

AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended,  
(33 U.S.C. 1251 et. seq; the "Act"),

Public Service Company of Oklahoma  
P. O. Box 201  
Tulsa, Oklahoma 74102

is authorized to discharge from a facility located at

Black Fox Station  
Inola, Rogers County, Oklahoma

to receiving waters named


Verdigris River

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

This permit shall become effective on August 15, 1978

This permit and the authorization to discharge shall expire at midnight, August 14, 1983

Signed this 14th day of July 1978

  
Howard G. Bergman  
Director  
Enforcement Division

# A-1 EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning (effective date) and lasting through the expiration of this permit the permittee is authorized to discharge from outfall(s) serial number(s) 001 combined waste stream effluents.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kg/day (lbs/day)		Other Units (Specify)		Measurement Frequency	Sample Type
	Daily Avg	Daily Max	Daily Avg	Daily Max		
Flow-m <sup>3</sup> /Day (MGD) 5	N/A	N/A	(*)	(*)	Continuous	Record
Total Suspended Solids:	4	4	N/A	N/A	1/week	24-hr. composite 6
Temperature	N/A	N/A	27.8°C (82°F) 3	36.1°C (97°F) 1	Continuous	Record

\*Report

1 Instantaneous maximum

2 See Part III, Paragraph C.

4 Limits shall be computed for each month based on daily average flows of contributing waste source categories, see Part III, paragraph I.

5 Daily total flow shall not exceed any limit calculated in Part III, paragraph J.

6 See Part III, Paragraph H.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored by continuous record.

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

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

At outfall 001 where the wastewater holding pond discharges to the Verdigris River.

## A-2 EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning the effective date and lasting through the expiration of this permit the permittee is authorized to discharge from outfall(s) serial number(s) 01A (control point) treated sanitary sewage effluents.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kg/day (lbs/day)		Other Units (Specify)		Measurement Frequency	Sample Type
	Daily Avg	Daily Max	Daily Avg	Daily Max		
Flow—m <sup>3</sup> /Day (MGD)	N/A	N/A	(*)	N/A	Daily	Totalized
BOD <sub>5</sub>	N/A	N/A	30 mg/l	45 mg/l	1/week	Grab
Total Suspended Solids	N/A	N/A	30 mg/l	45 mg/l	1/week	Grab

\*Report

The pH shall not be less than N/A standard units nor greater than N/A standard units and shall be monitored N/A

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

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

Prior to mixing with any other waste stream and discharge to the wastewater holding pond.



### A-3 EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning effective date and lasting through the expiration of this permit the permittee is authorized to discharge from outfall(s) serial number(s) 01B (control point) cooling tower blowdown.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kg/day (lbs/day)		Other Units (Specify)		Measurement Frequency	Sample Type
	Daily Avg	Daily Max	Daily Avg	Daily Max		
Flow—m <sup>3</sup> /Day (MGD)	N/A	N/A	(*)	N/A	Daily	Totalized
Phosphorous <sup>2</sup>	N/A	N/A	5 mg/l	5 mg/l	1/week	24-Hr. Composite <sup>1</sup>
Free Available Chlorine <sup>3</sup>	N/A	N/A	0.2 mg/l	0.5 mg/l	1/week	Grab

\*Report

<sup>1</sup> See Part III, Paragraph H.

<sup>2</sup> Phosphorous is limited to those compounds which are used only as anti-scalants.

<sup>3</sup> See Part III, Paragraph D; limitations shall be representative of periods of chlorination.  
See Part III, Paragraph N.

The pH shall not be less than N/A standard units nor greater than N/A standard units and shall be monitored N/A

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

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

Prior to mixing with any other waste stream and discharge to the wastewater holding pond.

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#### A-4 EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning effective date and lasting through the expiration of this permit the permittee is authorized to discharge from outfall(s) serial number(s) 01C (control point) metal cleaning wastewater <sup>1</sup>.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kg/day (lbs/day)		Other Units (Specify)		Measurement Frequency	Sample Type
	Daily Avg	Daily Max	Daily Avg	Daily Max		
Flow—m <sup>3</sup> /Day (MGD)	N/A	N/A	(*)	N/A	Daily	Totalized
Iron, Total	N/A	N/A	1 mg/l	1 mg/l	1/week	Grab
Copper, Total	N/A	N/A	1 mg/l	1 mg/l	1/week	Grab
Oil and Grease	N/A	N/A	15 mg/l	20 mg/l	1/week	Grab

\*Report

See Part III, Paragraph E.

The pH shall not be less than N/A standard units nor greater than N/A standard units and shall be monitored N/A

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

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

Prior to mixing with any other waste stream and discharge to the wastewater holding pond.

## A-2 EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning effective date and lasting through the expiration of this permit the permittee is authorized to discharge from outfall(s) serial number(s) 010 (control points) low volume wastes<sup>1</sup> (includes roof and yard drains, station uses, demineralizer wastes and radwaste). Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kg/day (lbs/day)		Other Units (Specify)		Measurement Frequency	Sample Type
	Daily Avg	Daily Max	Daily Avg	Daily Max		
Flow—m <sup>3</sup> /Day (MGD)	N/A	N/A	(*)	N/A	Daily	Totalized
Oil & Grease	N/A	N/A	15 mg/l	20 mg/l	1/week	Grab

\*Report

<sup>1</sup> See Part III, Paragraphs G & M

The pH shall not be less than N/A standard units nor greater than N/A standard units and shall be monitored N/A

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

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

Prior to mixing with any other waste streams and discharge to the wastewater holding pond.



B. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

None.

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

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C. MONITORING AND REPORTING

1. *Representative Sampling*

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. *Reporting*

Monitoring results obtained during the previous 3 months shall be summarized for each month and reported on a Discharge Monitoring Report Form (EPA No. 3320-1), postmarked no later than the 28th day of the month following the completed reporting period. The first report is due on October 28, 1978. Duplicate signed copies of these, and all other reports required herein, shall be submitted to the Regional Administrator and the State at the following addresses:

Howard G. Bergman  
Director, Enforcement Division (6AE)  
EPA, First International Building  
1201 Elm Street  
Dallas, Texas 75270

Mr. Robert W. Radcliff  
Executive Director  
Oklahoma Water Resources Board  
Jim Thorpe Building (5th Floor)  
Oklahoma City, Oklahoma 73105

3. *Definitions*

- a. The "daily average" discharge means the total discharge by weight during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar month when the measurements were made.
- b. The "daily maximum" discharge means the total discharge by weight during any calendar day.

4. *Test Procedures*

Test procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304(g) of the Act, under which such procedures may be required.

5. *Recording of Results*

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date, and time of sampling;
- b. The dates the analyses were performed;
- c. The person(s) who performed the analyses;



d. The analytical techniques or methods used; and

e. The results of all required analyses.

6. *Additional Monitoring by Permittee*

If the permittee monitors any pollutant at the location( ) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form (EPA No. 3320-1). Such increased frequency shall also be indicated.

7. *Records Retention*

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Regional Administrator or the State water pollution control agency.

## A. MANAGEMENT REQUIREMENTS

### 1. *Change in Discharge*

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new NPDES application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the permit issuing authority of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

### 2. *Noncompliance Notification*

If, for any reason, the permittee does not comply with or will be unable to comply with any daily maximum effluent limitation specified in this permit, the permittee shall provide the Regional Administrator and the State with the following information, in writing, within five (5) days of becoming aware of such condition:

- a. A description of the discharge and cause of noncompliance; and
- b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

### 3. *Facilities Operation*

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

### 4. *Adverse Impact*

The permittee shall take all reasonable steps to minimize any adverse impact to navigable waters resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

### 5. *Bypassing*

Any diversion from or bypass of facilities necessary to maintain compliance with the terms and conditions of this permit is prohibited, except (i) where unavoidable to prevent loss of life or severe property damage, or (ii) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the effluent limitations and prohibitions of this permit. The permittee shall promptly notify the Regional Administrator and the State in writing of each such diversion or bypass.

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6. *Removed Substances*

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

7. *Power Failures*

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

- a. In accordance with the Schedule of Compliance contained in Part I, provide an alternative power source sufficient to operate the wastewater control facilities;

or, if such alternative power source is not in existence, and no date for its implementation appears in Part I,

- b. Halt, reduce or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

B. RESPONSIBILITIES

1. *Right of Entry*

The permittee shall allow the head of the State water pollution control agency, the Regional Administrator, and/or their authorized representatives, upon the presentation of credentials:

- a. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and
- b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any discharge of pollutants.

2. *Transfer of Ownership or Control*

In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Regional Administrator and the State water pollution control agency.

3. *Availability of Reports*

Except for data determined to be confidential under Section 308 of the Act, all reports prepared in accordance with the terms of this permit shall be available for public



inspection at the offices of the State water pollution control agency and the Regional Administrator. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act.

#### 4. *Permit Modification*

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

- a. Violation of any terms or conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

#### 5. *Toxic Pollutants*

Notwithstanding Part II, B-4 above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee so notified.

#### 6. *Civil and Criminal Liability*

Except as provided in permit conditions on "Bypassing" (Part II, A-5) and "Power Failures" (Part II, A-7), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

#### 7. *Oil and Hazardous Substance Liability*

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

#### 8. *State Laws*

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Act.

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9. *Property Rights*

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. *Severability*

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

PART III

OTHER REQUIREMENTS

A. There shall be no discharge of polychlorinated biphenyl transformer fluid.

B. The "daily average" concentration means the arithmetic average (weighted by flow value) of all the daily determinations of concentration made during a calendar month. Daily determinations of concentrations made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily determination of concentration shall be the arithmetic average (weighted by flow value) of all the samples collected during that calendar day.

The "daily maximum concentration means the daily determination of concentration for any calendar day.

C. Daily average temperature is defined as the flow weighted average temperature (FWAT) and shall be calculated and recorded on a daily 24-hour basis. FWAT shall be computed at equal time intervals not greater than two hours. The methods of calculating FWAT as follows:

$$FWAT = \frac{\text{SUMMATION (INSTANTANEOUS FLOW X INSTANTANEOUS TEMPERATURE)}}{\text{SUMMATION (INSTANTANEOUS FLOW)}}$$

D. The term "free available chlorine" shall mean the value obtained using the amperometric titration method for free available chlorine described in "Standard Methods for the Examination of Water and Wastewater," page 112 (13th edition).

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 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 the limitations specified in this permit.

E. The term "metal cleaning wastes" shall mean any cleaning compounds, rinse waters or other waterborne residues derived from cleaning any metal process equipment including, but not limited to, boiler tube cleaning, boiler fireside cleaning and air preheater cleaning.

F. The intake structure for units 1 & 2 is approved pursuant to section 316(b) of PL 95-217.

G. Where more than one source is associated with a particular waste category these can be analyzed and reported individually or combined into a single flow weighted sample for analysis and reporting.

H. The term "24-hour composite sample" means a sample consisting of a minimum of eight samples of effluents collected at regular intervals over a normal operation day and combined proportional to flow, or a sample continuously collected proportional to flow over a normal operating day.

#### I. NEW SOURCE STANDARDS AND SUPPLEMENTARY CONTROLS

This facility is required to meet all standards which establish the quantity or quality of pollutants or pollutant properties for a new source facility as contained in 40 CFR 423.15. The permittee shall provide all necessary treatment and controls. All applicable new source limitations are applied at Outfall 001 (page 2) and control points 01B (page 4), 01C (page 5), and 01D (page 6). Additionally, standards are applied to control of thermal discharge at outfall 001 and to control of treated sanitary sewage effluents at control point 01B (page 3).

Combined waste treatment and discharge are allowed for control of total suspended solids and pH in accordance with 40 CFR 423.15(k). 40 CFR 423.15(i) does not address limitations for total suspended solids in cooling tower blowdown. These pollutants, present in intake, do not qualify for net or pass-through in accordance with 40 CFR 125.28 and are limited accordingly.

Flow monitoring or estimating methods shall be provided for all sources for which combined waste treatment is provided. Methods which are implemented shall accurately identify the flow contributions of



each source to within an accuracy of 10%. Daily average flow for each source shall be reported supplementary to DMR's for each month, where

1. A = daily average flow of all low volume waste sources and metal cleaning wastes, MGD (includes roof and yard drain effluents, oil trap effluents, neutralization basin effluents, radwaste system effluents, sludge holding basin effluents and metal cleaning wastewater).

2. B = daily average flow for treated sanitary sewage effluents, MGD.

3. C = daily average flow for cooling tower blowdown, MGD.

Discharge limitations for each month shall be computed and included on the DMR for monitoring point 001 as follows:

TOTAL SUSPENDED SOLIDS

Daily average lbs/day = (A)(8.34)(30) + (B)(8.34)(30) + (C)(8.34)(30)

Daily maximum lbs/day = (A)(8.34)(100) + (B)(8.34)(45) + (C)(8.34)(100)

J. WATER QUALITY STANDARDS

The facility must meet Oklahoma's Water Quality Standards for discharge of pollutants to the Verdigris River under all river conditions and stream flows. These requirements shall be met by treatment for removal of pollutants and/or controlled release of pollutants in accordance with the following conditions.

For each parameter (P) listed in the following table monitoring and monthly reporting shall be provided for the specified locations. Monitoring and reporting shall be provided for stream flow as described.

P<sub>1</sub> = parameter in stream above discharge, mg/l

P<sub>2</sub> = parameter in discharge, mg/l

B = stream flow below intake and above discharge, MGD.

All parameter monitoring shall be on a 1/week 24-hr. composite sample basis; except when stream flow (B) is below 1000 cfs parameter monitoring shall be on a 1/day 24-hr. composite sample basis. Monitoring for river flow (B) shall be on a continuous basis. (See Paragraph H).

Daily total flow discharge, A, from outfall 001 shall be calculated on a daily basis from the most recent parameter analysis and shall not exceed the following for any listed parameter.

$$A = \frac{B(K - P_1)}{P_2 - K} \text{ MGD}$$

Parameter, P	Constant, K
Sulfate	45
Chloride	80
TDS	367
Arsenic	0.05
Barium	1.0
Cadmium	0.01
Chromium (hexavalent)	0.05
Fluoride	1.4
Iron (filterable)	0.3
Lead	0.05
Manganese (filterable)	0.05
Mercury	0.002

A daily violation of any parameter flow limitation shall be subject to noncompliance notification in accordance with Part II, Section A(2), paragraphs (a) and (b).

Independent of stream flow levels, during periods when in-stream conditions ( $P_1$ ) above the discharge exceed water quality standards, the permittee may not contribute to increased stream degradation by the further addition of pollutants.

As a condition of renewal for this permit, any effluent limitation, waste load allocation or total maximum daily load which is subsequently promulgated by the State of Oklahoma for a specific parameter pursuant to applicable sections of PL-95-217 to protect water quality standards shall be applicable and shall supersede control criteria established for that parameter by this section.

Thermal limitations are established as specified by temperature limitations applied to outfall 001 and associated conditions contained in Part III. Thermal limitations consider applicable water quality standard limitations and mixing zones.

K. This permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent limitation issued pursuant to the order the United States District Court for the District of Columbia issued on June 8, 1976, in Natural Resources Defense Council, Inc. et al. v. Russell E. Train, 8 ERC 2120 (D.D.C. 1976), if the effluent limitation so issued:

- (1) is different in conditions or more stringent than any effluent limitation in the permit; or
- (2) controls any pollutant not limited in the permit.

L. If cooling tower design incorporates the use of any asbestos construction materials, this permit will be reevaluated to consider the application of appropriate asbestos limitations.

M. The term "low volume waste sources" shall mean, taken collectively as if from one source, wastewater from all sources except those for which specific limitations are otherwise established in this permit. Low volume wastes sources would include but are not limited to waste waters from ion exchange water treatment systems, water treatment evaporator blowdown, laboratory and sampling streams, floor drainage, cooling tower basin cleaning wastes and blowdown from recirculating house service water systems.

N. Materials shall not be added to cooling towers for corrosion inhibition and control. This requirement includes but is not limited to the use of zinc, chromium and phosphorous for corrosion inhibition.