Chapter NR 210

SEWAGE TREATMENT WORKS

Note: Chapter NR 210 as it existed on October 31, 1986 was repealed and a new chapter NR 210 was created effective November 1, 1986.

NR 210.01 Purpose. The purpose of this chapter is to establish effluent limitations, performance requirements and monitoring provisions to be used in permits for discharges from publicly owned treatment works and privately owned domestic sewage treatment works under s. 147.04 (4) and (5), and 147.08 (1), Stats.

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

NR 210.02 Applicability. This chapter is applicable to all publicly owned treatment works and all privately owned domestic sewage treatment works which discharge to surface waters.

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

NR 210.03 Definitions. The definitions of terms and meanings of abbreviations used in this chapter are set forth in s. 147.015, Stats., chs. NR 205 and 218 and as follows.

(1) "7-day average" means the arithmetic mean of pollutant parameter values for samples collected in a period of 7 consecutive days.

(2) "30-day average" means the arithmetic mean of pollutant parameter values for samples collected in a period of 30 consecutive days.

(3) "$CBOD_5$" means the 5-day carbonaceous biochemical oxygen demand.

(4) "Disinfection" means the operation of an ultraviolet lamp unit, or the addition of chemical disinfectants with adequate mixing and detention times, to provide pathogen reductions.

(5) "Effluent concentrations consistently achievable through proper operation and maintenance" means:

(a) For a given pollutant parameter, the 95th percentile value for the 30-day average effluent quality achieved by a treatment works in a period of at least 2 years, excluding values attributable to upsets, bypasses, operational errors, or other unusual conditions, and

(b) A 7-day average value equal to 1.5 times the value derived under par. (a).

(6) "Facilities eligible for treatment equivalent to secondary treatment" means treatment works which meet all of the following:

(a) The BOD_5 and SS effluent concentrations consistently achievable through proper operation and maintenance of the treatment works exceed the minimum level of the effluent quality set forth in s. NR 210.05 (1) (a) and (b);

(b) Trickling filters, aerated lagoons or waste stabilization ponds are used as the principal processes; and

(c) The treatment works provide significant biological treatment of municipal wastewater.

(7) "NH_3–N" means ammonia nitrogen.

(8) "Percent removal" means a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent pollutant concentrations to the facility and the 30-day average values of the effluent pollutant concentrations for a given time period.

(9) "Privately owned domestic sewage treatment works" means those facilities which treat domestic wastewater and are owned and operated by nonmunicipal entities or enterprises such as mobile home parks, restaurants, hotels, motels, country clubs, resorts, etc., which are permitted under ch. 147, Stats.

(10) "Significant biological treatment" means the use of an aerobic or anaerobic biological treatment process in a treatment works to consistently achieve a 30-day average of at least 65% removal of BOD_5.

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

NR 210.04 Monitoring requirements. (1) Discharges subject to the provisions of this chapter shall at a minimum monitor the effluent for BOD_5, SS, and pH.

(2) Influent wastewater strengths and volumes shall be characterized at treatment facilities subject to the monitoring provisions of sub. (1) by monitoring for flow, BOD_5 and SS.

(3) Monitoring requirements may be adjusted on a case-by-case basis depending on wastewater characteristics and their potential to degrade water quality.

(4) The department shall require the use of 24-hour flow proportional samplers for monitoring influent and effluent wastewater quality except where the department determines through the permit issuance process that other sample types may adequately characterize the influent or effluent quality. In evaluating permit monitoring requirements, the department may consider:

(a) Treatment facility design flow and actual flow;

(b) Type of treatment processes used at the facility;

(c) Previous performance records as reported on the discharge monitoring report;

(d) Type of wastewater treated: domestic, municipal or industrial wastewater; and

(e) Final effluent limitations.

considering the design capability of the treatment process and geographical and climatic conditions, would enable the treatment works to achieve more stringent limitations.

(6) COMBINED SEWERS. Treatment works which have a combined sewer system may not be capable of meeting the percentage removal requirements established in sub. (5) (a) 1. c. and 2. c. or in s. NR 210.05 (1) (a) 3. and (b) 3. during wet weather where the treatment works receive flows from combined sewers. For each treatment works, the decision shall be made on a case-by-case basis as to whether any attainable percentage removal level can be defined, and if so, what the level should be.

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

NR 210.08 Emergency operation. (1) All treatment works which are subject to the provisions of this chapter shall be equipped for emergency operation. Emergency power shall be provided in accordance with s. NR 110.15 (5) (d). Sufficient emergency power shall be provided so that:

(a) All facilities shall, at a minimum, be able to maintain primary settling and effluent disinfection under all design conditions.

(b) All facilities discharging to class I, II, or III trout streams, or other critical stream segments as determined by the department, shall be able to operate all units critical to meeting the effluent limits as set forth in the WPDES permit for a minimum emergency period of 24 hours under all design flow conditions.

(2) Main lift stations, defined for the purpose of this section as those lift stations which discharge more than 20% of the daily system flow, or which serve more than 100 homes or the equivalent, shall be equipped for emergency operation to prevent the discharge of raw or partially treated sewage to a surface water or to a ground water and to prevent sewage backups into basements. Main lift stations shall provide emergency operation in accordance with s. NR 110.14 (7).

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

NR 210.09 Analytical methods and laboratory requirements. Methods used for analysis of influent and effluent samples shall be as set forth in ch. NR 219 unless alternative methods are specified in the WPDES discharge permit.

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

NR 210.10 Requirements for certified or registered laboratory. Bacteriological analyses of groundwater samples, and all radiological analyses, shall be performed by the state laboratory of hygiene or at a laboratory certified or approved by the department of health and social services. Other laboratory test results submitted to the department under this chapter shall be performed by a laboratory certified or registered under ch. NR 149. The following tests are excluded from the requirements of this section:

(1) Temperature,

(2) Turbidity,

(3) Bacteria tests in wastewater effluent,

(4) pH,

(5) Chlorine residual,

(6) Specific conductance,

(7) Physical properties of soils and sludges,

(8) Nutrient tests of soils and sludges,

(9) Flow measurements.

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.