

7053.0205 GENERAL REQUIREMENTS FOR DISCHARGES TO WATERS OF THE STATE.

Subpart 1. **Untreated sewage.** No untreated sewage may be discharged into any waters of the state. Effective disinfection of any discharges, including combined flows of sewage and storm water, shall be required when necessary to protect the specified uses of the waters of the state.

Subp. 2. **Nuisance conditions prohibited.** No sewage, industrial waste, or other wastes may be discharged from either point or nonpoint sources into any waters of the state so as to cause any nuisance conditions, such as the presence of significant amounts of floating solids, scum, visible oil film, excessive suspended solids, material discoloration, obnoxious odors, gas ebullition, deleterious sludge deposits, undesirable slimes or fungus growths, aquatic habitat degradation, excessive growths of aquatic plants, or other offensive or harmful effects.

Subp. 3. **Inadequate treatment.** Existing discharges of inadequately treated sewage, industrial waste, or other wastes shall be abated, treated, or controlled so as to comply with the applicable limits. Separation of sanitary sewage from natural runoff may be required when necessary to ensure continuous effective treatment of sewage.

Subp. 4. **Highest levels of effluent quality.** The highest levels of effluent quality, including, but not limited to, five-day carbonaceous biochemical oxygen demand, that are attainable through continuous operation at the maximum capability of all primary and secondary units of treatment works or their equivalent, discharging effluents into the waters of the state, must be maintained in order to enhance conditions for the specified uses.

Subp. 5. **Mixing zones and compliance with water quality standards.**

A. Reasonable allowance must be made for dilution of the effluents that are in compliance with this chapter, following discharge into waters of the state. The agency, by allowing dilution, shall consider the effect on all uses of the waters of the state into which the effluents are discharged. The extent of dilution allowed regarding any specific discharge as specified in subpart 7 must not violate the applicable water quality standards in chapters 7050 and 7052, including the antidegradation requirements contained in those chapters. This subpart also applies in cases where a Class 7 water is tributary to a Class 2 water.

B. Means for expediting mixing and dispersion of sewage, industrial waste, or other waste effluents in the receiving waters must be provided so far as practicable when deemed necessary by the agency to maintain the quality of the receiving waters according to chapters 7050 and 7052.

C. Mixing zones must be established by the agency on an individual basis, with primary consideration being given to the following guidelines:

(1) mixing zones in rivers shall permit an acceptable passageway for the movement of fish;

(2) the total mixing zone or zones at any transect of the stream should contain no more than 25 percent of the cross sectional area or volume of flow of the stream and should not extend over more than 50 percent of the width;

- (3) mixing zone characteristics shall not be lethal to aquatic organisms;
- (4) for contaminants other than heat, the final acute value, as defined in part 7050.0218, subpart 3, item Y, for toxic pollutants should not be exceeded as a one-day mean concentration at any point in the mixing zone;
- (5) mixing zones should be as small as possible and not intersect spawning or nursery areas, migratory routes, water intakes, or mouths of rivers; and
- (6) overlapping of mixing zones should be minimized and measures taken to prevent adverse synergistic effects.

Subp. 6. **Other requirements preserved.** The requirements of this chapter, and specifically the requirements in parts 7053.0215 and 7053.0225, are in addition to any requirement imposed on a discharge by the Clean Water Act, United States Code, title 33, sections 1251 et seq., and its implementing regulations. In the case of a conflict between the requirements of this chapter, chapters 7050 and 7052, and the requirements of the Clean Water Act or its implementing regulations, the more stringent requirement controls.

Subp. 7. **Minimum stream flow.**

A. Except as provided in items B to E, discharges of sewage, industrial waste, or other wastes must be controlled so that the water quality standards are maintained at all stream flows that are equal to or greater than the $7Q_{10}$ for the critical month or months.

B. Discharges of ammonia in sewage, industrial waste, or other wastes must be controlled so that the ammonia water quality standard is maintained at all stream flows that are equal to or exceeded by the $30Q_{10}$ for the critical month or months.

C. Discharges of total phosphorus in sewage, industrial waste, or other wastes must be controlled so that the eutrophication water quality standard is maintained for the long-term summer concentration of total phosphorus, when averaged over all flows, except where a specific flow is identified in chapter 7050. When setting the effluent limit for total phosphorus, the commissioner shall consider the discharger's efforts to control phosphorus as well as reductions from other sources, including nonpoint and runoff from permitted municipal storm water discharges.

D. Discharges of sewage, industrial waste, or other wastes must be controlled at the point where water is withdrawn for irrigation, so that the irrigation water quality standards in part 7050.0224, subpart 2, are maintained at all stream flows that are equal to or greater than the $122Q_{10}$ calculated from flows during the growing season (June through September).

E. Discharges of sewage, industrial waste, or other wastes must be controlled at the point where water is withdrawn for industrial consumption, so that the industrial water quality standard in part 7050.0223, subpart 2, is maintained at all flows at or above the specified low flows considered under Minnesota Statutes, section 103G.285, subdivision 2, for consumptive appropriations.

F. Allowance must not be made in the design of treatment works for low stream flow augmentation unless the flow augmentation of minimum flow is dependable and controlled under applicable laws or regulations.

Subp. 8. **Water quality based effluent limits.** Notwithstanding parts 7053.0235 and 7053.0245, the agency may require a specific discharger to meet effluent limits for specific pollutants or whole effluent toxicity that are necessary to maintain the water quality of the receiving water at the standards established in chapters 7050 and 7052, including the antidegradation requirements contained in those chapters. Any effluent limit determined to be necessary under this subpart and part 7053.0235 may only be required of a discharger after the discharger has been given notice of the specific effluent limits and an opportunity for public hearing, provided that compliance with the requirements of chapter 7001 regarding notice of national pollutant discharge elimination system and state disposal system permits satisfies the notice and opportunity for hearing requirements of this subpart.

Subp. 9. **Water quality standard-based ammonia effluent limits.** For the purpose of establishing limits to meet the ammonia water quality standard, a statistic that estimates the central value, such as the mean or median, for ambient pH and temperature of the receiving water for the critical months must be used.

Subp. 9a. **Water quality standard-based TSS effluent limits.**

A. When the agency establishes effluent limits to meet a total suspended solids (TSS) water quality standard and the water quality standard of the receiving water is:

- (1) less than 30 mg/L and a continuous discharger is involved; or
- (2) less than 45 mg/L and either an aerated pond or a controlled discharger is involved,

the agency shall establish an appropriate water quality-based effluent limit (WQBEL) considering the discharger's nonvolatile suspended solids (NVSS) concentration.

B. The WQBEL shall be determined by considering all of the individual suspended solids data points collected during the period for which the standard is designed to be protective. WQBEL calculations shall also consider the flow and TSS concentrations observed in the receiving water during the corresponding time period. WQBEL is expressed as long-term, 90th percentile values (for example, April to September) to ensure protection during the time period the standard is designed to protect.

Subp. 10. **Alternative waste treatment.** After providing an opportunity for public hearing, the agency shall accept effective loss prevention, water conservation measures, or process changes or other waste control measures or arrangements if it finds that the measures, changes, or arrangements are equivalent to the waste treatment measures required for compliance with applicable effluent or water quality standards or load allocations.

Subp. 11. **Liquid substances.** Liquid substances that are not commonly considered to be sewage or industrial waste, but that could constitute a pollution hazard, must be stored according to chapter 7151. Other wastes as defined by law or other substances that could constitute a pollution

hazard, including substances from nonpoint sources and households, must not be deposited in any manner such that the same may be likely to gain entry into any waters of the state in excess of or contrary to any of the standards in this chapter and chapters 7050 and 7052 or cause pollution as defined by law.

Subp. 12. **Point source dischargers must report to agency.** All persons operating or responsible for sewage, industrial waste, or other waste disposal systems that are adjacent to or that discharge effluents to waters of the state shall submit a report to the agency upon request on the operation of the disposal system, the effluent flow, and the characteristics of the effluents and receiving waters. Sufficient data on measurements, observations, sampling, and analyses, and other pertinent information must be furnished as may be required by the agency to adequately evaluate the condition of the disposal system, the effluent, and the waters receiving or affected by the effluent.

Subp. 13. **Compliance with permit conditions.** A person who is in compliance with the terms and conditions of the person's permit issued under chapter 7001 must not be deemed in violation of any water quality standard in chapters 7050 and 7052 for which a corresponding effluent limit is established in the permit. However, exceedances of the water quality standards in a receiving water constitutes grounds for modification of a permit for any discharger to the receiving water who is causing or contributing to the exceedances. Chapter 7001 governs the modification of any such permit.

Statutory Authority: *MS s 115.03; 115.44*

History: *32 SR 1699; 39 SR 154; 32 SR 1699; 39 SR 154; 41 SR 545; 46 SR 5*

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