

NPDES Permit No. IL0001970
Notice No.JMC:11072601 Ameren Edwards.doc

Public Notice Beginning Date: **January 16, 2013**

Public Notice Ending Date: **February 15, 2013**

National Pollutant Discharge Elimination System (NPDES)
Permit Program

Draft Reissued NPDES Permit to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois Environmental Protection Agency
Bureau of Water
Division of Water Pollution Control
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-0610

Name and Address of Discharger:

Ameren Energy Resources Generating Company
MC 602
P.O. Box 66149
St. Louis, MO 63166

Name and Address of Facility:

Ameren Energy Resources Generating Co.
E.D. Edwards Power Plant
7800 South CILCO Road
Bartonville, Illinois 61607
(Peoria County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a NPDES permit to discharge into the waters of the state and has prepared a draft permit and associated fact sheet for the above named discharger. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet. The last day comments will be received will be on the Public Notice period ending date unless a commentor demonstrating the need for additional time requests an extension to this comment period and the request is granted by the IEPA. Interested persons are invited to submit written comments on the draft permit to the IEPA at the above address. Commentors shall provide his or her name and address and the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to those issues. Commentors may include a request for public hearing. Persons submitting comments and/or requests for public hearing shall also send a copy of such comments or requests to the permit applicant. The NPDES permit and notice number(s) must appear on each comment page.

The application, engineer's review notes including load limit calculations, Public Notice/Fact Sheet, draft permit, comments received, and other documents are available for inspection and may be copied at the IEPA between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the draft permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 45 days before any public hearing. Response to comments will be provided when the final permit is issued. For further information, please call James M. Cowles at 217/782-0610.

The applicant is engaged in generation of electricity by coal-fired steam turbines (SIC 4911). Waste water is generated from ash pond discharge, chemical metal cleaning waste, condenser cooling water, boiler blowdown, intake screen backwash, water treatment wastewater, boiler and turbine room sumps, coal pile runoff, and stormwater. Plant operation results in an average discharge of 5.24 MGD of Ash Pond Discharge from outfall 001, 351 MGD of condenser cooling water from outfall 002, 0.03 MGD of boiler blowdown from outfall B02, 0.05 MGD of intake screen backwash from outfall 003, and an intermittent discharge of stormwater from outfall 004.

The following modification is proposed:

Internal Outfall A02 was removed from the permit. Sewage treatment plant effluent is now directed to the Greater Peoria Sanitary District POTW.

Application is made for existing discharge(s) which are located in Peoria County, Illinois. The following information identifies the discharge point, receiving stream and stream classifications:

Outfall	Receiving Stream	Latitude		Longitude		Stream Classification	Integrity Rating
001	Illinois River	40°5'28"	North	89°39'36"	West	General Use	Not Rated
002	Illinois River	40°35'38"	North	89°39'39"	West	General Use	Not Rated
B02	Illinois River	40°35'38"	North	89°39'39"	West	General Use	Not Rated
003	Illinois River	40°35'42"	North	89°39'46"	West	General Use	Not Rated
004	Illinois River	40°35'49"	North	89°40'00"	West	General Use	Not Rated

To assist you further in identifying the location of the discharge please see the map on last page.

The stream segment (D-05) receiving the discharge from outfall(s) 001, 002, 003, and 004 is not on the draft 2010 303(d) list of impaired waters and is not a biologically significant stream on the 2008 Illinois Department of Natural Resources Publication – *Integrating Multiple Taxa in a Biological Stream Rating System*.

The stream segment receiving the discharge from outfall(s) 001, 002, B02, 003 and 004 is on the 303 (d) list of impaired waters. The following parameters have been identified as the pollutants causing impairment:

<u>Potential Causes</u>		<u>Designated Use</u>
Fecal Coliform		Primary Contact and Recreation
PCB's		Fish Consumption
Mercury		Fish Consumption

The discharge(s) from the facility shall be monitored and limited at all times as follows:						
	LOAD LIMITS lbs/day DAF (DMF)			CONCENTRATION LIMITS mg/l		
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION
Outfall 001: Ash Pond Discharge						
Flow				Measure		
pH	Shall be in the range of 6.0 - 9.0 S.U.					35 IAC 304.125
Total Suspended Solids				15	30	35 IAC 304.124
Oil & Grease				15	20	40 CFR 423
Outfall 002: Condenser Cooling Water						
Flow				Measure		
Total Residual Chlorine					0.05	40 CFR 125.3
Temperature				Standard		35 IAC 302.211
Outfall B02: Boiler Blowdown						
Flow				Measure		
pH	Shall be in the range of 6.0 - 9.0 S.U.					35 IAC 304.125
Total Suspended Solids				15	30	35 IAC 304.124
Oil & Grease				15	20	40 CFR 423
Outfall 003: Intake Screen Backwash During maintenance of trash rack or intake screen any debris collected during such maintenance shall not be returned to the river, but shall be properly disposed.						
Outfall 004: Stormwater See Storm Water Pollution Prevention Plan.						

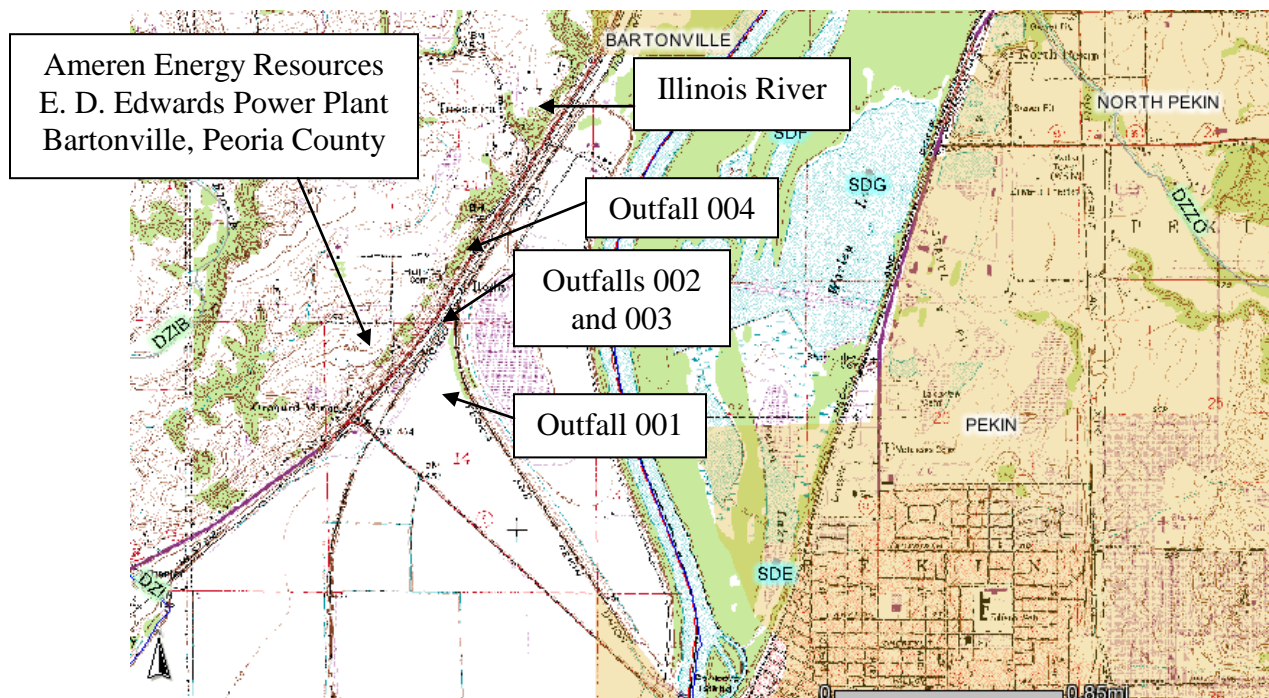
The following explain the conditions of the proposed permit:

Special Conditions are used to clarify discharge monitoring and reporting requirements. Special conditions will explain temperature monitoring requirements and limits. To demonstrate the facility is currently in compliance with thermal limitations the permittee will be required to demonstrate thermal limits will be met at end of mixing zone by direct monitoring in the receiving stream or utilize an approved thermal program model to predict the end of thermal mixing zone temperature based on the end of pipe temperature monitoring. Upon issuance of the permit the applicant will be allowed a six month evaluation period to determine which method of thermal monitoring it will utilize and a three month period to introduce an alternative method.

A special condition will outline the Storm Water Pollution Prevention Plan requirements.

The facility conducted an thermal demonstration pursuant to 35 Ill. Adm. Code 302.211(f) and this was approved by the Illinois Pollution Control Board in PCB Order 78-90 dated August 24, 1978.

The facility conducted a demonstration pursuant to Section 316(b) of the CWA which was determined to meet Best Technology Available (BTA) at the time of the demonstration, and was approved by the Agency on January 25, 1979. Special Condition 17 recognizes the submittal of updated cooling water intake structure operational information. This submittal is currently under review so that the Agency can evaluate the potential impacts of the cooling water intake structure operations pursuant to 40 CFR 125.90(b).



Public Notice of Draft Permit

Public Notice Number JMC:11072601 Ameren Edwards.doc is hereby given by Illinois EPA, Division of Water Pollution Control, Permit Section, 1021 North Grand Avenue East, Post Office Box 19276, Springfield, Illinois 62794-9276 (herein Agency) that a draft National Pollutant Discharge Elimination System (NPDES) Permit Number IL0001970 has been prepared under 40 CFR 124.6(d) for Ameren Energy Resources Generating Company, E.D. Edwards Power Plant, P.O. Box 66149, M.C. 602, St. Louis, MO 63166 for discharge into the Illinois River from the Ameren Energy Resources Generating Co., E.D. Edwards Power Plant, 7800 South CILCO Road, Bartonville Illinois 61607, (Peoria County). The applicant operates the E.D. Edwards Station which is an existing 750 MW coal fired steam electric generating station. The station discharges Once-Through Condenser Cooling Water, Ash Pond Effluent, Boiler Blowdown, Intake Screen Backwash, and Stormwater Runoff to the Illinois River.

The application, draft permit and other documents are available for inspection and may be copied at the Agency between 9:30 A.M. and 3:30 P.M. Monday through Friday. A Fact Sheet containing more detailed information is available at no charge. For further information, call the Public Notice Clerk at 217/782-0610.

Interested persons are invited to submit written comments on the draft permit to the Agency at the above address. The NPDES Permit and Joint Public Notice numbers must appear on each comment page. All comments received by the Agency not later than 30 days from the date of this publication shall be considered in making the final decision regarding permit issuance.

Any interested person may submit written request for a public hearing on the draft permit, stating their name and address, the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to these issues in the hearing. Such requests must be received by the Agency not later than 30 days from the date of this publication.

If written comments and/or requests indicate a significant degree of public interest in the draft permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 30 days before any public hearing.

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NPDES Permit No. IL0001970

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date:

Issue Date:

Effective Date:

Name and Address of Permittee:

Facility Name and Address:

Ameren Energy Resources Generating Company
MC 602
P.O. Box 66149
St. Louis, MO 63166

Ameren Energy Resources Generating Company
E.D. Edwards Power Plant
7800 South CILCO Road
Bartonville, Illinois 61607
(Peoria County)

Discharge Number and Name:

Receiving Waters:

001 Ash Pond Discharge
002 Condenser Cooling Water
B02 Boiler Blowdown
003 Intake Screen Backwash
004 Stormwater

Illinois River
Illinois River
Illinois River
Illinois River
Illinois River

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of Ill. Adm. Code, Subtitle C and/or Subtitle D, Chapter 1, and the Clean Water Act (CWA), the above-named permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

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NPDES Permit No. IL0001970

Effluent Limitations and Monitoring

1. From the effective date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/l		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
Outfall 001: Ash Pond Discharge* (DAF = 5.24 MGD)						
					Approximate Flow	
1. Fly Ash Sluice Water					Intermittent	
2. Bottom Ash, Economizer Ash and Pyrites Sluice Water					2.60 MGD	
3. Air Preheater Wash Water					Intermittent	
4. Water Treatment Filter Backwash					0.074 MGD	
5. Boiler and Turbine Room Sumps					2.49 MGD	
6. Coal Pile Runoff					Intermittent	
7. Yard Substation and Track Drains					Intermittent	
Total:					5.24 MGD	
Flow (MGD)					1/Week	24 Hour Total
pH	See Special Condition 1				1/Week	Grab
Total Suspended Solids			15	30	1/Week	8 Hour Composite
Oil and Grease			15	20	1/Month	Grab

*Normal operations employ dry and wet fly ash handling. See Special Condition 18 for additional monitoring requirements.

NPDES Permit No. IL0001970

Effluent Limitations and Monitoring

1. From the effective date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

PARAMETER	<u>LOAD LIMITS lbs/day</u> <u>DAF (DMF)</u>		<u>CONCENTRATION</u> <u>LIMITS mg/l</u>		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
Outfall: 002 Condenser Cooling Water (DAF = 351 MGD)						
					Approximate Flow	
1. Main Condenser Cooling Water					319 MGD	
2. Turbine Auxiliary Cooling Water					32.4 MGD	
3. Miscellaneous Equipment Cooling Water					1.1 MGD	
4. Boiler Blowdown					0.021 MGD	
5. Roof Drains					Intermittent	
Total:					351 MGD	
Flow (MGD)					Daily	Continuous
Total Residual Chlorine	See Special Condition 5			0.05	1/Week	Grab
Temperature	See Special Condition 4				1/Week	Calculation

Outfall: B02 Boiler Blowdown (DAF = 0.003 MGD)

Flow (MGD)				2/Year*	24 Hour Total
pH	See Special Condition 1			2/Year*	Grab
Total Suspended Solids		15	30	2/Year*	8 Hour Composite
Oil and Grease		15	20	2/Year*	Grab

*Reported on June and December DMR's.

Outfall: 003 Intake Screen Backwash (DAF = 0.05 MGD)

During maintenance of trash rack or intake screen, any debris collected shall not be returned to the river but shall be properly disposed.

Outfall: 004 Stormwater

See Special Condition 13.

Special Conditions

SPECIAL CONDITION 1. The pH shall be in the range 6.0 to 9.0. The monthly minimum and monthly maximum values shall be reported on the DMR form.

SPECIAL CONDITION 2. Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

SPECIAL CONDITION 3. Metal cleaning waste is not allowed to be discharged under this permit.

SPECIAL CONDITION 4. This facility meets the criteria for establishment of a formal mixing zone for thermal discharges pursuant to 35 Ill. Adm. Code 302.102. Water quality standards for temperature listed in table below must be met at every point outside of the mixing zone except as provided herein this Special Condition.

A.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
°F	60	60	60	90	90	90	90	90	90	90	90	60
°C	16	16	16	32	32	32	32	32	32	32	32	16

B. There shall be no abnormal temperature changes that may adversely affect aquatic life unless caused by natural conditions.

The normal daily and seasonal temperature fluctuations which existed before the addition of heat due to other than natural causes shall be maintained.

C. The maximum temperature rise above natural temperatures shall not exceed 2.8° C (5° F).

D. The water temperature at the edge of the mixing zone shall not exceed the maximum limits in the above table during more than one percent of the hours in the 12 month period ending with any month. Moreover, at no time shall the water temperature at the edge of the mixing zone exceed the maximum limits in the table above by more than 1.7° C (3° F).

E. The monthly maximum temperature, at the edge of the mixing zone, shall be reported on the DMR form, along with the total number of hours the temperature has exceeded the applicable limitations in the table above.

F. The permittee shall implement one of the methods in Paragraph G below for determining compliance with the limitations in the above table, within 180 days of the issuance date of this permit (unless provided for in Paragraph H and I). In addition, the permittee must determine the dimensions of the mixing zone, and submit this information to the Agency within 180 days of the issuance date of this permit.

G. The permittee shall determine compliance with the above limitations by one of the following methods.

1. Direct thermal monitoring, at an approved location, in the receiving stream at the edge of the mixing zone.
2. Monitor end of pipe temperature. Utilize an approved thermal program model that predicts the temperature at the edge of thermal mixing zone taking in to account the end of pipe temperature.
3. An alternative method approved by the Agency. The alternative method must be submitted to the Agency and approved by the Bureau of Water – Standards Development Unit.

H. If an alternative method is submitted to the Agency then the applicant shall submit that plan within a 90-day time period of issuance of the permit. The plan shall include a contingency plan to implement an approved method in case the alternative plan is denied. Agency Pre-approved methods are listed in paragraph G.1 and G.2 of this special condition.

The applicant will be allowed a three month implementation schedule once a method is selected and approved. The implementation schedule shall be submitted to the Agency.

I. Schedule of Compliance with Final Effluent Limitations

If the applicant determines the facility is unable to demonstrate compliance with water quality standards for temperature, then the applicant must follow Compliance Schedule as listed below of this special condition.

The Permittee shall achieve compliance with the final effluent limitations as specified in this special condition for Outfall 002 in accordance with the following compliance schedule:

Special ConditionsITEM:COMPLETION DATE:

1. Submittal of a report outlining the plan for coming into compliance with water quality standards for temperature (follow schedule A below), OR submittal of a thermal relief plan outlining procedures and/or studies that will be performed to justify relief in accordance with Section 316(a) of the Clean Water Act and/or Illinois Pollution Control Board regulations (follow schedule B below).

Within 180-days of issuance Date of permit.

Schedule A

- | | |
|---|---|
| 2. Status Report | 12 Months After Issuance Date of Permit |
| 3. File construction permit application OR operational plan | 18 Months After Issuance Date of Permit |
| 4. Commence construction OR implement operational plan | 24 Months After Issuance Date of Permit |
| 5. Status Report | 30 Months After Issuance Date of Permit |
| 6. Compliance with thermal limitations this special condition | 36 Months After Issuance Date of Permit |

Schedule B

- | | |
|--|--|
| 2. Status Report | 12 Months After Issuance Date of Permit |
| 3. Commence biological studies and/or data collection | 18 Months After Issuance Date of Permit |
| 4. Status Report | 24 Months After Issuance Date of Permit |
| 5. Complete studies and/or data collection | 30 Months After Issuance Date of Permit |
| 6. Status Report | 33 Months After Issuance Date of Permit |
| 7. File thermal relief request with Illinois Pollution Control Board | 36 Months After Issuance Date of Permit |
| 8. Compliance with alternative temperature limitations | 48 Months After Issuance Date of Permit or 1 Month After the IPCB alternative thermal standards decision, whichever occurs first |

This Permit may be modified, with Public Notice, to include revised compliance dates set out in this Permit that are superseded or supplemented by compliance dates in judicial orders, Pollution Control Board orders or grant agreements. Prior to such permit modification, the revised dates in the appropriate orders or grant agreements shall govern the Permittee's compliance.

In addition, the IEPA may initiate a modification of the compliance schedule set out in this Permit at any time, to include other dates which are necessary to carry out the provisions of the Illinois Environmental Protection Act, the Federal Clean Water Act or regulations promulgated under those Acts. If necessary Public Notice of such modification and opportunity for public hearing shall be provided.

Reporting

The Permittee shall submit a report no later than fourteen (14) days following the completion dates indicated for each numbered item in the compliance schedule, indicating, a) the date the item was completed, or b) that the item was not completed. All reports shall be submitted to IEPA at the following address:

Illinois Environmental Protection Agency
 Division of Water Pollution Control
 Attention: Compliance Assurance Section, Mail Code #19
 1021 North Grand Avenue East
 P.O. Box 19276
 Springfield, Illinois 62794-9276

- J. Interim methodology for compliance.

The permittee shall determine compliance by direct measurement or by using the equations below, until methodology is approved in paragraph G of this condition or until the Illinois Pollution Control Board grants alternative thermal limitations as provided in paragraph I of this Special Condition.

Special Conditions

$$\frac{(\text{Total Flow of Outfall 002})}{(\text{Flow of River})} \times (\text{Outlet Temperature} - \text{Inlet Temperature}) = \text{Temperature Rise of the River}$$

To determine the maximum temperature of the river use:

$$\text{Temperature Rise of the River} + \text{Inlet Temperature} = \text{Maximum River Temperature.}$$

SPECIAL CONDITION 5. The sample date, the total flow from Outfall 002 (MGD), the condenser cooling water flow (MGD), the total residual chlorine concentration and pounds of chlorine applied shall be reported for each sampling date. Sampling shall be conducted during time periods when chlorination is performed. The permittee shall notify this Agency in writing one week prior to the beginning of chlorination and one week prior to the discontinuance of chlorination each year.

All samples for Total Residual Chlorine shall be analyzed by an applicable method contained in 40 CFR 136, equivalent in accuracy to low-level amperometric titration. Any analytical variability of the method used shall be considered when determining the accuracy and precision of the results obtained.

The effluent limit to determine water quality standards compliance is 0.05 mg/L.

SPECIAL CONDITION 6. There shall be no discharge of polychlorinated biphenyl compounds (PCBs).

SPECIAL CONDITION 7. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) Forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee may choose to submit electronic DMRs (eDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the eDMR program, can be obtained on the IEPA website, <http://www.epa.state.il.us/water/edmr/index.html>.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 15th day of the following month, unless otherwise specified by the permitting authority.

Permittees not using eDMRs shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Attention: Compliance Assurance Section, Mail Code # 19

SPECIAL CONDITION 8. The provisions of 40 CFR 122.41(m) and 122.41(n) are applicable to this permit.

SPECIAL CONDITION 9. If an applicable effluent standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the NPDES Permit, the Agency shall revise or modify the permit in accordance with the more stringent standard or prohibition and shall so notify the permittee.

SPECIAL CONDITION 10. The use or operation of this facility shall be by or under the supervision of a Certified Class K operator.

SPECIAL CONDITION 11. For the purpose of this permit, the discharge outfall 002 is limited to main condenser cooling water, turbine auxiliary cooling water, miscellaneous equipment cooling water, boiler blowdown and roof drains, free from other wastewater discharges.

In the event the permittee shall require the use or change (increase of feed rate or quantity used) of water treatment additives other than those previously approved by this Agency or provided in the renewal application dated July 23, 2010, the permittee shall request a modification of this permit in accordance with the Standard Conditions – Attachment H.

The following information must be submitted to the Agency for review and approval prior to the additive's use.

1. Brand name.
2. The function of the water treatment additive.

Special Conditions

3. The Material Safety Data Sheet (MSDS) for the additive, which must include:
 - a. Product Ingredients.
 - b. Aquatic life toxicity estimates for the product.
4. The proposed application rate of the product, including:
 - a. The frequency and duration of usage.
 - b. The dose (ppm) and the application rate (gallons/day) within the system.
 - c. The volume (MGD) of water the product is applied into.
5. Information regarding the fate of the product within the system, such as:
 - a. Neutralization – Dechlorination or pH buffering.
 - b. Degradation – Breakdown within the system, with a retention pond, or from biological treatment.
 - c. Internal dilution with other waste streams prior to outfall.
6. A flow diagram showing the point of application within the system.
7. The final outfall from which the additive would be discharged.
8. The estimated concentration of the final product.

The additive shall not be used until Agency approval has been issued.

SPECIAL CONDITION 12. No effluent shall contain settleable solids, floating debris, visible oil, grease, scum or sludge solids. Color, odor and turbidity must be reduced to below obvious levels.

SPECIAL CONDITION 13.

The following Stormwater Pollution Prevention Plan is applicable to discharges tributary to Outfall 004.

See Special Condition 14 for discharges tributary to Outfall 001.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

- A. A storm water pollution prevention plan shall be maintained by the permittee for the storm water associated with industrial activity at this facility. The plan shall identify potential sources of pollution which may be expected to affect the quality of storm water discharges associated with the industrial activity at the facility. In addition, the plan shall describe and ensure the implementation of practices which are to be used to reduce the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit. The permittee shall modify the plan if substantive changes are made or occur affecting compliance with this condition.
 1. Waters not classified as impaired pursuant to Section 303(d) of the Clean Water Act.

Unless otherwise specified by federal regulation, the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event.
 2. Waters classified as impaired pursuant to Section 303(d) of the Clean Water Act

For any site which discharges directly to an impaired water identified in the Agency's 303(d) listing, and if any parameter in the subject discharge has been identified as the cause of impairment, the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event. If required by federal regulations, the storm water pollution prevention plan shall adhere to a more restrictive design criteria.
- B. The operator or owner of the facility shall make a copy of the plan available to the Agency at any reasonable time upon request.

Facilities which discharge to a municipal separate storm sewer system shall also make a copy available to the operator of the municipal system at any reasonable time upon request.
- C. The permittee may be notified by the Agency at any time that the plan does not meet the requirements of this condition. After such notification, the permittee shall make changes to the plan and shall submit a written certification that the requested changes have been made. Unless otherwise provided, the permittee shall have 30 days after such notification to make the changes.
- D. The discharger shall amend the plan whenever there is a change in construction, operation, or maintenance which may affect the discharge of significant quantities of pollutants to the waters of the State or if a facility inspection required by paragraph H of this condition indicates that an amendment is needed. The plan should also be amended if the discharger is in violation of any conditions of this permit, or has not achieved the general objective of controlling pollutants in storm water discharges. Amendments to the plan shall be made within 30 days of any proposed construction or operational changes at the facility, and shall be provided to the Agency for review upon request.

Special Conditions

- E. The plan shall provide a description of potential sources which may be expected to add significant quantities of pollutants to storm water discharges, or which may result in non-storm water discharges from storm water outfalls at the facility. The plan shall include, at a minimum, the following items:
1. A topographic map extending one-quarter mile beyond the property boundaries of the facility, showing: the facility, surface water bodies, wells (including injection wells), seepage pits, infiltration ponds, and the discharge points where the facility's storm water discharges to a municipal storm drain system or other water body. The requirements of this paragraph may be included on the site map if appropriate. Any map or portion of map may be withheld for security reasons.
 2. A site map showing:
 - i. The storm water conveyance and discharge structures;
 - ii. An outline of the storm water drainage areas for each storm water discharge point;
 - iii. Paved areas and buildings;
 - iv. Areas used for outdoor manufacturing, storage, or disposal of significant materials, including activities that generate significant quantities of dust or particulates.
 - v. Location of existing storm water structural control measures (dikes, coverings, detention facilities, etc.);
 - vi. Surface water locations and/or municipal storm drain locations
 - vii. Areas of existing and potential soil erosion;
 - viii. Vehicle service areas;
 - ix. Material loading, unloading, and access areas.
 - x. Areas under items iv and ix above may be withheld from the site for security reasons.
 3. A narrative description of the following:
 - i. The nature of the industrial activities conducted at the site, including a description of significant materials that are treated, stored or disposed of in a manner to allow exposure to storm water;
 - ii. Materials, equipment, and vehicle management practices employed to minimize contact of significant materials with storm water discharges;
 - iii. Existing structural and non-structural control measures to reduce pollutants in storm water discharges;
 - iv. Industrial storm water discharge treatment facilities;
 - v. Methods of onsite storage and disposal of significant materials.
 4. A list of the types of pollutants that have a reasonable potential to be present in storm water discharges in significant quantities. Also provide a list of any pollutant that is listed as impaired in the most recent 303(d) report.
 5. An estimate of the size of the facility in acres or square feet, and the percent of the facility that has impervious areas such as pavement or buildings.
 6. A summary of existing sampling data describing pollutants in storm water discharges.
- F. The plan shall describe the storm water management controls which will be implemented by the facility. The appropriate controls shall reflect identified existing and potential sources of pollutants at the facility. The description of the storm water management controls shall include:
1. Storm Water Pollution Prevention Personnel - Identification by job titles of the individuals who are responsible for developing, implementing, and revising the plan.
 2. Preventive Maintenance - Procedures for inspection and maintenance of storm water conveyance system devices such as oil/water separators, catch basins, etc., and inspection and testing of plant equipment and systems that could fail and result in discharges of pollutants to storm water.

Special Conditions

3. Good Housekeeping - Good housekeeping requires the maintenance of clean, orderly facility areas that discharge storm water. Material handling areas shall be inspected and cleaned to reduce the potential for pollutants to enter the storm water conveyance system.
4. Spill Prevention and Response - Identification of areas where significant materials can spill into or otherwise enter the storm water conveyance systems and their accompanying drainage points. Specific material handling procedures, storage requirements, spill cleanup equipment and procedures should be identified, as appropriate. Internal notification procedures for spills of significant materials should be established.
5. Storm Water Management Practices - Storm water management practices are practices other than those which control the source of pollutants. They include measures such as installing oil and grit separators, diverting storm water into retention basins, etc. Based on assessment of the potential of various sources to contribute pollutants, measures to remove pollutants from storm water discharge shall be implemented. In developing the plan, the following management practices shall be considered:
 - i. Containment - Storage within berms or other secondary containment devices to prevent leaks and spills from entering storm water runoff. To the maximum extent practicable storm water discharged from any area where material handling equipment or activities, raw material, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water should not enter vegetated areas or surface waters or infiltrate into the soil unless adequate treatment is provided.
 - ii. Oil & Grease Separation - Oil/water separators, booms, skimmers or other methods to minimize oil contaminated storm water discharges.
 - iii. Debris & Sediment Control - Screens, booms, sediment ponds or other methods to reduce debris and sediment in storm water discharges.
 - iv. Waste Chemical Disposal - Waste chemicals such as antifreeze, degreasers and used oils shall be recycled or disposed of in an approved manner and in a way which prevents them from entering storm water discharges.
 - v. Storm Water Diversion - Storm water diversion away from materials manufacturing, storage and other areas of potential storm water contamination. Minimize the quantity of storm water entering areas where material handling equipment of activities, raw material, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water using green infrastructure techniques where practicable in the areas outside the exposure area, and otherwise divert storm water away from exposure area.
 - vi. Covered Storage or Manufacturing Areas - Covered fueling operations, materials manufacturing and storage areas to prevent contact with storm water.
 - vii. Storm Water Reduction - Install vegetation on roofs of buildings within adjacent to the exposure area to detain and evapotranspire runoff where precipitation falling on the roof is not exposed to contaminants, to minimize storm water runoff; capture storm water in devices that minimize the amount of storm water runoff and use this water as appropriate based on quality.
6. Sediment and Erosion Prevention - The plan shall identify areas which due to topography, activities, or other factors, have a high potential for significant soil erosion. The plan shall describe measures to limit erosion.
7. Employee Training - Employee training programs shall inform personnel at all levels of responsibility of the components and goals of the storm water pollution control plan. Training should address topics such as spill response, good housekeeping and material management practices. The plan shall identify periodic dates for such training.
8. Inspection Procedures - Qualified plant personnel shall be identified to inspect designated equipment and plant areas. A tracking or follow-up procedure shall be used to ensure appropriate response has been taken in response to an inspection. Inspections and maintenance activities shall be documented and recorded.
- G. Non-Storm Water Discharge - The plan shall include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharge. The certification shall include a description of any test for the presence of non-storm water discharges, the methods used, the dates of the testing, and any onsite drainage points that were observed during the testing. Any facility that is unable to provide this certification must describe the procedure of any test conducted for the presence of non-storm water discharges, the test results, potential sources of non-storm water discharges to the storm sewer, and why adequate tests for such storm sewers were not feasible.
- H. Quarterly Visual Observation of Discharges - The requirements and procedures for quarterly visual observations are applicable to all outfalls covered by this condition.

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1. You must perform and document a quarterly visual observation of a storm water discharge associated with industrial activity from each outfall. The visual observation must be made during daylight hours. If no storm event resulted in runoff during daylight hours from the facility during a monitoring quarter, you are excused from the visual observations requirement for that quarter, provided you document in your records that no runoff occurred. You must sign and certify the document.
 2. Your visual observation must be made on samples collected as soon as practical, but not to exceed 1 hour or when the runoff or snow melt begins discharging from your facility. All samples must be collected from a storm event discharge that is greater than 0.1 inch in magnitude and that occurs at least 72 hours from the previously measureable (greater than 0.1 inch rainfall) storm event. The observation must document: color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution. If visual observations indicate any unnatural color, odor, turbidity, floatable material, oil sheen or other indicators of storm water pollution, the permittee shall obtain a sample and monitor for the parameter or the list of pollutants in Part E.4.
 3. You must maintain your visual observation reports onsite with the SWPPP. The report must include the observation date and time, inspection personnel, nature of the discharge (i.e., runoff or snow melt), visual quality of the storm water discharge (including observations of color, odor, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.
 4. You may exercise a waiver of the visual observation requirement at a facility that is inactive or unstaffed, as long as there are no industrial materials or activities exposed to storm water. If you exercise this waiver, you must maintain a certification with your SWPPP stating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to storm water.
 5. Representative Outfalls - If your facility has two or more outfalls that you believe discharge substantially identical effluents, based on similarities of the industrial activities, significant materials, size of drainage areas, and storm water management practices occurring within the drainage areas of the outfalls, you may conduct visual observations of the discharge at just one of the outfalls and report that the results also apply to the substantially identical outfall(s).
 6. The visual observation documentation shall be made available to the Agency and general public upon written request.
- I. The permittee shall conduct an annual facility inspection to verify that all elements of the plan, including the site map, potential pollutant sources, and structural and non-structural controls to reduce pollutants in industrial storm water discharges are accurate. Observations that require a response and the appropriate response to the observation shall be retained as part of the plan. Records documenting significant observations made during the site inspection shall be submitted to the Agency in accordance with the reporting requirements of this permit.
 - J. This plan should briefly describe the appropriate elements of other program requirements, including Spill Prevention Control and Countermeasures (SPCC) plans required under Section 311 of the CWA and the regulations promulgated there under, and Best Management Programs under 40 CFR 125.100.
 - K. The plan is considered a report that shall be available to the public at any reasonable time upon request.
 - L. The plan shall include the signature and title of the person responsible for preparation of the plan and include the date of initial preparation and each amendment thereto.
 - M. Facilities which discharge storm water associated with industrial activity to municipal separate storm sewers may also be subject to additional requirement imposed by the operator of the municipal system

Construction Authorization

Authorization is hereby granted to construct treatment works and related equipment that may be required by the Storm Water Pollution Prevention Plan developed pursuant to this permit.

This Authorization is issued subject to the following condition(s).

- N. If any statement or representation is found to be incorrect, this authorization may be revoked and the permittee there upon waives all rights there under.
- O. The issuance of this authorization (a) does not release the permittee from any liability for damage to persons or property caused by or resulting from the installation, maintenance or operation of the proposed facilities; (b) does not take into consideration the structural stability of any units or part of this project; and (c) does not release the permittee from compliance with other applicable statutes of the State of Illinois, or other applicable local law, regulations or ordinances.
- P. Plans and specifications of all treatment equipment being included as part of the stormwater management practice shall be included in the SWPPP.

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- Q. Construction activities which result from treatment equipment installation, including clearing, grading and excavation activities which result in the disturbance of one acre or more of land area, are not covered by this authorization. The permittee shall contact the IEPA regarding the required permit(s).

REPORTING

- R. The facility shall submit an electronic copy of the annual inspection report to the Illinois Environmental Protection Agency. The report shall include results of the annual facility inspection which is required by Part I of this condition. The report shall also include documentation of any event (spill, treatment unit malfunction, etc.) which would require an inspection, results of the inspection, and any subsequent corrective maintenance activity. The report shall be completed and signed by the authorized facility employee(s) who conducted the inspection(s). The annual inspection report is considered a public document that shall be available at any reasonable time upon request.
- S. The first report shall contain information gathered during the one year time period beginning with the effective date of coverage under this permit and shall be submitted no later than 60 days after this one year period has expired. Each subsequent report shall contain the previous year's information and shall be submitted no later than one year after the previous year's report was due.
- T. If the facility performs inspections more frequently than required by this permit, the results shall be included as additional information in the annual report.
- U. The permittee shall retain the annual inspection report on file at least 3 years. This period may be extended by request of the Illinois Environmental Protection Agency at any time.

Annual inspection reports shall be mailed to the following address:

Illinois Environmental Protection Agency
Bureau of Water
Compliance Assurance Section
Annual Inspection Report
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

- V. The permittee shall notify any regulated small municipal separate storm sewer owner (MS4 Community) that they maintain coverage under an individual NPDES permit. The permittee shall submit any SWPPP or any annual inspection to the MS4 community upon request by the MS4 community.

SPECIAL CONDITION 14. The Agency has determined that for outfall 001 the effluent limitations in this permit constitute BAT/BCT for storm water which is treated in the existing treatment facilities for purposes of this permit reissuance, and no pollution prevention plan will be required for such storm water. In addition to the chemical specific monitoring required elsewhere in this permit, the permittee shall conduct an annual inspection of the facility site to identify areas contributing to a storm water discharge associated with industrial activity, and determine whether any facility modifications have occurred which result in previously-treated storm water discharges no longer receiving treatment. If any such discharges are identified the permittee shall request a modification of this permit within 30 days after the inspection. Records of the annual inspection shall be retained by the permittee for the term of this permit and be made available to the Agency on request.

SPECIAL CONDITION 15. For the purpose of this permit, discharge from Outfall 004 is limited to storm water, free from process and other wastewater discharges.

SPECIAL CONDITION 16. Ameren Energy Resources Generating Company E.D. Edwards Power Plant has complied with Section 302.211(f) of Title 35, Chapter 1, Subtitle C: of Water Pollution Regulations by demonstrating that thermal discharge from E. D. Edwards Generating Station has not caused and cannot reasonably be expected to cause significant ecological damage to the Illinois River as stated and approved in PCB order 80-90 dated February 19, 1981. Pursuant to 35 Ill. Adm. Code 302.211(g) no additional thermal demonstration is being required for reissuance of this NPDES Permit.

SPECIAL CONDITION 17. Ameren Energy Resources Generating Company demonstration for the E.D. Edwards Power Plant in accordance with Section 316(b) of the CWA was determined to meet Best Technology Available (BTA) at the time of the demonstration, and was approved by this Agency by letter dated December 4, 1981.

In order for the Agency to evaluate the potential impacts of cooling water intake structure operations pursuant to 40 CFR 125.90(b), the permittee shall prepare and submit information to the Agency outlining current intake structure conditions at this facility, including a detailed description of the current intake structure operation and design, description of any operational or structural modifications from original design parameters, source waterbody flow information, or other information as necessary. The information submitted should

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be in accordance with the previously submitted information revised collection proposal received by the Agency on May 12th, 2005

The information shall also include a summary of historical 316(b) related intake impingement and / or entrainment studies, if any, as well as current impingement mortality and / or entrainment characterization data; and shall be submitted to the Agency within six (6) months of the permit's effective date.

Upon the receipt and review of this information, the permit may be modified to require the submittal of additional information based on a Best Professional Judgment review by the Agency. This permit may also be revised or modified in accordance with any laws, regulations, or judicial orders pursuant to Section 316(b) of the Clean Water Act.

If all information has been previously submitted to the Agency then the applicant may inform the Agency that current conditions are still representative of that submitted information.

SPECIAL CONDITION 18. The Permittee shall monitor Outfall 001 for the following parameters on a twice/year basis. The Permit may be modified with public notice to establish effluent limitations if appropriate, based on the information obtained through sampling. The sample shall be a 24-hour effluent composite except as otherwise specifically provided below and the results shall be submitted on the DMRs to IEPA. The parameters to be sampled and the minimum reporting limits to be attained are as follows:

<u>STORET CODE</u>	<u>PARAMETER</u>	<u>Minimum reporting limit</u>
01002	Arsenic	0.05 mg/L
01007	Barium	0.5 mg/L
01022	Boron	0.1 mg/L
01027	Cadmium	0.001 mg/L
00940	Chloride	0.1 mg/L
01032	Chromium (hexavalent) (grab)	0.01 mg/L
01034	Chromium (total)	0.05 mg/L
01042	Copper	0.005 mg/L
00718	Cyanide (grab) (weak acid dissociable)	5.0 ug/L
00720	Cyanide (grab not to exceed 24 hours) (total)	5.0 ug/L
00951	Fluoride	0.1 mg/L
01045	Iron (total)	0.5 mg/L
01046	Iron (Dissolved)	0.5 mg/L
01051	Lead	0.05 mg/L
01055	Manganese	0.5 mg/L
71900	Mercury (grab)**	1.0 ng/L*
01067	Nickel	0.005 mg/L
32730	Phenols (grab)	0.005 mg/L
01147	Selenium	0.005 mg/L
00945	Sulfate	0.1 mg/L
01077	Silver (total)	0.003 mg/L
01092	Zinc	0.025 mg/L

Unless otherwise indicated, concentrations refer to the total amount of the constituent present in all phases, whether solid, suspended or dissolved, elemental or combined, including all oxidation states.

*1.0 ng/L = 1 part per trillion.

**Utilize USEPA Method 1631E and the digestion procedure described in Section 11.1.1.2 of 1631E.

Unless otherwise indicated, concentrations refer to the total amount of the constituent present in all phases, whether solids, suspended, or dissolved, elemental or combined, including all oxidation states.

SPECIAL CONDITION 19. The discharge of a reportable quantity is not subject to the reporting requirements of Section 311 of the Clean Water Act, if such discharge is in compliance with this permit and such activity was reviewed and made part of the public record in accordance with the issuance of this permit. The permittee is exempt from Section 311 reporting for discharges meeting the terms and conditions as found at 40 CFR 117.12.

SPECIAL CONDITION 20. Application of GE Betz ClamTrol CT-2 and CT-4 with detoxification for macroinvertebrate control:

- A. Application of GE Betz ClamTrol CT-2 and CT-4 is authorized on an intermittent basis. The products shall not be used simultaneously or in consecutive twelve hour periods.
- B. Spectrus CT1300 and BULAB 6086 shall be injected at a rate sufficient to achieve a 5 mg/l concentration in the service water pump discharge header of the fire protection system. The application shall last twelve consecutive hours and not exceed three annual molluscicide applications.

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- C. The discharge shall be completely detoxified as necessary using bentonite clay product. The detoxification chemical shall be injected at a ratio of 6.3 parts bentonite clay product to 1 part of detected GE Betz ClamTrol CT-2 and CT-4. The detoxification chemical shall be injected as far up stream as possible to allow for optimum mixing.
- D. The discharge for GE Betz ClamTrol CT-2 and CT-4 shall be below detection (< 0.2 PPM). The discharge concentration shall be monitored at least twice during the twelve hour period following the application period.

SPECIAL CONDITION 21. The Permittee shall prepare a preliminary plan for biomonitoring and submit the plan to IEPA for review and approval within ninety (90) days of the effective date of this Permit. The Permittee shall begin biomonitoring of the effluent discharge when molluscicides (other than GE Betz ClamTrol CT-2 and CT-4) are in the discharge within ninety (90) days after approval of the biomonitoring plan or other such date as contained in the IEPA's notification letter.

Biomonitoring

- 1. Acute Toxicity - Standard definitive acute toxicity tests shall be run on at least two (2) trophic levels of aquatic species (fish, invertebrate) representative of the aquatic community of the receiving stream. Except as noted here and in the IEPA document "Effluent Biomonitoring and Toxicity Assessment", testing must be consistent with Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fourth Ed.) EPA-600/4-90-027F. Results shall be reported in accordance with Section 12 of the USEPA document. Unless substitute tests are pre-approved; the following tests are required:
 - a. Fish - 96 hour static or static renewal LC₅₀ Bioassay using 1- to 14-day old fathead minnows (*Pimephales promelas*).
 - b. Invertebrate 48-hour static LC₅₀ Bioassay using *Ceriodaphnia*.
- 2. Testing Frequency - The above tests shall be conducted the first two times each molluscicide (other than Clam-Trol) is used when either molluscicide is in the discharge. Tests shall be performed using effluent grab samples unless otherwise authorized by the IEPA. Results shall be submitted to IEPA within one (1) week of becoming available to the Permittee.

Should the results of one sampling event for either molluscicide (other than Clam-Trol) indicate toxicity, the Permittee shall discontinue use of that molluscicide until the permittee demonstrates to the Agency that the molluscicide will be applied in a manner and at a quantity and feed rate that will not cause toxicity. The permittee shall submit the results of the above indicated tests to the IEPA Division of Water Pollution Control/Planning Section at the address indicated in Special Condition 7.
- 3. The IEPA may modify this Permit during its term to incorporate additional requirements or limitations based on the results of the biomonitoring. In addition, after review of the monitoring results, the IEPA may modify this Permit to include numerical limitations for specific toxic pollutants. Modifications under this condition shall follow public notice and opportunity for hearing.