

**TITLE 252. DEPARTMENT OF ENVIRONMENTAL QUALITY
CHAPTER 606. OKLAHOMA POLLUTANT DISCHARGE ELIMINATION SYSTEM
(OPDES) STANDARDS**

SUBCHAPTER 1. INTRODUCTION

252:606-1-4. Date of federal regulations incorporated

When reference is made to 40 CFR it means, unless otherwise specified, the volume of 40 CFR as published on July 1, ~~2012~~2013.

SUBCHAPTER 5. DISCHARGE PERMIT REQUIREMENTS

252:606-5-2. Technology-based methodologies

(a) Technology based methodologies include:

(1) **Industrial permits.** Effluent limitation guidelines for industry categories and pollutants are promulgated by the EPA pursuant to the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 and Water Quality Act of 1987. EPA guidelines are adopted and incorporated by reference in ~~OAC~~252:606-1-5. If there are no industry category or pollutant guidelines applicable to the applicant's industry, BPJ of the permit writer applies.

(2) **Municipal permits.**

(A) Technology based limitations for municipal discharges are based upon the definition of "secondary treatment": The Oklahoma definition of "secondary treatment" is more stringent than the EPA definition under 40 CFR Part 133. Subparagraphs (B) through (G) of this paragraph contain the EPA approved definition of "secondary treatment" for the State of Oklahoma, which is used in the development of wasteload allocations in the municipal point source inventory.

(B) For facilities discharging to perennial streams, "secondary treatment" is defined as:

(i) A monthly average of ~~30-thirty (30)~~ 30 mg/l BOD₅. A CBOD₅ of ~~25-twenty-five (25)~~ 25 mg/l is considered to be equivalent to a BOD₅ of ~~30-thirty (30)~~ 30 mg/l.

(ii) A weekly average of ~~45-forty-five (45)~~ 45 mg/l BOD₅. A CBOD₅ of ~~40-forty (40)~~ 40 mg/l is considered to be equivalent to a BOD₅ of ~~45-forty-five (45)~~ 45 mg/l.

(iii) The monthly average percent removal for BOD₅ or CBOD₅ cannot be less than ~~85%~~ eighty-five percent (85%).

(iv) A monthly average of ~~30-thirty (30)~~ 30 mg/l total suspended solids (TSS).

(v) A weekly average of ~~45-forty-five (45)~~ 45 mg/l TSS.

(vi) The monthly average percent removal for TSS cannot be less than ~~85%~~ eighty-five percent (85%).

(vii) The pH must be maintained between the limits of 6.5 and 9.0 standard units.

(C) For discharges to intermittent streams (those with 7-day, 2-year, low flow of zero) and for any discharge to a lake as defined in this subsection, secondary treatment is defined as:

(i) A monthly average of ~~20-twenty (20)~~ 20 mg/l BOD₅. A CBOD₅ of ~~18-eighteen (18)~~ 18 mg/l is considered to be equivalent to a BOD₅ of ~~20-twenty (20)~~ 20 mg/l.

(ii) A weekly average of ~~30-thirty (30)~~ 30 mg/l BOD₅. A CBOD₅ of ~~25-twenty-five (25)~~ 25 mg/l

is considered to be equivalent to a BOD₅ of ~~30~~thirty (30) mg/l.

(iii) The monthly average percent removal for BOD₅ or CBOD₅ cannot be less than ~~85%~~eighty-five percent (85%).

(iv) A monthly average of ~~30~~thirty (30) mg/l ~~total suspended solids (TSS)~~TSS.

(v) A weekly average of ~~45~~forty-five (45) mg/l TSS.

(vi) The monthly average percent removal for TSS cannot be less than ~~85%~~eighty-five percent (85%).

(vii) The pH must be maintained between the limits of 6.5 and 9.0 standard units.

(D) For discharges where treatment is solely provided by lagoons, whether the discharge is to a perennial or an intermittent stream, secondary treatment is defined as:

(I) A monthly average of ~~30~~thirty (30) mg/l BOD₅. A CBOD₅ of ~~25~~twenty-five (25) mg/l is considered to be equivalent to a BOD₅ of ~~30~~thirty (30) mg/l.

(ii) A weekly average of ~~45~~forty-five (45) mg/l BOD₅. A CBOD₅ of ~~40~~forty (40) mg/l is considered to be equivalent to a BOD₅ of ~~45~~forty-five (45) mg/l.

(iii) The monthly average percent removal for BOD₅ or CBOD₅ cannot be less than ~~65%~~sixty-five percent (65%).

(iv) A monthly average of ~~90~~ninety (90) mg/l ~~total suspended solids (TSS)~~TSS.

(v) A weekly average of ~~one hundred thirty-five~~one hundred thirty-five (135) mg/l TSS.

~~(v)~~ (vi) The pH must be maintained between the limits of 6.5 and 9.0 standard units.

~~(vi)~~ (vii) This paragraph (D) does not apply to a discharge to a lake as defined in this subsection.

(E) For purposes of this Section, a discharge to a lake is any discharge from a point source which is either a direct discharge into a lake, or within five (5) river miles upstream of the conservation pool of any lake.

(F) For purposes of this Section, a lake is an impoundment of the waters of the state which exceeds fifty (50) acre-feet in volume which ~~either~~:

(I) is owned or operated by a unit of government, ~~or~~

(ii) appears in Oklahoma's Clean Lakes Inventory, or

(iii) is a privately-owned lake which has beneficial uses similar to those of publicly-owned or operated lakes.

(G) For purposes of this Section, percent removal is a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the monthly average values of the raw wastewater influent pollutant concentrations to the facility and the monthly average values of the effluent pollutant concentrations for a given time period.

(3) In the CWA Section 208 "Water Quality Management Plan for Oklahoma," Appendix B, the only specific wasteload allocation numbers assigned are those that apply to facilities showing a need for treatment greater than secondary (e.g., ~~10~~ten (10) mg/l BOD₅; ~~15~~fifteen (15) mg/l TSS; 2 mg/l NH₃-N). All other facilities receive an allocation of secondary.

(4) In the CWA Section 208 "Water Quality Management Plan for Oklahoma," Appendix B, determination of the actual effluent limits for a facility with an allocation of secondary can be accomplished by finding the stream class (perennial or intermittent) and the current treatment process (mechanical plant or lagoon, etc.). For example, an activated sludge facility (mechanical plant) ~~which that~~ discharges into a perennial stream will have effluent limits of ~~30~~thirty (30) mg/l

BOD₅ and ~~30~~ thirty (30) mg/l total suspended solids (TSS) as found in paragraph (2) of this subsection.

(5) The Executive Director may establish in discharge permits limitations for coliform bacteria where:

- (A) the proposed discharge is a "discharge to a lake" as defined in this Section, or
- (B) the proposed discharge may otherwise adversely affect the beneficial uses of the waters of the state.

SUBCHAPTER 11. TESTS AND REPORTS

252:606-11-3. Municipal laboratories

(a) The provisions of this Section are minimum requirements.

(b) Results of all control tests must be made available to plant operators in a timely fashion for use in operational control of the facility.

(c) All plants must determine the daily flow and enter it in the operating records at the frequency specified in the permit. Flow measurements are also necessary when composite samples are collected. For plants not equipped with continuous flow recorders, occasional determinations of the flow over a 24-hour period will be necessary to establish a flow pattern so that occasional flow measurements will provide an indication of the total flow.

(d) Minimum control tests are tabulated in Appendix A of this Chapter, entitled, "Minimum Control Tests for Wastewater Treatment Facilities" and Appendix G of this Chapter, entitled, "Minimum Control Tests for Backwash Discharge from Potable Water Treatment Facilities." In addition to these tests, routine observations, tests or measurements as to the quantity and quality of screenings, grit, sludge pumped from clarifiers, sludge/residuals drawn to drying beds or other means of disposal, the weather conditions must be entered in the operating records. The Executive Director may require that all effluent samples be collected from the outfall pipe at the point of discharge where conditions are such that the effluent quality will likely be different at this point than it is in the final treatment or storage unit.

(e) Stream monitoring requirements must be as set forth in this subsection and as specified in any applicable permit or order of the Executive Director. These requirements are established in order to determine compliance with applicable standards. Unless otherwise specified in the permit, collect stream samples above and below the point of wastewater discharge with consideration being given to ease of access, mixing of plant effluent and the receiving stream, and the oxygen "sag" point of the receiving stream.

(1) Determine dissolved oxygen, temperature, pH, and stream appearance twice per month at least two weeks apart, but not more often than required in the permit for effluent sampling for BOD₅.

(2) Test for coliform bacteria twice per month at least two (2) weeks apart, but not more often than required in the permit for effluent sampling for coliform, if the permit for discharge contains coliform limits.

(3) The DEQ may require additional tests when problems develop in plant operation, or as necessary to determine compliance with the purposes and objectives of this Chapter.

(f) The Executive Director may grant variances from the requirements in this Section upon a written request and a showing by the permittee that the requested variance will:

(1) Not adversely affect the quality of the discharge ~~nor~~ or the environment;

- (2) Avoid an excessive requirement; and
- (3) Not hinder the proper operations of the treatment facility.

APPENDIX G. MINIMUM CONTROL TESTS FOR BACKWASH DISCHARGE FROM POTABLE WATER TREATMENT FACILITIES [NEW]

Effluent Parameter ¹	Flow (mgd)					
	0 – <0.1	0.1 - <0.5	0.5 - <1.0	1.0 - <5.0	5.0 - <10.0	≥10
Flow	2/week Instantaneous	5/week Instantaneous	Daily Totalized	Daily Totalized	Daily Totalized	Daily Totalized
TSS	1/month Grab	2/month Grab	3/month Grab	1/week Grab	5/week Grab	7/week Grab
Fe, Dissolved ²	1/month Grab	1/month Grab	1/month Grab	2/month Grab	2/month Grab	2/month Grab
Al, Dissolved ²	1/month Grab	1/month Grab	1/month Grab	2/month Grab	2/month Grab	2/month Grab
Mn, Dissolved ²	1/month Grab	1/month Grab	1/month Grab	2/month Grab	2/month Grab	2/month Grab
pH	2/week Grab	2/week Grab	2/week Grab	2/week Grab	2/week Grab	2/week Grab

¹ Additional parameters may be required to be monitored in accordance with frequencies specified in OAC 252:690 for reverse osmosis, microfiltration, nanofiltration, ion exchange, electro dialysis, and other advanced technologies.

² Parameters to be monitored only for conventional water treatment plants.