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-0004766 |
| Owner: | Central Electric Power Cooperative (CE) |
| Address: | 2106 Jefferson Street, PO Box 269, Jefferson City, MO 65102 |
| Continuing Authority: | Same as above |
| Address: | Same as above |
| Facility Name: | CE, Chamois Power Plant |
| Address: | State Route 100, PO Box 127, Chamois, MO 65024 |
| Legal Description: | NW ¼, SE ¼, Sec. 1, T45N, R8W, Osage County |
| Receiving Stream: | See page 2 |
| First Classified Stream and ID: | See page 2 |
| USGS Basin & Sub-watershed No.: | See page 2 |

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 16, 2003
Effective Date

Stephen M. Mahfood, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

May 15, 2008
Expiration Date

Jim Hull, Director of Staff, Clean Water Commission

FACILITY DESCRIPTION (continued)

Outfall #001 – Industrial - SIC #4911
Settling basin/storm water runoff.
Design flow is 8,000 gallons per day. Actual flow dependent upon precipitation.
Receiving Stream: Missouri River (P)
First Classified Stream and ID: Missouri River (P) (00701)
USGS Basin & Sub-watershed No.: (10300102-290002)

Outfall #002 – Industrial - SIC #4911
Ash pond/storm water runoff.
Design flow is 1,270,000 gallons per day.
Actual flow is 810,000 gallons per day.
Receiving Stream: Tributary to Stonners Branch (U)
First Classified Stream and ID: Dooling Creek (C) (00841)
USGS Basin & Sub-watershed No.: (10300102-290001)

Outfall #003 – Industrial - SIC #4911
Non-contact cooling water
Design flow is 24 MGD. Actual flow is 22 MGD.
Receiving Stream: Missouri River (P)
First Classified Stream and ID: Missouri River (P) (00701)
USGS Basin & Sub-watershed No.: (10300102-290002)

Outfall #004 – Industrial - SIC #4911
Non-contact cooling water
Design flow is 51 MGD. Actual flow is 47.6 MGD.
Receiving Stream: Missouri River (P)
First Classified Stream and ID: Missouri River (P) (00701)
USGS Basin & Sub-watershed No.: (10300102-290002)

Outfall #005 – Industrial - SIC #4911
Low Volume Wastewater Sources consisting of Non-contact cooling water, storm water runoff, and water treatment process.
Design flow is 600,000 gallons per day.
Actual flow is 400,000 gallons per day.
Receiving Stream: Missouri River (P)
First Classified Stream and ID: Missouri River (P) (00701)
USGS Basin & Sub-watershed No.: (10300102-290002)

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS



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 |
| Outfall #001 | | | | | | |
| Flow | MGD | * | | * | once/month | instantaneous estimate |
| Total Suspended Solids | mg/L | 100 | | 30 | once/quarter**** | 24 hr. composite |
| Oil & Grease | mg/L | 20 | | 15 | once/quarter**** | grab |
| pH – Units | SU | ***** | | ***** | once/quarter**** | grab |
| Outfall #002 | | | | | | |
| Flow | MGD | * | | * | once/week-day** | instantaneous estimate |
| Total Suspended Solids*** | mg/L | 100 | | 30 | once/quarter**** | 24 hr. composite |
| Oil & Grease*** | mg/L | 20 | | 15 | once/quarter**** | grab |
| pH – Units | SU | ***** | | ***** | once/quarter**** | grab |
| Outfalls #003 & 004 | | | | | | |
| Flow | MGD | * | | * | once/day | instantaneous estimate |
| Intake Temperature | °F | * | | * | once/week | grab |
| Effluent Temperature | °F | * | | * | once/week | grab |
| Thermal Discharge (Internal Energy Increase) | btu/hr | $7.369 \times 10^9$ | | $2.819 \times 10^9$ | once/week | grab |
| Percent of Streamflow exceeding 5°F increase in Ambient Temp. (Note 1) | % | * | | * | once/week | grab |
| Outfall #005 | | | | | | |
| Flow | MGD | * | | * | once/week | instantaneous estimate |
| Total Suspended Solids*** | mg/L | 100 | | 30 | once/month | 24 hr. composite |
| Oil & Grease | mg/L | 20 | | 15 | once/month | grab |
| pH – Units | SU | ***** | | ***** | once/month | grab |

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE October 28, 2003. 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.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Monitoring requirement only.
** Once each weekday means: Monday, Tuesday, Wednesday, Thursday & Friday.
*** Limitations for Total Suspended Solids for Outfalls #002 & #005, and Oil & Grease for Outfall #002 shall be calculated as "net" over source (intake) water. Samples shall be taken for Total Suspended Solids and/or Oil & Grease at the same frequency as effluent parameters. Both intake and effluent analysis will be reported on the Discharge Monitoring Reports (DMRs)
**** Sample once per quarter in the months of March, June, September & December.
***** 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.

Note 1 – The percent of concurrent receiving stream flow that exceeds a 5°F increase shall be computed weekly and the results reported quarterly. Complete and uniform mixing shall be assumed, using the following formula:

$$\text{\% stream flow exceeding 5°F increase} = \frac{\text{average daily btu/hr}}{\text{stream flow (cfs) x 11,200}}$$

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. Changes in Discharges of Toxic Substances

   The permittee shall notify the Director as soon as it knows or has reason to believe:
   (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
      (1) One hundred micrograms per liter (100 µg/L);
      (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
      (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
      (4) The level established in Part A of the permit by the Director.
   (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

C. SPECIAL CONDITIONS (continued)

4. Report as no-discharge when a discharge does not occur during the report period.

5. General Criteria. The following 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:
   (a) 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;
   (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
   (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
   (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
   (e) There shall be no significant human health hazard from incidental contact with the water;
   (f) There shall be no acute toxicity to livestock or wildlife watering;
   (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
   (h) 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.

6. Specific plans for chemical cleaning of boilers shall be submitted to the Department at lease 60 days prior to any such cleaning. Alternate monitoring requirements, additional effluent limitations, specific procedures and any other necessary requirements will be specified by the Department for the duration of the chemical cleaning.

7. This permit authorizes the continued use of existing or new storm sewers to convey uncontaminated storm runoff. Such uncontaminated outfalls do not require monitoring or limitations. Also authorized is the continued return of uncontaminated river water to the river. Monitoring or limitations are not required for such outfalls.

8. Any pesticide discharge from any point source shall comply with the requirements of Federal Insecticide. Fungicide and Rodenticide Act as amended (7 U.S.C. 136 et. Seq.) and the use of such pesticides shall be in a manner consistent with its label.

9. Discharge of wastewater from this facility must not alone or in combination with other sources cause the receiving stream to violate the following:

   (a) Water temperatures and temperature differentials specified in Missouri Water Quality Standards shall be met.