment facility" means a facility which reduces or removes pollutants from industrial wastes prior to discharge to a publicly owned sewerage system.

**(7)** "Industrial wastewater facility" means a facility which reduces or removes pollutants from industrial wastes prior to discharge to waters of the state, other than through publicly owned treatment works.

**(8)** "Living unit" means a domicile.

**(9)** "Municipal water system" means a community water system owned by a county, city, village, town, town sanitary district, utility district, public institution as defined in s. 49.10 (12) (f) 1., Stats., or a privately owned water utility serving any of the above.

**Note:** 1985 Wis. Act 29 repealed s. 49.10, Stats.

**(10)** "Non-community water system" means a public water system that is not a community water system. A non-community water system typically serves a transient population rather than permanent year-round residents.

**(11)** "Permit" means a Wisconsin pollution discharge elimination system permit for the discharge of pollutants issued by the department under ch. 283, Stats.

**(12)** "Public water system" means a system providing piped water to the public for human consumption, if the system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. A public water system is either a "community water system" or a "non-community water system". A public water system includes:

(a) Any collection, treatment, storage, and distribution facilities under control of the operator of the public water system and used primarily in connection with the public water system, and

(b) Any collection or pretreatment storage facilities not under control of the operator of the public water system which are used primarily in connection with the public water system.

**(13)** "Reviewable project" means any construction or installation project for which department approval is required, pursuant to s. 281.41, Stats. The following projects are reviewable within the meaning of this chapter:

(a) Any new community water system or any water system intended to serve 7 or more homes, 10 or more apartments, 10 or more mobile homes or 10 or more condominium units.

(b) Any improvements, extensions or alterations which may affect the quality or quantity of water delivered by an existing community water system or delivered by a water system serving 7 or more homes, 10 or more apartments, 10 or more mobile homes or 10 or more condominium units except distribution systems not in streets or easements, or water systems where all of the living units are owned by a single owner and the owner provides information indicating that less than 25 year-round residents will be served.

(c) Any new sewerage system.

(d) Any improvements, extensions or alterations of existing sewerage systems which may affect the quality or quantity of effluent or the location of any outfall;

(e) Any new industrial wastewater facility or any modification or alteration of an existing industrial wastewater facility, including compliance determination systems.

(f) Any new industrial pretreatment facility or any modification or alteration of an existing industrial pretreatment facility which may affect the quality or quantity of the discharge to a sewerage system.

(g) Any groundwater monitoring system associated with a wastewater treatment facility.

**(14)** "Sewerage system" means all structures, including sewage treatment facilities, conduits and pipelines, by which sewage is collected and disposed of.

**(15)** "Waterworks" or "water system" means any facility installed or constructed to obtain, treat, store or convey the water for drinking or domestic uses for a public water system.

**Note:** Plan review of water distribution systems for community water systems intended to serve less than 15 living units or not in streets or easements is required by ch. SPS 382, Wis. Adm. Code.

**History:** Cr. Register, November, 1974, No. 227, eff. 12-1-74; am. Register, March, 1978, No. 267, eff. 4-1-78; renum. (3) to (6), (8) to (10) to be (4), (7) to (9) and (13) to (15) and am. (13) (e), cr. (2m), (3), (5), (6), (10) to (12) and (13) (f) and (g), r. (7), Register, January, 1987, No. 373, eff. 2-1-87; am. (13) (a) and (b), Register, December, 2000, No. 540, eff. 1-1-01; corrections in (1), (11) and (13) made under s. 13.93 (2m) (b) 7., Stats., Register, December, 2000, No. 540.

**NR 108.03 Construction of reviewable projects.**

**(1)** No person may commence, or cause to be commenced, construction of any reviewable project until final plans and specifications for such project have been reviewed and approved by the department or until at least 90 days has elapsed since the submis-

sion of final plans and specifications to the department, and the department has not rejected the final plans and specifications. The 90-day time period may be extended as provided in s. 281.41, Stats.

**Note:** The 90-day review period is approximately 65 business days.

(2) Site preparation work for industrial wastewater facilities and industrial pretreatment facilities may commence prior to the date of approval of plans and specifications. Site preparation work is limited to clearing, grubbing, and rough grading.

(3) The reviewable project shall be constructed in accordance with the approved plans and specifications and approval conditions or subsequent approved modifications.

(4) The department shall be notified when construction has commenced and again when the facilities are placed in operation.

(5) All existing treatment facilities shall be operated as effectively as possible during the course of the construction period.

(6) A resident inspector shall be provided by the treatment system owner or its consultant during the course of construction.

**History:** Cr. Register, November, 1974, No. 227, eff. 12-1-74; am. Register, March, 1978, No. 267, eff. 4-1-78; renum. to be (1), cr. (2) to (6), Register, January, 1987, No. 373, eff. 2-1-87; correction in (1) made under s. 13.93 (2m) (b) 7., Stats., Register, December, 2000, No. 540.

**NR 108.04 Plans for reviewable projects. (1) PRELIMINARY PLANS.** Prior to preparation of final plans and specifications for a water supply facility, an industrial wastewater facility or industrial pretreatment facility, a conceptual design report of the proposed system may be submitted. Upon request the department will provide written comments on the acceptability of the concept and advice regarding design requirements.

(2) **SUBMISSION OF FINAL PLANS AND SPECIFICATIONS.** (a) All final plans and specifications submitted to the department pursuant to s. 281.41, Stats., and s. NR 108.03, shall be accompanied by a request for approval and by information pertinent to the design of the system, including general plans, construction details, specifications and an engineering report. The facility owner, on whose behalf the submittal was made, shall be notified by the department of any submittal deficiencies. Plans submitted without necessary design data may be rejected by the department. The plans and specifications and pertinent information shall be submitted at least 90 days prior to the date upon which the construction of the reviewable project is planned to commence, except in emergency situations when it is desired to commence construction in less than 90 days, in which case the plans and specifications shall be submitted as many days as possible prior to the desired construction date.

**Note:** The necessary accompanying design data for sewerage systems and waterworks can be found in Chs. NR 110 and 811, respectively.

(b) Three sets of final plans and specifications shall be submitted for all reviewable projects except water main and sanitary sewer extensions in which case only 2 sets need to be submitted. One of the plan sets shall be submitted electronically and the remainder as paper unless the department determines an alternate submittal is acceptable for its review and records retention purposes. Additional sets of plans and specifications may be required for sewerage improvements that are eligible for state or federal grants-in-aid.

**Note:** Section 59.635, Stats., requires that the county surveyor be notified if it is necessary to obliterate any landmark, monument, or corner post during construction. It is recommended that a copy of the construction plans be submitted to the county surveyor for review.

(c) The final plans and specifications shall be submitted under the signature and the seal of a professional engineer registered in Wisconsin.

1. This requirement may be waived at the discretion of the department for certain industrial wastewater and industrial pretreatment facilities not affecting public health and for groundwater monitoring systems. Factors which shall be considered by the department when granting a waiver include nature and size of the facilities, evidence of the individual's qualifications to design

such specialized facilities as may be proposed, and the absence of public health and safety concerns.

2. This requirement is waived for community water systems which are not municipal water systems, as defined in s. NR 108.02 (9), and which are not systems serving subdivisions, as defined in s. 236.02 (8), Stats. For community water systems covered by this waiver, plans and specifications for proposed wells may be submitted by a well driller registered in Wisconsin, and for proposed pump installations, including the pump, piping and other appurtenances up to and including the pressure tank, by a pump installer registered in Wisconsin.

(d) If construction is not commenced within 4 years from the date of approval for water main and sanitary sewer extensions or within 2 years from the date of approval for other systems, the approval is void. If approval lapses by passage of time, a new department approval of plans submitted in accordance with the requirements of s. NR 108.04 (2) must be received before construction can commence.

(e) If modifications in the approved plans or specifications are necessary, revised plans or specifications shall be submitted to the department for its approval prior to commencement of construction of the project modifications. Revised plans or specifications need not be submitted in the event the modifications in the approved plans or specifications will not affect the public health, the capacity, flow or operation of the proposed facilities or devices to determine permit compliance.

(f) Plans shall be made on a high grade paper that will not crack when folded nor tear with reasonable usage. The maximum plan size should be 24" x 36"; and sheets in the same set of plans shall be numbered. The scale in feet to which the plans are drawn, the north point, the date and the name of the designer and owner shall, in all cases, be indicated. Drawings obtained from the manufacturer or supplier containing proprietary names or symbols will not be accepted for approval. All plans shall be drawn to a suitable scale not smaller than one inch equaling 40 feet for detailed plans and, whenever practicable, not smaller than one inch equaling 100 feet for general plans. Reductions of full-scale plans with an appropriate scale for the reduced plans not smaller than one inch equaling 100 feet may be accepted by the department provided that the plans are clear and legible. Plans for modifications of or extensions to existing waterworks, sewerage systems, industrial wastewater facilities or industrial pretreatment facilities shall clearly indicate the connections or relations thereto, and, if not already on file with the department, shall include plans of the existing system or facility.

(3) **PLANS AND SPECIFICATIONS REVIEW.** (a) The department shall examine and approve, conditionally approve, or reject the plans and specifications. The conditions of approval or reason for rejection shall be stated in writing.

(b) Approval of plans and specifications is not to be construed as a department determination on the issuance of a Wisconsin pollutant discharge elimination system permit, an opinion as to the ability of the proposed system to comply with effluent limitations in such permit, an approval of the environmental assessment that may be prepared for this project or an approval for any activities requiring a permit under ch. 30, 31 or 281, Stats. Approval of plans and specifications is also not to be construed as department certification of the ability of a proposed industrial pretreatment facility to comply with applicable pretreatment standards.

(4) **REVIEW DELEGATION.** (a) The department may delegate plans and specification review and/or approval authority for industrial pretreatment facilities to the governing body which controls the sewerage system to which the discharge is or will be directed. This delegation may be authorized upon written request and demonstration by the governing body of its capability to perform an adequate technical review.

(b) Review delegation shall be rescinded immediately, without a hearing, under any of the following circumstances:

1. The body receiving delegation requests that delegation be rescinded;

2. The department determines through an audit procedure that adequate and timely reviews and/or approvals have not been performed.

(c) If the department has delegated approval authority, copy of plans and specifications, the review notes and correspondence, and a copy of the letter which approves, conditionally approves or rejects the plans and specifications shall be submitted to the department by the body receiving delegation at the time that final action occurs.

(d) If the department has delegated review authority, a copy of plans and specifications, the review notes and appropriate correspondence shall be submitted to the department by the body receiving delegation following the review activity.

**(5) POST START OF CONSTRUCTION SUBMITTALS.** The department may not approve plans and specifications for any project for which construction has commenced. The department may review the plans and specifications and require changes to components which may adversely affect public health, the operation of the proposed or existing facility and the determination of permit compliance. This review does not prohibit the department from taking enforcement action under s. NR 108.03.

**History:** Cr. Register, November, 1974, No. 227, eff. 12-1-74; am. (2) (c), Register, April, 1982, No. 316, eff. 5-1-82; r. and recr. (1), am. (2), cr. (3) to (5), Register, January, 1987, No. 373, eff. 2-1-87; am. (1), (2) (b) and (f), Register, December, 2000, No. 540, eff. 1-1-01; corrections in (2) (a) and (3) (b) made under s. 13.93 (2m) (b) 7., Stats., Register, December, 2000, No. 540; CR 09-123; am. (2) (b) and (5) Register July 2010 No. 655, eff. 8-1-10.

**NR 108.05 Design requirements. (1)** Final plans and specifications shall incorporate accepted engineering practices. If new or innovative equipment or methods are proposed in the plans, sufficient data, based upon practical application, experimental or otherwise, shall be submitted to show that satisfactory results can be secured.

**(2) Waterworks, exclusive of the distribution system, shall be designed to provide for the estimated requirements based on a projected 20-year growth. Water distribution systems shall be designed for the estimated ultimate tributary population. These requirements may be modified by the department where it can be shown that a shorter design period is more cost-effective, more environmentally sound or that additional distribution system capacity will be provided in a future phase of construction.**

**(3) Sewage treatment facilities shall be designed to provide capacity for estimated future flows in accordance with s. NR 110.09 (2) (j). Interceptors shall be designed to provide capacity for estimated future flows in accordance with s. NR 110.10 (2). Collector sewers shall be designed for the estimated ultimate flow.**

**History:** Cr. Register, November, 1974, No. 227, eff. 12-1-74; r. and recr. (2) and cr. (3), Register, December, 1978, No. 276, eff. 1-1-79.

**NR 108.06 Plant operation. (1) GENERAL.** Every owner of a waterworks, sewage treatment facility, or industrial wastewater facility shall operate these facilities as efficiently as possible. If operating difficulties or mechanical breakdown of plant units resulting in impairment of treatment effectiveness should occur, the owner shall immediately notify the appropriate district office of the department.

**Note:** Where a facility is so operated or constructed that satisfactory results cannot be obtained, the department may require operational changes or modifications to the facility.

**(2) SUPERVISION.** Every municipal water system, sewage treatment plant and industrial wastewater facility shall employ a certified operator as provided in s. 281.17 (3), Stats. The owner of any such facility shall notify the department within 15 days of any change in the certified operator or operators employed to operate such facilities.

**(3) CHEMICALS.** When chemicals are used in connection with any purification or treatment process, a 30-day supply of such chemicals shall be kept on hand at all times to insure against ineffective operation resulting from shortages and delays in securing these materials. Approval of the department shall be obtained prior to utilizing any chemicals and paints or coatings that will be in contact with or added to a potable water supply.

**Note:** The requirement that a 30-day supply of chemicals be kept on hand at all times may be waived by the department if compliance with it is impractical or unnecessary.

**(4) REPORTS AND RECORDS. (a)** Reports of operation of all municipal water systems, sewage treatment plants and industrial wastewater facilities and analyses of samples collected in conjunction thereto shall be submitted to the department on approved forms. Reports regarding the operation of waterworks during the preceding month shall be submitted to the department not later than the 10th day of each month. Reports regarding the operation of sewage treatment plants and industrial wastewater facilities shall be submitted to the department at the frequency specified in the permit for the facility.

**Note:** See ss. NR 809.80 and 811.27 (2) (b) for other community water system reporting requirements.

**(b)** All owners or operators of sewage treatment plants and industrial wastewater facilities discharging wastewater into the waters of the state shall provide adequate flow measurement and recording equipment to measure the volume of effluent discharged from their facility. Recorded flow data shall be submitted to the department at the frequency specified in the permit for the facility.

**(c)** All other waste facilities discharging to the waters of the state shall report under ch. NR 101 and ch. 283, Stats.

**History:** Cr. Register, November, 1974, No. 227, eff. 12-1-74; am. (1), (2) and (4) (a), Register, March, 1978, No. 267, eff. 4-1-78; am. (4), Register, January, 1987, No. 373, eff. 2-1-87; corrections in (2) and (4) (c) made under s. 13.93 (2m) (b) 7., Stats., Register, December, 2000, No. 540.