STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

AUTHORIZATION TO DISCHARGE

UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

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

Permit No. MO-0098001 Applicant No. MO-0098001

Owner: Union Electric Company

Owner's Address: 1901 Chouteau Street, P. O. Box 149, St. Louis, MO 63166

Facility Name: Callaway Power Plant

Facility Address: P. O. Box 620, Fulton, MO 65251

Legal Description: See Attached Page 5 of 14

Receiving Stream & Basin: See Page 5 of 14

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

FACILITY DESCRIPTION

The Callaway Power Plant has a combined daily average flow of 4,849,000 gpd and a daily maximum flow of 57,809,000 gpd.

Outfall #001 - Radvaste Treatment System - Daily average flow 80,000 pgd, Daily maximum flow 258,000 gpd.

(Continued on pages 2 through 5)

This permit only authorizes wastewater discharges under 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.

March 15, 1991
Effective Date

G. Tracy Mehan III
Director, Department of Natural Resources

March 14, 1996
Expiration Date

Charles A. Stolzenmann
Permit Administrator for Missouri Clean Water Commission

MO 780-0041 (12-88)

FACILITY DESCRIPTION (cont.)

This system serves to collect, process, store, recycle and dispose of liquid radioactive waste generated at Callaway. Five general sub-systems can be defined as described below.

The Boron Recycle System receives reactor coolant for the purpose of recovering the boric acid for reuse in the plant. Boric acid is used as a neutron absorber/moderator in the primary loop.

The Liquid Radwaste System collects and processes floor and equipment drains from the containment, auxiliary building, fuel building and radwaste buildings during normal operation.

The Laundry and Hot Shower system collects waste generated from washing radioactively contaminated protective gear and clothing and personnel decontamination shower wastewater. These wastes are then transferred to the liquid Radwaste system for treatment.

The Secondary Liquid Waste system is used to process condensate demineralizer regeneration wastes and potentially radioactive liquid waste collected from the turbine building. The condensate demineralizer regeneration waste is divided into two wastestreams; High TDS waste from the acid and caustic rinses used when chemically regenerating spent resin, and low TDS waste which results from the initial backflushing of unregenerated resin and the final rinsing of the regenerated resin to remove acid and caustic.

Steam Generator Blowdown is normally demineralized and recycled to the main condenser for reuse in the secondary cycle. Provisions also exist to discharge the treated blowdown via #001.

The following wastewater treatment systems are used as required to treat this wastestream for recycle or discharge in compliance with NRC requirements and are also available as auxiliary or backup treatment systems to treat this discharge for compliance with NPDES permit limitations: Evaporation and/or Mixing and/or Filtration and/or Carbon Adsorption and/or Ion Exchange and/or Neutralization and/or Reuse/Recycle of Treated Effluent. All processing in the Radwaste Treatment System is done on a batch basis except steam generator blowdown. After monitoring for radioactive content, release rates are controlled administratively to ensure the "as low as practicable" radioactive discharge criteria are met.

Outfall #002 - Cooling Tower Blowdown

A cooling tower is utilized to dissipate excess heat to the atmosphere from the Circulating and Service Water Systems. Outfall #002 is designated as the cooling tower blowdown discharge. Blowdown from the cooling tower is necessary to maintain dissolved solids concentration in the recirculating water within acceptable operating limits.

FACILITY DESCRIPTION (cont.)

Outfall #003 - Water Treatment Plant Wastes

The water treatment plant supplies clarified river water for cooling tower makeup and various other plant systems. The suspended material that is removed from the river water is drawn from the bottom of the clarifiers as sludge. This sludge is routed to a sedimentation lagoon for solids removal. The oil separator discharge, previously designated as Outfall #005, is also routed to this sedimentation lagoon. The supernatant from this sedimentation lagoon is designated as Outfall #003. Outfall #003 is normally recycled by routing it back to the head of the water treatment plant. Filter backwash from the sand and carbon filters are also a component of this outfall.

Outfall #004 - Demineralizer System Wastes

The demineralized water system (DWS) is used to produce the high quality makeup water required by some plant processes. A well on the plant site is used as the water source for the DWS. Outfall #004 consists of wastes generated from resin regeneration and miscellaneous wastes from floor drainage and wet well overflows. These waste streams are routed to a sedimentation pond prior to discharge.

Outfall #007 - Sanitary Treatment Plant (STP)

Outfall #007 is defined as the sanitary wastewater treatment system discharge. The system consists of two 25,000 gallon aerated surge tanks, two 20,000 gallon per day extended aeration treatment units and a 7,500 gallon sludge holding tank. The STP sludge is currently trucked to the city of Fulton treatment plant for further treatment and disposal. Design sludge production is 7.2 dry tons/year.

This outfall has an optional flow path shown on the flow diagram, which may be used to temporarily eliminate the discharge. During emergency conditions the sanitary treatment plant (STP) effluent will be routed to the water treatment plant stilling basin, for recycle, using temporary pumps and piping. There are two potential conditons which would require the use of this option:

1) Any extended outage of the plant discharge line, as may be required for intermittent maintenance, would require isolation of discharges into the line. Diversion of STP effluent during these periods would allow continued processing of sanitary wastewater and minimize impacts due to flow fluctuations on the treatment plant.

2) In the event of an STP upset, the effluent may also be diverted. This would allow for identification and resolution of the cause of the upset, while preventing continued discharge of poor quality effluent.

Outfall #009 - Intake Heater Blowdown

The river intake structure contains two recirculating electric heaters which are used to prevent ice formation on the intake bar screens during the winter months. Outfall #009 consists of discharges from the infrequent blowdown or drainage of these boilers.

FACILITY DESCRIPTION (cont.)

Outfalls #010 through #015 - Storm Water Runoff

These six outfalls discharge storm water runoff from plant and associated areas after treatment in settling ponds. "Non-process" discharges that will be discharged to SWR include three intermittent sources. Two sources are the quarterly testing of the fire protection drains and the infrequent draining of the demineralized water storage tank. The third source is the pumping of manholes, transformer and tank containments at the plant.

Outfall #016 - Cooling Tower Bypass

Bypass of clarified water to discharge line to dilute radiologically contaminated wastewaters to NRC "ALARA" standards.

Outfall #017 - Overflow of the "Ultimate Heat Sink".

LEGAL DESCRIPTION AND RECEIVING STREAM FOR OUTFALLS #001 THROUGH #017

The Callaway Power Plant is located in Callaway County, Missouri. Outfalls #001 through Outfall #007, and Outfall #016 all discharge into a combined discharge pipeline which terminates at the Missouri River adjacent to the plant intake structure. The combined plant outfall line empties into the Missouri River at River Mile 115.4. The attached table lists the legal description of each outfall's location in Callaway County. The legal description given for Outfalls #001 - #007, and Outfall #016 is their point of connection to the pipeline.

Legal Description - Outfalls

Outfall	1/4	1/4	Sec.	T	R
001	NE	NE	14	46N	8W
002	NW	NW	13	46N	8W
003	SW	NW	13	46N	8W
004	SE	SW	13	46N	8W
007	NE	SE	14	46N	8W
008	NW	NW	5	45N	7W
010		SW	12	46N	8W
011		SW	12	46N	8W
012		E1/2	14	46N	8W
013		E1/2	14	46N	8W
014		SE	11	46N	8W
015		SE	11	46N	8W
016	NW	NW	13	46N	8W
017	no discharge into waters of the state				

Receiving Stream and Basin for Outfalls #001 through #009 and #016:

Missouri River - Missouri River Basin - Central Tributaries, River Reach Number 10300102-01-00.

Receiving Stream and Basin for Outfalls #010 and #011 (East):

Unnamed tributary of Logan Creek, Missouri River Basin - Central Tributaries, River Reach Number 10300102-02-02.

Receiving Stream and Basin for Outfalls #012 and #013 (South):

Tributary of Mud Creek, Missouri River Basin - Central Tributaries, River Reach Number 10300102-02-01.

Receiving Stream and Basin for Outfalls #014 and #015 (Northwest):

Tributary of Cow Branch - Missouri River Basin - Central Tributaries, River Reach Number 10300102-07-00.

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 - Radwaste System						
Flow-m^3/Day	MGD	*		*	when discharge occurs	24 hr. total
Non-Filterable Residue (Total Suspended Solids)	mg/l	45		30	when discharge occurs	grab
Oil and Grease	mg/l	20		15	when discharge occurs	grab
pH - Units	SU	***		***	when discharge occurs	grab
Outfall #002 - Cooling Tower Blowdown						
Flow-m^3/Day	MGD	*		*	once/day	24 hr. total
Non-Filterable Residue (Total Suspended Solids)	mg/l	*		*	once/week	grab
Total Dissolved Solids	mg/l	*		*	once/week	grab
Oil and Grease	mg/l	20		15	once/week	grab
Copper, Dissolved	mg/l	*		*	once/month	grab
Copper, Total Recoverable	mg/l	0.3		0.3	once/month	grab
Nickel, Dissolved	mg/l	*		*	once/month	grab
Nickel, Total Recoverable	mg/l	1.5		1.0	once/month	grab
Zinc, Dissolved	mg/l	*		*	once/month	grab
Zinc, Total Recoverable	mg/l	1.5		1.0	once/month	grab

MONITORING REPORTS SHALL BE SUBMITTED quarterly ; THE FIRST REPORT IS DUE 7-28-91
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 19 80 , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	Final EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #002 (continued)						
Chlorine, Free Available	mg/l	0.2		0.2	once/week	grab
Temperature	°F				once/day	grab
pH - Units	SU	****		****	continuous	24 hr. recorder
Outfall #003 - Water Treatment Plant						
Flow-m^3/Day	MGD	*		*	once/week	24 hr. total
Non-Filterable Residue (Total Suspended Solids)	mg/l	100		30	once/month	grab
Oil and Grease	mg/l	20		15	once/month	grab
Magnesium, Total	mg/l	*		*	once/month	grab
pH - Units	SU	***		***	once/month	grab
Outfall #004 - Demineralizer System						
Flow-m^3/Day	MGD	*		*	once/week	24 hr. total
Non-Filterable Residue (Total Suspended Solids)	mg/l	100		30	once/month	grab
Oil and Grease	mg/l	20		15	once/month	grab
pH - Units	SU	***		***	once/month	grab
Outfall #007 - Sanitary Waste						
Flow-m^3/Day	MGD	*		*	once/week	24 hr. total
Biochemical Oxygen Demand$_5$	mg/l		45	30	once/month	comp.**
Non-Filterable Residue (Total Suspended Solids)	mg/l		45	30	once/month	comp.**
pH - Units	SU	***		***	once/month	grab

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	Final EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #009 - Intake Heater Blowdown						
Flow-m^3/Day	MGD	*		*	once/week when discharge occurs	24 hr. total
Non-Filterable Residue (Total Suspended Solids)	mg/l	100		30	once/week when discharge occurs	grab
Oil and Grease	mg/l	20		15	once/week when discharge occurs	grab
Ammonia as N	mg/l	*		*	once/week when discharge occurs	grab
pH - Units	SU	***		***	once/week when discharge occurs	grab
Outfalls #010 through #015						
Flow-m^3/Day	MGD	*		*	*****	24 hr. total
Non-Filterable Residue (Total Suspended Solids)	mg/l	*		*	once/quarter	grab
Oil and Grease	mg/l	*		*	once/quarter	grab
pH - Units	SU	******		******	once/quarter	grab
Outfall #016						
Flow-m^3/Day	MGD	*		*	once/month	24 hr. estimate
Non-Filterable Residue (Total Suspended Solids)	mg/l	100		30	once/month	grab
Oil and Grease	mg/l	20		15	once/month	grab
Chlorine, free Available	mg/l	0.2		0.2	once/month	grab
pH - Units	SU	***		***	once/month	grab

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	Final EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE

Outfall #017 - Ultimate Heat Sink

There shall be no discharge of wastewater from this outfall to waters of the state of Missouri.

* Monitoring requirement only.

** A composite sample made up from a minimum of four grab samples collected within a 24 hour period with a minimum of two hours between each grab sample.

*** 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.

**** Permittee shall maintain the pH between 6.0 - 9.0 except excursions from the range are permitted subject to the following limitations:

1. The total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and

2. No individual excursion from the range of pH values shall exceed 60 minutes.

Monitoring reports shall show each excursion, the duration of the excursion, and the total excursion time for each month.

Should the continuous monitor fail for any reason, daily grab samples shall be provided until repairs are completed.

***** Discharge quantities can be calculated from rainfall records for the reporting period or measured during each discharge event.

****** pH is measured in pH units and is not to be averaged. The pH is to be maintained at or above 6.0 pH units.

C. SPECIAL CONDITIONS

In issuing this permit, the Missouri Clean Water Commission and the Missouri Department of Natural Resources has not determined whether or not the radioactive discharges from this plant will affect waters of the state. Radioactive discharges are the responsibility of the Nuclear Regulator Commission, and any discharges of these constituents will be under the NRC's regulation.

D. OTHER REQUIREMENTS

1. Discharge Limitations - There shall be no discharge of polychlorinated biphenyl compounds.

2. Pesticides

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

3. This permit may be modified, or alternatively revoked and reissued, to 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:

   (a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

   (b) Controls any pollutant not limited in the permit.

   The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.

4. The permittee shall conduct the following radiological monitoring:

   a. Liquid Radwaste discharge, surface water and drinking water supply:

LOCATION	FREQUENCY	SAMPLE TYPE
1. Radwaste building discharge		
a) Batch Releases	daily	a representative grab sample of each batch discharge
b) Steam Generator Blowdown	once per day when discharging	a representative grab sample

D. OTHER REQUIREMENTS (cont.)

4.	II.	Upstream of discharge line	once/month	grab
	III.	Downstream of discharge line at Portland, MO	daily with monthly composite analysis	composite

Samples of Batch Releases are to be analyzed for tritium, I-131, and gamma isotopic for each batch; gross alpha in a monthly composite of each batch; and for Sr-89, Sr-90, and Fe-55 in a quarterly composite of each batch.

Samples of Steam Generator Blowdown are to by analyzed for tritium, I-131, and gamma isotopic in daily samples; gross alpha in a monthly composite of daily samples; and for Sr-89, Sr-90, and Fe-55 in a quarterly composite of daily samples.

Samples of Surface Water are to be analyzed for tritium and gamma isotpoic in monthly samples.

b. Groundwater - quarterly sampling of the groundwater from test wells F5, F15, and Portland drinking water supply.

Grab samples are to be analyzed for tritium and gamma isotopic.

c. Aquatic biota - semiannual sampling of the edible flesh of up to five commercially or recreationally important species of fish of sufficient quantity to yield a sufficient sample. Samples are to be taken at the locations specified in II and III. Samples are to be analyzed by gamma isotopic analysis.

d. Bottom Sediment - semiannual samples of bottom sediment from the locations specified in II and III. Samples are to be analyzed by gamma isotopic analysis.

e. Results of the above monitoring programs shall be reported to the Department by supplying a copy of the Annual Radiological Environmental Operating Report per Technical Specification 6.9.1.6 and the Semi-Annual Radioactive Effluent Release Report per Technical Specification 6.9.1.7 at the same time they are supplied to NRC. All data information shall be available for inspection during normal working hours.

f. The Department of Natural Resources of the State of Missouri, and any other state agency or officer designated in the State's emergency response plan or any other plan to protect its citizens from radioactive liquid discharge from the Callaway Plant, shall receive within one hour of the event, notice of any unplanned or uncontrolled liquid radioactive release in accordance with 10 CFR 50.72(a) and prompt notification of off-site releases of liquid radioactive materials in excess of limits in 10 CFR 20, Appendix B, Table II, Column 2.

C. OTHER REQUIREMENTS (cont.)

5. Changes in Discharge 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 ug/l);

(2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-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 values reported for that 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.

6. Permittee shall eliminate the discharge of demineralizer storage tank drains to the storm drainage system by January 1, 1992.

7. Whole Effluent Toxicity (WET) tests will be conducted as follows:

A. Test Conditions

Test species: Ceriodaphnia and fathead minnows
Test period: 48 hours
"Acceptable Effluent Concentration" (AEC): 9% effluent

Upstream receiving stream water will be used as dilution water, if available; otherwise, "reconstituted" water will be used. Procedures for generating reconstituted water will be supplied by the Department of Natural Resources (DNR).

To pass a WET test, both the following conditions must be met at the AEC:

<= 10% mortality over "control" mortality in fathead minnows;
<= 30% mortality over "control" mortality in Ceriodaphnia

Tests should be run on a 24-hour composite sample of the effluent. Tests should be initiated immediately after the composite sample is collected, but tests must be initiated no later than 36 hours after collection.

D. OTHER REQUIREMENTS (cont.)

7. Whole Effluent Toxicity (WET) tests (cont.)

A. Test Conditions (cont.)

"Control" tests will be run with 100% upstream receiving stream water, if available (otherwise, reconstituted water will be used). If "control" mortality exceeds 10%, the test will be rerun. If the upstream water is used as control and mortality exceeds 10% in a second test, the test should be repeated using reconstituted water.

All test animals should be cultured as described in EPA 600/4-85-0131.

The following information will be reported:

Time of effluent collection.
Time of arrival of effluent to laboratory and effluent temperature.
Daily pH, Dissolved Oxygen, and Temperature measurements
Time of any adjustments to Dissolved Oxygen.
Results of all toxicity tests including controls and reference toxicant tests.
Date the report of tests was completed and the signature of person conducting tests and the Director of the laboratory.

All other test methods and procedures should be consistent with guidance given in the EPA Handbook 600/4-85-013, Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (3rd edition), published March, 1985.

Test conditions for Ceriodaphnia

Temperature: 20 + 2°C
Light quality: Ambient laboratory illumination
Light intensity: 50-100 footcandles
(ambient laboratory levels)
Photoperiod: 8-16 h light/24 h
Size of test vessel: 250-ml beaker
Volume of test solution: 200 ml
Age of test animals: 1-24 hours (neonates)
No. of animals per test vessel: 10
No. of replicate test vessels
per concentration: 2
Total no. organisms per concentration: 20
Feeding regime: None
Aeration: None, unless Dissolved Oxygen (DO) concentration falls below 40% of saturation, at which time start gentle, single-bubble aeration
Effect measured: Mortality - no movement of body or appendages on gentle prodding

D. OTHER REQUIREMENTS (cont.)

7. Whole Effluent Toxicity (WET) tests (cont.)

A. Test Conditions (cont.)

Test conditions for fathead minnow (Pimephales Promelas)

Temperature °C: 20 + 2°C
Light quality: Ambient laboratory illumination
Light intensity: 50-100 footcandles
(ambient laboratory levels)
Photoperiod: 8-16 h light/24 h
Size of test vessels: 1 L
Age of test animals: 1-90 days (all individuals of equal age)
No. of fish/ 0.75 L: 10
Volume of test solution: 0.75 L
No. of replicate test vessels/conc.: 2
Total no. organisms per concentration: 20
Feeding regime: Feeding not required
Aeration: None, unless DO concentration falls below 40% of saturation, at which time gentle, single-bubble aeration should be started
Dilution water: upstream receiving water
Effect measured: Mortality - no movement

B. Test Schedule and Follow-Up Requirements

Perform the initial test at the beginning of the permit period and annually thereafter.
If the test passes, do not repeat test.
If the test fails, do an additional test within one month at the AEC and at 1/2 AEC (9% effluent and 4.5% effluent).
If 1/2 AEC dilution test passes, do one additional test with AEC and 1/2 AEC within one month. Submit all results to DNR for analysis within 60 days. DNR will analyze the need for further WET testing, individual pollutant testing, or instream monitoring.
If 1/2 AEC dilution fails, repeat the test within one month.
If that test passes, submit all results to DNR for analysis of need for further testing.
If that test fails, submit a "Toxicity Identification Evaluation" (TIE) report to DNR within 180 days.

The TIE will include a complete listing, with concentrations, of pollutants present in the effluent, and any additional toxicity data available for pollutants not limited in the permit. The TIE should discuss possible reasons for toxicity. Upon review by DNR, the permit will be modified to include additional WET testing, additional individual-pollutant limits, and/or a schedule for performing a toxicity reduction evaluation.

STANDARD CONDITIONS FOR NPDES PERMITS
ISSUED BY
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION
Revised
October 1, 1980

PART I — GENERAL CONDITIONS
SECTION A — MONITORING AND REPORTING

1. **Representative Sampling**
   A. Samples and measurements taken as required herein shall be representative of the nature and volume, respectively, of the monitored discharge. All samples shall be taken at the outfall(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.
   B. Monitoring results shall be recorded and reported on forms provided by the Department, postmarked no later than the 28th day of the month following the completed reporting period. Signed copies of these, and all other reports required herein, shall be submitted to the respective Department Regional Office; the Regional Office address is indicated in the cover letter transmitting the permit.

2. **Schedule of Compliance**
   No later than fourteen (14) calendar days following each date identified in the "Schedule of Compliance", the permittee shall submit to the respective Department Regional Office as required therein, 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 requirements, or if there are no more scheduled requirements, when such noncompliance will be corrected. The Regional Office address is indicated in the cover letter transmitting the permit.

3. **Definitions**
   Definitions as set forth in the Missouri Clean Water Law and Missouri Clean Water Commission Definition Regulation 10 CSR 20-2.010 shall apply to terms used herein.

4. **Test Procedures**
   Test procedures for the analysis of pollutants shall be in accordance with the Missouri Clean Water Commission Effluent Regulation 10 CSR 20-7.015.

5. **Recording of Results**
   A. For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:
      (i) The date, exact place, and time of sampling or measurements;
      (ii) The individual(s) who performed the sampling or measurements;
      (iii) The date(s) analyses were performed;
      (iv) The individual(s) who performed the analyses;
      (v) The analytical techniques or methods used; and
      (vi) The results of such analyses.
   B. The Federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.
   C. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

6. **Additional Monitoring by Permittee**
   If the permittee monitors any pollutant at the location(s) 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 Monitoring Report Form. Such increased frequency shall also be indicated.

7. **Records Retention**
   The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

SECTION B — MANAGEMENT REQUIREMENTS

1. **Change in Discharge**
   A. All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant not authorized by this permit or 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.
   B. Any facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants shall be reported by submission of a new NPDES application at least sixty (60) days before such changes, or, if they will not violate the effluent limitations specified in this permit, by notice to the Department at least thirty (30) days before such changes.

2. **Noncompliance Notification**
   A. 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 Department with the following information, in writing within five (5) days of becoming aware of such condition:
      (i) A description of the discharge and cause of noncompliance, and
      (ii) 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.
   B. Twenty-four hour reporting. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

3. **Facilities Operation**
   Permittees shall operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit conditions. Operators or supervisors of operations at publicly owned or publicly regulated wastewater treatment facilities shall be certified in accordance with 10 CSR 20-9.020(2) and any other applicable state law or regulation. Operators of other wastewater treatment facilities, water contaminant source or point sources, shall, upon request by the department, demonstrate that wastewater treatment equipment and facilities are effectively operated and maintained by competent personnel.

4. **Adverse Impact**
   The permittee shall take all necessary steps to minimize any adverse impact to waters of the state resulting from noncompliance with any effluent limitations specified in this permit or set forth in the Missouri Clean Water Law and Regulations (hereinafter the Law and Regulations), including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. **Bypassing**
   A. Any bypass or shut down of a wastewater treatment facility and tributary sewer system or any part of such a facility and sewer system that results in a violation of permit limits or conditions is prohibited except:
      (i) Where unavoidable to prevent loss of life, personal injury, or severe property damages; and
      (ii) Where unavoidable excessive storm drainage or runoff would catastrophically damage any facilities or processes necessary for compliance with the effluent limitations and conditions of this permit; (iii) Where maintenance is necessary to ensure efficient operation and alternative measures have been taken to maintain effluent quality during the period of maintenance.
   B. The permittee shall notify the department in writing of all bypasses or shut down that result in a violation of permit limits or conditions. This section does not excuse any person from any liability, unless such relief is otherwise provided by the statute.

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 pollutants from entering waters of the state unless permitted by the Law, and a permanent record of the date and time, volume and methods of removal and disposal of such substances shall be maintained by the permittee.

7. **Power Failures**
   In order to maintain compliance with the effluent limitations and other provisions of this permit, the permittee shall either:
   A. in accordance with the "Schedule of Compliance", provide an alternate power source sufficient to operate the wastewater control facilities; or,
   B. if such alternative power source is not in existence, and no date for its implementation appears in the Compliance Schedule, halt or otherwise control production and all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

8. **Right of Entry**
   For the purpose of inspecting, monitoring, or sampling the point source, water contaminant source, or wastewater treatment facility for compliance with the Clean Water Law and these regulations, authorized representatives of the department shall be allowed by the permittee, upon presentation of credentials and at reasonable times:
   A. to enter upon permittee's premises in which a point source, water contaminant source, or wastewater treatment facility is located or in which any records are required to be kept under terms and conditions of the permit;
   B. to have access to, or copy, any records required to be kept under terms and conditions of the permit;
   C. to inspect any monitoring equipment or method required in the permit;
   D. to inspect any collection, treatment, or discharge facility covered under the permit; and
   E. to sample any wastewater at any point in the collection system or treatment process.

9. **Permits Transferable**
   A. Subject to section (3) of 10 CSR 20-6.010 an operating permit may be transfered upon submission to the department of an application to transfer signed by a new owner. Until such time as the permit is officially transfered, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
   B. The department, within thirty (30) days of receipt of the application shall notify the new permittee of its intent to revoke and reissue or transfer the permit.

10. **Availability of Reports**
    Except for data determined to be confidential under Section 308 of the Act, and the Law and Missouri Clean Water Commission Regulation for Public Participation, Hearings and Notice to Governmental Agencies 10 CSR 20-6.020, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by statute, effluent data shall not be considered confidential. Knowingly making any false statement on any such report shall be subject to the imposition of criminal penalties as provided for in Section 204.076 of the Law.

11. **Permit Modification**
    A. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, 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:
       (i) violation of any terms or conditions of this permit or the Law;
       (ii) having obtained this permit by misrepresentation or failure to disclose fully all relevant facts;
       (iii) a change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
       (iv) any reason set forth in the Law and Regulations.
    B. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

12. **Permit Modification-Less Stringent Requirements**
    If any permit provisions are based on legal requirements which are lessened or removed, and should no other basis exist for such permit provisions, the permit shall be modified after notice and opportunity for a hearing.

13. **Civil and Criminal Liability**
    Except as authorized by statute and provided in permit conditions on "Bypassing" (Standard Condition B-5) and "Power Failures" (Standard Condition B-7) nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

14. **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, and the Law and Regulations. Oil and hazardous materials discharges must be reported in compliance with the requirements of the Federal Clean Water Act.

15. **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 statute or regulations.

16. **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 or violation of federal, state or local laws or regulations.

17. **Duty to reapply**
    If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for a new permit 180 days prior to expiration of this permit.

18. **Toxic Pollutants**
    If a toxic effluent standard, prohibition, or schedule of compliance is established under section 307(a) of the Federal Clean Water Act for a toxic pollutant in the discharge of permittee's facility and such standard is more stringent than the limitations in the permit, then the more stringent standard, prohibition, or schedule shall be incorporated into the permit as one of its conditions, upon notice to the permittee.

19. **Signatory requirement**
    All reports, or information submitted to the Director shall be signed. (See 40 CFR-122.6)

20. **Rights Not Affected**
    Nothing in this permit shall affect the permittee's right to appeal or seek a variance from applicable laws or regulations as allowed by law.

21. **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.