

## Chapter NR 108

**GENERAL REQUIREMENTS FOR WATERWORKS,  
SEWERAGE SYSTEMS AND  
INDUSTRIAL WASTE WATER  
TREATMENT FACILITIES**

NR 108.01	Applicability	NR 108.05	Design requirements
NR 108.02	Definitions		
NR 108.03	Construction of reviewable projects	NR 108.06	Plant operation
NR 108.04	Submission of final plans and specifications for reviewable projects	NR 108.07	Severability

**History:** Chapter NR 108 as it existed on November 30, 1974 was repealed and a new Chapter NR 108 was created effective December 1, 1974.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

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

**NR 108.02 Definitions.** The definitions in this section shall apply whenever the listed terms are used in this chapter.

- (1) "Department" means the department of natural resources.
- (2) "Approval" means written approval of the department for any project requiring approval pursuant to section 144.04, Wis. Stats., and NR 108.03, Wis. Adm. Code.
- (3) "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.
- (4) "Sewerage Systems" means all structures, including sewage treatment facilities, conduits and pipelines, by which sewage is collected and disposed of.
- (5) "Waterworks" means any facility installed or constructed to obtain, treat, store or convey the water for drinking or domestic uses for a public or institutional water supply, as defined in NR 111.03.
- (6) "Reviewable Project" means any construction or installation project for which department approval is required, pursuant to section 144.04, Wisconsin Statutes. The following projects are reviewable within the meaning of this chapter:
  - (a) Any new waterworks;
  - (b) Any improvements, extensions or alterations of existing waterworks which may affect the quality or quantity of water;
  - (c) Any new sewerage system;

Register, February, 1975, No. 230  
Environmental Protection

(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 any existing industrial facility.

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

**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.

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

**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 section 144.04, Wis. 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 110.05 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 state of Wisconsin public service commission after approval.

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

(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

Register, February, 1975, No. 230  
Environmental Protection

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 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.

**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) Sewage treatment facilities and waterworks, exclusive of the distribution system, shall be designed to provide for the estimated requirements based on a projected 20-year growth. Water distribution and sewer collection 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 treatment plant design period is more cost-effective or that additional distribution or collection system capacity will be provided in a future phase of construction.

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

**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 nearest 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.

Register, February, 1975, No. 230  
Environmental Protection

(2) **SUPERVISION.** Every waterworks, sewage treatment plant and industrial wastewater facility shall employ a certified operator as provided in subsection 144.025 (2) (1), Wis. 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 waterworks 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.

(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 section 144.54, Wis. Stats., and the rules adopted pursuant thereto (see chapter NR 101) and chapter 147, Wisconsin Statutes.

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

**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.