

SUBCHAPTER 1. GENERAL PROVISIONS

785:46-1-2. Definitions

In addition to definitions of terms found in OAC 785:45-1-2, which are incorporated herein by reference, the following words, terms and notations, when used in this Chapter, shall have the following meanings unless the context clearly indicates otherwise:

"7T2" means the seven-day maximum temperature likely to occur with a 50% probability each year. The 7T2 is calculated using a moving average of seven consecutive days for each year in a given record. These seven day receiving stream temperature values are ranked in descending order. An order number, m, is calculated based on the number of years of record, n, with a recurrence interval of 2 years, as $m = (n+1)/2$. The mth highest average temperature is the 7T2.

"A" means mean annual average flow.

"ACR" means acute to chronic ratio.

"Acute to chronic ratio" means LC50/NOEC. The NOEC is the highest concentration at which no effect on test organisms is observed over a relatively long period. Quarterly biomonitoring over the life of the permit is sufficient to determine the ACR if the NOEC and LC50 may be determined. If the ACR is unknown, a default value of 10 may be used for implementation purposes.

"Background" means the ambient condition upstream or upgradient from a facility, practice or activity which has not been affected by that facility, practice or activity.

"Beneficial use limitation" means a more stringent restriction than that required to protect the beneficial use. A prohibition on new point sources is an example of a beneficial use limitation.

"Board" means Oklahoma Water Resources Board.

"BOD" means biochemical oxygen demand.

"C" means maximum concentration on the mixing zone boundary.

"C₉₅" means the 95th percentile maximum likelihood concentration.

"C_b" means background concentration.

"C_e" means effluent concentration.

"cfs" means cubic feet per second.

"C_{mean}" means the geometric mean of all effluent concentrations analyzed for the toxicant.

"C_t" means the appropriate criterion listed in OAC 785:45.

"CBOD" means carbonaceous biochemical oxygen demand.

"Coefficient of variation" means standard deviation divided by the mean.

"Continuing Planning Process (CPP)" means the most recent edition of the document produced annually by the Oklahoma Department of Environmental Quality which describes water quality programs implemented within the State.

"Continuing toxicity" means a tendency to be toxic.

"Control" means test organisms exposed to 0% effluent as part of the whole effluent toxicity testing procedure.

"Cooling water reservoir" means a privately owned reservoir used in the process of cooling water for industrial purposes.

"CPP" means the Continuing Planning Process document.

"CV" means coefficient of variation.

"D" means diameter of the discharge pipe in feet.

"df" means dilution factor.

"Dilution capacity" means a measure of the ability of the receiving stream to dilute effluent, defined as the ratio of the regulatory effluent flow to the regulatory receiving stream flow.

"Dilution factor" means a measure of the minimum dilution that occurs on the mixing zone boundary.

"Discharge to a lake" means a discharge within the lake's normal pool elevation as listed in the Oklahoma Water Atlas, Oklahoma Water Resources Board Publication 135, May 1990, excluding discharges to lock and dam reservoirs.

"Discharge to a stream" means (1) any discharge outside the normal pool elevation of a lake as such elevation is listed in the Oklahoma Water Atlas, Oklahoma Water Resources Board Publication 135, May 1990, and (2) any discharge to a lock and dam reservoir, such as Webbers Falls Reservoir and Robert S. Kerr Reservoir.

"DO" means dissolved oxygen.

"Drainage area" means the area above the discharge drained by the receiving stream.

"Event mean concentration" means the flow-weighted average for a given storm event. The flow-weighted average is represented as the sum of the loads calculated for a series of storm samples divided by the sum of the discharges calculated for each of the storm samples.

"EPA" means the United States Environmental Protection Agency.

"HQW" means high quality waters as defined in OAC 785:45-3-2(b).

"Implementation Plan" means a Water Quality Standards Implementation Plan developed and promulgated by a state environmental agency as required by 27A O.S. § 1-1-202.

"Increased load" means the mass of pollutant discharged which is greater than the permitted mass loadings and concentrations, as appropriate, in the discharge permit effective when the SWS, SWS-R, HQW, or ORW beneficial use limitation was assigned.

"Lake mixing zone" means a volume extending one hundred feet from the source for implementation purposes, unless otherwise specified in OAC 785:45.

"LC50" means the lethal concentration as defined in OAC 785:45-1-2.

"LMFO" means licensed managed feeding operation as defined in 2 O.S. 9-202.

"Mean annual average flow" means the annual mean flow found in "Statistical Summaries", USGS publication no. 87-4205, or most recent version thereof, or other annual mean flow as approved by the Oklahoma Water Resources Board or the permitting authority.

"Monthly average level" means the concentration of a toxicant in the permit which may not be exceeded by the observed effluent concentration averaged over a calendar month.

"Naturally occurring condition" means any condition affecting water quality which is not caused by human influence, including, but not limited to, soils, geology, hydrology, climate, wildlife, and water flow with specific consideration given to seasonal and other natural variations.

"NLW" means nutrient-limited watershed as defined in OAC 785:45-1-2.

"NOEC" means no observed effect concentration.

"NPDES" means National Pollutant Discharge Elimination System.

"Normal pool elevation" means the elevations listed in the "Oklahoma Water Atlas", Oklahoma Water Resources Board publication no. 135, or most recent version thereof.

"ORW" means Outstanding Resource Waters as defined in OAC 785:45-3-2(a).

"Outfall" means a point source which contains all the effluent being discharged to the receiving water.

"OWQS" means Oklahoma Water Quality Standards.

"Permitting authority" means state environmental agency as defined or provided in Title 27A of the Oklahoma Statutes having jurisdiction as provided by law.

"Persistent toxicity" means toxicity due to effluent constituents which are not subject to decay, degradation, transformation, volatilization, hydrolysis, or photolysis.

"Q*" means dilution capacity.

"Q_e" means the regulatory effluent flow.

" Q_{el} " means long term average effluent flow.

" Q_{es} " means short term average effluent flow.

" Q_u " means the regulatory receiving stream flow.

"**Regulatory mixing zone**" means the volume of receiving water described in 785:45-5-26.

"**Reasonable potential factor**" means the 95th percentile maximum likelihood estimator for a lognormal distribution.

"**SS**" means sample standard as defined in OAC 785:45-1-2.

"**Storm event**" means precipitation, after a minimum of 72 hours has elapsed since cessation of previous precipitation, in the watershed of a stream segment that produces a 30 percent rise in stream flow over the average flow of the preceding 72 hours resulting from surface run-off.

"**SWS**" means Sensitive Public and Private Water Supplies.

"**SWS-R**" means waterbodies classified as sensitive public and private water supplies that may be augmented with reclaimed municipal water for the purpose of indirect potable reuse

"**T**" means maximum temperature difference at the edge of the mixing zone boundary.

" T_a " means regulatory ambient temperature.

" T_c " means the temperature criterion.

" T_f " means the 95th percentile maximum observed effluent temperature.

"**TDS**" means total dissolved solids at 180C.

"**TMDL**" means total maximum daily load.

"**Total maximum daily load**" means the sum of individual wasteload allocations for point sources, safety reserves, and loads from nonpoint source and natural backgrounds.

"**Trophic State Index**" means a numerical quantification of lake productivity. The Trophic State Index shall be determined by $TSI = 9.81 \times \ln(\text{chlorophyll-a}) + 30.6$.

"**TSI**" means Trophic State Index.

"**TSS**" means total suspended solids.

"**USGS**" means United States Geological Survey.

"**W**" means canal width in feet.

"**YMS**" means yearly mean standard as defined in OAC 785:45-1-2.

SUBCHAPTER 13. IMPLEMENTATION OF ANTIDegradATION POLICY

785:46-13-1. Applicability and scope

(a) The rules in this Subchapter provide a framework for implementing the antidegradation policy stated in OAC 785:45-3-2 for all waters of the state. This policy and framework includes three tiers, or levels, of protection.

(b) The three tiers of protection are as follows:

(1) Tier 1. Attainment or maintenance of an existing or designated beneficial use.

(2) Tier 2. Maintenance or protection of High Quality Waters, ~~and~~ Sensitive Public and Private Water Supply waters, and Sensitive Water Supply-Reuse waterbodies.

(3) Tier 3. No degradation of water quality allowed in Outstanding Resource Waters.

(c) In addition to the three tiers of protection, this Subchapter provides rules to implement the protection of waters in areas listed in Appendix B of OAC 785:45. Although Appendix B areas are not mentioned in OAC 785:45-3-2, the framework for protection of Appendix B areas is similar to the implementation framework for the antidegradation policy.

(d) In circumstances where more than one beneficial use limitation exists for a waterbody, the most protective limitation shall apply. For example, all antidegradation policy implementation rules applicable to Tier 1 waterbodies shall be applicable also to Tier 2 and Tier

3 waterbodies or areas, and implementation rules applicable to Tier 2 waterbodies shall be applicable also to Tier 3 waterbodies.

(e) Publicly owned treatment works may use design flow, mass loadings or concentration, as appropriate, to calculate compliance with the increased loading requirements of this section if those flows, loadings or concentrations were approved by the Oklahoma Department of Environmental Quality as a portion of Oklahoma's Water Quality Management Plan prior to the application of the ORW, ~~HQW~~, HQW, or SWS, or SWS-R limitation.

785:46-13-2. Definitions

The following words and terms, when used in this Subchapter, shall have the following meaning, unless the context clearly indicates otherwise:

"Specified pollutants" means

- (A) Oxygen demanding substances, measured as Carbonaceous Biochemical Oxygen Demand (CBOD) and/or Biochemical Oxygen Demand (BOD);
- (B) Ammonia Nitrogen and/or Total Organic Nitrogen;
- (C) Phosphorus;
- (D) Total Suspended Solids (TSS); and
- (E) Such other substances as may be determined by the Oklahoma Water Resources Board or the permitting authority.

785:46-13-3. Tier 1 protection; attainment or maintenance of an existing or designated beneficial use

(a) General.

(1) Beneficial uses which are existing or designated shall be maintained and protected.

(2) The process of issuing permits for discharges to waters of the state is one of several means employed by governmental agencies and affected persons which are designed to attain or maintain beneficial uses which have been designated for those waters. For example, Subchapters 3, 5, 7, 9 and 11 of this Chapter are rules for the permitting process. As such, the latter Subchapters not only implement numerical and narrative criteria, but also implement Tier 1 of the antidegradation policy.

(b) **Thermal pollution.** Thermal pollution shall be prohibited in all waters of the state. Temperatures greater than 52 degrees Centigrade shall constitute thermal pollution and shall be prohibited in all waters of the state.

(c) **Prohibition against degradation of improved waters.** As the quality of any waters of the state improves, no degradation of such improved waters shall be allowed.

785:46-13-4. Tier 2 protection; maintenance and protection of High Quality Waters, and Sensitive Water Supplies, and Sensitive Water Supply-Reuse waterbodies.

(a) **General rules for High Quality Waters.** New point source discharges of any pollutant after June 11, 1989, and increased load or concentration of any specified pollutant from any point source discharge existing as of June 11, 1989, shall be prohibited in any waterbody or watershed designated in Appendix A of OAC 785:45 with the limitation "HQW". Any discharge of any pollutant to a waterbody designated "HQW" which would, if it occurred, lower existing water quality shall be prohibited. Provided however, new point source discharges or increased load or concentration of any specified pollutant from a discharge existing as of June 11, 1989, may be approved by the permitting authority in circumstances where the discharger demonstrates to the satisfaction of the permitting authority that such new discharge or increased load or concentration would result in maintaining or improving the level of water quality which exceeds that necessary to support recreation and propagation of fishes, shellfishes, and wildlife in the receiving water.

(b) **General rules for Sensitive Public and Private Water Supplies.** New point source discharges of any pollutant after June 11, 1989, and increased load of any specified pollutant from any point source discharge existing as of June 11, 1989, shall be prohibited in any waterbody or watershed designated in Appendix A of OAC 785:45 with the limitation "SWS". Any discharge of any pollutant to a waterbody designated "SWS" which would, if it occurred, lower existing water quality shall be prohibited. Provided however, new point source discharges or increased load of any specified pollutant from a discharge existing as of June 11, 1989, may be approved by the permitting authority in circumstances where the discharger demonstrates to the satisfaction of the permitting authority that such new discharge or increased load will result in maintaining or improving the water quality in both the direct receiving water, if designated SWS, and any downstream waterbodies designated SWS.

(c) **Stormwater discharges.** Regardless of subsections (a) and (b) of this Section, point source discharges of stormwater to waterbodies and watersheds designated "HQW", "SWS-R" and "SWS" may be approved by the permitting authority.

(d) **Nonpoint source discharges or runoff.** Best management practices for control of nonpoint source discharges or runoff should be implemented in watersheds of waterbodies designated "HQW", "SWS-R" or "SWS" in Appendix A of OAC 785:45.

(e) RESERVED FOR IMPLEMENTATION PROVISION RELATED TO 785:45-5-25(8)