

Chapter NR 108

**GENERAL REQUIREMENTS FOR COMMUNITY
WATER SYSTEMS, SEWERAGE SYSTEMS AND
INDUSTRIAL WASTE WATER
TREATMENT 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History: Chapter NR 108 as it existed on November 30, 1974 was repealed and a new Chapter NR 108 was created effective December 1, 1974.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. 144.04, Stats., and section 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.

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

(4) "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.

(5) "Living unit" means a domicile.

(6) "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.

(7) "Public water system" means a water system which has at least 15 service connections or regularly serves an average of 25 individuals daily at least 60 days out of the year as defined in section NR 109.04 (14), Wis. Adm. Code.

(8) "Reviewable project" means any construction or installation project for which department approval is required, pursuant to s. 144.04, Stats. The following projects are reviewable within the meaning of this chapter:



(a) Any new community water system intended to serve 15 or more living units or having source capacity greater than 70 gallons per minute.

(b) Any improvements, extensions or alterations which may affect the quality or quantity of water delivered by an existing community water system intended to serve 15 or more living units or having source capacity greater than 70 gallons per minute except distribution systems not in streets or easements.

(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 facility.

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

(10) "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 chapter H62, Wis. Adm. Code.

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

NR 108.03 Construction of reviewable projects. No person shall commence, or cause to be commenced, construction of any reviewable project until such project has been reviewed and approved by the department or until at least 90 days has elapsed since the submission of final plans and specifications to the department, whichever occurs first. The 90-day time period may be extended as provided in s. 144.04, Stats.

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

NR 108.04 Submission of final plans and specifications for reviewable projects. (1) **PRELIMINARY PLANS AND SPECIFICATIONS.** Upon submission of at least 3 copies of any preliminary plans and specifications, including engineering reports, for any proposed project which requires department approval, the department shall review such plans and specifications to determine whether they meet the general design requirements of the department. The persons submitting such preliminary plans and specifications shall be notified by the department of any deficiencies in the plans and specifications as submitted.

(2) **FINAL PLANS AND SPECIFICATIONS.** (a) All final plans and specifications submitted to the department pursuant to s. 144.04, Stats., and NR 108.03, Wis. Adm. Code, shall be accompanied by a request for approval and by information pertinent to the design of the system. Plans submitted without necessary design data will be returned.

Note: Requirements setting forth the necessary accompanying data for sewerage systems and waterworks can be found respectively in NR 110.06 to 110.11 and NR 111.11.

(b) Three sets of final plans and specifications shall be submitted for all reviewable projects except water main and sanitary sewer extensions in which cases only 2 sets need to be submitted. Two additional sets of plans and specifications shall be submitted for sewerage improvements that are eligible for federal grants-in-aid. One set of all approved plans will be affixed with the department's stamp of approval and returned to the owner.

Note: For waterworks projects other than main extensions, one additional set of plans and specifications may be submitted which will be forwarded to the Wisconsin public service commission after approval.

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 facilities not affecting public health. Factors which may be considered include nature and size of the facilities and evidence of the individual's qualifications to design such specialized facilities as may be proposed.

2. This requirement is waived for community water systems which are not municipal water systems, as defined in s. NR 108.02 (6), 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) The final plans and specifications shall include general plans, detailed plans, specifications and an engineering report. All reports, detailed plans and specifications shall be submitted at least 90 days prior to the date upon which the construction of the reviewable project is planned to commence. If construction is not commenced within 2 years from the date of approval, the approval is void. In the event approval lapses by passage of time, application shall be made to the department for reapproval of the plans originally submitted.

(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; provided that 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 or the capacity, flow or operation of the proposed facilities.

(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 equalling 40

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feet for detailed plans and, whenever practicable, not smaller than one inch equalling 100 feet for general plans. Plans for modifications of or extensions to existing waterworks, sewerage systems or industrial wastewater 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 plant.

History: Cr. Register, November, 1974, No. 227, eff. 12-1-74; am. (2) (c), Register, April, 1982, No. 316, eff. 5-1-82.

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 NR 110.09 (2) (j). Interceptors shall be designed to provide capacity for estimated future flows in accordance with 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. 144.025 (2) (1), 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 system and sewage treatment plants 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 during the preceding month shall be submitted to the department not later than the 28th day of each month.

Note: See s. NR 111.27 (2) (b) Wis. Adm. Code for other community water system reporting requirements.

(b) All owners or operators of sewage treatment plants discharging wastewater into the waters of the state shall provide adequate flow measurement and recording equipment to measure the volume of effluent discharge from their facility. Recorded daily flow data shall be submitted to the department on a monthly basis by the 28th day of the month following the month of record.

(c) All other waste facilities discharging to the waters of the state shall report under applicable regulations established under s. 144.54, Stats., and the rules adopted pursuant thereto (see ch. NR 101) and ch. 147, 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.

NR 108.07 Severability. Should any section, paragraph, phrase, sentence, clause or word of this chapter be declared invalid or unconstitutional for any reason, the remainder of this chapter shall not be affected thereby.

History: Cr. Register, November, 1974, No. 227, eff. 12-1-74.