

## Chapter NR 217

## EFFLUENT STANDARDS AND LIMITATIONS

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NR 217.04 Effluent standards and limitations for phosphorus

Note: Effluent standards are being created for phosphorus at this time. Effluent standards for other pollutants may be added to this chapter at later dates.

**NR 217.01 Purpose.** The purpose of this chapter is to reduce the amount of pollutants discharged to surface waters by establishing effluent standards and limitations for pollutants in effluent discharged to surface waters of the state. Effluent standards and limitations are adopted pursuant to ch. 147, Stats.

History: Cr. Register, November, 1992, No. 443, eff. 12-1-92.

**NR 217.02 Applicability.** This chapter is applicable to point sources which discharge wastewater to the surface waters of the state.

History: Cr. Register, November, 1992, No. 443, eff. 12-1-92.

**NR 217.03 Definitions.** Definitions of terms and the meaning of abbreviations used in this chapter are as defined in chs. NR 102, 106, 205, 210 and 243. In addition: "effluent standard" means any requirement for a specific pollutant applicable to a category or class of point sources which are more stringent than the requirements under s. 147.04 (1) to (4), Stats.

History: Cr. Register, November, 1992, No. 443, eff. 12-1-92.

**NR 217.04 Effluent standards and limitations for phosphorus.** (1) GENERAL. Effluent limitations for total phosphorus shall be imposed in WPDES permits for wastewaters discharged to surface waters as specified in this section.

(a) An effluent standard for total phosphorus shall apply as follows:

1. An effluent limitation equal to 1 mg/L total phosphorus as a monthly average shall apply to publicly owned treatment works and privately owned domestic sewage works subject to ch. NR 210 which discharge wastewater containing more than 150 pounds of total phosphorus per month, unless an alternative limitation is provided under sub. (2).

2. An effluent limitation equal to 1 mg/L total phosphorus as a monthly average shall apply in cases where the discharge of wastewater from all outfalls of a facility other than those subject to ch. NR 210 contains a cumulative total of more than 60 pounds of total phosphorus per month, unless an alternative limitation is provided under sub (2). Outfalls consisting of noncontact cooling water without phosphorus containing additives shall not be included in the calculation of the cumulative total of phosphorus discharged from the facility. Compliance with the concentration limit shall be determined as a rolling 12 month average as determined by the total phosphorus from all outfalls subject to the effluent limitation for the most recent 12 months divided by the total flow for all those outfalls for the same period.

3. Effluent limitations for phosphorus equal to 1 mg/L as a monthly average contained in permits on December 1, 1992 shall remain in effect.

4. Effluent limitations for phosphorus equal to 85% removal of influent concentrations of phosphorus contained in permits on December 1, 1992 shall be modified to 1 mg/L total phosphorus as a monthly average upon reissuance of the permit unless an alternative limitation is provided under sub. (2).

5. Runoff to surface waters from animal feeding operations shall be controlled using best management practices to achieve the purpose of this chapter pertaining to phosphorus.

6. The Department shall determine if a permittee is discharging more than the applicable threshold value specified in subd. 1. or 2. by examining available data on or requiring monitoring of the amount of phosphorus contained in the wastewater effluent. Such data shall be representative of the amount of phosphorus contained in the wastewater effluent during periods of discharge or operation.

Note: The threshold values of this section will be applied at the time of WPDES permit reissuance or permit modification which may occur due to changes in waste characteristics.

Note: See 102.06 in reference to water quality standards.

(2) ALTERNATIVE EFFLUENT LIMITATIONS TO THE EFFLUENT STANDARD FOR PHOSPHORUS. (a) Permittees subject to sub. (1) (a) 1., 2., or 4. may request an alternative effluent limitation for total phosphorus if one or more of the following apply:

1. A permittee may request an alternative effluent limitation in cases where achieving the 1 mg/L total phosphorus effluent standard is not practically achievable.

a. A permittee requesting an alternative effluent limitation under this subdivision shall provide, as a part of the WPDES permit process, information which demonstrates that the 1 mg/L total phosphorus effluent standard is not practically achievable and information necessary for the department to establish an alternative effluent limitation. The information provided shall include but not be limited to the following: the results of a comprehensive phosphorus minimization study to determine the sources of phosphorus to the wastewater, an evaluation of possible methods to reduce the sources of phosphorus to the wastewater, a description of actions implemented to reduce the sources of phosphorus to the wastewater. In addition, the permittee shall provide data on the phosphorus concentrations in the influent to and effluent from the wastewater treatment facilities which are achievable after phosphorus minimization steps have been implemented, alternative treatment technologies which may be employed to achieve the 1 mg/L effluent standard, and their associated removal efficiencies and costs and the requested alternative effluent limitation.

b. The department shall review requests and the information provided by permittees and may establish alternative effluent limitations to the effluent standard imposed under sub. (1) (a) 1., 2. or 4. where this standard, in the best professional judgment of the department, is not practically achievable. For these cases, the department shall establish an alternative effluent limitation considering the effluent quality achievable with the application of treatment technologies, process changes, and phosphorus minimization steps to reduce the amount of phosphorus to the

maximum extent practically achievable taking into account energy, economic and environmental impacts.

2. A permittee may request an alternative effluent limitation in cases where the operation of specific biological phosphorus removal technologies will achieve a level of performance equivalent to a 1 mg/L effluent standard. Systems which employ biological phosphorus removal technology shall result in the removal of not less than 90 percent of the phosphorus which would be removed by achieving the 1 mg/L total phosphorus effluent standard based upon a mass determination.

a. A permittee requesting an alternative effluent limitation under this subdivision shall, as a part of the WPDES permit application process, provide information which demonstrates that achieving the requested alternative effluent limitation using biological phosphorus removal will achieve this requirement. The information shall include data on the total mass of phosphorus discharged using biological removal with and without chemical polishing and the total mass of phosphorus discharged using treatment technologies to achieve the 1 mg/L effluent standard and the information necessary for the department to establish an alternative effluent limitation.

b. The department shall review requests and the information provided by permittees and may establish alternative effluent limitations to the effluent standard imposed under sub. (1) (a) 1., 2., or 4. where the alternative limitation, in the best professional judgement of the department, will result in insignificant differences in the amount of phosphorus discharged, on a mass basis, compared to the mass which would be discharged by achieving the 1 mg/L total phosphorus effluent standard. For these cases, the department shall establish an alternative effluent limitation considering the effluent quality achievable with the application of biological phosphorus removal technologies taking into account the total phosphorus removal performance on a mass basis. The alternative effluent limitation established by the department under this subparagraph may not exceed 2 mg/L as a monthly average.

3. A permittee may request an alternative effluent limitation in cases where phosphorus-deficient wastewaters necessitate the addition of phosphorus to a biological treatment system to assure efficient operation and compliance with other effluent limitations.

a. A permittee requesting an alternative effluent limitation under this subdivision shall, as a part of the WPDES application process, provide information which demonstrates that achieving the 1 mg/L total phosphorus effluent standard is not practically achievable and the information necessary for the department to establish an alternative effluent limitation. The information provided shall include but not be limited to the following: the results of a comprehensive phosphorus minimization study to minimize the amount of phosphorus discharged while allowing efficient operation of the wastewater treatment system, a description of actions implemented to reduce the amount of phosphorus discharged, the phosphorus effluent concentrations achievable after phosphorus minimization steps have been implemented, the removal efficiencies and costs associated with alternative treatment technologies which would be necessary to achieve the 1 mg/L effluent standard and the requested alternative limitation.

b. The department shall review requests and the information provided by the permittee and may establish alternative effluent limitations to the effluent standard imposed under sub. (1) (a) 2. where this standard, in the best professional judgement of the department, is not practically achievable. The department shall establish an alternative effluent limitation considering the minimum phosphorus effluent quality achievable while allowing efficient operation of the wastewater treatment system. The alternative effluent limitation established by the department under this subdivision may not exceed 2 mg/L as a monthly average.

(b) Permittees subject to sub. (1) (a) 1. or 2. which do not discharge their effluent into the basins of the Great Lakes or the Fox (Illinois) river may request an alternative effluent limitation for total phosphorus according to the provision of this paragraph.

1. A permittee may request an alternative effluent limitation under this paragraph in cases where achieving the 1 mg/L effluent standard would not result in an environmentally significant improvement in water quality and material progress towards the attainment and maintenance of associated surface water quality standards for the receiving water as established in chs. NR 102 to 104.

2. A permittee requesting an alternative effluent limitation under this paragraph shall propose for the department's approval a study plan to identify the receiving waters affected or potentially affected by the discharge, describe how information will be obtained to justify an alternative effluent limitation under this paragraph, and provide the information necessary to establish interim and alternative effluent limitations under this paragraph. This study plan shall be submitted as a part of the WPDES permit application process. The results of the study shall include an evaluation of all point and non-point sources of phosphorus in the watersheds and the impacts of the phosphorus contributions on biological and chemical water quality conditions. Upon review of the study plan, the department may require additional information as deemed necessary and may expand the study to include other watersheds or portions thereof that may be significantly impacted by the permittee's discharge of phosphorus.

3. The department may establish an alternative effluent limitation where, in the best professional judgment of the department and based upon the information provided by the permittee pursuant to the study plan and other relevant information, achieving the effluent standard under sub. (1) (a) 1. or 2. would not result in an environmentally significant improvement in water quality and material progress towards the attainment of associated surface water quality standards for the receiving waterbody as established in chs. NR 102 to 104.

4. An interim effluent limitation and compliance schedule for completing the study shall be imposed in a permit until the request for an exemption from the 1 mg/L effluent standard is approved or denied. The interim effluent limitation shall be equal to the representative concentration of total phosphorus as a monthly average in the effluent based on the information provided by the permittee as a part of the WPDES permit application process.

5. Alternative effluent limitations established under this paragraph may not exceed the interim effluent limitation established under subd. 4.

(3) **ANALYTICAL METHODS AND LABORATORY PROCEDURES.** Methods used for analysis of influent and effluent samples shall be as described in ch. NR 219 unless alternative methods are specified in the WPDES discharge permit.

(4) **COMPLIANCE.** The department shall determine and specify a reasonable compliance schedule in the permittee's WPDES permit if the facility is unable to meet the effluent standard or limitations determined according to this section at the time of permit issuance or reissuance. The date for compliance with this section may not extend beyond 3 years from the date of permit issuance or reissuance, unless the department determines that circumstances beyond the permittee's control, such as an environmental impact statement, require additional time for compliance. In such circumstances, the date for compliance with this section may not extend beyond 5 years from the date of permit issuance or reissuance.

(5) **DEPARTMENT DETERMINATIONS.** Effluent standards and limitations established under subs. (1) (a) and (2) are not subject to the variance procedure under s. 147.05, Stats.

History: Cr. Register, November, 1992, No. 443, eff. 12-1-92.