

## Chapter NR 212

WASTE LOAD ALLOCATED WATER QUALITY RELATED  
EFFLUENT LIMITATIONS

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**NR 212.01 Purpose.** The purpose of this chapter is to establish the procedures, methodologies and requirements to be used by the department for determining total maximum pollutant loadings and corresponding water quality related effluent limitations in accordance with ss. 147.04 (5), 147.05 and 147.25 (3), Stats. Such restrictions are established to attain and maintain the designated uses specified in the water quality standards appearing in chs. NR 102, 103 and 104.

History: Cr. Register, September, 1981, No. 309, eff. 10-1-81.

**NR 212.02 Applicability.** (1) The provisions of this chapter are applicable to water quality related effluent limitations for conventional pollutants, ammonia and phosphorus developed through waste load allocations and established under s. 147.05, Stats.

(2) Nothing in this chapter shall in any way inhibit, override, preclude or prevent the department from issuing any permit with toxic effluent limits even if such permit limitations would result in more stringent limitations than provided in this chapter.

History: Cr. Register, September, 1981, No. 309, eff. 10-1-81.

**NR 212.03 Definitions.** In addition to the definitions and abbreviations in ss. NR 205.03 and 205.04, the following definitions are applicable to terms used in this chapter:

(1) "Baseline load" means the reference load used in distributing all or part of the total maximum load among multiple point source dischargers to a water quality limited segment.

(2) "Categorical effluent limitation" means a point source effluent limitation for categories and classes of point sources other than publicly-owned treatment works achieved by application of the best practicable control technology currently available, the best conventional pollutant control technology, or the best available technology economically achievable as required by s. 147.04 (2), Stats.; or means a point source effluent limitation for a publicly-owned treatment works achieved by application of secondary treatment as required by s. 147.04 (4), Stats.

(3) "Conventional pollutant" means those pollutants identified in section 304 (a) (4) of the federal clean water act amendments of 1977. These pollutants are; biological oxygen demand (BOD), total suspended solids (TSS), pH, fecal coliform and oil and grease.

(4) "Cost-effective analysis" means a systematic comparison of alternative means of meeting state water quality standards, effluent limitations or other treatment standards in order to identify the alternative which will minimize the total resources costs over the appropriate planning period. These resources costs include monetary costs and environmental as well as other nonmonetary costs.

(5) "Critical water quality conditions" means those water conditions upon which are based the most stringent water quality effluent limitations.

(6) "Effluent limitation" whenever used without qualification means any restriction including schedules of compliance, established by the department, on quantities, rates and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into waters of this state.

(7) "Flow reregulation" means any practice with respect to the available surface waters in a basin that would alter the stream flows from those which would occur under existing regimes.

(8) "Infiltration" means water other than waste water that enters a sewerage system, including sewer service connections, from the ground through such sources as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow.

(9) "Inflow" means water other than waste water that enters a sewerage system, including sewer service connections, from sources such as roof leaders, cellar drains, yard drains, area drains, foundation drains, drains from springs and swampy areas, manhole covers, cross connections between storm sewers and sanitary sewers, catch basins, cooling towers, storm waters, surface runoff, street wash waters, or drainage. Inflow does not include, and is distinguished from, infiltration.

(10) "Instream aeration" means techniques which increase the dissolved oxygen content of a receiving water. Those techniques include, but are not limited to, mechanical aeration devices, diffuser systems, and turbine venting.

(11) "Margin of safety" means a portion of the total maximum load which accounts for the uncertainties concerning the relationship between effluent limitations and water quality or provide a greater assurance that the water quality standards will be met. This portion of the total maximum load is not available for allocation to point sources.

(12) "New point source", for the purposes of this chapter, means a point source which commenced operation after January 1, 1980.

(13) "Nonpoint source" means a source of pollution resulting from a land management activity which contributes to runoff, seepage or percolation; and which is not defined as a point source.

(14) "Nonpoint source allocation" means that portion of the total maximum load distributed or apportioned to nonpoint sources and unavailable for allocation to point sources.

(15) "Point source allocation" means that portion of the total maximum load distributed or apportioned to point sources.

(16) "Publicly-owned point source" means any point source which is owned by a municipality.

(17) "Public sector growth" means an increase in waste water discharge from any person except industrial establishments, whose waste water is treated by a publicly-owned point source.

(18) "Reserve capacity" means that portion of the total maximum load reserved for allocation to new or expanding point sources.

(19) "Residential growth" means an increase in population.

(20) "Stream segment" means a portion of a stream including natural and artificial flowages.

(21) "Total maximum load" means the maximum quantity of a pollutant or pollutants that can be discharged into a water quality limited segment over a specified period of time to maintain the applicable water quality standards. The total maximum load is the sum of the point source allocation, the nonpoint source allocation, the reserve capacity and the margin of safety.

(22) "Waste load allocation" means the allocation resulting from the process of distributing or apportioning the total maximum load to each individual point source, nonpoint sources, reserve capacity and margin of safety.

(23) "Water quality limited segment" means any area or portion of a stream which will not meet the established water quality standard with application of only categorical effluent limitations to all point sources.

(24) "Water quality related effluent limitation" means a point source effluent limitation designed to meet applicable water quality standards and which is more restrictive than the categorical effluent limitations. For the purposes of this chapter, water quality related effluent limitations refer to those determined as a result of a waste load allocation.

(25) "Water quality standards" means administrative rules adopted as chs. NR 102, 103 and 104, under authority of s. 144.025 (2) (b), Stats.

(26) "WPDES permit" means a Wisconsin pollutant discharge elimination system permit for the discharge of pollutants issued by the department under ch. 147, Stats.

History: Cr. Register, September, 1981, No. 309, eff. 10-1-81.

**NR 212.04 Severability.** Should any section, paragraph, phrase, sentence or clause of this chapter be declared invalid or unconstitutional for any reason, the remainder of this chapter shall not be affected thereby.

History: Cr. Register, September, 1981, No. 309, eff. 10-1-81.

**NR 212.05 General.** (1) Water quality related effluent limitations and total maximum loads shall be established whenever categorical effluent

limits required under s. 147.04, Stats., are less stringent than necessary to achieve the designated water quality standard. Water quality related effluent limitations for point sources shall be specified in a WPDES permit.

(2) For the purposes of this chapter compliance with water quality related effluent limitations is recognized as compliance with s. 147.02 (4) (d), Stats.

(3) In no case shall the water quality related effluent limitations be less stringent than applicable categorical effluent limitations.

History: Cr. Register, September, 1981, No. 309, eff. 10-1-81.

**NR 212.06 Determination of the total maximum load.** (1) When required by s. NR 212.05, total maximum loads for stream segments shall be established based upon relevant water quality and quantity considerations including, but not limited to, streamflow, water temperature, pH, dissolved oxygen, suspended solids and hardness or other natural background conditions. The stream conditions to be used for calculating the total maximum load are specified in s. NR 102.03 (3). Variable loadings may be established for a given stream segment to reflect the varying capacity of a stream to assimilate wastes under differing conditions when necessary supporting data is available.

(2) Total maximum loads shall be reviewed at least once every 5 years and if necessary, recalculated by the department prior to permit reissuance, based on factors which shall include but not be limited to changes in stream conditions and advancements in stream modeling techniques.

History: Cr. Register, September, 1981, No. 309, eff. 10-1-81.

**NR 212.07 Allocation for reserve capacity.** The allocation for a reserve capacity for a particular stream segment shall be zero unless otherwise specified in ss. NR 212.40 to 212.60.

History: Cr. Register, September, 1981, No. 309, eff. 10-1-81.

**NR 212.08 Allocation for margin of safety.** The allocation for a margin of safety shall be zero unless otherwise specified in ss. NR 212.40 to 212.60.

History: Cr. Register, September, 1981, No. 309, eff. 10-1-81.

**NR 212.09 Nonpoint source allocation.** The allocation for nonpoint sources shall be zero unless otherwise specified in ss. NR 212.40 to 212.60.

Note: For those stream conditions where the allocation of water quality related effluent limitations is necessary, nonpoint source efforts on stream segments will normally be accounted for in the water quality model or other technical analysis used to determine the total maximum load. In unforeseen circumstances requiring the specific allocation of a portion of the total maximum load for contributions from nonpoint sources, s. NR 212.09 can be used. Direct control of contributions from nonpoint sources will be implemented through land management control practices and will not normally be included in a waste load allocation.

History: Cr. Register, September, 1981, No. 309, eff. 10-1-81.

**NR 212.10 Point source allocations.** (1) The water quality related effluent limitations for a point source discharge to a stream segment which is not impacted by any other point source shall be calculated by subtracting any allocations for reserve capacity, margin of safety or nonpoint sources from the total maximum loading.

(2) The procedures for determining water quality related effluent limitations for point source dischargers to a stream segment affected by more than one discharger are found in ss. NR 212.40 to 212.60.

(3) The department may permit point source water quality related effluent limitations to vary according to flow, temperature or other water quality conditions only when all of the following are met:

(a) The limitations shall result in the attainment of water quality standards; and

(b) During the term of the permit the discharger provides sufficient monitoring capability where such capability does not otherwise exist.

(4) Water quality related effluent limits shall be expressed as daily maximum loads. Consistent with techniques established under ss. NR 212.40 through 212.60 effluent limits may be expressed as averages in conjunction with daily maximum limits if the permittee demonstrates that such limits would not increase the probability of water quality standards violations. The flow and temperature measurements of stream conditions for flow and temperature related permits may be based on averages in cases where averages better approximate actual river conditions.

History: Cr. Register, September, 1981, No. 309, eff. 10-1-81.

**NR 212.11 Modifications of point source allocations.** (1) When a person contributing effluent to a publicly-owned point source covered by this chapter applies to terminate its contribution and to receive a separate WPDES permit, the procedures contained in ss. 147.025 and 147.03 (2), Stats., shall apply. Any reallocation pursuant to such action shall only affect the person making application and the publicly-owned point source to which it contributes effluent.

(2) For stream segments where the reserve capacity allocation is zero, new or increased point source discharges may be allowed through the permit issuance or modification process under the following conditions:

(a) The person applying for the new or increased permit source discharge secures a legally binding agreement that one or more existing point source allocations shall be reduced by an amount sufficient to prevent the total maximum load from being exceeded; and

(b) The amounts by which the existing point source allocations is reduced account for the differences in waste characteristics and locations of the affected point sources; or

(c) The new or increased discharge shall only occur during stream conditions where that discharge will not cause the total maximum load to be exceeded.

History: Cr. Register, September, 1981, No. 309, eff. 10-1-81.

**NR 212.12 Instream aeration.** (1) Total maximum loads established under this chapter may be calculated based on the use of instream aeration techniques when WPDES permit applications meet both the following conditions:

(a) A cost-effectiveness analysis is submitted to the department which demonstrates that instream aeration is a satisfactory means of attaining water quality standards; and

(b) A demonstration is made to the satisfaction of the department that applicable water quality standards will be met and no environmental pollution as defined in s. 144.01 (3), Stats., will occur.

(2) Instream aeration may not be used to accommodate new or increased discharges of pollutants either from new point sources or from the expansion of existing point sources, except that instream aeration may be available on a temporary basis to accommodate increased pollution loads due to the growth of a municipality when:

(a) The use of aeration for this purpose is restricted to residential or public sector growth;

(b) Adequate operation and maintenance of the publicly-owned point source exists;

(c) Excessive infiltration and inflow have been removed from the collection systems;

(d) No bypasses exist which are not authorized by the department; and

(e) The municipality has taken all reasonable steps to obtain federal and state financing for its point source.

(3) The use of instream aeration under sub. (2) shall be allowed for a period not to exceed 5 years, at which time the publicly-owned point source shall have sufficient treatment capability in place to meet the waste water treatment needs as required by an approved municipal waste water treatment facility plan developed under ch. NR 110.

History: Cr. Register, September, 1981, No. 309, eff. 10-1-81.

**NR 212.13 Flow reregulation.** (1) Total maximum loads established under this chapter may be calculated based on the use of flow reregulation techniques when WPDES permit applicants meet all of the following conditions:

(a) A cost-effectiveness analysis is submitted to the department which demonstrates that flow reregulation is a satisfactory means of attaining water quality standards.

(b) A technical analysis is presented to the satisfaction of the department which determines the critical water quality conditions for the affected stream segment as a function of the flow reregulation technique.

(c) Legally binding assurances are provided to the satisfaction of the department that the entity responsible for reregulating flows on the affected stream segment will undertake the agreed-upon flow reregulation activities.

(d) The flow reregulation does not interfere with the uses for which the impoundment was authorized.

(2) Flow reregulation may not be used to accommodate new discharges of pollutants either from new point sources or from the expansion of existing point sources.

1. The sum of the actual daily discharges for any 5-consecutive-day-period may not exceed the sum of the daily point source allocation values calculated under the formula for the same 5-consecutive-day-period; and

2. For any one day period, the actual discharge for the point source may not exceed 122.6% of the allocation for that day as calculated under the formula.

(c) 1. The allocation for publicly-owned point sources located between milepoint 235.4 and 250.0 shall be its baseline load as determined under sub. (1) (c).

2. The allocation for publicly-owned point sources located between milepoint 250.0 and 260.0 shall be determined as follows:

a. For the period January 1, 1986 through December 31, 1990, the allocation shall be determined as follows:

$$\text{Point Source Allocation} = (Q) (8.34) (45)$$

Where Q = 3.1 million gallons per day

8.34 = Conversion factor

45 = 45 milligrams per liter concentration of BOD<sub>5</sub>

b. For each 5-year period beginning January 1, 1991 through December 31, 2005, the allocation shall be redetermined on the basis of projected flows and the demonstrated treatment capability of the point source. The redetermination shall be made at the time of each 5-year reevaluation under s. NR 212.06 (2). No allocation may exceed the baseline load as determined in sub. (1) (c).

3. The allocation for publicly-owned point sources located between milepoints 260.0 and 265.0 shall be its baseline load as determined in sub. (1) (c) for the period ending December 31, 1985. The allocation to become effective on January 1, 1986 shall be determined at the time of the first 5-year reevaluation under s. NR 212.06 (2).

4. The allocation for publicly-owned point sources located between milepoints 265.0 and 271.1 shall be its baseline load as determined under sub. (1) (c).

(c) The allocation for each publicly-owned point source located between milepoints 271.0 and 235.4 shall be its baseline load as determined under sub. (1) (c).

(d) The allocation for each nonpublicly-owned point source located between milepoints 271.1 and 235.4 with best practicable waste treatment effluent limits of less than 500 pounds of BOD<sub>5</sub> per day shall be its baseline load as determined under sub. (1) (d).

(e) The allocation for each nonpublicly-owned point source located between milepoints 271.1 and 258.5 with best practicable waste treatment effluent limits equal to or exceeding 500 pounds of BOD<sub>5</sub> per day shall be a reduction in its discharge to levels appearing in Table 2-m. For purposes of determining compliance with water quality related effluent limits, the following conditions shall be met:

1. The sum of the actual daily discharges for any 5-consecutive-day period may not exceed the sum of the daily point source allocation values calculated under Table 2-m for the same 5-consecutive-day period.

2. For any one day period, the actual discharge for the point source may not exceed 119.3% of the allocation for that day calculated for those flow/temperature regimes identified as Condition B in Table 2-m or 131.8% of the allocation calculated for those flow/temperature regimes identified as Condition C in Table 2-m. No percentage adjustment shall be made for conditions identified as Condition A in Table 2-m.

(f) The allocation for each nonpublicly-owned point source located between milepoints 258.4 and 258.2 with best practicable waste treatment effluent limits equal to or exceeding 500 pounds of BOD<sub>5</sub> per day shall be a reduction in its discharge to levels appearing in Table 3-m. For purposes of determining compliance with water quality related effluent limits, the following conditions shall be met:

1. The sum of the actual daily discharges for any 5-consecutive-day period may not exceed the sum of the daily point source allocation values calculated under Table 3-m for the same 5-consecutive-day-period.

2. For any one day period, the actual discharge for the point source may not exceed 119.3% of the allocation for that day calculated for those flow/temperature regimes identified as Condition B in Table 3-m or 131.8% of the allocation calculated for those flow/temperature regimes identified as Condition C in Table 3-m. No percentage adjustment shall be made for conditions identified as Condition A in Table 3-m.

(g) The allocation for each nonpublicly-owned point source located between milepoints 258.19 and 249.0 with best practicable waste treatment effluent limits equal to or exceeding 500 pounds of BOD<sub>5</sub> per day shall be a reduction in its discharge to levels appearing in Table 4-m.

(h) The allocation for each nonpublicly-owned point source located between milepoints 248.9 and 235.4 with best practicable waste treatment effluent limits equal to or exceeding 500 pounds of BOD<sub>5</sub> per day shall be a reduction in its discharges to levels appearing in Table 5-m. For purposes of determining compliance with water quality related effluent limits, the following conditions shall be met:

1. The sum of the actual daily discharges for any 5-consecutive-day period may not exceed the sum of the daily point source allocation values calculated under Table 5-m for the same 5-consecutive-day period.

2. For any one day period, the actual discharge for the point source may not exceed 131.8% of the allocation for that day calculated for those flow/temperature regimes identified as Condition C in Table 5-m. No percentage adjustment shall be made for conditions identified as Condition A or B in Table 5-m.

(i) The allocation for each publicly-owned point source located between milepoints 341.4 and 305.9 shall be its baseline load as determined under sub. (1) (f).

(j) The allocation for each nonpublicly-owned point source located between milepoints 341.4 and 313.2 with best practicable waste treatment limits equal to or exceeding 550 pounds of BOD per day shall be a reduc-

tion in its discharge to levels appearing in Table 6-m. For purposes of determining compliance with water quality related effluent limits, the following conditions shall be met:

1. The sum of the actual daily discharges for any 5-consecutive-day period may not exceed the sum of the daily point source allocation values calculated under Table 6-m for the same 5-consecutive-day period.

2. For any one day period, the actual discharge for the point source may not exceed 106.5% of the allocation for that day calculated for those flow/temperature regimes identified as Condition B in Table 6-m. No percentage adjustments shall be made for conditions indentified as Condition A in Table 6-m.

(k) The allocation for each nonpublicly-owned point source located between milepoints 313.19 and 305.9 with best practicable waste treatment limits equal to or exceeding 550 pounds of BOD<sub>5</sub> per day shall be a reduction in its discharge to levels appearing in Table 7-m. For purposes of determining compliance with water quality related effluent limits, the following conditions shall be met:

1. The sum of the actual daily discharges for any 5-consecutive-day period may not exceed the sum of the daily point source allocation values calculated under Table 7-m for the same 5-consecutive-day period.

TABLE 7-m (cont'd)  
LBS PER DAY OF BOD<sub>5</sub>  
(river mile 313.1 to 305.9)  
Flow at Tomahawk Dam (cfs)

Flow cfs Temp °F	584 or less	585- 778	779- 972	973- 1166	1167- 1360	1361- 1554	1555- 1942	1943- 2330	2331- 2718	2719- 3106	3107- 3494	3495- 3882	3883- 4270	4271- 4658	4659- 5046	5047- 5434	5435- 5822	5823- 6210	6211 or more
	← OCTOBER →																		
78+	2400	2400	2400	2400	2400	2400	2400	2400	3238	5581	8009	10252	12226	13973	15634	17068	18152	18152	18152
74-77	2400	2400	2400	2400	2400	2400	2854	4288	6844	9457	11900	14044	15989	17636	18152	18152	18152	18152	18152
70-73	2400	2400	2400	2556	3238	3848	4913	7668	10579	13305	15663	17750	18152	18152	18152	18152	18152	18152	18152
66-69	2400	2457	3380	4345	5282	6063	8193	11516	14683	17395	18152	18152	18152	18152	18152	18152	18152	18152	18152
62-65	2712	3806	5084	6362	7498	9060	11942	15677	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
58-61	3848	5439	7171	8733	10664	12993	16387	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
54-57	5311	7554	9741	12184	15080	17821	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
50-53	7341	10409	13604	17239	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
46-49	10352	14626	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
42-45	14768	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
41 or less	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152

2. For any one day period, the actual discharge for the point source may not exceed 106.5% of the allocation for that day calculated for those flow/temperature regimes identified as Condition B in Table 7-m. No percentage adjustments shall be made for conditions identified as Condition A in Table 7-m.

(3) The flow and temperature conditions used to determine compliance with permit effluent limits shall be the representative measurements of the flow and temperature of the previous day.

History: Cr. Register, September, 1981, No. 309, eff. 10-1-81; emerg. r. and recr. (1) (c) and (2) (c), eff. 8-5-83; r. and recr. (1) (c) and (2) (c), Register, November, 1983, No. 335, eff. 12-1-83.