

**AUTHORIZATION TO DISCHARGE UNDER
THE OKLAHOMA POLLUTANT DISCHARGE ELIMINATION SYSTEM**

**PERMIT NUMBER: OK0043966
ID NUMBER: I-55005070**

In compliance with the Oklahoma Pollutant Discharge Elimination System (OPDES) Act, 27A O.S. § 2-6-201 *et seq.*, Oklahoma Uniform Environmental Permitting Act, 27A O.S. § 2-14-101 *et seq.*, and the rules of the Oklahoma Department of Environmental Quality (DEQ) promulgated thereunder,

Oklahoma Gas and Electric Company (OG&E)
P.O. Box 321, MC 610
Oklahoma City, OK 73101

is authorized to discharge from the OG&E Horseshoe Lake Units 9 & 10 facility, located at:

NW¼, NE¼, NW¼, Section 15, Township 12 North (N), Range 1 East, Indian
Meridian (EIM), Oklahoma County, Oklahoma
or at 19801 NE 36th St, Harrah, OK 73045

to receiving waters identified as:

- ◆ Horseshoe Lake, a privately owned cooling water reservoir, in stream segment 520510 of the Canadian River Basin, from:

Outfall 001:

Latitude 35.513777° N, Longitude 97.183007° W (GPS: NAD83)
NE¼, NW¼, SE¼ of Section 15, Township 12 N, Range 1 EIM,
Oklahoma County, Oklahoma

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, and III, hereof.

Issuance of this permit in no way or in any respect affects the permittee's civil or criminal responsibility regarding disposal of wastewater, except with respect to the permittee's legal responsibility under the OPDES Act and DEQ Rules.

This permit replaces and supersedes the previous permit issued on April 15, 2021.

The issuance date of this permit is Month Date Year.

This permit shall become effective Month Date Year.

This permit and authorization to discharge shall expire at midnight Month Date Year.

For the Oklahoma Department of Environmental Quality:

Jason Ma, P.E., Manager
Industrial Permits Section
Water Quality Division

George Russell IV, Director
Water Quality Division

PART I
EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. Effluent Limitations and Monitoring Requirements for Outfall 001

a. Interim Limitations and Monitoring Requirements

Not applicable.

b. Final Limitations and Monitoring Requirements

During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge from Outfall 001. The discharge from Outfall 001 consists of cooling tower blowdown. Such discharge shall be limited and monitored by the permittee as specified below.

Final Effluent Limitations – Outfall 001

Parameters	Mass Loading Limits (lbs/day unless otherwise specified)		Concentration Limits (mg/L unless otherwise specified)	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum
Flow STORET: 50050	Report (MGD) ⁽¹⁾	Report (MGD) ⁽¹⁾	---	---
Free Available Oxidants (FAO) STORET: 34045	---	---	0.2	0.5
Total Residual Oxidants (TRO) STORET: 34044	---	---	---	No measurable amount ⁽²⁾
pH STORET: 00400	Between 6.5 s.u. – 9.0 s.u.			

⁽¹⁾ Million gallons per day.

⁽²⁾ No measurable amount is defined as <0.1 mg/L instantaneous maximum for TRO, as measured by an approved EPA Title 40 Code of Federal Regulations (C.F.R.) Part 136 method for Total Residual Chlorine.

Final Monitoring Requirements – Outfall 001

Parameters	Measurement Frequency ⁽¹⁾	Sample Type
Flow	Continuous	Totalize
FAO	1/year ⁽³⁾	Grab
TRO	1/week ⁽²⁾	Grab
pH	1/week	Grab

⁽¹⁾ When discharging.

⁽²⁾ Tests shall be representative of periods of chlorination. If no chlorine is used during a monitoring/testing period of one week, then no analysis of TRO is required for that week's monitoring period. If no chlorine is used for an entire reporting period of one month, the permittee shall report a value of "zero" for the daily maximum and enter "No chlorine used this reporting period" in the comments section on the discharge monitoring report (DMR) for that reporting period in lieu of the indicated testing.

⁽³⁾ Annual reporting for this parameter is from _____ to _____, and the first report is due on _____, 2026.

not be present in quantities that adhere to stream banks and coat bottoms of water courses.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

The discharge shall not contain chemical, physical, or biological substances in concentrations that are irritating to skin or sense organs or are toxic or cause illness upon ingestion by human beings.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location:

Outfall 001: Samples shall be taken at the sample tap on the cooling tower blowdown discharge line prior to discharging into Horseshoe Lake in NE¼, NW¼, SE¼ of Section 15, Township 12 N, Range 1 E1M, Oklahoma County, Oklahoma, at Latitude 35.514009° N, Longitude 97.183568° W (GPS: NAD83).

SECTION B. BACKGROUND MONITORING REQUIREMENTS – MONITORING DESIGNATION 999 (UPSTREAM)

Not applicable.

SECTION C. SCHEDULE OF COMPLIANCE

The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule: None.

SECTION D. REPORTING OF MONITORING RESULTS

Monitoring results shall be reported in accordance with the provisions of Part III, Section E(4) of the permit. Monitoring results obtained during the previous month shall be summarized and electronically reported on an electronic DMR form due to DEQ, Water Quality Division, Wastewater Compliance Tracking Section no later than the 15th day of the month following the completed monthly test. If no discharge occurs during the reporting period, a DMR form stating "No Discharge" shall be electronically submitted according to the above schedule. Instructions on how to register as a "Preparer" or "Signatory" for DMRs, as well as how to prepare and submit DMRs, can be found on DEQ's website at <https://oklahoma.gov/deq/divisions/water-quality/wastewater-stormwater/electronic-reporting.html>. Assistance is also available by contacting DEQ at (405) 702-8100 or deqreporting@deq.ok.gov.

The first report is due on _____, 2026.

PART II OTHER PERMIT REQUIREMENTS

A. REGULATORY NOTICE

The permittee is hereby given notice that this permit is in all respects subject to compliance with and actions under any and all applicable and relevant terms, conditions, provisions and requirements and any and all amendments of the laws of the State of Oklahoma, the rules of DEQ, and Oklahoma's Water Quality Standards. The absence of any express reference within this permit of any particular statutory requirement, rule(s), regulation(s), or standard(s) shall in no respect be deemed or construed to exempt or preclude the application of such requirement, rule(s), regulation(s), or standard(s) to this permit or the permittee. By the Director's approval, grant and issuance of this permit, permittee acknowledges receipt of true, correct and current copies of Oklahoma's Water Quality Standards, and the rules of DEQ.

B. REOPENER CLAUSE

This permit may be reopened for modification or revocation and reissuance to require additional monitoring and/or effluent limitations where actual or potential exceedances of State water quality criteria are determined to be the result of the permittee's discharge to the receiving water(s), or a Total Maximum Daily Load is established for the receiving stream(s), or when required as technology advances. Modification or revocation and reissuance of the permit shall follow regulations listed at 40 C.F.R. § 124.5.

C. LABORATORY ACCREDITATION

All laboratory analyses for the parameters specified in this permit must be performed by a laboratory accredited by DEQ for those parameters.

D. ANALYTICAL REQUIREMENTS

Unless otherwise specified in this permit, effluent and/or upstream monitoring shall be conducted according to analytical, apparatus and materials, sample collection, preservation, handling, etc., procedures listed in 40 C.F.R. Part 136 in effect on the effective date of this permit. Appendices A, B, and C to 40 C.F.R. Part 136 are specifically referenced as part of this requirement. Amendments to 40 C.F.R. Part 136 promulgated and incorporated by reference in OAC 252:606 after the effective date of this permit shall supersede these requirements as applicable.

E. MINIMUM QUANTIFICATION LEVEL

If any individual analytical test result taken for compliance with this permit is a non-detect, then the detection limit shall be used for eDMR calculations. Any time a non-detect value is used for eDMR calculations, the value reported on the eDMR shall use the less than sign (<).

F. POLYCHLORINATED BIPHENYL COMPOUNDS

There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid at any of the outfalls.

G. LIMITS ON DISCHARGE OF CHLORINATED WASTEWATER

Neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available chlorine or total residual chlorine at any one time unless the permittee can demonstrate to the permitting agency that the units in a particular location cannot operate at or below this level of chlorination.

H. PRIORITY POLLUTANTS IN COOLING TOWER BLOWDOWN

The permittee shall provide written notification DEQ at least thirty (30) days prior to commencing the use of new cooling water treatment chemical(s). Safety Data Sheets (SDS) for all such newly proposed cooling tower maintenance/treatment chemicals shall be furnished with the notification. If proposed new cooling water treatment chemicals contain any of the priority pollutants listed in 40 C.F.R. Part 423, Appendix A, the permittee shall also provide engineering calculations for the expected level of the pollutant in the cooling tower blowdown from each affected outfall or internal monitoring point, as appropriate.

I. SURFACE IMPOUNDMENT REQUIREMENTS

Not applicable.

J. TANK SYSTEM REQUIREMENTS

Not applicable.

K. OTHER DISPOSAL METHODS

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewater shall be disposed of at a state-approved industrial waste disposal site or to a company for recycling. Disposal of any waste or wastewater shall be in a manner such as to prevent any pollutant from such materials from entering waters of the State or waters of the United States.

If any such industrial waste is removed from the facility, the permittee shall keep accurate records which include the following information:

1. Name and address of company hauling waste.
2. The type and amount of waste hauled.
3. The final disposal site of waste hauled.

The permittee shall retain the above records for a period of at least five (5) years. Upon request, the above records shall be made available to DEQ staff for inspection, review, and copying.

L. DISPOSAL OF LOW VOLUME WASTE

After treatment by an oil/water separator onsite, low volume waste at this facility is authorized to be vaporized by injection into a boiler at any OG&E steam electric plant or be transported to impoundment F03 at the Horseshoe Lake main plant. Additionally, if necessary, low volume waste may be disposed of offsite using a DEQ licensed environmental waste hauling service.

M. DEFINITIONS

1. The term "once through cooling water" means water passed through the main cooling condensers in one or two passes for the purpose of removing waste heat.
2. "The term "total residual chlorine" (or "total residual oxidants" for intake water with bromides) means the value obtained using any of the "chlorine—total residual" methods in Table IB in 40 C.F.R. § 136.3(a), or other methods approved by the permitting authority."
3. "The term "free available chlorine/oxidants" means the value obtained using any of the "chlorine—free available" methods in Table IB in 40 C.F.R. § 136.3(a) where the method has the capability of measuring free available chlorine, or other methods approved by the permitting authority."

4. "The term 'low volume waste sources' means, taken collectively as if from one source, wastewater from all sources except those for which specific limitations or standards are otherwise established in this part. Low volume waste sources include, but are not limited to, the following: wastewaters from ion exchange water treatment systems, water treatment evaporator blowdown, laboratory and sampling streams, boiler blowdown, floor drains, cooling tower basin cleaning wastes, recirculating house service water systems, and wet scrubber air pollution control systems whose primary purpose is particulate removal. Sanitary wastes, air conditioning wastes, and wastewater from carbon capture or sequestration systems are not included in this definition."
5. "The term 'recirculated cooling water' means water which is passed through a cooling device for the purpose of removing such heat from the water and then passed again, except for blowdown, through the main condenser."
6. "The term 'blowdown' means the minimum discharge of recirculating water for the purpose of discharging materials contained in the water, the further buildup of which would cause concentration in amounts exceeding limits established by best engineering practices."