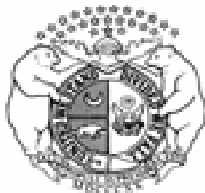


STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0126713

Owner: Empire District & Westar
Address: 2299 South State Line Avenue, Joplin, MO 64804

Continuing Authority: Same as above
Address: Same as above

Facility Name: Empire Electric, State Line Combined Cycle Power Plant
Facility Address: 2299 South State Line Avenue, Joplin, MO 64804

Legal Description: W ½, Sec. 14, T27N, R34W, Jasper County
Latitude/Longitude: Outfall #001 +3704049/-09436441, Outfall #002 +3703492/-09436514
Outfall #003 +3704049/-09436588 Outfall #004 +3703209/ -9436551

Receiving Stream: Unnamed Tributaries to Short Creek (U)
First Classified Stream and ID: Short Creek (Classified section in Kansas) (09999)
USGS Basin & Sub-watershed No.: (11070207-160050)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

See page 2

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

May 11, 2007
Effective Date


Doyle Childers, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

May 10, 2012
Expiration Date
MO 780-0041 (10-93)


Edward Galbraith, Director of Staff, Clean Water Commission

FACILITY DESCRIPTION (continued)

Outfall #001 – Power Plant - SIC #4911

Discharge of the cooling tower blowdown/chemical waste sump/oil water separator from Unit 2-3/storm water runoff.
NE NW Sec 14, T27N R34W Jasper Co.
Design flow is 1.307 MGD.

Outfall #002 – Power Plant – SIC #4911

Discharge from southern collection basin from the oil water separators from Units 1, 2-1 and 2-2/stormwater runoff.
NW SW Sec 14, T27N R34W Jasper Co.
Design flow is 7.077 MGD.

Outfall #003 – Power Plant – SIC #4911

Discharge from northern collection basin from stormwater runoff.
NW NW SEC 14, T27N R34W Jasper Co.
Design flow is 8.455 MGD.

Outfall #004 – Power Plant SIC #4911

Discharge from Emergency Cooling Water Storage.
NW NW Sec 23, T27N R34W Newton Co.
Design Flow is 7.4 MGD

Downstream Monitoring Point – at old Highway 66 Bridge in Kansas

The sanitary waste for this facility is sent to and treated by the City of Galena, KS POTW.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

PERMIT NUMBER MO-0126713

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u> Flow	MGD	*		*	daily	24 hr. estimate
Temperature	°F	*		*	daily	grab
Total Suspended Solids	mg/L	100		30	once/month	grab
Bromine and Total Residual Chlorine, Halogens (Note 1)	mg/L	0.019		0.011	once/month	grab
Oil & Grease	mg/L	15		10	once/month	grab
pH – Units	SU	**		**	once/month	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE June 28, 2007.

Whole Effluent Toxicity (WET) Test	% Survival	(see Special Condition #9: WET test in year 1 and 5 only)	See Special Condition 9	24 hr. comp.
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MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE October 28, 2007.

<u>Outfalls #002, #003, & #004</u>						
Flow note 2	MGD	*		*	once/month	24 hr. estimate
Total Suspended Solids	mg/L	100		30	once/month	grab
Oil & Grease	mg/L	15		10	once/month	grab
pH – Units	SU	**		**	once/month	grab
<u>Downstream Monitoring Point at old Highway 66 Bridge in Kansas</u>						
Temperature	°F	*		*	once/month	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE June 28, 2007. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Part I STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

* Monitoring requirement only.

** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

Note 1 - This permit contains a “Bromine, and Total Residual Chlorine, Halogens” limit. An analytical method with at least a 0.13 mg/L detection limit for this analyte must be used. All analytical values below detection limit shall be assumed to be in compliance. The average monthly effluent values for Bromine, and Total Residual Chlorine, Halogens will be determined by assuming that analytical results below the detection limit are equivalent to 0 mg/l when calculating the monthly average.

Note 2 – If outfall #004 discharges, it must be sampled.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri’s Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri’s list of waters of the state not fully achieving the state’s water quality standards, also called the 303(d) list. The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.
2. All outfalls must be clearly marked in the field.
3. Report as no-discharge when a discharge does not occur during the report period.
4. Water Quality Standards
 - (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
 - (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (5) There shall be no significant human health hazard from incidental contact with the water;
 - (6) There shall be no acute toxicity to livestock or wildlife watering;
 - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
5. There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.
6. Any sludge that is removed from the cooling water basin shall be analyzed for TCLP. The Department shall be provided a copy of the results along with a disposal plan for review and approval.

C. SPECIAL CONDITIONS (continued)

7. Instead of monitoring, compliance with the limitations for the 126 priority pollutants may be determined by engineering calculations which demonstrate that the regulated pollutants are not detectable in the final discharge of Outfall #001 by the analytical methods in 40 CFR Part 136. This is allowed in Part 40 CFR 423.15(J)(3). Empire submitted evidence dated April 19, 2002 and July 5, 2002, and reaffirmed in a letter dated December 20, 2006, that 126 Priority Pollutants are not present in outfall #001. Therefore, monitoring for 126 Priority Pollutants is waived for this permit cycle only. For the next permit cycle, permittee must provide new analytical data with their application.
8. The Department must be notified any time wastewater (other than domestic) is hauled offsite for treatment or disposal.
9. Whole Effluent Toxicity (WET) tests shall be conducted as follows:

SUMMARY OF WET TESTING FOR THIS PERMIT				
OUTFALL	A.E.C. %	FREQUENCY	SAMPLE TYPE	MONTH
001	100%	In year 1 and year 5 of permit	24 hr. composite	September

(a) Test Schedule and Follow-Up Requirements

- (1) Perform a SINGLE-dilution test in the months and at the frequency specified above. For tests which are successfully passed, submit test results USING THE DEPARTMENT'S WET TEST REPORT FORM #MO-780-1899 along with complete copies of the test reports as received from the laboratory, including copies of chain-of-custody forms within 30 calendar days of availability to the WATER PROTECTION PROGRAM, P.O. Box 176, Jefferson City, MO 65102. If the effluent passes the test, do not repeat the test until the next test period.
 - (a) For discharges of stormwater, samples shall be collected within three hours from when discharge first occurs.
 - (b) Samples submitted for analysis of stormwater discharges shall be collected as a grab.
 - (c) For discharges of non-stormwater, samples shall be collected only when precipitation has not occurred for a period of forty-eight hours prior to sample collection. In no event shall sample collection occur simultaneously with the occurrence of precipitation excepting for stormwater samples.
 - (d) A twenty-four hour composite sample shall be submitted for analysis of non-stormwater discharges.
 - (e) Upstream receiving water samples, where required, shall be collected upstream from any influence of the effluent where downstream flow is clearly evident.
 - (f) Samples submitted for analysis of upstream receiving water may be collected as either a grab or twenty-four-hour composite as appropriate to the nature of the discharge.
 - (g) Chemical and physical analysis of the upstream control and effluent sample shall occur immediately upon being received by the laboratory, prior to any manipulation of the effluent sample beyond preservation methods consistent with federal guidelines for WET testing that are required to stabilize the sample during shipping.
 - (h) Any and all chemical or physical analysis of the effluent sample performed in conjunction with the WET test shall be performed at the 100% Effluent concentration in addition to analyses performed upon any other effluent concentration.
 - (i) All chemical analyses included in the Missouri Department of Natural Resources WET test report form #MO-780-1899 shall be performed and results shall be recorded in the appropriate field of the report form.
 - (j) Where flow-weighted composite sample is required for analysis, the samples shall be composited at the laboratory where the test is to be performed.
 - (k) Where in stream testing is required downstream from the discharge, sample collection shall occur immediately below the established Zone of Initial Dilution in conjunction with or immediately following a release or discharge.
 - (l) Samples submitted for analysis of downstream receiving water may be collected as either a grab or twenty-four-hour composite as appropriate to the nature of the discharge.
 - (m) All instream samples, including downstream samples, shall be tested for toxicity at the 100% concentration in addition to any other assigned AEC for in-stream samples.

C. SPECIAL CONDITIONS (continued)

- (2) All failing test results along with complete copies of the test reports as received from the laboratory, INCLUDING THOSE TESTS CONDUCTED UNDER CONDITION (3) BELOW, shall be reported to the WATER PROTECTION PROGRAM, P.O. Box 176, Jefferson City, MO 65102 within 14 calendar days of the availability of the results.
 - (3) If the effluent fails the test, a multiple dilution test shall be performed within 30 calendar days and biweekly thereafter, until one of the following conditions are met:
 - (a) THREE CONSECUTIVE MULTIPLE-DILUTION TESTS PASS. No further tests need to be performed until next regularly scheduled test period.
 - (b) A TOTAL OF THREE MULTIPLE-DILUTION TESTS FAIL.
 - (4) Failure of at least two multiple-dilution tests during any period of accelerated monitoring violates the permit narrative requirement for aquatic life protection.
 - (5) The permittee shall submit a concise summary of all test results for the test series to the WATER PROTECTION PROGRAM, P.O. Box 176, Jefferson City, MO 65102 within 14 calendar days of the third failed test.
 - (6) Additionally, the following shall apply upon failure of the third MULTIPLE DILUTION test: A toxicity identification evaluation (TIE) or toxicity reduction evaluation (TRE) is automatically triggered. The permittee shall contact THE WATER PROTECTION PROGRAM within 14 calendar days from availability of the test results to ascertain as to whether a TIE or TRE is appropriate. The permittee shall submit a plan for conducting a TIE or TRE to the WATER PROTECTION PROGRAM within 60 calendar days of the date of DNR's direction to perform either a TIE or TRE. This plan must be approved by DNR before the TIE or TRE is begun. A schedule for completing the TIE or TRE shall be established in the plan approval.
 - (7) Upon DNR's approval, the TIE/TRE schedule may be modified if toxicity is intermittent during the TIE/TRE investigations. A revised WET test schedule may be established by DNR for this period.
 - (8) If a previously completed TIE has clearly identified the cause of toxicity, additional TIEs will not be required as long as effluent characteristics remain essentially unchanged and the permittee is proceeding according to a DNR approved schedule to complete a TRE and reduce toxicity. Regularly scheduled WET testing as required in the permit, without the follow-up requirements, will be required during this period.
 - (9) When WET test sampling is required to run over one DMR period, each DMR report shall contain a copy of the Department's WET test report form that was generated during the reporting period.
 - (10) Submit a concise summary in tabular format of all test results with the annual report.
- (b) PASS/FAIL procedure and effluent limitations:
- (1) To pass a single-dilution test, mortality observed in the AEC test concentration shall not be significantly different (at the 95% confidence level; $p = 0.05$) than that observed in the upstream receiving-water control sample. Where upstream receiving water is not available mortality observed in the AEC test concentration shall not be significantly different (at the 95% confidence level; $p = 0.05$) than that observed in the laboratory control. The appropriate statistical tests of significance shall be consistent with the most current edition of METHODS FOR MEASURING THE ACUTE TOXICITY OF EFFLUENTS AND RECEIVING WATERS TO FRESHWATER AND MARINE ORGANISMS or other Federal guidelines as appropriate or required.
 - (2) To pass a multiple-dilution test:
 - (a) For facilities with a computed percent effluent at the edge of the zone of initial dilution, Allowable Effluent Concentration (AEC), OF 30% OR LESS THE AEC must be less than three-tenths (0.3) of the LC_{50} concentration for the most sensitive of the test organisms; **OR**,
 - (b) For facilities with an AEC greater than 30% the LC_{50} concentration must be greater than 100%; **AND**,
 - (c) all effluent concentrations equal to or less than the AEC must be nontoxic. Mortality observed in all effluent concentrations equal to or less than the AEC shall not be significantly different (at the 95% confidence level; $p = 0.05$) than that observed in the upstream receiving-water control sample. Where upstream receiving water is not available mortality observed in the AEC test concentration shall not be significantly different (at the 95% confidence level; $p = 0.05$) than that observed in the laboratory control. The appropriate statistical tests of significance shall be consistent with the most current edition of METHODS FOR MEASURING THE ACUTE TOXICITY OF EFFLUENTS AND RECEIVING WATERS TO FRESHWATER AND MARINE ORGANISMS or other federal guidelines as appropriate or required. Failure of one multiple-dilution test may be considered an effluent limit violation.

(c) Test Conditions

- (1) Test Type: Acute Static non-renewal
- (2) Test species: Ceriodaphnia dubia and Pimephales promelas (fathead minnow). Organisms used in WET testing shall come from cultures reared for the purpose of conducting toxicity tests and cultured in a manner consistent with the most current USEPA guidelines. All test animals shall be cultured as described in the most current edition of METHODS FOR MEASURING THE ACUTE TOXICITY OF EFFLUENTS AND RECEIVING WATERS TO FRESHWATER AND MARINE ORGANISMS.
- (3) Test period: 48 hours at the "Acceptable Effluent Concentration" (AEC) specified above.
- (4) When dilutions are required, upstream receiving stream water shall be used as dilution water. If upstream water is unavailable or if mortality in the upstream water exceeds 10%, "reconstituted" water will be used as dilution water. Procedures for generating reconstituted water will be supplied by the MDNR upon request.
- (5) Single-dilution tests will be run with:
 - (a) Effluent at the AEC concentration;
 - (b) 100% receiving-stream water (if available), collected upstream of the outfall at a point beyond any influence of the effluent; and
 - (c) reconstituted water.
- (6) Multiple-dilution tests will be run with:
 - (a) 100%, 50%, 25%, 12.5%, and 6.25% effluent, unless the AEC is less than 25% effluent, in which case dilutions will be 4 times the AEC, two times the AEC, AEC, 1/2 AEC and 1/4 AEC;
 - (b) 100% receiving-stream water (if available), collected upstream of the outfall at a point beyond any influence of the effluent; and
 - (c) reconstituted water.
- (7) If reconstituted-water control mortality for a test species exceeds 10%, the entire test will be rerun.
- (8) If upstream control mortality exceeds 10%, the entire test will be rerun using reconstituted water as the dilutant.

SUMMARY OF TEST METHODOLOGY FOR WHOLE-EFFLUENT TOXICITY TESTS

Whole-effluent-toxicity test required in NPDES permits shall use the following test conditions when performing single or multiple dilution methods. Any future changes in methodology will be supplied to the permittee by the Missouri Department of Natural Resources (MDNR). Unless more stringent methods are specified by the DNR, the procedures shall be consistent with the most current edition of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms,

Test conditions for Ceriodaphnia dubia:

Test duration:	48 h
Temperature:	25 ± 1°C Temperatures shall not deviate by more than 3°C during the test.
Light Quality:	Ambient laboratory illumination
Photoperiod:	16 h light, 8 h dark
Size of test vessel:	30 mL (minimum)
Volume of test solution:	15 mL (minimum)
Age of test organisms:	<24 h old
No. of animals/test vessel:	5
No. of replicates/concentration:	4
No. of organisms/concentration:	20 (minimum)
Feeding regime:	None (feed prior to test)
Aeration:	None
Dilution water:	Upstream receiving water; if no upstream flow, synthetic water modified to reflect effluent hardness.
Endpoint:	Pass/Fail (Statistically significant Mortality when compared to upstream receiving water control or synthetic control if upstream water was not available at $p \leq 0.05$)
Test acceptability criterion:	90% or greater survival in controls

Test conditions for (Pimephales promelas):

Test duration:	48 h
Temperature:	25 ± 1°C Temperatures shall not deviate by more than 3°C during the test.
Light Quality:	Ambient laboratory illumination
Photoperiod:	16 h light/ 8 h dark
Size of test vessel:	250 mL (minimum)
Volume of test solution:	200 mL (minimum)
Age of test organisms:	1-14 days (all same age)
No. of animals/test vessel:	10
No. of replicates/concentration:	4 (minimum) single dilution method 2 (minimum) multiple dilution method
No. of organisms/concentration:	40 (minimum) single dilution method 20 (minimum) multiple dilution method
Feeding regime:	None (feed prior to test)
Aeration:	None, unless DO concentration falls below 4.0 mg/L; rate should not exceed 100 bubbles/min.
Dilution water:	Upstream receiving water; if no upstream flow, synthetic water modified to reflect effluent hardness.
Endpoint:	Pass/Fail (Statistically significant Mortality when compared to upstream receiving water control or synthetic control if upstream water was not available at $p \leq 0.05$)
Test Acceptability criterion:	90% or greater survival in controls

Date of Fact Sheet: December 20, 2006

Date of Public Notice: February 23, 2007

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
FACT SHEET

This Fact Sheet explains the applicable regulations, rationale for development of this permit and the public participation process.

NPDES PERMIT NUMBER: MO-0126713

FACILITY NAME: Empire Electric, State Line Combined Cycle Power Plant

OWNER NAME: The Empire District Electric Company

LOCATION: Sec. 14 T27N R34W County: Jasper

RECEIVING STREAM: Short Creek (Classified section in Kansas) via Tributary to Short Creek (U)

FACILITY DESCRIPTION AND RATIONALE

This facility is a 500 Megawatt combined cycle gas fired power plant located near the Missouri-Kansas state line. Discharge is to classified sections of Short Creek that are located in Kansas. The distance from outfalls to Short Creek is 1.75 miles.

Since outfall #001, the cooling tower blowdown, only discharges 2.0 cfs, temperature limits are not deemed necessary, as discharge is to an unclassified ditch and on to an classified stream (Short Creek) in Kansas. This permit adds a Downstream Monitoring Point in Kansas. If downstream monitoring indicates a problem with temperature, the issue will be revisited with the company.

Since this plant uses Sodium Bromide as the biocide for outfall 001, the analyte name "Bromine and Total Residual Chlorine, Halogens" is different than the more common "Total Residual Chlorine"(TRC). The analytic method is the same as for TRC, however, since the method also detects Bromine as if it was Chlorine.

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollutant Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Permits in Missouri are issued by the Director of the Department of Natural Resources under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended).

10 CSR 20-7.031 Missouri Water Quality Standards, Missouri Department of Natural Resources (the Department) defines the Clean Water Commission water quality objectives in terms of water uses to be maintained and the criteria to protect those uses. Since the receiving stream is unclassified, the receiving stream's beneficial water uses to be maintained are the General Criteria listed in Special Condition 4.

To protect these beneficial uses and the water quality of the receiving stream, effluent limitations have been established under federal and state laws.

The permit application shows the presence of several metals in the effluent. It is believed that these are from the intake water, and not caused by the plant itself, therefore no metals monitoring is proposed in this permit cycle.

This is a renewal of an existing permit.

This permit will be issued for a period of five years

WATER QUALITY REVIEW SHEET

Facility Information

FACILITY NAME: Empire Electric, State Line Combined Cycle Power Plant NPDES/SOP #: MO-0126713

FACILITY TYPE/DESCRIPTION: Steam Electric Power Plant, Combined Cycle

ECOREGION: Ozark Highlands 8- DIGIT HUC: 11070207 COUNTY: Jasper
Central Irregular Plains Osage Plains
Mississippi Alluvial Plains Ozark Highlands

LEGAL DESCRIPTION: SE1/4, NW1/4, Sec.14, T27N, R34W LATITUDE/LONGITUDE: +3704053/-09436435

WATER QUALITY HISTORY: Past DMR data indicate compliance. No stream surveys have been conducted at this site. Spring River (which Short Creek flows to) is listed as an Outstanding State Resource Water by State of Kansas. Short Creek is classified in Kansas. Downstream monitoring has been added at Highway 66 bridge for temperature.

Outfall Characteristics

OUTFALL	DESIGN FLOW (CFS)	TREATMENT TYPE	RECEIVING WATERBODY	CLASS
001	2.02	Oil/Water Separator	Trib. to Short Creek	U
002	10.95	Detention Pond, Oil/Water Separator	Trib. to Short Creek	U
003	13.1	Detention Pond	Trib. to Short Creek	U
004	11.52	Cooling water storage overflow	Trib. To Short Creek	U

Receiving Waterbody Information

WATERBODY	CLASS	7Q10(CFS)	*DESIGNATED USES	OTHER CHARACTERISTICS
Trib. to Short Cr.	U	0.0	None	
Short Creek	-	0.2	Affected portion in Kansas	Affected portion in Kansas

*Cool Water Fishery (CLF), Cold Water Fishery (CDF), Irrigation (IRR), Industrial (IND), Boating & Canoeing (BTG), Drinking Water Supply (DWS), Whole Body Contact Recreation (WBC), Protection of Warmwater Aquatic Life and Human Health (AQL), Livestock & Wildlife Watering (LWW)

COMMENTS: Discharge from outfalls #001 and #003 flows 1.75 miles through an unnamed tributary of Short Creek to a classified section of Short Creek that is located in Kansas. Discharge from outfalls #002 and #004 flows 2.75 miles through a different unnamed tributary of Short Creek to a classified section of Short Creek that is located in Kansas.

Permit Limits And Information

TMDL WATERSHED: Y W.L.A. STUDY CONDUCTED: N DISINFECTION REQUIRED: N DISINFECTION WAIVER: NA
 (Y OR N) (Y OR N) (Y OR N) (Y, N, NA)

OUTFALL	EFFLUENT PARAMETER	DAILY MAX/MIN	WEEKLY AVERAGE	MONTHLY AVERAGE	COMMENTS
001	Flow				Monitor Only
001	Temperature F	monitor		monitor	No limits, unclassified stream
001	TSS (mg/l)	100		30	40 CFR 423
001	pH (SU)	6-9			10 CSR 20-7.015
001	Bromine and Total Residual Chlorine, Halogens (ug/l)	19		11	10 CSR 20-7.031- Table A Chronic Criteria at KDHE request.
001	Oil and Grease (mg/l)	15		10	Carryover Limit
001	Whole Effluent Toxicity test				See permit special condition for rationale
002	Flow				Monitor Only
002	TSS (mg/l)	100		30	40 CFR 423
002	pH (SU)	6-9		6-9	10 CSR 20-7.015
002	Oil and Grease (mg/l)	15		10	Carryover Limit
003,004	Flow				Monitor Only
003,004	TSS (mg/l)	100		30	40 CFR 423
003,004	pH (SU)	6-9		6-9	10 CSR 20-7.015
003,004	Oil and Grease (mg/l)	15		10	Carryover Limit

OUTFALL #001

WET TEST (Y OR N): Y FREQUENCY: IN YEAR 1 AND 5 A.E.C. 100% LIMIT: INSIGNIFICANT MORTALITY

Derivation and Discussion of Limits

LIMITS WERE TAKEN FROM 10 CSR 20-7.031 AND 40 CFR 423.

Reviewer: Tim Stallman
 Section Chief: Refaat Mefrakis
 Date: 12-21-2006