Exhibit G

Rec'd 11-9-72 Revised 6-30-72

FORM APPROVED
OMB NO. 49-R 0408

DEPARTMENT OF THE ARMY, CORPS OF ENGINEERS

APPLICATION FOR PERMIT TO DISCHARGE OR WORK IN NAVIGABLE WATERS AND THEIR TRIBUTARIES

IL0004171

SECTION I. GENERAL INFORMATION

1. State	Application Number (to be assigned by Corps of Engineers)			
I L	0 7 2 (Div.)	0 Y E (Dist.)	2 (Type)	0 0 0 4 6 5 (Sequence No.)

2. Name of applicant and title of signing official

Electric Energy, Inc.
Vice President

Loc #408-73
0

3. Mailing address of applicant

Electric Energy, Inc.
P. O. Box 165
Joppa, Illinois 62953

4. Name, address, telephone number and title of applicant's authorized agent for permit application coordination and correspondence.

George A. Rice. Vice President
P. O. Box 165
Joppa, Illinois 62953
Ph. (618) 543-7531

NOTE TO APPLICANT: Refer to the pamphlet entitled "Permits for Work and Structures in and for Discharges or Deposits into Navigable Waters" before attempting to complete this form.

Required Information

a. All information contained in this application will, upon request, be made available to the public for inspection and copying. A separate sheet entitled "Confidential Answers" must be used to set out information which is considered by the applicant to constitute trade secrets or commercial or financial information of a confidential nature. The information must clearly indicate the item number to which it applies. Confidential treatment can be considered only for that information for which a specific written request of confidentiality has been made on the attached sheet. However, in no event will identification of the contents and frequency of a discharge be recognized as confidential or privileged information.

b. The applicant shall furnish such supplementary information as is required by the District Engineer in order to evaluate fully an application.

c. If additional space is needed for a complete response to any item on this form, attach a sheet entitled "Additional Information." Indicate on that sheet the item numbers to which answers apply.

d. Drawings required by items 20 and 21 should be attached to this application. Other papers which must be attached to this application include, if applicable, copies of a water quality certification or a written communication which describes water quality impact (see Item 22 and Item 10 of Section II below), the additional information sheet(s) in "c" above, and the confidential information sheet described in "a" above.

Fees

If any discharge or deposit is involved, an application fee of $100 must be submitted with this application. An additional $50 is required for each additional point of discharge or deposit.

Signature

a. If a discharge is involved, an application submitted by a corporation must be signed by the principal executive officer of that corporation or by an official of the rank of corporate vice president or above who reports directly to such principal executive officer and who has been designated by the principal executive officer to make such applications on behalf of the corporation. In the case of a partnership or a sole proprietorship, the application must be signed by a general partner or the proprietor. Other signature requirements are discussed in the pamphlet.

b. If no discharge is involved, an application may be signed by the applicant or his authorized agent.

Application is hereby made for a permit or permits to authorize the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief such information is true, complete, and accurate.

Signature of Applicant

18 U.S.C. Section 1001 provides that:

Whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and wilfully falsifies, conceals or covers up by any trick, scheme, or device a material fact, or makes any false, fictitious or fraudulent statements or representations, or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statement or entry, shall be fined not more than $10,000 or imprisoned not more than five years, or both.

FOR CORPS OF ENGINEERS USE ONLY

Acronym name of applicant

Are discharge structures

Major? ☐ Minor? ☐ N/A? ☐

Date received, form not complete — — — — — —
Date received, form complete but without certificate — — — — — —
Date received, form complete — — — — — —
Date of Cert./Ltr. — — — — — —
(day mo yr)

Date sent to EPA, form not complete — — — — — —

Date sent to EPA, NOAA, D/I, AEC, FPC in complete form — — — — — —
(day mo yr)

ENG FORM

Revised 6-30-72

5. Date: JUN 30 72 (mo day yr)

10. Office use only

6. Check type of application: a. Original ☐ b. Revision ☒

7. Number of original application: 072-0YE-2-000465

8. Name of facility where discharge or construction will occur.

Same as Item No. 3.

9. Full mailing address of facility named in item 8 above.

Same as Item No. 4.

10. Names and mailing addresses of all adjoining property owners whose property also adjoins the waterway.

Up River - C. & E.I. Railroad
Down River - C. & E.I. Railroad
% Missouri Pacific Railroad
210 North 13th
St. Louis, Missouri 63103

11. Check to indicate the nature of the proposed activity:
a. Dredging ☐ b. Construction ☐ c. Construction with Discharge ☒ b. Discharge only ☐

12. If activity is temporary in nature, estimate its duration in months.

If application is for a discharge:

13. List intake sources

Source	Estimated Volume in Million Gallons Per day or Fraction Thereof	
Municipal or private water supply system	0	
Surface water body	467.27	CAL.
Ground water	1.56	CAL.
Other		
	468.83	

14. Describe water usage within the plant

Type	Estimated Volume in Million Gallons Per day or Fraction Thereof	
Cooling water	444.46	CAL.
Boiler Feed water	2.24	
Process water		
Sanitary system*	.10	EST.
Other	24.03	CAL.
	470.83	

15. List volume of discharges or losses other than into navigable waters.

Type	Estimated Volume in Million Gallons Per day or Fraction Thereof
Municipal waste treatment system	0
Surface containment	
Underground disposal	
Waste Acceptance firms	
Evaporation	
Consumption	

* Indicate number employees served per day: 325

Revised 6-30-72

If structures exist, or dredging, filling or other construction will occur, the precise location of the activity must be described.

Office use only

a. Name the corporate boundaries within which the structures exist or the activity will occur.

State	County	City or Town
16. Illinois	17. Massac	18. N/A

b. Name of waterway at the location of the activity

19. Ohio River

20. Maps and sketches which show the location and character of each structure or activity, including any and all outfall devices, dispersive devices, and non-structural points of discharge, must be attached to this application.

21. For construction or work in navigable waters for which a separate permit is sought under 33 U.S.C. 403, the character of each structure must be fully shown on detailed plans to be submitted with this application. Note on the drawings those structures for which separate discharge information (Section II of this form) has been submitted.

22. List all approvals or denials granted by Federal, interstate, State or local agencies for any structures, construction, discharges or deposits described in this application.

Type of document	Id. No.	Date	Issuing Agency
Permit	None	13 June 1951*	U.S. Corps Engrs. Louisville, Ky.
Application for Permits	Log 1373-1	22 Dec. 1971	Illinois E.P. Agency
Permit	72-15	12 April 1972	U.S. Corps Engrs. Louisville, Ky.

Revised 2 Feb. 1952
Amended 25 April 1955

23. Check if facility existed or was lawfully under construction prior to April 3, 1970. [X]

24. If dredging or filling will occur:

State the type of materials involved, their volume in cubic yards, and the proposed method of measurement.

None

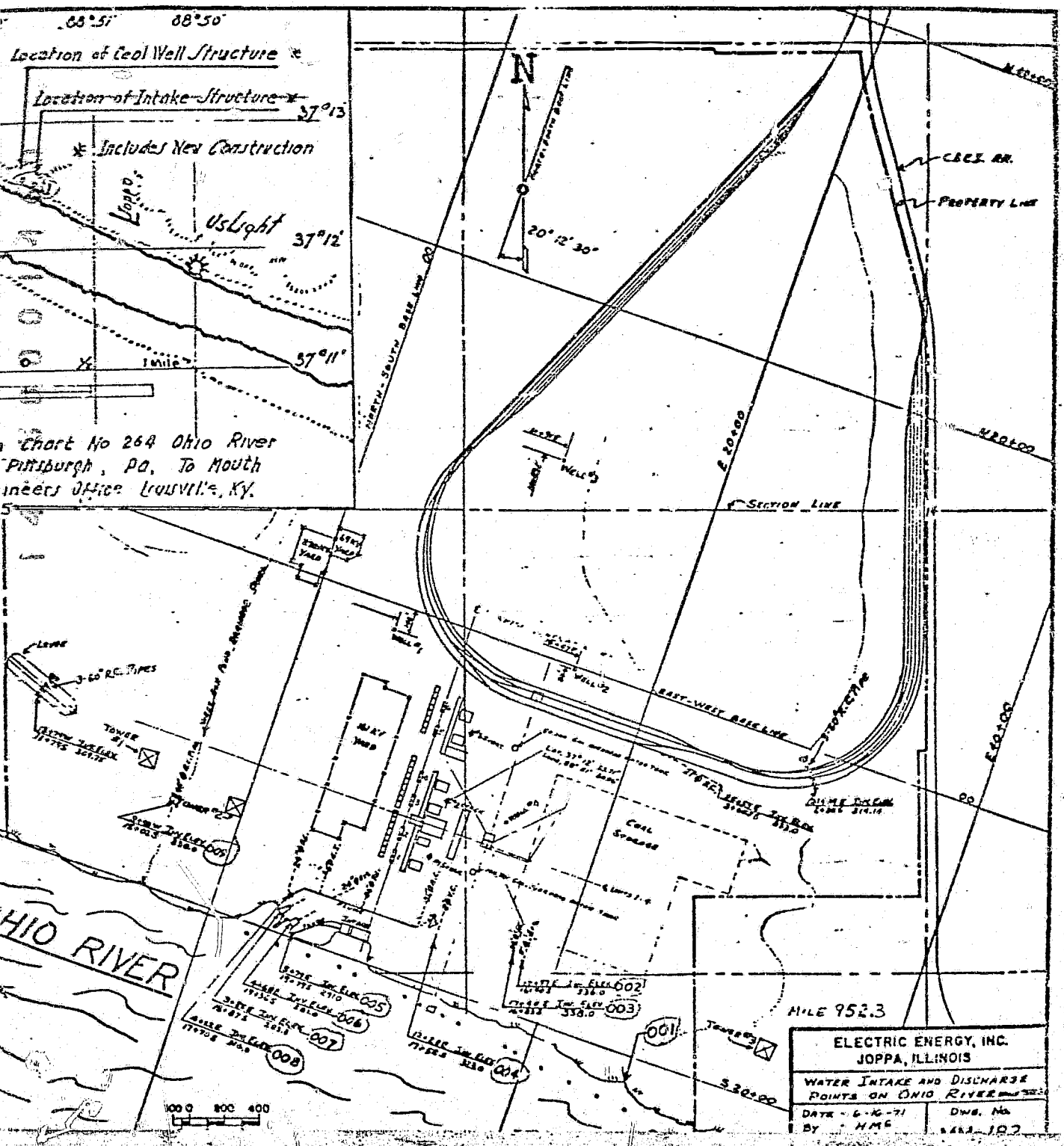
25. Describe the proposed method of instrumentation which will be used to measure the volume of any solids which may be deposited and to determine its effect upon the waterway.

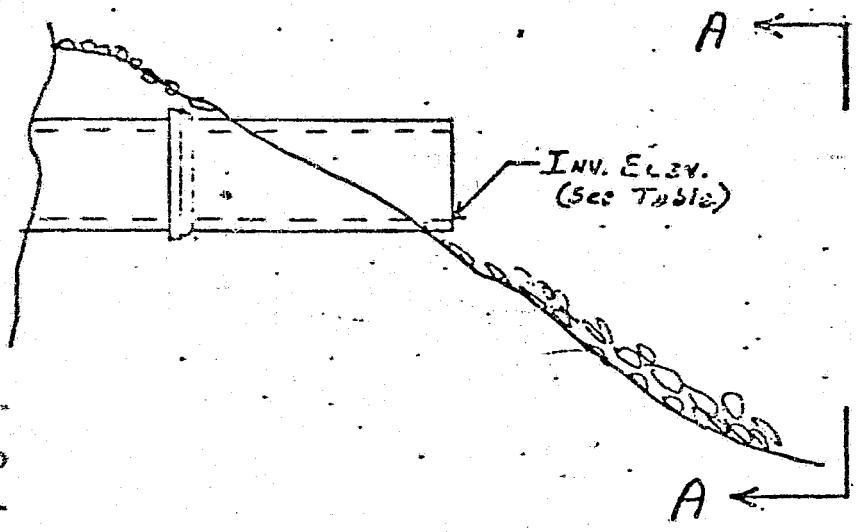
N/A

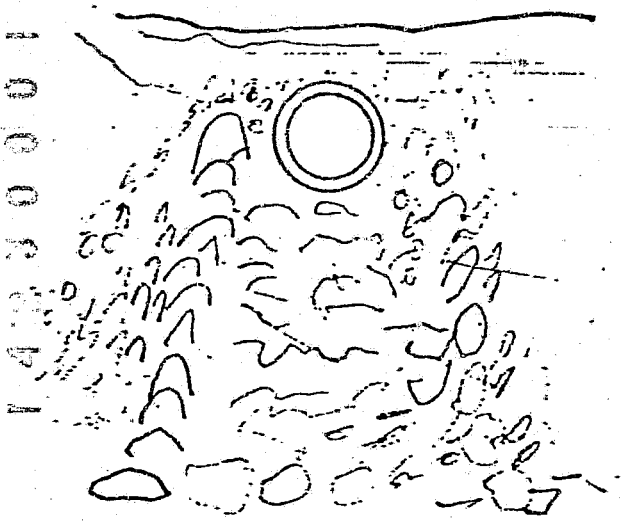
26. State rates and periods of deposition described in Item 25.

N/A

072 - OYE - 2 - 000465







SECTION A-A

TYPICAL DETAIL OF ROCK
AT PIPE DISCHARGE
NO SCALE - SEE TABLE

LOCATION	PIPE DIA.	PIPE MAT'L	INV. ELEV.
002	8"	STEEL	336
003	30"	R.C.	338
004	8"	VIT. CLAY	323
009	48"	R.C.	330

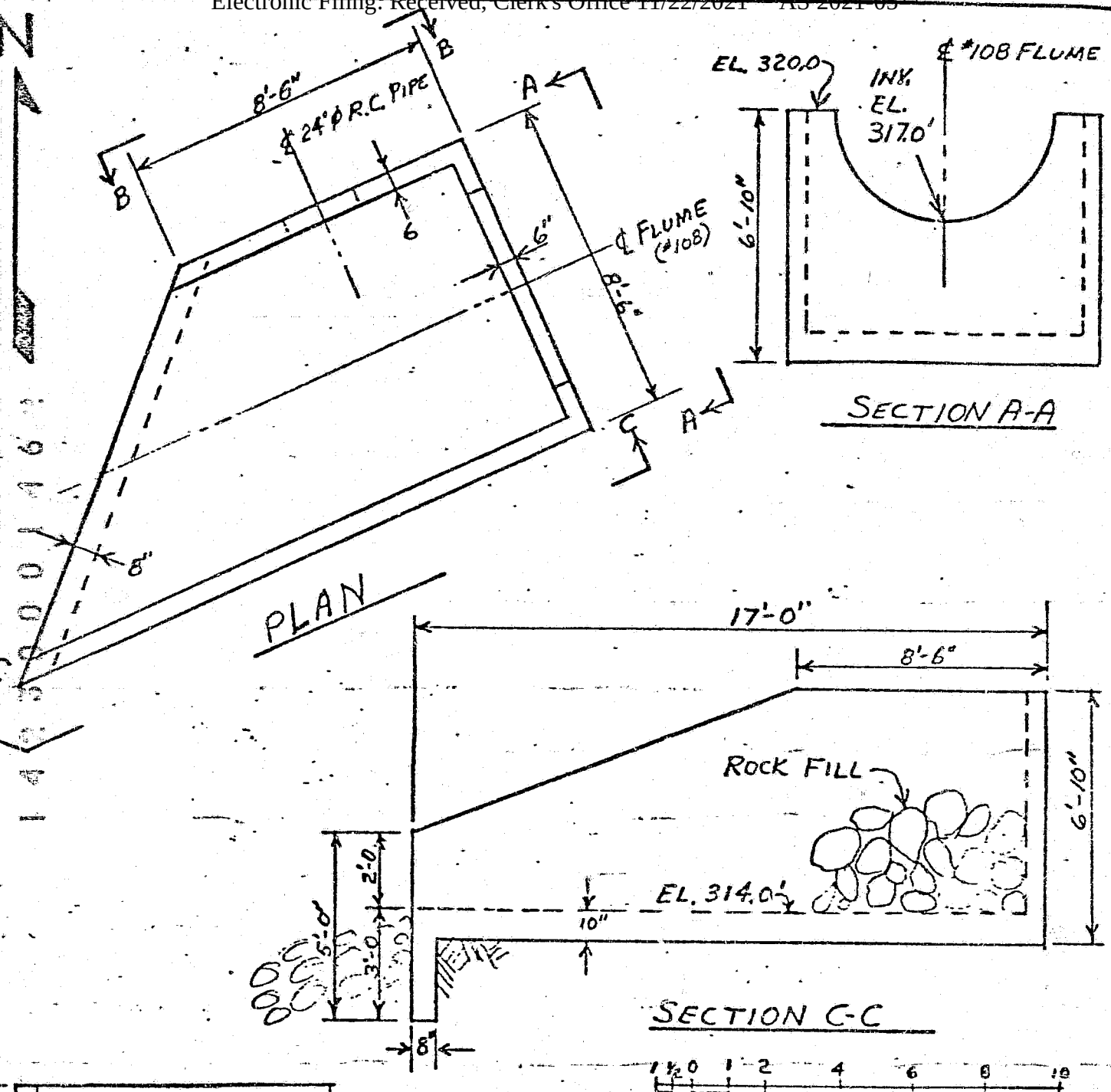
R.C. - REINFORCED CONCRETE

ELECTRIC ENERGY INC.
JOPPA, ILL.

TITLE: TYPICAL DETAIL OF PIPE OUTFALLS Nos. 002, 003, 004, & 009

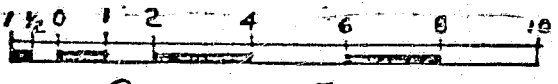
DATE: 6-21-71
N.M.C.

DWG. No. MM-182

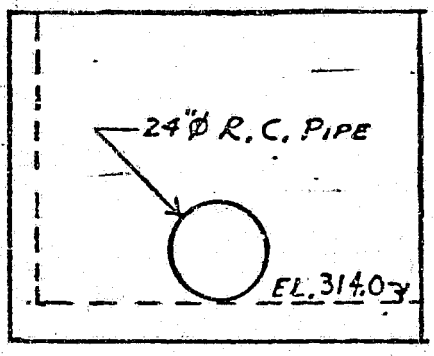


SECTION A-A

SECTION C-C



SCALE IN FEET



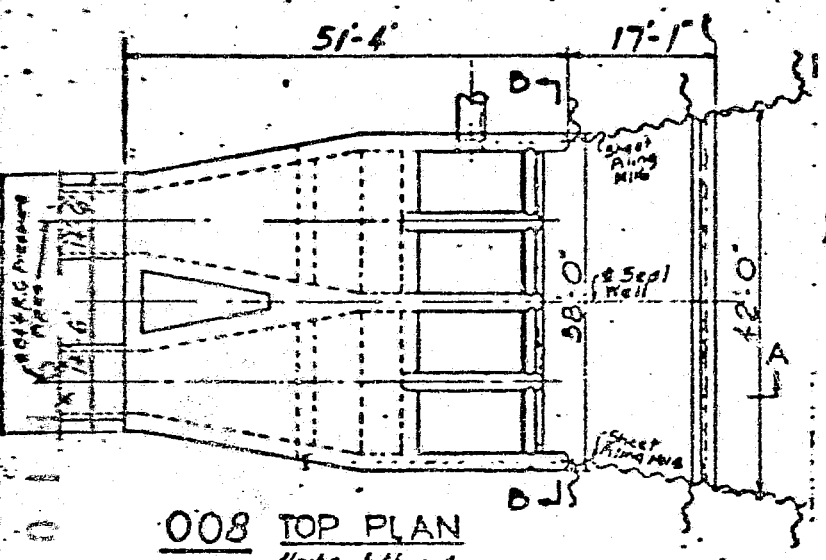
SECTION B-B

REF. DWG NO. F.S.-BC-42

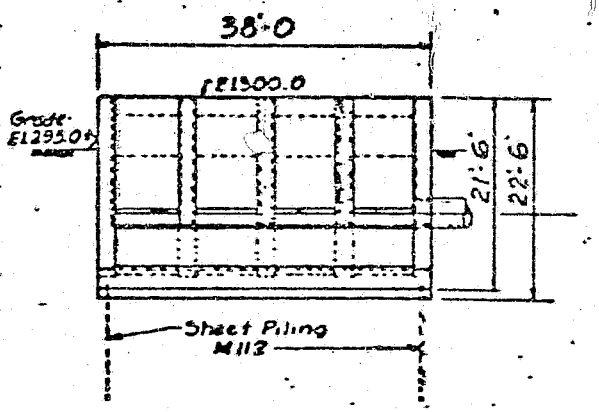
ELECTRIC ENERGY INC.
JOPPA, ILL.

TITLE: FLUME DISCHARGE - 008

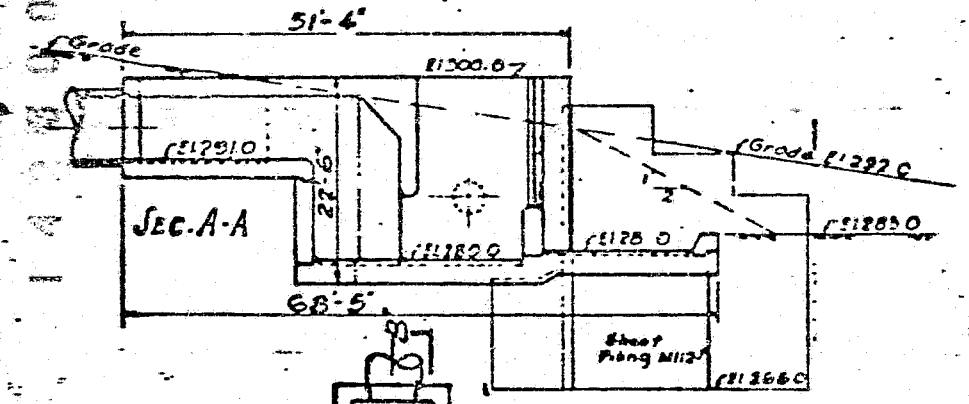
DATE: 6-21-71 DWG. NO. MM-182



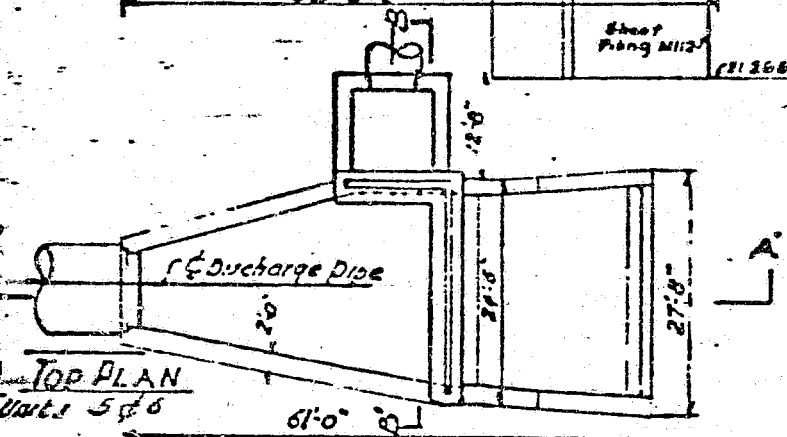
008 TOP PLAN
Units 1 thru 4



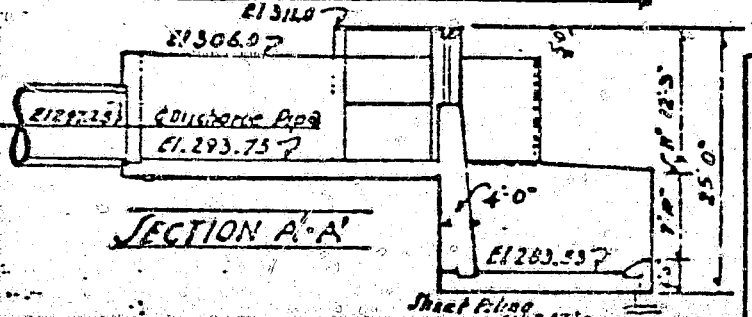
SECTION B-B



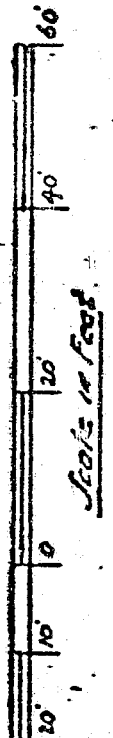
SEC. A-A

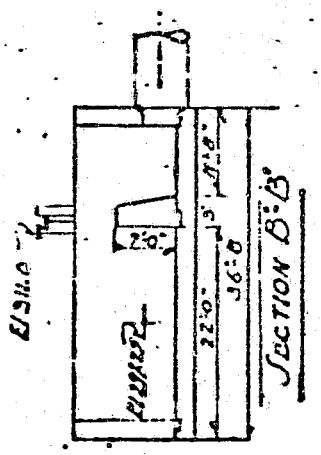


TOP PLAN
Units 5 & 6



SECTION A'-A'



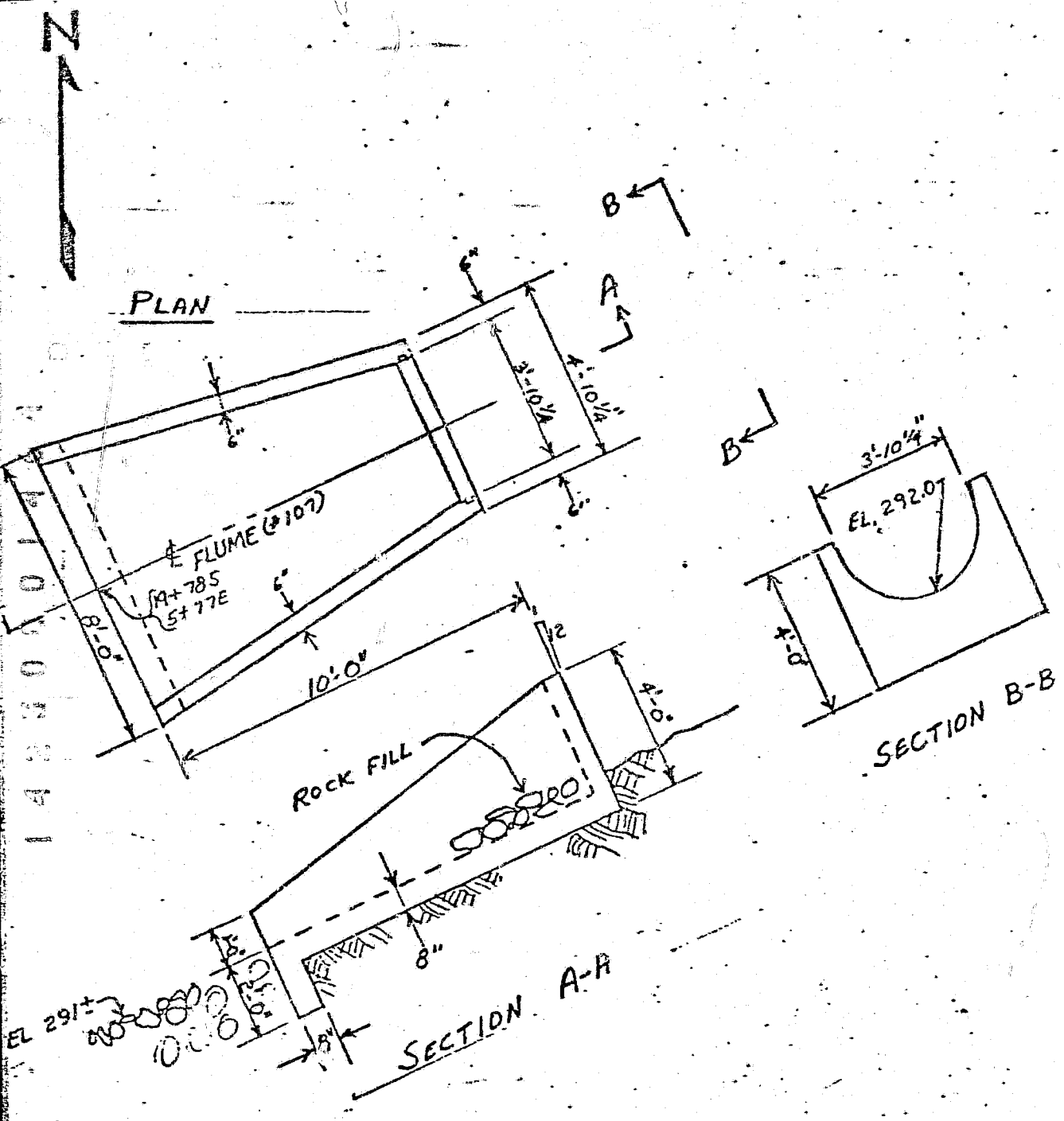


ELECTRIC ENERGY INC.
JOPPA, ILL.

TITLE: DISCHARGE STRUCTURES 006 AND 007 SHOWN ON DWG. 1

DATE: 6-18-71
HNK

DWG. No. MM-182



REF. DWG. F.S.-BC-45

1½ 0 1 2 4 6 8 10

SCALE IN FEET

ELECTRIC ENERGY INC.
JOPPA, ILL

TITLE: TRAVELING SCREENS WASH WATER FLUME DISCHARGE-005

DATE: 6-21-71 DWG. No. MM-182

SECTION II. PLANT PROCESS AND DISCHARGE DESCRIPTION

1. Discharge described below is: a. Present [X] b. Proposed new or changed [ ]
2. Implementation schedule [ ]
(Office use only) IL 072 0YE 2 000465

Name of corporate boundaries within which the point of discharge is located.

3. State	4. County	5. City or Town	6. Discharge Serial No.
Illinois	Massac	N/A	001

State the precise location of the point of discharge.

7. Latitude 37 Degrees; 12 Min; 30 Sec.
8. Longitude 88 Degrees; 51 Min; 30 Sec.

9. Name of waterway at the point of discharge: Ohio River

10. Has application for water quality certification or description of impact been made? If so, give date:

Date	Check if certificate is attached to form	Name Issuing Agency
JUN 30 72 (mo day yr)	[ ]	

11. Narrative description of activity (include terms of general 4-digit Standard Industrial Classification, and specific manufacturing process).

Receives surface drainage from surrounding area plus surface drainage from now discontinued ash disposal pond plus surface drain from north area of plant plus coal car dumper drains plus drain from back side (east) of coal storage pile.

12. Standard industrial classification number.	13. Principal product.	14. Amount of principal product produced per day.
SIC 4911	Electric Power	20,047 MWH (Gross)

15. Principal raw material.	16. Amount of principal raw material consumed per day.	17. Number of batch discharges per day.
N/A	N/A	0

18. Average gallons per batch discharge.	19. Date discharge began.	20. Date discharge will begin.
N/A	AUG 01 53 (mo day yr)	N/A (mo day yr)

21. Describe waste abatement practices.

None

22. PHYSICAL DESCRIPTION OF INTAKE WATER AND DISCHARGE

Intake / Discharge	(Office use only)	Discharge Serial No. 001					
Parameter and (Code)	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	AVERAGE (DAILY) (3)	MINIMUM (OPERATING YEAR) (4)	MAXIMUM (OPERATING YEAR) (5)	SAMPLE FREQUENCY (6)	CONTINUOUS MONITORING (7)
Flow (Gallons per day) 50050		0.144	0.144	0.144	1.44	OTHR (1)	ABS
pH 00400		7.8	7.7	7.5	7.9	OTHR (4)	ABS
Temperature (Winter) (°F) 74028		36	45	32	60	OTHR (1)	ABS
Temperature (Summer) (°F) 74027		87	80	70	89	OTHR (1)	ABS

22c

DISCHARGE CONTENTS

PARAMETER	PRESENT	ABSENT	PARAMETER	PRESENT	ABSENT	PARAMETER	PRESENT	ABSENT
Color 00080	X		Aluminum 01105	X		Nickel 01067	X	
Turbidity 00070	X		Antimony 01097		X	Selenium 01147	X	
Radioactivity 74050		X	Arsenic 01002	X		Silver 01077		X
H. ss 00[illegible]	X		Beryllium 01012		X	Potassium 00937	X	
Solids 00500	X		Barium 01007		X	Sodium 00929	X	
Ammonia 00610	X		Boron 01022		X	Titanium 01152		X
Organic Nitrogen 00505	X		Cadmium 01027	X		Tin 01102		X
Nitrate 00620	X		Calcium 00916	X		Zinc 01092	X	
Nitrite 00615	X		Cobalt 01037		X	Algicides 74051		X
Phosphorus 00665	X		Chromium 01034		X	Oil and Grease 00550		X
Sulfate 00945	X		Copper 01042	X		Phenols 32730		X
Sulfide 00745	X		Iron 01045	X		Surfactants 38260		X
Sulfite 00740	X		Lead 01051	X		Chlorinated Hydrocarbons 74052		X
Bromide 71870		X	Magnesium 00927	X		Pesticides 74053		X
Chloride 00940	X		Manganese 01055	X		Fecal Streptococci Bacteria 74054	X	
Cyanide 00720		X	Mercury 71900	X		Coliform Bacteria 74056	X	
Fluoride [illegible]	X		Molybdenum		X			

24a. Has all known hazardous or potentially hazardous substances in your plant been inventoried?

[X] Yes [ ] No

24b. If yes, have steps been taken to insure that there exists no possibility of any such known hazardous or potentially hazardous substance entering this discharge?

[X] Yes [ ] No

25. Remarks

(1) Estimated
(2) Sampled 2 times
(3) Sampled 3 times
(4) Sampled 4 times
(5) Sample from ash pond runoff requested by Fed. EPA not available due to no rain and no runoff past 30 days. Will sample when runs off.
(6) Calculated maximum concentration times average flow.

The information above completes the basic reporting requirements which are required of all applicants. Those applicants whose discharge results from an activity included within any of the Standard Industrial Classification Code (SIC Code) categories listed below must complete Part A of this form as well.

CRITICAL INDUSTRIAL GROUPS

SIC	098	FISH HATCHERIES, FARMS, AND PRESERVES
SIC	10–14	DIVISION B — MINING
SIC	201	MEAT PRODUCTS
SIC	202	DAIRY PRODUCTS
SIC	203	CANNED PRESERVED FRUITS, VEGETABLES (EXCEPT SEAFOODS, SIC 2031 AND 2036)
SIC	2031, 2036	CANNED AND CURED FISH AND SEAFOODS; FRESH OR FROZEN PACKAGED FISH AND SEAFOODS
SIC	204	GRAIN MILL PRODUCTS
SIC	206	SUGAR
SIC	207	CONFECTIONARY AND RELATED PRODUCTS
SIC	208	BEVERAGES
SIC	209	MISCELLANEOUS FOOD PREPARATIONS AND KINDRED PRODUCTS
SIC	22	TEXTILE MILL PRODUCTS
SIC	23	APPAREL AND OTHER FINISHED PRODUCTS MADE FROM FABRICS AND SIMILAR MATERIALS
SIC	242	SAWMILLS AND PLANING MILLS
SIC	2432	VENEER AND PLYWOOD
SIC	2491	WOOD PRESERVING
SIC	26	PAPER AND ALLIED PRODUCTS
SIC	281	INDUSTRIAL INORGANIC AND ORGANIC CHEMICALS (EXCEPT SIC 2818)
SIC	2818	INDUSTRIAL ORGANIC CHEMICALS
SIC	282	PLASTICS MATERIALS AND SYNTHETIC RESINS, SYNTHETIC RUBBER, SYNTHETIC AND OTHER MAN-MADE FIBERS, EXCEPT GLASS
SIC	283	DRUGS
SIC	284	SOAP, DETERGENTS, AND CLEANING PREPARATIONS, PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS
SIC	285	PAINTS, VARNISHES, LACQUERS, ENAMELS, AND ALLIED PRODUCTS
SIC	2871	FERTILIZERS
SIC	2879	AGRICULTURAL PESTICIDES, AND OTHER AGRICULTURAL CHEMICALS, NOT ELSEWHERE CLASSIFIED
SIC	2891	ADHESIVES AND GELATIN
SIC	2892	EXPLOSIVES
SIC	29	PETROLEUM REFINING AND RELATED INDUSTRIES
SIC	3011, 3069	TIRES AND INNER TUBES; FABRICATED RUBBER PRODUCTS, NOT ELSEWHERE CLASSIFIED
SIC	3079	MISCELLANEOUS PLASTICS PRODUCTS
SIC	311	LEATHER TANNING AND FINISHING
SIC	32	STONE, CLAY, GLASS, AND CONCRETE PRODUCTS
SIC	331	BLAST FURNACES, STEEL WORKS, AND ROLLING AND FINISHING MILLS
SIC	332	IRON AND STEEL FOUNDRIES
SIC	333, 334	PRIMARY SMELTING AND REFINING OF NONFERROUS METALS; SECONDARY SMELTING AND REFINING OF NONFERROUS METALS
SIC	336	NONFERROUS FOUNDRIES
SIC	347	COATING, ENGRAVING, AND ALLIED SERVICES
SIC	35	MACHINERY, EXCEPT ELECTRICAL
SIC	36	ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES
SIC	37	TRANSPORTATION EQUIPMENT (EXCEPT SHIP BUILDING AND REPAIRING, SIC 3731)
SIC	3731	SHIP BUILDING AND REPAIRING
SIC	491	ELECTRIC COMPANIES AND SYSTEMS
SIC	493	COMBINATION COMPANIES AND SYSTEMS

PART A

(Note: Submission of Part A is required of all applicants whose processes are listed on page 3 above.)

(Office use only)

Discharge Serial No. 001

INFORMATION REQUIRED OF SPECIFIED INDUSTRIES

Intake		Discharge									
PARAMETER AND CODE	(1) DAILY AVG. CONCENTRATION UNTREATED INTAKE WATER	(2) DAILY AVG. CONCENTRATION TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION PER PROCESS UNIT	(4) MAXIMUM POUNDS PER DAY	(5) DAILY AVG. CONCENTRATION	(6) AVERAGE POUNDS PER DAY	(7) SAMPLE TYPE	(8) SAMPLE FREQUENCY	(9) METHOD OF ANALYSIS	(10) CONTINUOUS MONITORING	(11)
ALKALINITY (as $CaCO_3$) 00410		67	80	.0048	(6) 96	78	93	AVER	OTHR (4)	SM	ABS
F D. 5-DAY 00310		2.4	3.7	.0002	(6) 4	2.7	3.2	AVER	OTHR (2)	SM	ABS
CHEMICAL OXYGEN DEMAND (C.O.D.) 00340		12.0	56.8	.0034	(6) 68	25.8	31	AVER	OTHR (4)	SM	ABS
TOTAL SOLIDS 00500		324	446	.0266	(6) 533	351	420	AVER	OTHR (4)	SM	ABS
TOTAL DISSOLVED SOLIDS 70300		200	342	.0204	(6) 409	274	327	AVER	OTHR (4)	SM	ABS
TOTAL SUSPENDED SOLIDS 0 J		124	104	.0061	(6) 124	77	92	AVER	OTHR (4)	SM	ABS
TOTAL VOLATILE SOLIDS 00505		42	51	.0030	(6) 61	32	38	AVER	OTHR (4)	SM	ABS
AMMONIA (as N) 00610		.21	.21	.00001	(6) .3	.12	.14	AVER	OTHR (3)	FWQA	ABS
KJELDAHL NITROGEN 00625		.83	.90	.0000	(6) 1	.63	.75	AVER	OTHR (4)	FWQA	ABS
NITRATE (as N) 00620		1.8	2.55	.00014	(6) 3.0	1.29	1.54	AVER	OTHR (4)	FWQA	ABS
PHOSPHORUS TOTAL (as P) 00665		.099	.052	.00003	(6) .06	.025	.030	AVER	OTHR (4)	FWQA	ABS

PART B DISCHARGE DESCRIPTION

(Note: Submission of Part B is required of all applicants who are also required to submit Part A. Only those parameters specifically indicated in the instructions are to be reported by a particular industry)

(Office use only)

Discharge Serial No.
001

B-1. PHYSICAL AND BIOLOGICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-1)

Intake		Discharge						
PARAMETER AND CODE	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	AVERAGE (DAILY) (3)	MINIMUM (OPERATING YEAR) (4)	MAXIMUM (OPERATING YEAR) (5)	SAMPLE FREQUENCY (6)	CONTINUOUS MONITORING (7)
COLOR 00080		W		X			
SPECIFIC CONDUCTANCE 00095							
TURBIDITY 00070		W		X			
FECAL STREPTOCOCCI BACTERIA 74054		W		X			
FECAL COLIFORM BACTERIA 74055				X			
TOTAL COLIFORM BACTERIA 74056		W		X			

PART B

(Office use only)

Discharge Serial No. 001

B-2. CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
ACIDITY (as $CaCO_3$) 00435		W									
TOTAL ORGANIC CARBON (T.O.C.) 00680											
TOTAL HARDNESS 00900		W									
NITRITE (as N) 00615		W									
ORGANIC NITROGEN 00605		W									
PHOSPHORUS-ORTHO (as P) 70507		W									
SULFATE 00945		(4) 66	135	.008	(6) 161	(3) 99.6	119				
SULFIDE 00745		W									
SULFITE 00740		W				<.005 (5)	<.006				
BROMIDE 71870											

PART B

(Office use only)

Discharge Serial No. 001

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

	Intake		Discharge									
PARAMETER AND CODE	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	MAXIMUM CONCENTRATION (3)	MAXIMUM POUNDS PER DAY PER PROCESS UNIT (4)	MAXIMUM POUNDS PER DAY (5)	DAILY AVG. CONCENTRATION (6)	AVERAGE POUNDS PER DAY (7)	SAMPLE TYPE (8)	SAMPLE FREQUENCY (9)	METHOD OF ANALYSIS (10)	CONTINUOUS MONITORING (11)
CHLORIDE 00940		(4) 23	20.8	.0012	(6) 24.9	(4) 19.2	22.9				
CYANIDE 00720											
FLUORIDE 00951		W									
ALUMINUM-TOTAL 01105	--	W									
ANTIMONY-TOTAL 01097											
ARSENIC-TOTAL 01002						(5) .02 mg/l	.02				
BARIUM-TOTAL 01007											
BERYLLIUM-TOTAL 01012											
BORON-TOTAL 01022											
CADMIUM-TOTAL 01027						(5) .038	.045				

PART B

(Office use only)

Discharge Serial No. 001

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge									
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
CALCIUM-TOTAL 00916		W				360 (5)	430				
CHROMIUM-TOTAL 01034		(1) <.006	<.006	<.0000003	<.007	(1) <.006	<.007	A	O	W	A
COBALT-TOTAL 01037											
COPPER-TOTAL 01042						0.19 (5)	.23				
IRON-TOTAL 01045						1525 (5)	1823				
LEAD-TOTAL 01051						.12 (5)	.14				
MAGNESIUM-TOTAL 00927		W									
MANGANESE-TOTAL 01055						20.7 (5)	24.7				
MERCURY-TOTAL 71900						<.0005 (5)	<.0006				
MOLYBDENUM-TOTAL 01062											

EPA FORM 3510-1

PART B

(Office use only)

Discharge Serial No. 001

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

	Intake		Discharge									
PARAMETER AND CODE	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	MAXIMUM CONCENTRATION (3)	MAXIMUM POUNDS PER DAY PER PROCESS UNIT (4)	MAXIMUM POUNDS PER DAY (5)	DAILY AVG. CONCENTRATION (6)	AVERAGE POUNDS PER DAY (7)	SAMPLE TYPE (8)	SAMPLE FREQUENCY (9)	METHOD OF ANALYSIS (10)	CONTINUOUS MONITORING (11)
NICKEL-TOTAL 01067						0.70 (5)	.84				
POTASSIUM-TOTAL 00937		W									
SELENIUM-TOTAL 01147						<.01 (5)	<.01				
SILVER-TOTAL 01077											
SODIUM-TOTAL 00929		W									
THALLIUM-TOTAL 01059											
TIN-TOTAL 01102											
TITANIUM-TOTAL 01152											
ZINC-TOTAL 01092		.01	.02	<.00008	(6) .02	(1) .02	.02	A	O	W	A
OIL AND GREASE 00550						1.2 (5)	1.4				

PART B

(Office use only)

Discharge Serial No. 001

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
PHENOLS 32730		(1) <.004	<.004	<.0000002	(6) <.005	(1) <.004	<.005	A	O	W	A
SURFACTANTS 38260											
ALGICIDES* 74051											
CHLORINATED HYDROCARBONS* (EXCEPT PESTICIDES) 74052											
PESTICIDES* 74053											

*Name specific compound(s) and fill in the required data for each. Use extra blanks at the end of the form and the "Remarks" space as necessary.

PART B

(Office use only)

Discharge Serial No.

B-3. RADIOACTIVE PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-3)

Intake		Discharge						
PARAMETER AND CODE	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	AVERAGE (DAILY) (3)	MINIMUM (OPERATING YEAR) (4)	MAXIMUM (OPERATING YEAR) (4)	SAMPLE FREQUENCY (5)	CONTINUOUS MONITORING (6)	(7)
ALPHA-TOTAL 01501				X				
ALPHA COUNTING ERROR 01502				X				
BETA-TOTAL 03501				X				
BETA COUNTING ERROR 03502				X				
GAMMA-TOTAL 05501				X				
GAMMA COUNTING ERROR 05502				X				
TRITIUM-TOTAL 07000				X				
TRITIUM COUNTING ERROR 07001				X				

B-4. REMARKS

(1) Sampled 1 time
(2) Sampled 2 times
(3) Sampled 3 times
(4) Sampled 4 times
(5) Grab sample 1 time from coal storage pile runoff and analyzed by Environmental Analysis, Inc. per letter June 22, 1972, copy attached.
(6) Calculated, maximum concentration times average flow.

ENG FORM

Revised 6-30-72

SECTION II. PLANT PROCESS AND DISCHARGE DESCRIPTION

1. Discharge described below is a. Present [X] b. Proposed new or changed [ ]	2. Implementation schedule [ ]	(Office use only) IL 072 OVE 2 000465

Name of corporate boundaries within which the point of discharge is located.

State	County	City or Town	6. Discharge Serial No.
3. Illinois	4. Massac	5. N/A	002

State the precise location of the point of discharge.

7. Latitude 37 Degrees; 12 Min; 30 Sec.

8. Longitude 88 Degrees; 51 Min; 30 Sec.

9. Name of waterway at the point of discharge.

Ohio River

10. Has application for water quality certification or description of impact been made? If so, give date:

Date	Check if certificate is attached to form	Name Issuing Agency
JUN 30 72 (mo day yr)	[ ]	

11. Narrative description of activity (include terms of general 4-digit Standard Industrial Classification, and specific manufacturing process).

This discharge is on drawings as sump pump discharge from coal reclaim pits. This outfall has never been observed to discharge in past year, and probability is small that it should operate.

12. Standard industrial classification number.	13. Principal product.	14. Amount of principal product produced per day.
SIC 4911	Electric Power	20,047 MWH (Gross)

15. Principal raw material.	16. Amount of principal raw material consumed per day.	17. Number of batch discharges per day.
N/A	N/A	0

18. Average gallons per batch discharge.	19. Date discharge began.	20. Date discharge will begin.
100 (Est.)	AUG 01 53 (mo day yr)	N/A (mo day yr)

21. Describe waste abatement practices.

None

22. PHYSICAL DESCRIPTION OF INTAKE WATER AND DISCHARGE

(Office use only)

Discharge Serial No. 002

Parameter and (Code)	Intake: Untreated Intake Water (1)	Intake: Treated Intake Water (2)	Discharge: Average (Daily) (3)	Discharge: Minimum (Operating Year) (4)	Discharge: Maximum (Operating Year) (5)	Sample Frequency (6)	Continuous Monitoring (7)
Flow (Gallons per day) ~~00056~~ 50050			0	0	0	OTHR (1)	ABS
pH 00400			7	7	7	OTHR (1)	ABS
Temperature (Winter) (°F) 74028			60	60	60	OTHR (1)	ABS
Temperature (Summer) (°F) 74027			60	60	60	OTHR (1)	ABS

23. DISCHARGE CONTENTS

PARAMETER	PRESENT	ABSENT	PARAMETER	PRESENT	ABSENT	PARAMETER	PRESENT	ABSENT
Color 00080		X	Aluminum 01105		X	Nickel 01067		X
Turbidity 00070		X	Antimony 01097		X	Selenium 01147		X
Radioactivity 74050		X	Arsenic 01002		X	Silver 01077		X
Hardness 00900		X	Beryllium 01012		X	Potassium 00937		X
Solids 00500	X		Barium 01007		X	Sodium 00929		X
Ammonia 00610		X	Boron 01022		X	Titanium 01152		X
Organic Nitrogen 00605		X	Cadmium 01027		X	Tin 01102		X
Nitrate 00620		X	Calcium 00916		X	Zinc 01092		X
Nitrite 00615		X	Cobalt 01037		X	Algicides 74051		X
Phosphorus 00665		X	Chromium 01034		X	Oil and Grease 00550		X
Sulfate 00945		X	Copper 01042		X	Phenols 32730		X
Sulfide 00745		X	Iron 01045		X	Surfactants 38260		X
Sulfite 00740		X	Lead 01051		X	Chlorinated Hydrocarbons 74052		X
Bromide 71870		X	Magnesium 00927		X	Pesticides 74053		X
Chloride 00940		X	Manganese 01055		X	Fecal Streptococci Bacteria 74054		X
Cyanide 00720		X	Mercury 71900		X	Coliform Bacteria 74056		X

24a. Have all known hazardous or potentially hazardous substances in your plant been inventoried?

[X] Yes [ ] No

24b. If yes, have steps been taken to insure that there exists no possibility of any such known hazardous or potentially hazardous substance entering this discharge?

[X] Yes [ ] No

25. Remarks. (1) This sample has not been observed to occur and no samples have been obtainable. When observed, samples will be taken and supplemental information submitted.

The information above completes the basic reporting requirements which are required of all applicants. Those applicants whose discharge results from an activity included within any of the Standard Industrial Classification Code (SIC Code) categories listed below must complete Part A of this form as well.

CRITICAL INDUSTRIAL GROUPS

SIC	098	FISH HATCHERIES, FARMS, AND PRESERVES
SIC	10–14	DIVISION B — MINING
SIC	201	MEAT PRODUCTS
SIC	202	DAIRY PRODUCTS
SIC	203	CANNED PRESERVED FRUITS, VEGETABLES (EXCEPT SEAFOODS, SIC 2031 AND 2036)
SIC	2031, 2036	CANNED AND CURED FISH AND SEAFOODS; FRESH OR FROZEN PACKAGED FISH AND SEAFOODS
SIC	204	GRAIN MILL PRODUCTS
SIC	206	SUGAR
SIC	207	CONFECTIONARY AND RELATED PRODUCTS
SIC	208	BEVERAGES
SIC	209	MISCELLANEOUS FOOD PREPARATIONS AND KINDRED PRODUCTS
SIC	22	TEXTILE MILL PRODUCTS
SIC	23	APPAREL AND OTHER FINISHED PRODUCTS MADE FROM FABRICS AND SIMILAR MATERIALS
SIC	242	SAWMILLS AND PLANING MILLS
SIC	2432	VENEER AND PLYWOOD
SIC	2491	WOOD PRESERVING
SIC	26	PAPER AND ALLIED PRODUCTS
SIC	281	INDUSTRIAL INORGANIC AND ORGANIC CHEMICALS (EXCEPT SIC 2818)
SIC	2818	INDUSTRIAL ORGANIC CHEMICALS
SIC	282	PLASTICS MATERIALS AND SYNTHETIC RESINS, SYNTHETIC RUBBER, SYNTHETIC AND OTHER MAN-MADE FIBERS, EXCEPT GLASS
SIC	283	DRUGS
SIC	284	SOAP, DETERGENTS, AND CLEANING PREPARATIONS, PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS
SIC	285	PAINTS, VARNISHES, LACQUERS, ENAMELS, AND ALLIED PRODUCTS
SIC	2871	FERTILIZERS
SIC	2879	AGRICULTURAL PESTICIDES, AND OTHER AGRICULTURAL CHEMICALS, NOT ELSEWHERE CLASSIFIED
SIC	2891	ADHESIVES AND GELATIN
SIC	2892	EXPLOSIVES
SIC	29	PETROLEUM REFINING AND RELATED INDUSTRIES
SIC	3011, 3069	TIRES AND INNER TUBES; FABRICATED RUBBER PRODUCTS, NOT ELSEWHERE CLASSIFIED
SIC	3079	MISCELLANEOUS PLASTICS PRODUCTS
SIC	311	LEATHER TANNING AND FINISHING
SIC	32	STONE, CLAY, GLASS, AND CONCRETE PRODUCTS
SIC	331	BLAST FURNACES, STEEL WORKS, AND ROLLING AND FINISHING MILLS
SIC	332	IRON AND STEEL FOUNDRIES
SIC	333, 334	PRIMARY SMELTING AND REFINING OF NONFERROUS METALS; SECONDARY SMELTING AND REFINING OF NONFERROUS METALS
SIC	336	NONFERROUS FOUNDRIES
SIC	347	COATING, ENGRAVING, AND ALLIED SERVICES
SIC	35	MACHINERY, EXCEPT ELECTRICAL
SIC	36	ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES
SIC	37	TRANSPORTATION EQUIPMENT (EXCEPT SHIP BUILDING AND REPAIRING, SIC 3731)
SIC	3731	SHIP BUILDING AND REPAIRING
SIC	491	ELECTRIC COMPANIES AND SYSTEMS
SIC	493	COMBINATION COMPANIES AND SYSTEMS

PART A

(Note: Submission of Part A is required of all applicants whose processes are listed on page 3 above.)

(Office use only)

Discharge Serial No. 002

INFORMATION REQUIRED OF SPECIFIED INDUSTRIES

	Intake	Discharge									
PARAMETER AND CODE	(1) DAILY AVG. CONCENTRATION UNTREATED INTAKE WATER	(2) DAILY AVG. CONCENTRATION TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION PER PROCESS UNIT	(4) MAXIMUM POUNDS PER DAY	(5) DAILY AVG. CONCENTRATION	(6) AVERAGE POUNDS PER DAY	(7) SAMPLE TYPE	(8) SAMPLE FREQUENCY	(9) METHOD OF ANALYSIS	(10) CONTINUOUS MONITORING	(11)
ALKALINITY (as $CaCO_3$) 00410						(1)			OTHR (1)		ABS
B.O.D. 5-DAY 00310						(1)			OTHR (1)		ABS
CHEMICAL OXYGEN DEMAND (C.O.D.) 00340						(1)			OTHR (1)		ABS
TOTAL SOLIDS 00500						(1)			OTHR (1)		ABS
TOTAL DISSOLVED SOLIDS 70300						(1)			OTHR (1)		ABS
TOTAL SUSPENDED SOLIDS 00530						(1)			OTHR (1)		ABS
TOTAL VOLATILE SOLIDS 00505						(1)			OTHR (1)		ABS
AMMONIA (as N) 00610						(1)			OTHR (1)		ABS
KJELDAHL NITROGEN 00625						(1)			OTHR (1)		ABS
NITRATE (as N) 00620						(1)			OTHR (1)		ABS
PHOSPHORUS TOTAL (as P)						(1)			OTHR (1)		ABS

PART B DISCHARGE DESCRIPTION

(Note: Submission of Part B is required of all applicants who are also required to submit Part A. Only those parameters specifically indicated in the instructions are to be reported by a particular industry)

(Office use only)

Discharge Serial No. 002

B-1. PHYSICAL AND BIOLOGICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-1)

Intake		Discharge						
PARAMETER AND CODE	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	AVERAGE (DAILY) (3)	MINIMUM (OPERATING YEAR) (4)	MAXIMUM (OPERATING YEAR) (5)	SAMPLE FREQUENCY (6)	CONTINUOUS MONITORING (7)
COLOR 00080				X			
SPECIFIC CONDUCTANCE 00095							
TURBIDITY 00070				X			
FECAL STREPTOCOCCI BACTERIA 74054				X			
FECAL COLIFORM BACTERIA 74055				X			
TOTAL COLIFORM BACTERIA 74056				X			

PART B

(Office use only)

Discharge Serial No. 002

B-2. CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

	Intake	Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
ACIDITY (as $CaCO_3$) 00435											
TOTAL ORGANIC CARBON (T.O.C.) 00680											
TOTAL HARDNESS 00900											
NITRITE (as N) 00615											
ORGANIC NITROGEN 00605											
PHOSPHORUS-ORTHO (as P) 70507											
SULFATE 00945											
SULFIDE 00745											
SULFITE 00740											
BROMIDE 71870											

PART B

(Office use only)

Discharge Serial No.
002

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
CHLORIDE 00940											
CYANIDE 00720											
FLUORIDE 00951											
ALUMINUM-TOTAL 01105											
ANTIMONY-TOTAL 01097											
ARSENIC-TOTAL 01002											
BARIUM-TOTAL 01007											
BERYLLIUM-TOTAL 01012											
BORON-TOTAL 01022											
CADMIUM-TOTAL 01027											

END FORM

PART B

(Office use only)

Discharge Serial No. 002

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

	Intake		Discharge									
PARAMETER AND CODE	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	MAXIMUM CONCENTRATION (3)	MAXIMUM POUNDS PER DAY PER PROCESS UNIT (4)	MAXIMUM POUNDS PER DAY (5)	DAILY AVG. CONCENTRATION (6)	AVERAGE POUNDS PER DAY (7)	SAMPLE TYPE (8)	SAMPLE FREQUENCY (9)	METHOD OF ANALYSIS (10)	CONTINUOUS MONITORING (11)
CALCIUM-TOTAL 00916											
CHROMIUM-TOTAL 01034											
COBALT-TOTAL 01037											
COPPER-TOTAL 01042											
IRON-TOTAL 01046											
LEAD-TOTAL 01051											
MAGNESIUM-TOTAL 00927											
MANGANESE-TOTAL 01055											
MERCURY-TOTAL 71900											
MOLYBDENUM-TOTAL 01032											

PART B

(Office use only)

Discharge Serial No.
002

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

	Intake		Discharge									
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
NICKEL-TOTAL 01067											
POTASSIUM-TOTAL 00937											
SELENIUM-TOTAL 01147											
SILVER-TOTAL 01077											
SODIUM-TOTAL 00929											
THALLIUM-TOTAL 01059											
TIN-TOTAL 01102											
TITANIUM-TOTAL 01152											
ZINC-TOTAL 01092											
OIL AND GREASE 00550											

PART D

(Office use only)

Discharge Serial No. 002

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge									
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
PHENOLS 32730											
SURFACTANTS 38260											
ALGICIDES* 74051											
CHLORINATED HYDRO-CARBONS* (EXCEPT PESTICIDES) 74052											
PESTICIDES* 74053											

*Name specific compound as necessary.

data for each. Use extra blanks at the end of the form and the "Remarks" space

PART B

(Office use only)

Discharge Serial No.
002

B-3. RADIOACTIVE PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-3)

	Intake		Discharge					
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) AVERAGE (DAILY)	(4) MINIMUM (OPERATING YEAR)	(5) MAXIMUM (OPERATING YEAR)	(6) SAMPLE FREQUENCY	(7) CONTINUOUS MONITORING
ALPHA-TOTAL 01501				X			
ALPHA COUNTING ERROR 01502				X			
BETA-TOTAL 03501				X			
BETA COUNTING ERROR 03502				X			
GAMMA-TOTAL 05501				X			
GAMMA COUNTING ERROR 05502				X			
TRITIUM-TOTAL 07000				X			
TRITIUM COUNTING ERROR 07001				X			

B-4. REMARKS

This discharge has not been observed to occur in past year and no sample has been obtainable. When observed, it will be sampled and supplemental information submitted.

Revised 6-30-72

SECTION II. PLANT PROCESS AND DISCHARGE DESCRIPTION

1. Discharge described below is
a. Present [X] b. Proposed new or changed [ ]

2. Implementation schedule [ ]

(Office use only) IL 072 0YE 2 000465

Name of corporate boundaries within which the point of discharge is located.

State	County	City or Town	6. Discharge Serial No.
3. Illinois	4. Massac	5. N/A	003

State the precise location of the point of discharge.

7. Latitude 37 Degrees; 12 Min; 30 Sec.

8. Longitude 88 Degrees; 51 Min; 30 Sec.

9. Name of waterway at the point of discharge.

Ohio River

10. Has application for water quality certification or description of impact been made? If so, give date:

Date: JUN 30 72 (mo day yr)

Check if certificate is attached to form [ ]

Name Issuing Agency:

11. Narrative description of activity (include terms of general 4-digit Standard Industrial Classification, and specific manufacturing process).

Surface drains from west side of coal storage pile plus floor drains from crusher house.

12. Standard industrial classification number.	13. Principal product.	14. Amount of principal product produced per day.
SIC 4911	Electric Power	20047 MWH (gross)

15. Principal raw material.	16. Amount of principal raw material consumed per day.	17. Number of batch discharges per day.
N/A	N/A	0

18. Average gallons per batch discharge.	19. Date discharge began.	20. Date discharge will begin.
0	AUG 01 53 (mo day yr)	N/A (mo day yr)

21. Describe waste abatement practices.

Crusher house floor drains settle in small basin near edge of coal storage pile before water drains into storm drain.

PSEDIM

22. PHYSICAL DESCRIPTION OF INTAKE WATER AND DISCHARGE

Intake / Discharge | (Office use only) | Discharge Serial No. 003

Parameter and (Code)	Untreated Intake Water (1)	Treated Intake Water (2)	Average (Daily) (3)	Minimum (Operating Year) (4)	Maximum (Operating Year) (5)	Sample Frequency (6)	Continuous Monitoring (7)
Flow (Gallons per day) ~~00056~~ 50050		.096	.096	.096	.200 (6)	OTHR (2)	ABS
pH 00400		7.8	7.8	7.5	8.0	OTHR (5)	ABS
Temperature (Winter) (°F) 74028		36	40 (6)	38 (6)	42 (6)	OTHR (2)	ABS
Temperature (Summer) (°F) 74027		87	78 (6)	70 (6)	89 (6)	OTHR (2)	ABS

23. DISCHARGE CONTENTS

PARAMETER	PRESENT	ABSENT
Color 00080	X	
Turbidity 00070	X	
Radioactivity 74050		X
Hardness 00900	X	
Solids 00500	X	
Ammonia 00610	X	
Organic Nitrogen 00505	X	
Nitrate 00620	X	
Nitrite 00615	X	
Phosphorus 00665	X	
Sulfate 00945	X	
Sulfide 00745		X
Sulfite 00740		X
Bromide 71870		X
Chloride 00940	X	
Cyanide 00720		X
Fluoride	X	

PARAMETER	PRESENT	ABSENT
Aluminum 01105	X	
Antimony 01097		X
Arsenic 01002		X
Beryllium 01012		X
Barium 01007		X
Boron 01022		X
Cadmium 01027		X
Calcium 00916	X	
Cobalt 01037		X
Chromium 01034		X
Copper 01042		X
Iron 01045	X	
Lead 01051		X
Magnesium 00927	X	
Manganese 01055		X
Mercury 71900		X
Molybdenum 01062		X

PARAMETER	PRESENT	ABSENT
Nickel 01067		X
Selenium 01147		X
Silver 01077		X
Potassium 00937	X	
Sodium 00929	X	
Titanium 01152		X
Tin 01102		X
Zinc 01092	X	
Algicides 74051		X
Oil and Grease 00550		X
Phenols 32730		X
Surfactants 38260		X
Chlorinated Hydrocarbons 74052		X
Pesticides 74053		X
Fecal Streptococci Bacteria 74054	X	
Coliform Bacteria 74055	X	

24a. Have all known hazardous or potentially hazardous substances in your plant been inventoried?

[X] Yes [ ] No

24b. If yes, have steps been taken to insure that there exists no possibility of any such known hazardous or potentially hazardous substance entering this discharge?

[X] Yes [ ] No

25. Remarks.

(1) Sampled 1 Time grab sample.
(2) Sampled 2 Times grab sample.
(3) Sampled 3 Times grab sample.
(4) Sampled 4 Times grab sample.
(5) Sampled 5 Times grab sample.
(6) Estimated.
(7) Calculated maximum concentration times average flow.

The information above completes the basic reporting requirements which are required of all applicants. Those applicants whose discharge results from an activity included within any of the Standard Industrial Classification Code (SIC Code) categories listed below must complete Part A of this form as well.

CRITICAL INDUSTRIAL GROUPS

SIC	098	FISH HATCHERIES, FARMS, AND PRESERVES
SIC	10-14	DIVISION B -- MINING
SIC	201	MEAT PRODUCTS
SIC	202	DAIRY PRODUCTS
SIC	203	CANNED PRESERVED FRUITS, VEGETABLES (EXCEPT SEAFOODS, SIC 2031 AND 2036)
SIC	2031, 2036	CANNED AND CURED FISH AND SEAFOODS; FRESH OR FROZEN PACKAGED FISH AND SEAFOODS
SIC	204	GRAIN MILL PRODUCTS
SIC	206	SUGAR
SIC	207	CONFECTIONARY AND RELATED PRODUCTS
SIC	208	BEVERAGES
SIC	209	MISCELLANEOUS FOOD PREPARATIONS AND KINDRED PRODUCTS
SIC	22	TEXTILE MILL PRODUCTS
SIC	23	APPAREL AND OTHER FINISHED PRODUCTS MADE FROM FABRICS AND SIMILAR MATERIALS
SIC	242	SAWMILLS AND PLANING MILLS
SIC	2432	VENEER AND PLYWOOD
SIC	2491	WOOD PRESERVING
SIC	26	PAPER AND ALLIED PRODUCTS
SIC	281	INDUSTRIAL INORGANIC AND ORGANIC CHEMICALS (EXCEPT SIC 2818)
SIC	2818	INDUSTRIAL ORGANIC CHEMICALS
SIC	282	PLASTICS MATERIALS AND SYNTHETIC RESINS, SYNTHETIC RUBBER, SYNTHETIC AND OTHER MAN-MADE FIBERS, EXCEPT GLASS
SIC	283	DRUGS
SIC	284	SOAP, DETERGENTS, AND CLEANING PREPARATIONS, PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS
SIC	285	PAINTS, VARNISHES, LACQUERS, ENAMELS, AND ALLIED PRODUCTS
SIC	2871	FERTILIZERS
SIC	2879	AGRICULTURAL PESTICIDES, AND OTHER AGRICULTURAL CHEMICALS, NOT ELSEWHERE CLASSIFIED
SIC	2891	ADHESIVES AND GELATIN
SIC	2892	EXPLOSIVES
SIC	29	PETROLEUM REFINING AND RELATED INDUSTRIES
SIC	3011, 3069	TIRES AND INNER TUBES; FABRICATED RUBBER PRODUCTS, NOT ELSEWHERE CLASSIFIED
SIC	3079	MISCELLANEOUS PLASTICS PRODUCTS
SIC	311	LEATHER TANNING AND FINISHING
SIC	32	STONE, CLAY, GLASS, AND CONCRETE PRODUCTS
SIC	331	BLAST FURNACES, STEEL WORKS, AND ROLLING AND FINISHING MILLS
SIC	332	IRON AND STEEL FOUNDRIES
SIC	333, 334	PRIMARY SMELTING AND REFINING OF NONFERROUS METALS; SECONDARY SMELTING AND REFINING OF NONFERROUS METALS
SIC	336	NONFERROUS FOUNDRIES
SIC	347	COATING, ENGRAVING, AND ALLIED SERVICES
SIC	35	MACHINERY, EXCEPT ELECTRICAL
SIC	36	ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES
SIC	37	TRANSPORTATION EQUIPMENT (EXCEPT SHIP BUILDING AND REPAIRING, SIC 3731)
SIC	3731	SHIP BUILDING AND REPAIRING
SIC	491	ELECTRIC COMPANIES AND SYSTEMS
SIC	493	COMBINATION COMPANIES AND SYSTEMS

PART A

(Note: Submission of Part A is required of all applicants whose processes are listed on page 3 above.)

(Office use only)

Discharge Serial No. 003

INFORMATION REQUIRED OF SPECIFIED INDUSTRIES

Intake	Discharge									
PARAMETER AND CODE	(DAILY AVG. CONCENTRATION) (1)	(DAILY AVG. CONCENTRATION) (2)	MAXIMUM CONCENTRATION (3)	MAXIMUM POUNDS PER DAY (4)	DAILY AVG. CONCENTRATION (7) (5)	AVERAGE POUNDS PER DAY (6)	SAMPLE TYPE (7)	SAMPLE FREQUENCY (8)	METHOD OF ANALYSIS (9)	CONTINUOUS MONITORING (10)	(11)
ALKALINITY (as $CaCO_3$) 00410		67	86	.0035	(7) 71	82	65	AVER	OTHR (3)	S.M.	ABS
B.O.D. 5-DAY 00310		2.4	4.8	.00019	(7) 3.8	3.5	2.8	AVER	OTHR (2)	S.M.	ABS
CHEMICAL OXYGEN DEMAND (C.O.D.) 00340		12.0	1625	.0646	(7) 1295	1099	876	AVER	OTHR (3)	S.M.	ABS
TOTAL SOLIDS 00500		324	7461	.2966	(7) 5945	3549	2828	AVER	OTHR (5)	S.M.	ABS
TOTAL DISSOLVED SOLIDS 70300		200	3509	.1395	(7) 2796	247	197	AVER	OTHR (5)	S.M.	ABS
TOTAL SUSPENDED SOLIDS 00530		124	3952	.1621	(7) 3149	3302	2631	AVER	OTHR (5)	S.M.	ABS
TOTAL VOLATILE SOLIDS 00505		42	1941	.0772	(7) 1547	4425	3526	AVER	OTHR (5)	S.M.	ABS
AMMONIA (as N) 00610		.21	0.49	.00019	(7) .39	0.35	.28	AVER	OTHR (4)	FWQA	ABS
KJELDAHL NITROGEN 00625		.83	33.84	.1345	(7) 2696	9.56	7.62	AVER	OTHR (5)	FWQA	ABS
NITRATE (as N) 00620		1.8	2.55	.00010	(7) 2.03	2.25	1.79	AVER	OTHR (4)	FWQA	ABS
PHOSPHORUS TOTAL (as P) 00665		.099	0.870	.00003	(7) .69	0.234	.186	AVER	OTHR (4)	FWQA	ABS

PART B DISCHARGE DESCRIPTION

(Note: Submission of Part B is required of all applicants who are also required to submit Part A. Only those parameters specifically indicated in the instructions are to be reported by a particular industry)

(Office use only)

Discharge Serial No. 003

B-1. PHYSICAL AND BIOLOGICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-1)

	Intake	Discharge					
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) AVERAGE (DAILY)	(4) MINIMUM (OPERATING YEAR)	(5) MAXIMUM (OPERATING YEAR)	(6) SAMPLE FREQUENCY	(7) CONTINUOUS MONITORING
COLOR 00080		W					
SPECIFIC CONDUCTANCE 00095							
TURBIDITY 00070		W					
FECAL STREPTOCOCCI BACTERIA 74054		W					
FECAL COLIFORM BACTERIA 74055							
TOTAL COLIFORM BACTERIA 74056		W					

PART B

(Office use only)

Discharge Serial No.
003

B-2. CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

	Intake		Discharge									
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
ACIDITY (as $CaCO_3$) 00435											
TOTAL ORGANIC CARBON (T.O.C.) 00680											
TOTAL HARDNESS 00900		W									
NITRITE (as N) 00615		W									
ORGANIC NITROGEN 00605		W									
PHOSPHORUS-ORTHO (as P) 70507											
SULFATE 00945		66	168	.00668	134	133	106	A	O	W	A
SULFIDE 00745											
SULFITE 00740											
BROMIDE 71870											

PART B

(Office use only)

Discharge Serial No. 003

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

	Intake	Discharge									
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
CHLORIDE 00940		23.0	28.8	.00114	22.9	23.2	18.5	A	O	W	A
CYANIDE 00720											
FLUORIDE 00951		W									
ALUMINUM-TOTAL 01105		W									
ANTIMONY-TOTAL 01097											
ARSENIC-TOTAL 01002											
BARIUM-TOTAL 01007											
BERYLLIUM-TOTAL 01012											
BORON-TOTAL 01022											
CADMIUM-TOTAL 01027											

PART B

(Office use only)

Discharge Serial No. 003

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
CALCIUM-TOTAL 00916		W									
CHROMIUM-TOTAL 01034		<.006	<.006	NIL	<.005	<.006	<.005	A	O	W	A
COBALT-TOTAL 01037											
COPPER-TOTAL 01042											
IRON-TOTAL 01045		W									
LEAD-TOTAL 01051											
MAGNESIUM-TOTAL 00927		W									
MANGANESE-TOTAL 01055											
MERCURY-TOTAL 71900											
MOLYBDENUM-TOTAL 01062											

ENG FORM 4345-1

PART B

(Office use only)

Discharge Serial No. 003

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
NICKEL-TOTAL 01067											
POTASSIUM-TOTAL 00937		W									
SELENIUM-TOTAL 01147											
SILVER-TOTAL 01077											
SODIUM-TOTAL 00929		W									
THALLIUM-TOTAL 01059											
TIN-TOTAL 01102											
TITANIUM-TOTAL 01152											
ZINC-TOTAL 01092		.01	.08	NIL	.06	.08	.06	A	O	W	A
OIL AND GREASE 00550											

ENG FORM 4345-1

PART B

(Office use only)

Discharge Serial No. 003

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
PHENOLS 32730		<.004	<.004	NIL	<.003	<.004	<.003	A	O	W	A
SURFACTANTS 38260											
ALGICIDES* 74051											
CHLORINATED HYDRO-CARBONS* (EXCEPT PESTICIDES) 74052											
PESTICIDES* 74053											

*Name specific compound(s) and fill in the required data for each. Use extra blanks at the end of the form and the "Remarks" space as necessary.

PART B

(Office use only)

Discharge Serial No. 003

B-3. RADIOACTIVE PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-3)

	Intake		Discharge					
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) AVERAGE (DAILY)	(4) MINIMUM (OPERATING YEAR)	(5) MAXIMUM (OPERATING YEAR)	(6) SAMPLE FREQUENCY	(7) CONTINUOUS MONITORING
ALPHA-TOTAL 01501				X			
ALPHA COUNTING ERROR 01502				X			
BETA-TOTAL 03501				X			
BETA COUNTING ERROR 03502				X			
GAMMA-TOTAL 05501				X			
GAMMA COUNTING ERROR 05502				X			
TRITIUM-TOTAL 07000				X			
TRITIUM COUNTING ERROR 07001				X			

B-4. REMARKS

Code 32730)
01092) Sampled 1 time.
01034)

Code 00945)
00940) Sampled 4 times.

Revised 6-30-72

SECTION II. PLANT PROCESS AND DISCHARGE DESCRIPTION

1. Discharge described below is: a. Present [X] b. Proposed new or changed [ ]
2. Implementation schedule [ ]
(Office use only) IL 072 0VE 2 000465

Name of corporate boundaries within which the point of discharge is located.

3. State: Illinois
4. County: Massac
5. City or Town: N/A
6. Discharge Serial No.: 004

State the precise location of the point of discharge.

7. Latitude 37 Degrees; 12 Min; 30 Sec.
8. Longitude 88 Degrees; 51 Min; 30 Sec.

9. Name of waterway at the point of discharge: Ohio River

10. Has application for water quality certification or description of impact been made? If so, give date:

Date: JUN (mo) 30 (day) 72 (yr)
Check if certificate is attached to form [ ]
Name Issuing Agency:

11. Narrative description of activity (include terms of general 4-digit Standard Industrial Classification, and specific manufacturing process).

Waste from regeneration of hydrogen zeolite water softeners plus floor drains from unit 1-4 water treatment building.

12. Standard industrial classification number: SIC 4911
13. Principal product: Electric Power
14. Amount of principal product produced per day: 20,047 MWH (Gross)
15. Principal raw material: N/A
16. Amount of principal raw material consumed per day: N/A
17. Number of batch discharges per day: 3
18. Average gallons per batch discharge: 25,000
19. Date discharge began: AUG (mo) 01 (day) 53 (yr)
20. Date discharge will begin: N/A (mo) (day) (yr)

21. Describe waste abatement practices.

None at present. Are now preparing to re-route regeneration waste to ash disposal pond discharge.

22. PHYSICAL DESCRIPTION OF INTAKE WATER AND DISCHARGE

Intake / Discharge	(Office use only)						
							Discharge Serial No. 004
Parameter and (Code)	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	AVERAGE (DAILY) (3)	MINIMUM (OPERATING YEAR) (4)	MAXIMUM (OPERATING YEAR) (5)	SAMPLE FREQUENCY (6)	CONTINUOUS MONITORING (7)
Flow (Gallons per day) 50050		.331	.081	.081	.081	DYLY	ABS
pH 00400		7.5	2	2	004	OTHR (1)	ABS
T[illegible]rature (W[illegible]er) (°F) 74028		58	58	58	58	OTHR (1)	ABS
Temperature (Summer) (°F). 74027		58	53	58	58	OTHR (1)	ABS

23. DISCHARGE CONTENTS

PARAMETER	PRESENT	ABSENT	PARAMETER	PRESENT	ABSENT	PARAMETER	PRESENT	ABSENT
Color 00080		X	Aluminum 01105	X		Nickel 01067		X
Turbidity 00070		X	Antimony 01097		X	Selenium 01147		X
Radioactivity 74050		X	Arsenic 01002		X	Silver 01077		X
H[illegible]ss 00[illegible]	X		Beryllium 01012		X	Potassium 00937	X	
Solids 00500	X		Barium 01007		X	Sodium 00929	X	
Ammonia 00610		X	Boron 01022		X	Titanium 01152		X
Organic Nitrogen 00[illegible]6		X	Cadmium 01027		X	Tin 01102		X
Nitrate 00620	X		Calcium 00916	X		Zinc 01092	X	
Nitrite 00615		X	Cobalt 01037		X	Algicides 74051		X
Phosphorus 00665	X		Chromium 01034		X	Oil and Grease 00550		X
Sulfate 00945	X		Copper 01042		X	Phenols 32730		X
Sulfide 00745		X	Iron 01045	X		Surfactants 38260		X
Sulfite 00740		X	Lead 01051		X	Chlorinated Hydrocarbons 74052		X
Bromide 71870		X	Magnesium 00927	X		Pesticides 74053		X
Chloride 00940	X		Manganese 01055	X		Fecal Streptococci Bacteria 74054		X
Cyanide 00720		X	Mercury 71900			Coliform Bacteria 74056		X
Fluoride 00951	X		Molybdenum					

24a. Has all known hazardous or potentially hazardous substances in your plant been accounted?

[X] Yes [ ] No

24b. If yes, have steps been taken to insure that there exists no possibility of any such known hazardous or potentially hazardous substance entering this discharge?

[X] Yes [ ] No

25. Remarks.

(1) Sampled 2 times making composite sample of equal increments throughout process.
(2) Sampled 1 time making composite sample of equal increments throughout process.
(3) Calculated maximum concentration times average flow.

The information above completes the basic reporting requirements which are required of all applicants. Those applicants whose discharge results from an activity included within any of the Standard Industrial Classification Code (SIC Code) categories listed below must complete Part A of this form as well.

CRITICAL INDUSTRIAL GROUPS

SIC	098	FISH HATCHERIES, FARMS, AND PRESERVES
SIC	10–14	DIVISION B — MINING
SIC	201	MEAT PRODUCTS
SIC	202	DAIRY PRODUCTS
SIC	203	CANNED PRESERVED FRUITS, VEGETABLES (EXCEPT SEAFOODS, SIC 2[illegible] AND 2036)
SIC	2031, 2036	CANNED AND CURED FISH AND SEAFOODS; FRESH OR FROZEN PACKAGED FISH AND SEAFOODS
SIC	204	GRAIN MILL PRODUCTS
SIC	206	SUGAR
SIC	207	CONFECTIONARY AND RELATED PRODUCTS
SIC	208	BEVERAGES
SIC	209	MISCELLANEOUS FOOD PREPARATIONS AND KINDRED PRODUCTS
SIC	22	TEXTILE MILL PRODUCTS
SIC	23	APPAREL AND OTHER FINISHED PRODUCTS MADE FROM FABRICS AND SIMILAR MATERIALS
SIC	242	SAWMILLS AND PLANING MILLS
SIC	2432	VENEER AND PLYWOOD
SIC	2491	WOOD PRESERVING
SIC	26	PAPER AND ALLIED PRODUCTS
SIC	281	INDUSTRIAL INORGANIC AND ORGANIC CHEMICALS (EXCEPT SIC 2818)
SIC	2818	INDUSTRIAL ORGANIC CHEMICALS
SIC	282	PLASTICS MATERIALS AND SYNTHETIC RESINS, SYNTHETIC RUBBER, SYNTHETIC AND OTHER MAN-MADE FIBERS, EXCEPT GLASS
SIC	283	DRUGS
SIC	284	SOAP, DETERGENTS, AND CLEANING PREPARATIONS, PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS
SIC	285	PAINTS, VARNISHES, LACQUERS, ENAMELS, AND ALLIED PRODUCTS
SIC	2871	FERTILIZERS
SIC	2879	AGRICULTURAL PESTICIDES, AND OTHER AGRICULTURAL CHEMICALS, NOT ELSEWHERE CLASSIFIED
SIC	2891	ADHESIVES AND GELATIN
SIC	2892	EXPLOSIVES
SIC	29	PETROLEUM REFINING AND RELATED INDUSTRIES
SIC	3011, 3069	TIRES AND INNER TUBES; FABRICATED RUBBER PRODUCTS, NOT ELSEWHERE CLASSIFIED
SIC	3079	MISCELLANEOUS PLASTICS PRODUCTS
SIC	311	LEATHER TANNING AND FINISHING
SIC	32	STONE, CLAY, GLASS, AND CONCRETE PRODUCTS
SIC	331	BLAST FURNACES, STEEL WORKS, AND ROLLING AND FINISHING MILLS
SIC	332	IRON AND STEEL FOUNDRIES
SIC	333, 334	PRIMARY SMELTING AND REFINING OF NONFERROUS METALS; SECONDARY SMELTING AND REFINING OF NONFERROUS METALS
SIC	336	NONFERROUS FOUNDRIES
SIC	347	COATING, ENGRAVING, AND ALLIED SERVICES
SIC	35	MACHINERY, EXCEPT ELECTRICAL
SIC	36	ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES
SIC	37	TRANSPORTATION EQUIPMENT (EXCEPT SHIP BUILDING AND REPAIRING, SIC 3731)
SIC	3731	SHIP BUILDING AND REPAIRING
SIC	491	ELECTRIC COMPANIES AND SYSTEMS
SIC	493	COMBINATION COMPANIES AND SYSTEMS

PART A

(Note: Submission of Part A is required of all applicants whose processes are listed on page 3 above.)

(Office use only)

Discharge Serial No. 004

INFORMATION REQUIRED OF SPECIFIED INDUSTRIES

Intake	Discharge									
PARAMETER AND CODE	(1) DAILY AVG. CONCENTRATION UNTREATED INTAKE WATER	(2) DAILY AVG. CONCENTRATION TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION PER PROCESS UNIT	(4) MAXIMUM POUNDS PER DAY	(5) DAILY AVG. CONCENTRATION	(6) AVERAGE POUNDS PER DAY	(7) SAMPLE TYPE	(8) SAMPLE FREQUENCY	(9) METHOD OF ANALYSIS	(10) CONTINUOUS MONITORING	(11)
ALKALINITY (as Ca CO_3) 00410		268	0	0	(3)	0	0	COMP	OTHR (1)	SM	ABS
B.O.D. 5-DAY 00310		1.8	0	0	(3)	0	0	COMP	OTHR (2)	SM	ABS
CHEMICAL OXYGEN DEMAND (C.O.D.) 00340		2.7	35	.009	(3) 24	20	13	COMP	OTHR (2)	SM	ABS
TOTAL SOLIDS 00500		275	2988	.1002	(3) 2009	2988	2009	COMP	OTHR (1)	SM	ABS
TOTAL DISSOLVED SOLIDS 70300		256	2935	.0984	(3) 1973	2935	1973	COMP	OTHR (1)	SM	ABS
TOTAL SUSPENDED SOLIDS 0 J		19	53	.0018	(3) 36	53	36	COMP	OTHR (1)	SM	ABS
TOTAL VOLATILE SOLIDS 00505		20	24	.0008	(3) 16	24	16	COMP	OTHR (1)	SM	ABS
AMMONIA (as N) 00610		.56	0	0	(3) 0	0	0	COMP	OTHR (2)	FWQA	ABS
KJELDAHL NITROGEN 00625		.79	1.12	.00004	(3) .75	1.12	.75	COMP	OTHR (2)	FWQA	ABS
NITRATE (as N) 00620		1.38	0.45	.000001	(3) .3	0.27	.18	COMP	OTHR (2)	FWQA	ABS
PHOSPHORUS TOTAL (as P) 00665		.105	.280	.000008	(3) .2	.263	.2	COMP	OTHR (1)	FWQA	ABS

PART B DISCHARGE DESCRIPTION

(Note: Submission of Part B is required of all applicants who are also required to submit Part A. Only those parameters specifically indicated in the instructions are to be reported by a particular industry)

(Office use only)

Discharge Serial No.
004

B-1. PHYSICAL AND BIOLOGICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-1)

Intake		Discharge						
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) AVERAGE (DAILY)	(4) MINIMUM (OPERATING YEAR)	(5) MAXIMUM (OPERATING YEAR)	(6) SAMPLE FREQUENCY	(7) CONTINUOUS MONITORING
COLOR 00080				X			
SPECIFIC CONDUCTANCE 00095							
TURBIDITY 00070				X			
FECAL STREPTOCOCCI BACTERIA 74054				X			
FECAL COLIFORM BACTERIA 74055				X			
TOTAL COLIFORM BACTERIA 74056				X			

W1270J00600A ELECTRIC ENERGY INC-JOPPA /0774 16 IL0004171 2

PART B

(Office use only)

Discharge Serial No. 004

B-2. CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

	Intake	Discharge									
PARAMETER AND CODE	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	MAXIMUM CONCENTRATION (3)	MAXIMUM POUNDS PER DAY PER PROCESS UNIT (4)	MAXIMUM POUNDS PER DAY (5)	DAILY AVG. CONCENTRATION (6)	AVERAGE POUNDS PER DAY (7)	SAMPLE TYPE (8)	SAMPLE FREQUENCY (9)	METHOD OF ANALYSIS (10)	CONTINUOUS MONITORING (11)
ACIDITY (as $CaCO_3$) 00435											
TOTAL ORGANIC CARBON (T.O.C.) 00680											
TOTAL HARDNESS 00900		W									
NITRITE (as N) 00615											
ORGANIC NITROGEN 00605											
PHOSPHORUS-ORTHO (as P) 70507											
SULFATE 00945		0	2.800	.0094	1882	2500	1681	C	O	W	A
SULFIDE 00745											
SULFITE 00740											
BROMIDE 71870											

PART B

(Office use only)

Discharge Serial No.
004

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
CHLORIDE 00940			3.2	.00009	2.2	3.2	2.2	A	O	W	A
CYANIDE 00720											
FLUORIDE 00951		W									
ALUMINUM-TOTAL 01105		W									
ANTIMONY-TOTAL 01097											
ARSENIC-TOTAL 01002											
BARIUM-TOTAL 01007											
BERYLLIUM-TOTAL 01012											
BORON-TOTAL 01022											
CADMIUM-TOTAL 01027											

ENG FORM

PART B

(Office use only)

Discharge Serial No. 004

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake | Discharge

PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
CALCIUM-TOTAL 00916		W									
CHROMIUM-TOTAL 01034		<.006	<.006	Nil	<.004	<.006	<.004	A	O	W	A
COBALT-TOTAL 01037											
COPPER-TOTAL 01042											
IRON-TOTAL 01045		W									
LEAD-TOTAL 01051											
MAGNESIUM-TOTAL 00927		W									
MANGANESE-TOTAL 01055		W									
MERCURY-TOTAL 71900											
MOLYBDENUM-TOTAL 01062											

EPA FORM

PART B

(Office use only)

Discharge Serial No. 004

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge										
PARAMETER AND CODE	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	MAXIMUM CONCENTRATION (3)	MAXIMUM POUNDS PER DAY PER PROCESS UNIT (4)	MAXIMUM POUNDS PER DAY (5)	DAILY AVG. CONCENTRATION (6)	AVERAGE POUNDS PER DAY (7)	SAMPLE TYPE (8)	SAMPLE FREQUENCY (9)	METHOD OF ANALYSIS (10)	CONTINUOUS MONITORING (11)
NICKEL-TOTAL 01067											
POTASSIUM-TOTAL 00937		W									
SELENIUM-TOTAL 01147											
SILVER-TOTAL 01077											
SODIUM-TOTAL 00929		W									
THALLIUM-TOTAL 01059											
TIN-TOTAL 01102											
TITANIUM-TOTAL 01152											
ZINC-TOTAL 01092		.01	.02	Nil	.01	.02	.01	A	O	W	A
OIL AND GREASE 00550											

ENG FORM 4345-1

PART B

(Office use only)

Discharge Serial No. 004

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
PHENOLS 32730		<.004	<.004	Nil	<.0003	<.0004	<.0003	A	O	W	A
SURFACTANTS 38260											
ALGICIDES* 74051											
CHLORINATED HYDRO-CARBONS* (EXCEPT PESTICIDES) 74052											
PESTICIDES* 74053											

*Name specific compound(s) and fill in the required data for each. Use extra blanks at the end of the form and the "Remarks" space as necessary.

PART B

(Office use only)

Discharge Serial No. 004

B-3. RADIOACTIVE PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-3)

	Intake		Discharge					
PARAMETER AND CODE	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	AVERAGE (DAILY) (3)	MINIMUM (OPERATING YEAR) (4)	MAXIMUM (OPERATING YEAR) (5)	SAMPLE FREQUENCY (6)	CONTINUOUS MONITORING (7)
ALPHA-TOTAL 01501				X			
ALPHA COUNTING ERROR 01502				X			
BETA-TOTAL 03501				X			
BETA COUNTING ERROR 03502				X			
GAMMA-TOTAL 05501				X			
GAMMA COUNTING ERROR 05502				X			
TRITIUM-TOTAL 07000				X			
TRITIUM COUNTING ERROR 07001				X			

B-4. REMARKS

Code 01034, 01092, 32730 and 00940 sampled 1 time.

Code 00945 sampled 2 times.

SECTION II. PLANT PROCESS AND DISCHARGE DESCRIPTION

1. Discharge described below is a. Present [X] b. Proposed new or changed [ ]	2. Implementation schedule [ ]	(Office use only) IL 072 0YE 2 000465

Name of corporate boundaries within which the point of discharge is located.

State	County	City or Town	6. Discharge Serial No.
3. Illinois	4. Massac	5. N/A	005

State the precise location of the point of discharge.	9. Name of waterway at the point of discharge.
7. Latitude 37 Degrees; 12 Min; 30 Sec. 8. Longitude 88 Degrees; 51 Min; 30 Sec.	Ohio River

10. Has application for water quality certification or description of impact been made? If so, give date:

Date	Check if certificate is attached to form	Name Issuing Agency
JUN 30 72 (mo day yr)	[ ]	

11. Narrative description of activity (include terms of general 4-digit Standard Industrial Classification, and specific manufacturing process).

Intake screen wash - removes debris from travelling intake screen and returns to river.

12. Standard industrial classification number.	13. Principal product.	14. Amount of principal product produced per day.
SIC 4911	Electric Power	20,047 MWH (gross)

15. Principal raw material.	16. Amount of principal raw material consumed per day.	17. Number of batch discharges per day.
N/A	N/A	1

18. Average gallons per batch discharge.	19. Date discharge began.	20. Date discharge will begin.
3,720,000	AUG 01 53 (mo day yr)	N/A (mo day yr)

21. Describe waste abatement practices.

None

22. PHYSICAL DESCRIPTION OF INTAKE WATER AND DISCHARGE

Intake / Discharge

(Office use only)

Discharge Serial No. 005

Parameter and (Code)	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	AVERAGE (DAILY) (3)	MINIMUM (OPERATING YEAR) (4)	MAXIMUM (OPERATING YEAR) (5)	SAMPLE FREQUENCY (6)	CONTINUOUS MONITORING (7)
Flow (Gallons per day) 50050		(5) 3.72	(5) 3.72	(5) 3.72	(5) 3.72	OTHR	ABS
pH 00400		7.8	7.7	7.5	7.9	OTHR (3)	ABS
Temperature (Winter) (°F) 74028		36	(6) 36	(6) 36	(6) 42	OTHR (3)	ABS
Temperature (Summer) (°F) 74027		87	(6) 87	(6) 85	(6) 89	OTHR (3)	ABS

23. DISCHARGE CONTENTS

PARAMETER	PRESENT	ABSENT	PARAMETER	PRESENT	ABSENT	PARAMETER	PRESENT	ABSENT
Color 00080	X		Aluminum 01105	X		Nickel 01067		X
Turbidity 00070	X		Antimony 01097		X	Selenium 01147		X
Radioactivity 74050		X	Arsenic 01002		X	Silver 01077		X
Hardness 00900	X		Beryllium 01012		X	Potassium 00937	X	
Solids 00500	X		Barium 01007		X	Sodium 00929	X	
Ammonia 00610	X		Boron 01022		X	Titanium 01152		X
Organic Nitrogen 00605	X		Cadmium 01027		X	Tin 01102		X
Nitrate 00620	X		Calcium 00916	X		Zinc 01092	X	
Nitrite 00615	X		Cobalt 01037		X	Algicides 74051		X
Phosphorus 00665	X		Chromium 01034		X	Oil and Grease 00550		X
Sulfate 00945	X		Copper 01042	X		Phenols 32730		X
Sulfide 00745		X	Iron 01045	X		Surfactants 38260		X
Sulfite 00740		X	Lead 01051		X	Chlorinated Hydrocarbons 74052		X
Bromide 71870		X	Magnesium 00927	X		Pesticides 74053		X
Chloride 00940	X		Manganese 01055	X		Fecal Streptococci Bacteria 74054	X	
Cyanide 00720		X	Mercury 71900		X	Coliform Bacteria 74056	X	
Fluoride 00951	X		Molybdenum 01062		X			

24a. Have all known hazardous or potentially hazardous substances in your plant been inventoried?

[X] Yes [ ] No

24b. If yes, have steps been taken to insure that there exists no possibility of any such known hazardous or potentially hazardous substance entering this discharge?

[X] Yes [ ] No

25. Remarks.

(1) Sampled 1 Time grab sample.
(2) Sampled 2 Times grab sample.
(3) Sampled 3 Times grab sample.
(4) Sampled 4 Times grab sample.
(5) Calculated flow.
(6) Estimated.
(7) Calculated maximum concentration times average flow.

The information above completes the basic reporting requirements which are required of all applicants. Those applicants whose discharge results from an activity included within any of the Standard Industrial Classification Code (SIC Code) categories listed below must complete Part A of this form as well.

CRITICAL INDUSTRIAL GROUPS

SIC	098	FISH HATCHERIES, FARMS, AND PRESERVES
SIC	10-14	DIVISION B — MINING
SIC	201	MEAT PRODUCTS
SIC	202	DAIRY PRODUCTS
SIC	203	CANNED PRESERVED FRUITS, VEGETABLES (EXCEPT SEAFOODS, SIC 2031 AND 2036)
SIC	2031, 2036	CANNED AND CURED FISH AND SEAFOODS; FRESH OR FROZEN PACKAGED FISH AND SEAFOODS
SIC	204	GRAIN MILL PRODUCTS
SIC	206	SUGAR
SIC	207	CONFECTIONARY AND RELATED PRODUCTS
SIC	208	BEVERAGES
SIC	209	MISCELLANEOUS FOOD PREPARATIONS AND KINDRED PRODUCTS
SIC	22	TEXTILE MILL PRODUCTS
SIC	23	APPAREL AND OTHER FINISHED PRODUCTS MADE FROM FABRICS AND SIMILAR MATERIALS
SIC	242	SAWMILLS AND PLANING MILLS
SIC	2432	VENEER AND PLYWOOD
SIC	2491	WOOD PRESERVING
SIC	26	PAPER AND ALLIED PRODUCTS
SIC	281	INDUSTRIAL INORGANIC AND ORGANIC CHEMICALS (EXCEPT SIC 2818)
SIC	2818	INDUSTRIAL ORGANIC CHEMICALS
SIC	282	PLASTICS MATERIALS AND SYNTHETIC RESINS, SYNTHETIC RUBBER, SYNTHETIC AND OTHER MAN-MADE FIBERS, EXCEPT GLASS
SIC	283	DRUGS
SIC	284	SOAP, DETERGENTS, AND CLEANING PREPARATIONS, PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS
SIC	285	PAINTS, VARNISHES, LACQUERS, ENAMELS, AND ALLIED PRODUCTS
SIC	2871	FERTILIZERS
SIC	2879	AGRICULTURAL PESTICIDES, AND OTHER AGRICULTURAL CHEMICALS, NOT ELSEWHERE CLASSIFIED
SIC	2891	ADHESIVES AND GELATIN
SIC	2892	EXPLOSIVES
SIC	29	PETROLEUM REFINING AND RELATED INDUSTRIES
SIC	3011, 3069	TIRES AND INNER TUBES; FABRICATED RUBBER PRODUCTS, NOT ELSEWHERE CLASSIFIED
SIC	3079	MISCELLANEOUS PLASTICS PRODUCTS
SIC	311	LEATHER TANNING AND FINISHING
SIC	32	STONE, CLAY, GLASS, AND CONCRETE PRODUCTS
SIC	331	BLAST FURNACES, STEEL WORKS, AND ROLLING AND FINISHING MILLS
SIC	332	IRON AND STEEL FOUNDRIES
SIC	333, 334	PRIMARY SMELTING AND REFINING OF NONFERROUS METALS; SECONDARY SMELTING AND REFINING OF NONFERROUS METALS
SIC	336	NONFERROUS FOUNDRIES
SIC	347	COATING, ENGRAVING, AND ALLIED SERVICES
SIC	35	MACHINERY, EXCEPT ELECTRICAL
SIC	36	ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES
SIC	37	TRANSPORTATION EQUIPMENT (EXCEPT SHIP BUILDING AND REPAIRING, SIC 3731)
SIC	3731	SHIP BUILDING AND REPAIRING
SIC	491	ELECTRIC COMPANIES AND SYSTEMS
SIC	493	COMBINATION COMPANIES AND SYSTEMS

PART B DISCHARGE DESCRIPTION

(Note: Submission of Part B is required of all applicants who are also required to submit Part A. Only those parameters specifically indicated in the instructions are to be reported by a particular industry)

(Office use only)

Discharge Serial No. 005

B-1. PHYSICAL AND BIOLOGICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-1)

	Intake		Discharge					
PARAMETER AND CODE	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	AVERAGE (DAILY) (3)	MINIMUM (OPERATING YEAR) (4)	MAXIMUM (OPERATING YEAR) (5)	SAMPLE FREQUENCY (6)	CONTINUOUS MONITORING (7)
COLOR 00080		W		X			
SPECIFIC CONDUCTANCE 00095							
TURBIDITY 00070		W		X			
FECAL STREPTOCOCCI BACTERIA 74054		W		X			
FECAL COLIFORM BACTERIA 74055				X			
TOTAL COLIFORM BACTERIA 74056		W		X			

PART B

(Office use only)

Discharge Serial No. 005

B-2. CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
ACIDITY (as $CaCO_3$) 00435											
TOTAL ORGANIC CARBON (T.O.C.) 00680											
TOTAL HARDNESS 00900		W									
NITRITE (as N) 00615		W									
ORGANIC NITROGEN 00605		W									
PHOSPHORUS-ORTHO (as P) 70507											
SULFATE 00945		66	100	.1540	(1) 3088	77	2377	A	O	W	A
SULFIDE 00745											
SULFITE 00740											
BROMIDE 71870											

PART B

(Office use only)

Discharge Serial No.
005

ERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Discharge

(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
MAXIMUM POUNDS PER DAY	MAXIMUM POUNDS PER DAY	DAILY AVG. CONCENTRATION	AVERAGE POUNDS PER DAY	SAMPLE TYPE	SAMPLE FREQUENCY	METHOD OF ANALYSIS	CONTINUOUS MONITORING	
0.0	.0462	(1) .926	23.9	.738	A	O	W	A

1423001311

PART B

(Office use only)

Discharge Serial No. 005

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

	Intake		Discharge									
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
CALCIUM-TOTAL 00916		W									
CHROMIUM-TOTAL 01034		<.006	<.006	NIL	(1) <.19	<.006	<.19	A	O	W	A
COBALT-TOTAL 01037											
COPPER-TOTAL 01042		W									
IRON-TOTAL 01045		W									
LEAD-TOTAL 01051											
MAGNESIUM-TOTAL 00927		W									
MANGANESE-TOTAL 01055		W									
MERCURY-TOTAL 71900											
MOLYBDENUM-TOTAL 01062											

PART B

(Office use only)

Discharge Serial No. 005

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
NICKEL-TOTAL 01067											
POTASSIUM-TOTAL 00937		W									
SELENIUM-TOTAL 01147											
SILVER-TOTAL 01077											
SODIUM-TOTAL 00929		W									
THALLIUM-TOTAL 01059											
TIN-TOTAL 01102											
TITANIUM-TOTAL 01152											
ZINC-TOTAL 01092		.01	.02	.00002	(1) .62	.02	.62	A	O	W	A
OIL AND GREASE 00550											

PART B

(Office use only)

Discharge Serial No. 005

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge									
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
PHENOLS 32730		<.004	<.004	NIL	(1) <.12	<.004	<.12	A	O	W	A
SURFACTANTS 38260											
ALGICIDES* 74051											
CHLORINATED HYDROCARBONS* (EXCEPT PESTICIDES) 74052											
PESTICIDES* 74053											

*Name specific compound(s) and fill in the required data for each. Use extra blanks at the end of the form and the "Remarks" space as necessary.

PART B

(Office use only)

Discharge Serial No. 005

B-3. RADIOACTIVE PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-3)

PARAMETER AND CODE	Intake: UNTREATED INTAKE WATER (1)	Intake: TREATED INTAKE WATER (2)	Discharge: AVERAGE (DAILY) (3)	Discharge: MINIMUM (OPERATING YEAR) (4)	Discharge: MAXIMUM (OPERATING YEAR) (5)	Discharge: SAMPLE FREQUENCY (6)	Discharge: CONTINUOUS MONITORING (7)
ALPHA-TOTAL 01501				X			
ALPHA COUNTING ERROR 01502				X			
BETA-TOTAL 03501				X			
BETA COUNTING ERROR 03502				X			
GAMMA-TOTAL 05501				X			
GAMMA COUNTING ERROR 05502				X			
TRITIUM-TOTAL 07000				X			
TRITIUM COUNTING ERROR 07001				X			

B-4. REMARKS

(1) Calculated maximum concentration times average flow.

Code 00945) Sampled 3 times.
00940)

Code 01092) Sampled 1 time.
01034)
32730)

ENG FORM 4345-1

Revised 6-30-72

Electronic Filing: Received, Clerk's Office 10/28/2021 ESCAP 2021-05**

SECTION II. PLANT PROCESS OR OPERATION DISCHARGES

1. Discharge described below is		2. Implementation schedule	(Office use only)
a. Present [X]	b. Proposed new or changed [ ]	[ ]	IL 072 OVE 2 000465

Name of corporate boundaries within which the point of discharge is located.

State	County	City or Town	6. Discharge Serial No.
3. Illinois	4. Massac	5. N/A	006

State the precise location of the point of discharge.

7. Latitude 37 Degrees; 12 Min; 30 Sec.

8. Longitude 88 Degrees; 51 Min; 30 Sec.

9. Name of waterway at the point of discharge.

Ohio River

10. Has application for water quality certification or description of impact been made? If so, give date:

Date	Check if certificate is attached to form	Name Issuing Agency
JUN 30 72 (mo day yr)	[ ]	

11. Narrative description of activity (include terms of general 4-digit Standard Industrial Classification, and specific manufacturing process).

Water discharged from surface condensers of units 1, 2, 3 and 4. Chlorinated to 0.3 - 0.5 ppm residual Cl_2 for ten minutes in each four hours when river temperature is above 50 F.

12. Standard industrial classification number.	13. Principal product.	14. Amount of principal product produced per day.
SIC 4911	Electric Power	20,047 MWH (Gross)
15. Principal raw material.	**16. Amount of principal raw material consumed per day.**	**17. Number of batch discharges per day.**
N/A	N/A	0

18. Average gallons per batch discharge.	19. Date discharge began.	20. Date discharge will begin.
0	AUG 01 53 (mo day yr)	N/A (mo day yr)

21. Describe waste abatement practices.

None

22. PHYSICAL DESCRIPTION OF INTAKE WATER AND DISCHARGE

Intake		Discharge						(Office use only)	
								Discharge Serial No. 006	
Parameter and (Code)	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	AVERAGE (DAILY)	MINIMUM (OPERATING YEAR) (3)	MAXIMUM (OPERATING YEAR) (4)	SAMPLE FREQUENCY (5)	CONTINUOUS MONITORING (6)	(7)	
Flow (Gallons per day) 00056	50050		2A (1) 295.290	2B (1) .259	(1) 295.549	(6) 167.76	(6) 481.68	OTHR (1)	ABS
pH 00400			7.8	7.5	7.9	7.7	8.0	OTHR (5)	ABS
Temperature (Winter) (°F) 74028			36	58	66	64	70	DYLY	Rec
Temperature (Summer) (°F) 74027			87	58	108	103	114	DYLY	Rec

23. DISCHARGE CONTENTS

PARAMETER	PRESENT	ABSENT	PARAMETER	PRESENT	ABSENT	PARAMETER	PRESENT	ABSENT
Color 00080	X		Aluminum 01105	X		Nickel 01067		X
Turbidity 00070	X		Antimony 01097		X	Selenium 01147		X
Radioactivity 74050		X	Arsenic 01002		X	Silver 01077		X
H[illegible]ss 00[illegible]	X		Beryllium 01012		X	Potassium 00937	X	
Solids 00500	X		Barium 01007		X	Sodium 00929	X	
Ammonia 00610	X		Boron 01022		X	Titanium 01152		X
Organic Nitrogen 00505	X		Cadmium 01027		X	Tin 01102		X
Nitrate 00620	X		Calcium 00916	X		Zinc 01092	X	
Nitrite 00615	X		Cobalt 01037		X	Algicides 74051		X
Phosphorus 00665	X		Chromium 01034		X	Oil and Grease 00550		X
Sulfate 00945		X	Copper 01042	X		Phenols 32730		X
Sulfide 00745		X	Iron 01045	X		Surfactants 38260		X
Sulfite 00740		X	Lead 01051		X	Chlorinated Hydrocarbons 74052		X
Bromide 71870		X	Magnesium 00927	X		Pesticides 74053		X
Chloride 00940	X		Manganese 01055	X		Fecal Streptococci Bacteria 74054	X	
Cyanide 00720		X	Mercury 71900		X	Coliform Bacteria 74056	X	
Fluoride [illegible]	X		Molybdenum		X			

24. Has all known hazardous or potentially hazardous substances in your plant been inventoried?

[X] Yes [ ] No

24b. If yes, have steps been taken to insure that there exists no possibility of any such known hazardous or potentially hazardous substance entering this discharge?

[X] Yes [ ] No

25. Remarks

(1) Calculated flow.
(2) Sampled 2 times grab sample.
(3) Sampled 3 times grab sample.
(5) Sampled 5 times grab sample.
(6) Estimated.
Col. 2A is river water.
Col. 2B is well water.
(7) Calculated maximum concentration times average flow.

The information above completes the basic reporting requirements which are required of all applicants. Those applicants whose discharge results from an activity included within any of the Standard Industrial Classification Code (SIC Code) categories listed below must complete Part A of this form as well.

CRITICAL INDUSTRIAL GROUPS

SIC	098	FISH HATCHERIES, FARMS, AND PRESERVES
SIC	10-14	DIVISION B – MINING
SIC	201	MEAT PRODUCTS
SIC	202	DAIRY PRODUCTS
SIC	203	CANNED PRESERVED FRUITS, VEGETABLES (EXCEPT SEAFOODS, SIC 2031 AND 2036)
SIC	2031, 2036	CANNED AND CURED FISH AND SEAFOODS; FRESH OR FROZEN PACKAGED FISH AND SEAFOODS
SIC	204	GRAIN MILL PRODUCTS
SIC	205	SUGAR
SIC	207	CONFECTIONARY AND RELATED PRODUCTS
SIC	208	BEVERAGES
SIC	209	MISCELLANEOUS FOOD PREPARATIONS AND KINDRED PRODUCTS
SIC	22	TEXTILE MILL PRODUCTS
SIC	23	APPAREL AND OTHER FINISHED PRODUCTS MADE FROM FABRICS AND SIMILAR MATERIALS
SIC	242	SAWMILLS AND PLANING MILLS
SIC	2432	VENEER AND PLYWOOD
SIC	2491	WOOD PRESERVING
SIC	26	PAPER AND ALLIED PRODUCTS
SIC	281	INDUSTRIAL INORGANIC AND ORGANIC CHEMICALS (EXCEPT SIC 2818)
SIC	2818	INDUSTRIAL ORGANIC CHEMICALS
SIC	282	PLASTICS MATERIALS AND SYNTHETIC RESINS, SYNTHETIC RUBBER, SYNTHETIC AND OTHER MAN-MADE FIBERS, EXCEPT GLASS
SIC	283	DRUGS
SIC	284	SOAP, DETERGENTS, AND CLEANING PREPARATIONS, PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS
SIC	285	PAINTS, VARNISHES, LACQUERS, ENAMELS, AND ALLIED PRODUCTS
SIC	2871	FERTILIZERS
SIC	2879	AGRICULTURAL PESTICIDES, AND OTHER AGRICULTURAL CHEMICALS, NOT ELSEWHERE CLASSIFIED
SIC	2891	ADHESIVES AND GELATIN
SIC	2892	EXPLOSIVES
SIC	29	PETROLEUM REFINING AND RELATED INDUSTRIES
SIC	3011, 3069	TIRES AND INNER TUBES; FABRICATED RUBBER PRODUCTS, NOT ELSEWHERE CLASSIFIED
SIC	3079	MISCELLANEOUS PLASTICS PRODUCTS
SIC	311	LEATHER TANNING AND FINISHING
SIC	32	STONE, CLAY, GLASS, AND CONCRETE PRODUCTS
SIC	331	BLAST FURNACES, STEEL WORKS, AND ROLLING AND FINISHING MILLS
SIC	332	IRON AND STEEL FOUNDRIES
SIC	333, 334	PRIMARY SMELTING AND REFINING OF NONFERROUS METALS; SECONDARY SMELTING AND REFINING OF NONFERROUS METALS
SIC	336	NONFERROUS FOUNDRIES
SIC	347	COATING, ENGRAVING, AND ALLIED SERVICES
SIC	35	MACHINERY, EXCEPT ELECTRICAL
SIC	36	ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES
SIC	37	TRANSPORTATION EQUIPMENT (EXCEPT SHIP BUILDING AND REPAIRING, SIC 3731)
SIC	3731	SHIP BUILDING AND REPAIRING
SIC	491	ELECTRIC COMPANIES AND SYSTEMS
SIC	493	COMBINATION COMPANIES AND SYSTEMS

PART A

(Note: Submission of Part A is required of all applicants whose processes are listed on page 3 above.)

(Office use only)

Discharge Serial No. 006

INFORMATION REQUIRED OF SPECIFIED INDUSTRIES

Intake		Discharge										
PARAMETER AND CODE	(DAILY AVG. CONCENTRATION) UNTREATED INTAKE WATER (1)	(DAILY AVG. CONCENTRATION) TREATED INTAKE WATER (2)	MAXIMUM CONCENTRATION PER PROCESS UNIT (3)	MAXIMUM POUNDS PER DAY PER PROCESS UNIT (4)	DAILY AVG. CONCENTRATION (5)	AVERAGE POUNDS PER DAY (6)	SAMPLE TYPE (7)	SAMPLE FREQUENCY (8)	METHOD OF ANALYSIS (9)	CONTINUOUS MONITORING (10)	(11)
ALKALINITY (as $CaCO_3$) 00410		2A 67	2B 268	87	10.65	(7) 213416	74	181526	AVER	OTHR (3)	SM	ABS
F O. 5-DAY 00310		2.4	1.8	2.2	.269	(7) 5397	2.2	5397	AVER	OTHR (2)	SM	ABS
CHEMICAL OXYGEN DEMAND (C.O.D.) 00340		12.0	2.7	20.0	2.45	(7) 49061	15.2	37,286	AVER	OTHR (3)	SM	ABS
TOTAL SOLIDS 00500		324	275	282	34.5	(7) 691762	245	600999	AVER	OTHR (3)	SM	ABS
TOTAL DISSOLVED SOLIDS 70300		200	256	254	31.0808	(7) 623078	216	529860	AVER	OTHR (3)	SM	ABS
TOTAL SUSPENDED SOLIDS 0 J		124	19	116	14.1944	(7) 284553	68	166808	AVER	OTHR (3)	SM	ABS
TOTAL VOLATILE SOLIDS 00505		42	20	61	7.46	(7) 149636	44	107934	AVER	OTHR (3)	SM	ABS
AMMONIA (as N) 00610		.21	.56	.14	.1713	(7) 3434	.11	270	AVER	OTHR (2)	FWQA	ABS
KJELDAHL NITROGEN 00625		.83	.79	.74	.091	(7) 1815	.70	1717	AVER	OTHR (3)	FWQA	ABS
NITRATE (as N) 00620		1.8	1.38	1.70	.208	(7) 4170	1.20	2944	AVER	OTHR (3)	FWQA	ABS
PHOSPHORUS TOTAL (as P) 00665		.099	.105	.130	.0159	(7) 319	.110	270	AVER	OTHR (3)	FWQA	ABS

PART B DISCHARGE DESCRIPTION

(Note: Submission of Part B is required of all applicants who are also required to submit Part A. Only those parameters specifically indicated in the instructions are to be reported by a particular industry)

(Office use only)

Discharge Serial No. 006

B-1. PHYSICAL AND BIOLOGICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-1)

	Intake	Discharge					
PARAMETER AND CODE	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	AVERAGE (DAILY) (3)	MINIMUM (OPERATING YEAR) (4)	MAXIMUM (OPERATING YEAR) (5)	SAMPLE FREQUENCY (6)	CONTINUOUS MONITORING (7)
COLOR 00080		W		X			
SPECIFIC CONDUCTANCE 00095							
TURBIDITY 00070		W		X			
FECAL STREPTOCOCCI BACTERIA 74054		W		X			
FECAL COLIFORM BACTERIA 74055				X			
TOTAL COLIFORM BACTERIA 74056		W		X			

ENG FORM

PART B

(Office use only)

Discharge Serial No. 006

B-2. CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

	Intake	Discharge									
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
ACIDITY (as $CaCO_3$) 00435											
TOTAL ORGANIC CARBON (T.O.C.) 00680											
TAL HARDNESS 00		W									
NITRITE (as N) 00615		W									
ORGANIC NITROGEN 00605											
PHOSPHORUS-ORTHO (as P) 70507											
SULFATE 00945		66	100	12.2366	(1) 245306	74	181526	A	O	W	A
SULFIDE 00745											
SULFITE 00740											
OMIDE 71870											

PART B

(Office use only)

Discharge Serial No. 006

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

	Intake	Discharge									
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
CHLORIDE 00940		23.0	27.5	3.36	(1) 67459	22.8 -	55930	A	0	W	A
CYANIDE 00720											
JORIDE 31		W									
ALUMINUM-TOTAL 01105		W									
ANTIMONY-TOTAL 01097											
ARSENIC-TOTAL 01002											
BARIUM-TOTAL 01007											
BERYLLIUM-TOTAL 01012											
BORON-TOTAL 01022											
CADMIUM-TOTAL 01027											

PART B

(Office use only)

Discharge Serial No.
006

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge									
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER / MAXIMUM CONCENTRATION	(3) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(4) MAXIMUM POUNDS PER DAY	(5) DAILY AVG. CONCENTRATION	(6) AVERAGE POUNDS PER DAY	(7) SAMPLE TYPE	(8) SAMPLE FREQUENCY	(9) METHOD OF ANALYSIS	(10) CONTINUOUS MONITORING	(11)
CALCIUM-TOTAL 00916		W									
CHROMIUM-TOTAL 01034		<.006	<.006	<.12	(1) <17.9	<.006	<17.9	A	O	W	A
COBALT-TOTAL 01037											
COPPER-TOTAL 01042		W									
IRON-TOTAL 01045		W									
LEAD-TOTAL 01051											
MAGNESIUM-TOTAL 00927		W									
MANGANESE-TOTAL 01055		W									
MERCURY-TOTAL 71900											
MOLYBDENUM-TOTAL 01062											

ENG FORM

PART B

(Office use only)

Discharge Serial No.
006

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

	Intake	Discharge									
PARAMETER AND CODE	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	MAXIMUM CONCENTRATION (3)	MAXIMUM POUNDS PER DAY PER PROCESS UNIT (4)	MAXIMUM POUNDS PER DAY (5)	DAILY AVG. CONCENTRATION (6)	AVERAGE POUNDS PER DAY (7)	SAMPLE TYPE (8)	SAMPLE FREQUENCY (9)	METHOD OF ANALYSIS (10)	CONTINUOUS MONITORING (11)
NICKEL-TOTAL 01067											
POTASSIUM-TOTAL 00937		W									
SELENIUM-TOTAL 77											
SILVER-TOTAL 01077											
SODIUM-TOTAL 00929		W									
THALLIUM-TOTAL 01059											
TIN-TOTAL 01102											
TITANIUM-TOTAL 01152											
ZINC-TOTAL 01092		.01	.02	.002	(1) 60	.02	60	A	O	W	A
OIL AND GREASE 00550											

ENG FORM

PART B

(Office use only)

Discharge Serial No.
006

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

	Intake	Discharge									
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
PHENOLS 32730		<.004	<.004	NIL	(1) <9.8	<.004	<9.8	A	O	W	A
SURFACTANTS 38260											
ALGICIDES* 51											
CHLORINATED HYDRO-CARBONS* (EXCEPT PESTICIDES) 74052											
PESTICIDES* 74053											

*Name specific compound(s) and fill in the required data for each. Use extra blanks at the end of the form and the "Remarks" space as necessary.

PART B

(Office use only)

Discharge Serial No. 006

B-3. RADIOACTIVE PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-3)

	Intake		Discharge					
CN PARAMETER AND CODE	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	AVERAGE (DAILY) (3)	MINIMUM (OPERATING YEAR) (4)	MAXIMUM (OPERATING YEAR) (5)	SAMPLE FREQUENCY (6)	CONTINUOUS MONITORING (7)
ALPHA-TOTAL 01501				X			
ALPHA COUNTING ERROR 01502				X			
BETA-TOTAL 03501				X			
TA COUNTING ROR 03502				X			
GAMMA-TOTAL 05501				X			
GAMMA COUNTING ERROR 05502				X			
TRITIUM-TOTAL 07000				X			
TRITIUM COUNTING ERROR 07001				X			

B-4. REMARKS

(1) Calculated maximum concentration times average flow.

11 Mod 6-30-72

SECTION II. PLANT PROCESS AND DISCHARGE DESCRIPTION

1. Discharge described below: a. Present [X] b. Proposed new or changed [ ] 2. Implementation schedule [ ] (Office use only) IL 072 0VE 2 000465

Name of corporate boundaries within which the point of discharge is located.

3. State	4. County	5. City or Town	6. Discharge Serial No.
Illinois	Massac	N/A	007

State the precise location of the point of discharge.

7. Latitude 37 Degrees; 12 Min; 30 Sec.

8. Longitude 88 Degrees; 51 Min; 30 Sec.

9. Name of waterway at the point of discharge: Ohio River

10. Has application for water quality certification or description of impact been made? If so, give date:

Date: JUN 30 72 (mo day yr) Check if certificate is attached to form [ ] Name Issuing Agency:

11. Narrative description of activity (include terms of general 4-digit Standard Industrial Classification, and specific manufacturing process).

Water discharged from surface condensers of Units 5 & 6. Chlorinated to 0.3 - 0.5 ppm residual Cl_2 for ten minutes each four hours when river water temperature is above 50 F.

12. Standard industrial classification number.	13. Principal product.	14. Amount of principal product produced per day.
SIC 4911	Electric Power	20,047 MWH (gross)

15. Principal raw material.	16. Amount of principal raw material consumed per day.	17. Number of batch discharges per day.
N/A	N/A	0

18. Average gallons per batch discharge.	19. Date discharge began.	20. Date discharge will begin.
0	JUN 05 55 (mo day yr)	N/A (mo day yr)

Describe waste abatement practices.

None

FORM

22. PHYSICAL DESCRIPTION OF INTAKE WATER AND DISCHARGE

Parameter and (Code)	Intake: Untreated Intake Water (1)	Intake: Treated Intake Water	Discharge: Average (Daily) (2)		Discharge: Minimum (Operating Year) (3)	Discharge: Maximum (Operating Year) (4)	Discharge: Sample Frequency (5)	Discharge: Continuous Monitoring (6)	(Office use only) Discharge Serial No. 007 (7)
Flow (Gallons per day) 50050			2A 147.645	2B .130	(1) 147.775	(5) 45.36	(5) 236.68	OTHR (1)	ABS
pH 00400			7.8	7.5	7.8	7.6	8.0	OTHR (4)	ABS
Temperature (Winter) (°F) 74028			36	58	77	71	81	DYLY	REC
Temperature (Summer) (°F) 74027			87	58	108	101	114	DYLY	REC

23. DISCHARGE CONTENTS

PARAMETER	PRESENT	ABSENT	PARAMETER	PRESENT	ABSENT	PARAMETER	PRESENT	ABSENT
Color 00080	X		Aluminum 01105	X		Nickel 01067		X
Turbidity 00070	X		Antimony 01097		X	Selenium 01147		X
Radioactivity 74050		X	Arsenic 01002		X	Silver 01077		X
H[illegible]ss 00[illegible]	X		Beryllium 01012		X	Potassium 00937	X	
Solids 00500	X		Barium 01007		X	Sodium 00929	X	
Ammonia 00610	X		Boron 01022		X	Titanium 01152		X
Organic Nitrogen 00605	X		Cadmium 01027		X	Tin 01102		X
Nitrate 00620	X		Calcium 00916	X		Zinc 01092	X	
Nitrite 00615	X		Cobalt 01037		X	Algicides 74051		X
Phosphorus 00665	X		Chromium 01034		X	Oil and Grease 00550		X
Sulfate 00945	X		Copper 01042	X		Phenols 32730		X
Sulfide 00745		X	Iron 01045	X		Surfactants 38260		X
Sulfite 00740		X	Lead 01051		X	Chlorinated Hydrocarbons 74052		X
Bromide 71870		X	Magnesium 00927	X		Pesticides 74053		X
Chloride 00940	X		Manganese 01055	X		Fecal Streptococci Bacteria 74054	X	
Cyanide 00720		X	Mercury 71900		X	Coliform Bacteria 74056	X	
Fluoride [illegible]	X		Molybdenum		X			

24. Has all known hazardous or potentially hazardous substances in your plant been inventoried?

[X] Yes [ ] No

24b. If yes, have steps been taken to insure that there exists no possibility of any such known hazardous or potentially hazardous substance entering this discharge?

[X] Yes [ ] No

25. Remarks.

(1) Calculated.
(2) Sampled 2 Times grab sample.
(3) Sampled 3 Times grab sample.
(4) Sampled 4 Times grab sample.
(5) Estimated.
(6) Calculated maximum concentration times average flow.

The information above completes the basic reporting requirements which are required of all applicants. Those applicants whose discharge results from an activity included within any of the Standard Industrial Classification Code (SIC Code) categories listed below must complete Part A of this form as well.

CRITICAL INDUSTRIAL GROUPS

SIC	098	FISH HATCHERIES, FARMS, AND PRESERVES
SIC	10-14	DIVISION B – MINING
SIC	201	MEAT PRODUCTS
SIC	202	DAIRY PRODUCTS
SIC	203	CANNED PRESERVED FRUITS, VEGETABLES (EXCEPT SEAFOODS, SIC 2031 AND 2036)
SIC	2031, 2036	CANNED AND CURED FISH AND SEAFOODS; FRESH OR FROZEN PACKAGED FISH AND SEAFOODS
SIC	204	GRAIN MILL PRODUCTS
SIC	206	SUGAR
SIC	207	CONFECTIONARY AND RELATED PRODUCTS
SIC	208	BEVERAGES
SIC	209	MISCELLANEOUS FOOD PREPARATIONS AND KINDRED PRODUCTS
SIC	22	TEXTILE MILL PRODUCTS
SIC	23	APPAREL AND OTHER FINISHED PRODUCTS MADE FROM FABRICS AND SIMILAR MATERIALS
SIC	242	SAWMILLS AND PLANING MILLS
SIC	2432	VENEER AND PLYWOOD
SIC	2491	WOOD PRESERVING
SIC	26	PAPER AND ALLIED PRODUCTS
SIC	281	INDUSTRIAL INORGANIC AND ORGANIC CHEMICALS (EXCEPT SIC 2818)
SIC	2818	INDUSTRIAL ORGANIC CHEMICALS
SIC	282	PLASTICS MATERIALS AND SYNTHETIC RESINS, SYNTHETIC RUBBER, SYNTHETIC AND OTHER MAN-MADE FIBERS, EXCEPT GLASS
SIC	283	DRUGS
SIC	284	SOAP, DETERGENTS, AND CLEANING PREPARATIONS, PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS
SIC	285	PAINTS, VARNISHES, LACQUERS, ENAMELS, AND ALLIED PRODUCTS
SIC	2871	FERTILIZERS
SIC	2879	AGRICULTURAL PESTICIDES, AND OTHER AGRICULTURAL CHEMICALS, NOT ELSEWHERE CLASSIFIED
SIC	2891	ADHESIVES AND GELATIN
SIC	2892	EXPLOSIVES
SIC	29	PETROLEUM REFINING AND RELATED INDUSTRIES
SIC	3011, 3069	TIRES AND INNER TUBES; FABRICATED RUBBER PRODUCTS, NOT ELSEWHERE CLASSIFIED
SIC	3079	MISCELLANEOUS PLASTICS PRODUCTS
SIC	311	LEATHER TANNING AND FINISHING
SIC	32	STONE, CLAY, GLASS, AND CONCRETE PRODUCTS
SIC	331	BLAST FURNACES, STEEL WORKS, AND ROLLING AND FINISHING MILLS
SIC	332	IRON AND STEEL FOUNDRIES
SIC	333, 334	PRIMARY SMELTING AND REFINING OF NONFERROUS METALS; SECONDARY SMELTING AND REFINING OF NONFERROUS METALS
SIC	336	NONFERROUS FOUNDRIES
SIC	347	COATING, ENGRAVING, AND ALLIED SERVICES
SIC	35	MACHINERY, EXCEPT ELECTRICAL
SIC	36	ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES
SIC	37	TRANSPORTATION EQUIPMENT (EXCEPT SHIP BUILDING AND REPAIRING, SIC 3731)
SIC	3731	SHIP BUILDING AND REPAIRING
SIC	491	ELECTRIC COMPANIES AND SYSTEMS
SIC	493	COMBINATION COMPANIES AND SYSTEMS

PART A

(Note: Submission of Part A is required of all applicants whose processes are listed on page 3 above.)

(Office use only)

Discharge Serial No. 007

INFORMATION REQUIRED OF SPE[illegible]NDUSTRIES

	Intake	Discharge									
PARAMETER AND CODE	(DAILY AVG. CONCENTRATION) (1)	(DAILY AVG. CONCENTRATION) (2)	MAXIMUM CONCENTRATION (3)	MAXIMUM POUNDS PER DAY PER PROCESS UNIT (4)	MAXIMUM POUNDS PER DAY (5)	DAILY AVG. CONCENTRATION (6)	AVERAGE POUNDS PER DAY (7)	SAMPLE TYPE (8)	SAMPLE FREQUENCY (9)	METHOD OF ANALYSIS (10)	CONTINUOUS MONITORING (11)
ALKALINITY (as $CaCO_3$) 00410		67	90	5.5065	110388 (6)	76	93216	AVER	OTHR (3)	S.M.	ABS
[illegible] D. 5-DAY 00310		2.4	2.6	.1591	3189 (6)	2.2	2698	AVER	OTHR (2)	S.M.	ABS
CHEMICAL OXYGEN DEMAND (C.O.D.) 00340		12.0	23.8	1.4561	29191 (5)	15.4	18889	AVER	OTHR (4)	S.M.	ABS
TOTAL SOLIDS 00500		324	442	27.0428	592127 (6)	305	374092	AVER	OTHR (4)	S.M.	ABS
TOTAL DISSOLVED SOLIDS 70300		200	338	21.6798	414567 (6)	189	231815	AVER	OTHR (4)	S.M.	ABS
TOTAL SUSPENDED SOLIDS 0 J		124	229	14.0110	280876 (6)	116	142277	AVER	OTHR (4)	S.M.	ABS
TOTAL VOLATILE SOLIDS 00505		42	59	3.6098	72365 (6)	52	63780	AVER	OTHR (4)	S.M.	ABS
AMMONIA (as N) 00610		.21	.52	.0318	638 (6)	.28	343	AVER	OTHR (3)	FWQA	ABS
KJELDAHL NITROGEN 00625		.83	1.34	.0820	1644 (6)	.84	1030	AVER	OTHR (4)	FWQA	ABS
NITRATE (as N) 00620		1.8	2.10	.1285	2576 (6)	1.54	1889	AVER	OTHR (4)	FWQA	ABS
PHOSPHORUS TOTAL (as P) 00665		.099	.146	.0089	179 (6)	.091	112	AVER	OTHR (4)	FWQA	ABS

PART B DISCHARGE DESCRIPTION

(Note: Submission of Part B is required of all applicants who are also required to submit Part A. Only those parameters specifically indicated in the instructions are to be reported by a particular industry)

(Office use only)

Discharge Serial No. 007

B-1. PHYSICAL AND BIOLOGICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-1)

	Intake		Discharge					
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) AVERAGE (DAILY)	(4) MINIMUM (OPERATING YEAR)	(5) MAXIMUM (OPERATING YEAR)	(6) SAMPLE FREQUENCY	(7) CONTINUOUS MONITORING
COLOR 00080		W		X			
SPECIFIC CONDUCTANCE 00095							
TURBIDITY 00070		W		X			
FECAL STREPTOCOCCI BACTERIA 74054		W		X			
FECAL COLIFORM BACTERIA 74055				X			
TOTAL COLIFORM BACTERIA 74056		W		X			

PART B

(Office use only)

Discharge Serial No. 007

B-2. CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
ACIDITY (as $CaCO_3$) 00435		W									
TOTAL ORGANIC CARBON (T.O.C.) 00680											
TOTAL HARDNESS 00900		W									
NITRITE (as N) 00615		W									
ORGANIC NITROGEN 00605		W									
PHOSPHORUS-ORTHO (as P) 70507		W									
SULFATE 00945		2A: 66 / 2B: 0	102	6.2407	(1) 125106	67.5	82791	A	O	W	A
SULFIDE 00745											
SULFITE 00740											
BROMIDE 71870											

PART B

(Office use only)

Discharge Serial No. 007

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
CHLORIDE 00940		2A 23 / 2B 3.9	30.0	1.8355	(1) 36796	22.9	28087.6	A	O	W	A
CYANIDE 00720											
FLUORIDE 00951		W									
ALUMINUM-TOTAL 01105		W									
ANTIMONY-TOTAL 01097											
ARSENIC-TOTAL 01002											
BARIUM-TOTAL 01007											
BERYLLIUM-TOTAL 01012											
BORON-TOTAL 01022											
CADMIUM-TOTAL 01027											

PART B

(Office use only)

Discharge Serial No. 007

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake	Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
CALCIUM-TOTAL 00916		W									
CHROMIUM-TOTAL 01034		< .006	< .006	NIL	(1) < 8.9	< .006	< 8.9	A	O	W	A
COBALT-TOTAL 01037											
COPPER-TOTAL 01042		W									
IRON-TOTAL 01045		W									
LEAD-TOTAL 01051											
MAGNESIUM-TOTAL 00927		W									
MANGANESE-TOTAL 01055		W									
MERCURY-TOTAL 71900											
MOLYBDENUM-TOTAL 01062											

PART B

(Office use only)

Discharge Serial No. 007

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

PARAMETER AND CODE	Intake (1)	Discharge (2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	UNTREATED INTAKE WATER	TREATED INTAKE WATER	MAXIMUM CONCENTRATION	MAXIMUM POUNDS PER DAY PER PROCESS UNIT	MAXIMUM POUNDS PER DAY	DAILY AVG. CONCENTRATION	AVERAGE POUNDS PER DAY	SAMPLE TYPE	SAMPLE FREQUENCY	METHOD OF ANALYSIS	CONTINUOUS MONITORING
NICKEL-TOTAL 01067											
POTASSIUM-TOTAL 00937		W									
SELENIUM-TOTAL 01147											
SILVER-TOTAL 01077											
SODIUM-TOTAL 00929		W									
THALLIUM-TOTAL 01059											
TIN-TOTAL 01102											
TITANIUM-TOTAL 01152											
ZINC-TOTAL 01092		2A .01 / 2B .01	.02	.001	(1) 30	.02	30	A	O	W	A
OIL AND GREASE 00550											

PART B

(Office use only)

Discharge Serial No.
007

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
PHENOLS 32730		<.004	<.004	NIL	< 5	<.004	< 5	A	O	W	A
SURFACTANTS 38260											
ALGICIDES* 74051											
CHLORINATED HYDRO-CARBONS* (EXCEPT PESTICIDES) 74052											
PESTICIDES* 74053											

*Name specific compound(s) and fill in the required data for each. Use extra blanks at the end of the form and the "Remarks" space as necessary.

PART B

(Office use only)

Discharge Serial No.
007

B-3. RADIOACTIVE PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-3)

	Intake	Discharge						
PARAMETER AND CODE	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	AVERAGE (DAILY) (3)	MINIMUM (OPERATING YEAR) (4)	MAXIMUM (OPERATING YEAR) (5)	SAMPLE FREQUENCY (6)	CONTINUOUS MONITORING (7)
ALPHA-TOTAL 01501				X			
ALPHA COUNTING ERROR 01502				X			
BETA-TOTAL 03501				X			
BETA COUNTING ERROR 03502				X			
GAMMA-TOTAL 05501				X			
GAMMA COUNTING ERROR 05502				X			
TRITIUM-TOTAL 07000				X			
TRITIUM COUNTING ERROR 07001				X			

B-4. REMARKS

(1) Calculated maximum concentration times average flow.

Code 00945) Sampled 4 times.
00940)

Col. 2A is river water.
Col. 2B is well water.

EPA FORM

SECTION II. PLANT PROCESS AND DISCHARGE DESCRIPTION

1. Discharge described below is: a. Present [X] b. Proposed new or changed [ ]
2. Implementation schedule [ ]
(Office use only) IL 002 04E 2 000465

Name of corporate boundaries within which the point of discharge is located.

3. State	4. County	5. City or Town	6. Discharge Serial No.
Illinois	Massac	N/A	008

State the precise location of the point of discharge.

7. Latitude __ __ Degrees: 12 Min: 30 Sec.
8. Longitude 89 Degrees: 51 Min: 30 Sec.

9. Name of waterway at the point of discharge: Ohio River

10. Has application for water quality certification or description of impact been made? If so, give date:

Date	Check if certificate is attached to form	Name Issuing Agency
JUN 30 72 (mo day yr)	[ ]	

11. Narrative description of activity (include terms of general 4-digit Standard Industrial Classification, and specific manufacturing process).

Collecting flume discharging to river. Receives miscellaneous plant auxiliary cooling water discharges, floor drains, boiler and evaporator blow-downs, yard storm drains, septic tanks chlorinated discharges and demineralizer wastes.

12. Standard industrial classification number.	13. Principal product.	14. Amount of principal product produced per day.
SIC 4911	Electric Power	20,047 MWH (gross)

15. Principal raw material.	16. Amount of principal raw material consumed per day.	17. Number of batch discharges per day.
N/A	N/A	0

18. Average gallons per batch discharge.	19. Date discharge began.	20. Date discharge will begin.
0	AUG 01 53 (mo day yr)	N/A

21. Describe waste abatement practices.

None at present. Starting to relocate demineralizer waste discharge to ash pond discharge.

22. **PHYSICAL DESCRIPTION OF INTAKE WATER AND DISCHARGE**

Intake	Discharge	(Office use only)

Discharge Serial No. 008

Parameter and (Code)	Untreated Intake Water (1)	Treated Intake Water (2)	Average (Daily)	Minimum (Operating Year) (3)	Maximum (Operating Year) (4)	Sample Frequency (5)	Continuous Monitoring (6)	(7)
Flow (Gallons per day) 50050		2A 10.596	2B .720	11.316	6.624	(1) 14.400	OTHR	ABS
pH 00400		7.8	7.5	8.8	8.1	10.9	OTHR (5)	ABS
Temperature (Winter) (°F) 74028		36	58	69	54	88	OTHR (5)	ABS
Temperature (Summer) (°F) 74027		87	58	94	92	96	OTHR (5)	ABS

23. **DISCHARGE CONTENTS**

PARAMETER	PRESENT	ABSENT	PARAMETER	PRESENT	ABSENT	PARAMETER	PRESENT	ABSENT
Color 00080	X		Aluminum 01105	X		Nickel 01067		X
Turbidity 00070	X		Antimony 01097		X	Selenium 01147		X
Radioactivity 74050		X	Arsenic 01002		X	Silver 01077		X
H. ss 00[illegible]	X		Beryllium 01012		X	Potassium 00937	X	
Solids 00500	X		Barium 01007		X	Sodium 00929	X	
Ammonia 00610	X		Boron 01022		X	Titanium 01152		X
Organic Nitrogen 00605	X		Cadmium 01027		X	Tin 01102		X
Nitrate 00620	X		Calcium 00916	X		Zinc 01092	X	
Nitrite 00615	X		Cobalt 01037		X	Algicides 74051		X
Phosphorus 00665	X		Chromium 01034		X	Oil and Grease 00550	X	
Sulfate 00945	X		Copper 01042	X		Phenols 32730		X
Sulfide 00745	X		Iron 01045	X		Surfactants 38260	X	
Sulfite 00740		X	Lead 01051		X	Chlorinated Hydrocarbons 74052		X
Bromide 71870		X	Magnesium 00927	X		Pesticides 74053		X
Chloride 00940		X	Manganese 01055	X		Fecal Streptococci Bacteria 74054	X	
Cyanide 00720	X		Mercury 71900		X	Coliform Bacteria 74056	X	
Fluoride 00951	X		Molybdenum 01062		X			

2a. Have all known hazardous or potentially hazardous substances in your plant been inventoried?

[X] Yes [ ] No

24b. If yes, have steps been taken to insure that there exists no possibility of any such known hazardous or potentially hazardous substance entering this discharge?

[ ] Yes [X] No This is open flume.

25. Remarks Col. 2A is river water - Col. 2B is well water.

(1) Estimated.
(2) Sampled 2 Times grab sample.
(3) Sampled 3 Times grab sample.
(4) Sampled 4 times grab sample.
(5) Sampled 5 Times grab sample.
(6) Calculated maximum concentration times average flow.

The information above completes the basic reporting requirements which are required of all applicants. Those applicants whose discharge results from an activity included within any of the Standard Industrial Classification Code (SIC Code) categories listed below must complete Part A of this form as well.

CRITICAL INDUSTRIAL GROUPS

SIC	098	FISH HATCHERIES, FARMS, AND PRESERVES
SIC	10-14	DIVISION B — MINING
SIC	201	MEAT PRODUCTS
SIC	202	DAIRY PRODUCTS
SIC	203	CANNED PRESERVED FRUITS, VEGETABLES (EXCEPT SEAFOODS, SIC 2031 AND 2036)
SIC	2031, 2036	CANNED AND CURED FISH AND SEAFOODS; FRESH OR FROZEN PACKAGED FISH AND SEAFOODS
SIC	204	GRAIN MILL PRODUCTS
SIC	206	SUGAR
SIC	207	CONFECTIONARY AND RELATED PRODUCTS
SIC	208	BEVERAGES
SIC	209	MISCELLANEOUS FOOD PREPARATIONS AND KINDRED PRODUCTS
SIC	22	TEXTILE MILL PRODUCTS
SIC	23	APPAREL AND OTHER FINISHED PRODUCTS MADE FROM FABRICS AND SIMILAR MATERIALS
SIC	242	SAWMILLS AND PLANING MILLS
SIC	2432	VENEER AND PLYWOOD
SIC	2491	WOOD PRESERVING
SIC	26	PAPER AND ALLIED PRODUCTS
SIC	281	INDUSTRIAL INORGANIC AND ORGANIC CHEMICALS (EXCEPT SIC 2818)
SIC	2818	INDUSTRIAL ORGANIC CHEMICALS
SIC	282	PLASTICS MATERIALS AND SYNTHETIC RESINS, SYNTHETIC RUBBER, SYNTHETIC AND OTHER MAN-MADE FIBERS, EXCEPT GLASS
SIC	283	DRUGS
SIC	284	SOAP, DETERGENTS, AND CLEANING PREPARATIONS, PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS
SIC	285	PAINTS, VARNISHES, LACQUERS, ENAMELS, AND ALLIED PRODUCTS
SIC	2871	FERTILIZERS
SIC	2879	AGRICULTURAL PESTICIDES, AND OTHER AGRICULTURAL CHEMICALS, NOT ELSEWHERE CLASSIFIED
SIC	2891	ADHESIVES AND GELATIN
SIC	2892	EXPLOSIVES
SIC	29	PETROLEUM REFINING AND RELATED INDUSTRIES
SIC	3011, 3069	TIRES AND INNER TUBES; FABRICATED RUBBER PRODUCTS, NOT ELSEWHERE CLASSIFIED
SIC	3079	MISCELLANEOUS PLASTICS PRODUCTS
SIC	311	LEATHER TANNING AND FINISHING
SIC	32	STONE, CLAY, GLASS, AND CONCRETE PRODUCTS
SIC	331	BLAST FURNACES, STEEL WORKS, AND ROLLING AND FINISHING MILLS
SIC	332	IRON AND STEEL FOUNDRIES
SIC	333, 334	PRIMARY SMELTING AND REFINING OF NONFERROUS METALS; SECONDARY SMELTING AND REFINING OF NONFERROUS METALS
SIC	336	NONFERROUS FOUNDRIES
SIC	347	COATING, ENGRAVING, AND ALLIED SERVICES
SIC	35	MACHINERY, EXCEPT ELECTRICAL
SIC	36	ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES
SIC	37	TRANSPORTATION EQUIPMENT (EXCEPT SHIP BUILDING AND REPAIRING, SIC 3731)
SIC	3731	SHIP BUILDING AND REPAIRING
SIC	491	ELECTRIC COMPANIES AND SYSTEMS
SIC	493	COMBINATION COMPANIES AND SYSTEMS

PART A

(Note: Submission of Part A is required of all applicants whose processes are listed on page 3 above.)

(Office use only)

Discharge Serial No. 008

INFORMATION REQUIRED OF SPECIFIED INDUSTRIES

PARAMETER AND CODE	Intake (1) DAILY AVG. CONCENTRATION UNTREATED INTAKE WATER	Intake (2) DAILY AVG. CONCENTRATION TREATED INTAKE WATER	Discharge (3) MAXIMUM CONCENTRATION PER PROCESS UNIT	Discharge (4) MAXIMUM POUNDS PER DAY	Discharge (5) DAILY AVG. CONCENTRATION	Discharge (6) AVERAGE POUNDS PER DAY	Discharge (7) SAMPLE TYPE	Discharge (8) SAMPLE FREQUENCY	Discharge (9) METHOD OF ANALYSIS	Discharge (10) CONTINUOUS MONITORING	Discharge (11)
ALKALINITY (as Ca CO_3) 00410		2A 67	2B 268	99	.4638	(6) 9298	87	8171	AVER	OTHR (3)	S.M.	ABS
F O. 5-DAY 00310		2.4	1.8	10.8	.0506	(6) 1014	7.1	666.9	AVER	OTHR (3)	S.M.	ABS
CHEMICAL OXYGEN DEMAND (C.O.D.) 00340		12.0	2.7	87.0	.4076	(6) 8171	51.4	4828	AVER	OTHR (5)	S.M.	ABS
TOTAL SOLIDS 00500		324	275	777	3.6403	(6) 72978	439	41232	AVER	OTHR (5)	S.M.	ABS
TOTAL DISSOLVED SOLIDS 70300		200	256	201	.9417	(6) 18873	224	21038	AVER	OTHR (5)	S.M.	ABS
TOTAL SUSPENDED SOLIDS 0 J		124	19	576	2.6986	(6) 54100	215	20193	AVER	OTHR (5)	S.M.	ABS
TOTAL VOLATILE SOLIDS 00505		42	20	116	.5435	(6) 10895	57.4	5391	AVER	OTHR (5)	S.M.	ABS
AMMONIA (as N) 00610		.21	.56	.79	.0037	(6) 74.2	.40	37.6	AVER	OTHR (4)	FWQA	ABS
KJELDAHL NITROGEN 00625		.83	.79	1.78	.0083	(6) 167.1	.974	82.1	AVER	OTHR (5)	FWQA	ABS
NITRATE (as N) 00620		1.8	1.38	2.15	.0101	(6) 201.9	1.29	121.2	AVER	OTHR (5)	FWQA	ABS
PHOSPHORUS TOTAL (as P) 00665		.099	.105	.264	.0012	(6) 24.7956	.114	10.707	AVER	OTHR (4)	FWQA	ABS

PART B DISCHARGE DESCRIPTION

(Note: Submission of Part B is required of all applicants who are also required to submit Part A. Only those parameters specifically indicated in the instructions are to be reported by a particular industry)

(Office use only)

Discharge Serial No. 008

B-1. PHYSICAL AND BIOLOGICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-1)

	Intake	Discharge						
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) AVERAGE (DAILY)	(4) MINIMUM (OPERATING YEAR)	(5) MAXIMUM (OPERATING YEAR)	(6) SAMPLE FREQUENCY	(7) CONTINUOUS MONITORING	
COLOR 00080		W		X				
SPECIFIC CONDUCTANCE 00095								
TURBIDITY 00070				X				
FECAL STREPTOCOCCI BACTERIA 74054			< 3	X		OTHR (2)	ABS	
FECAL COLIFORM BACTERIA 74055			< 3	X		OTHR (2)	ABS	
TOTAL COLIFORM BACTERIA 74056				X				

PART B

(Office use only)

Discharge Serial No. 008

B-2. CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER / MAXIMUM CONCENTRATION	(3) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(4) MAXIMUM POUNDS PER DAY	(5) DAILY AVG. CONCENTRATION	(6) AVERAGE POUNDS PER DAY	(7) SAMPLE TYPE	(8) SAMPLE FREQUENCY	(9) METHOD OF ANALYSIS	(10) CONTINUOUS MONITORING	(11)
ACIDITY (as $CaCO_3$) 00435											
TOTAL ORGANIC CARBON (T.O.C.) 00680											
TOTAL HARDNESS 00900		W									
NITRITE (as N) 00615		W									
ORGANIC NITROGEN 00605		W									
PHOSPHORUS-ORTHO (as P) 70507		W									
SULFATE 00945		2A: 66 / 2B: 0	143	.5699	(1) 13430	84	7889.5	A	O	W	A
SULFIDE 00745											
SULFITE 00740											
BROMIDE 71870											

ENG FORM 6345-1

PART B

(Office use only)

Discharge Serial No.
008

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge									
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
CHLORIDE 00940		2A 23 / 2B 3.9	27.9	.1301	2620.4	19.0	1784.5	A	O	W	A
CYANIDE 00720											
FLUORIDE 00951		W									
ALUMINUM-TOTAL 01105		W									
ANTIMONY-TOTAL 01097											
ARSENIC-TOTAL 01002											
BARIUM-TOTAL 01007											
BERYLLIUM-TOTAL 01012											
BORON-TOTAL 01022											
CADMIUM-TOTAL 01027											

EPA FORM

PART B

(Office use only)

Discharge Serial No. 008

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

	Intake		Discharge										
PARAMETER AND CODE	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	MAXIMUM CONCENTRATION (3)	MAXIMUM POUNDS PER DAY PER PROCESS UNIT (4)	MAXIMUM POUNDS PER DAY (5)	DAILY AVG. CONCENTRATION (6)	AVERAGE POUNDS PER DAY (7)	SAMPLE TYPE (8)	SAMPLE FREQUENCY (9)	METHOD OF ANALYSIS (10)	CONTINUOUS MONITORING (11)
CALCIUM-TOTAL 00916		W									
CHROMIUM-TOTAL 01034		2A <.006	2B <.006	<.006	NIL	<.5635	<.006	<.5635	A	O	W	A
COBALT-TOTAL 01037											
COPPER-TOTAL 01042		W									
IRON-TOTAL 01045		W									
LEAD-TOTAL 01051											
MAGNESIUM-TOTAL 00927		W									
MANGANESE-TOTAL 01055		W									
MERCURY-TOTAL 71900											
MOLYBDENUM-TOTAL 01062											

PART B

(Office use only)

Discharge Serial No. 008

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY	(5) DAILY AVG. CONCENTRATION	(6) AVERAGE POUNDS PER DAY	(7) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
NICKEL-TOTAL 01067											
POTASSIUM-TOTAL 00937		W									
SELENIUM-TOTAL 01147											
SILVER-TOTAL 01077											
SODIUM-TOTAL 00929		W									
THALLIUM-TOTAL 01059											
TIN-TOTAL 01102											
TITANIUM-TOTAL 01152											
ZINC-TOTAL 01092		2A .01 / 2B .01	.02	NIL	(1) 1.4	.02	1.4	A	O	W	A
OIL AND GREASE 00550			(3)								

PART B

(Office use only)

Discharge Serial No. 008

B-2. (cont.) CRITICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake	Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	MAXIMUM CONCENTRATION	MAXIMUM POUNDS PER DAY PER PROCESS UNIT	MAXIMUM POUNDS PER DAY	DAILY AVG. CONCENTRATION	AVERAGE POUNDS PER DAY	SAMPLE TYPE	SAMPLE FREQUENCY	METHOD OF ANALYSIS	CONTINUOUS MONITORING
		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
PHENOLS 32730		2A <.004 / 2B <.004	<.004	NIL	<.3 (1)	<.004	<.3	A	O	W	A
SURFACTANTS 38260											
ALGICIDES* 74051											
CHLORINATED HYDRO-CARBONS* (EXCEPT PESTICIDES) 74052											
PESTICIDES* 74053											

*Name specific compound(s) and fill in the required data for each. Use extra blanks at the end of the form and the "Remarks" space as necessary.

PART B

(Office use only)

Discharge Serial No. 008

B-3. RADIOACTIVE PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-3)

	Intake	Discharge						
PARAMETER AND CODE	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	AVERAGE (DAILY) (3)	MINIMUM (OPERATING YEAR) (4)	MAXIMUM (OPERATING YEAR) (5)	SAMPLE FREQUENCY (6)	CONTINUOUS MONITORING (7)
ALPHA-TOTAL 01501				X			
ALPHA COUNTING ERROR 01502				X			
BETA-TOTAL 03501				X			
BETA COUNTING ERROR 03502				X			
GAMMA-TOTAL 05501				X			
GAMMA COUNTING ERROR 05502				X			
TRITIUM-TOTAL 07009				X			
TRITIUM COUNTING ERROR 07001				X			

B-4. REMARKS Col. 2A is river water - Col. 2B is well water.

(1) Calculated maximum concentration times average flow.
(2) Sampled 1 Time grab sample for analysis by Environmental Analysts, Inc., See letter of June 15, 1972, copy attached.
(3) Intermittantly visible.

PHONE 314-521-4486

ENVIRONMENTAL ANALYSIS, INC.

ANALYTICAL CHEMISTRY-RESEARCH-FIELD STUDIES

8444 FLORISSANT ROAD, P.O. BOX 5742 ST. LOUIS, MO. 63121

June 15, 1972
Report No. 397
P.O. No. 64076

Mr. Harold Dorris
Electric Energy Company
Post Office Box 565
Joppa, Illinois 62953

REPORT OF ANALYSIS

Subject: Analysis of water and/or wastewater samples in accordance with "Standard Methods for the Examination of Water and Wastewater", 13th Edition, 1971.

Sample Identification:

#1 - Sample No. 008 for Fecal Coliform and Fecal Streptococci.

#2 - Sample No. 009 for Arsenic, Cadmium, Calcium, Copper, Lead, Iron, Manganese, Mercury, Nickel and Selenium.

Results of Analysis:

	#1	#2
Arsenic, mg As/l	x	< 0.01
Cadmium, mg Cd/l	x	< 0.005
Calcium, mg Ca/l	x	88.0
Copper, mg Cu/l	x	0.014
Lead, mg Pb/l	x	0.026
Iron, mg Fe/l	x	0.28
Manganese, mg Mn/l	x	0.012
Mercury, mg Hg/l	x	< 0.0005
Nickel, mg Ni/l	x	< 0.01
Selenium, mg Se/l	x	< 0.01
Fecal Coliform, No./100 ml.	< 3	x
Fecal Streptococci, No./100 ml.	< 3	

009

Respectfully submitted,

J. F. Vogt, Director

JFV/ir

Revised 6-30-72

SECTION II. PLANT PROCESS AND DISCHARGE DESCRIPTION

1. Discharge described below is a. Present [X] b. Proposed new or changed [ ]	2. Implementation schedule [ ]	(Office use only) IL 072 0YE 2000465

Name of corporate boundaries within which the point of discharge is located.

3. State	4. County	5. City or Town	6. Discharge Serial No.
Illinois	Massac	N/A	009

State the precise location of the point of discharge.	9. Name of waterway at the point of discharge.
7. Latitude 37 Degrees; 12 Min; 30 Sec.	Ohio River
8. Longitude 88 Degrees; 51 Min; 30 Sec.	

10. Has application for water quality certification or description of impact been made? If so, give date:

Date	Check if certificate is attached to form	Name Issuing Agency
JUN 30 72 (mo day yr)	[ ]	

11. Narrative description of activity (include terms of general 4-digit Standard Industrial Classification, and specific manufacturing process).

Discharge surface drainage from area north of plant and also receives flow of supernatant liquid from active ash pond.

12. Standard industrial classification number.	13. Principal product.	14. Amount of principal product produced per day.
SIC 4911	Electric Power	20,047 MWH (gross)

15. Principal raw material.	16. Amount of principal raw material consumed per day.	17. Number of batch discharges per day.
N/A	N/A	0

18. Average gallons per batch discharge.	19. Date discharge began.	20. Date discharge will begin.
0	AUG 01 53 (mo day yr)	N/A (mo day yr)

21. Describe waste abatement practices.

Coal ash is sluiced to ash settling pond where fly ash and clinkers settle out and clear water flows into discharge canal and mixes with surface water drainage (if any) from area north of plant. Mixture then flows through canal to small secondary settling pond and discharges to river.

ESEGRE - PSEDIM - WDISCH

22. PHYSICAL DESCRIPTION OF INTAKE WATER AND DISCHARGE

Intake / Discharge

(Office use only)

Discharge Serial No. 009

Parameter and (Code)	Untreated Intake Water (1)	Treated Intake Water (2)	Average (Daily) (2)	Minimum (Operating Year) (3)	Maximum (Operating Year) (4)	Sample Frequency (5)	Continuous Monitoring (6)	(7)
Flow (Gallons per day) 00056 50050		2A 9.782	2B .120	9.902	6.572	(1) 14.400	OTHR	ABS
pH 00400		7.8	7.5	10.4	8.4	11.0	OTHR (5)	ABS
Temperature (Winter) (°F) 74028		36	58	55	38	66	OTHR (3)	ABS
Temperature (Summer) (°F) 74027		87	58	78	70	83	OTHR (6)	ABS

23. DISCHARGE CONTENTS

PARAMETER	PRESENT	ABSENT	PARAMETER	PRESENT	ABSENT	PARAMETER	PRESENT	ABSENT
Color 00080		X	Aluminum 01105		X	Nickel 01067		X
Turbidity 00070		X	Antimony 01097		X	Selenium 01147		X
Radioactivity 74050		X	Arsenic 01002		X	Silver 01077		X
Hardness 00900	X		Beryllium 01012		X	Potassium 00937	X	
Solids 00500		X	Barium 01007		X	Sodium 00929	X	
Ammonia 00610		X	Boron 01022		X	Titanium 01152		X
Organic Nitrogen 00605		X	Cadmium 01027		X	Tin 01102		X
Nitrate 00620	X		Calcium 00916	X		Zinc 01092		X
Nitrite 00615		X	Cobalt 01037		X	Algicides 74051		X
Phosphorus 00665	X		Chromium 01034		X	Oil and Grease 00550		X
Sulfate 00945	X		Copper 01042		X	Phenols 32730		X
Sulfide 00745		X	Iron 01045		X	Surfactants 38260		X
Sulfite 00740		X	Lead 01051		X	Chlorinated Hydrocarbons 74052		X
Bromide 71870		X	Magnesium 00927	X		Pesticides 74053		X
Chloride 00940	X		Manganese 01055	X		Fecal Streptococci Bacteria 74054	X	
Cyanide 00720		X	Mercury 71900		X	Coliform Bacteria 74056	X	
Fluoride 00951	X		Molybdenum 01062		X			

24a. Has all known hazardous or potentially hazardous substances in your plant been inventoried?

[X] Yes [ ] No

24b. If yes, have steps been taken to insure that there exists no possibility of any such known hazardous or potentially hazardous substance entering this discharge?

[X] Yes [ ] No

25. Remarks:

Col. 2A is river water.
Col. 2B is well water.
(1) Estimated.
(2) Sampled 2 times.
(3) Sampled 3 times.
(4) Sampled 4 times.
(5) Sampled 5 times.
(6) Sampled 6 times.
(7) Calculated maximum concentration times average flow.

The information above completes the basic reporting requirements which are required of all applicants. Those applicants whose discharge results from an activity included within any of the Standard Industrial Classification Code (SIC Code) categories listed below must complete Part A of this form as well.

CRITICAL INDUSTRIAL GROUPS

SIC	098	FISH HATCHERIES, FARMS, AND PRESERVES
SIC	10–14	DIVISION B — MINING
SIC	201	MEAT PRODUCTS
SIC	202	DAIRY PRODUCTS
SIC	203	CANNED PRESERVED FRUITS, VEGETABLES (EXCEPT SEAFOODS, SIC 2031 AND 2036)
SIC	2031, 2036	CANNED AND CURED FISH AND SEAFOODS; FRESH OR FROZEN PACKAGED FISH AND SEAFOODS
SIC	204	GRAIN MILL PRODUCTS
SIC	206	SUGAR
SIC	207	CONFECTIONARY AND RELATED PRODUCTS
SIC	208	BEVERAGES
SIC	209	MISCELLANEOUS FOOD PREPARATIONS AND KINDRED PRODUCTS
SIC	22	TEXTILE MILL PRODUCTS
SIC	23	APPAREL AND OTHER FINISHED PRODUCTS MADE FROM FABRICS AND SIMILAR MATERIALS
SIC	242	SAWMILLS AND PLANING MILLS
SIC	2432	VENEER AND PLYWOOD
SIC	2491	WOOD PRESERVING
SIC	26	PAPER AND ALLIED PRODUCTS
SIC	281	INDUSTRIAL INORGANIC AND ORGANIC CHEMICALS (EXCEPT SIC 2818)
SIC	2818	INDUSTRIAL ORGANIC CHEMICALS
SIC	282	PLASTICS MATERIALS AND SYNTHETIC RESINS, SYNTHETIC RUBBER, SYNTHETIC AND OTHER MAN-MADE FIBERS, EXCEPT GLASS
SIC	283	DRUGS
SIC	284	SOAP, DETERGENTS, AND CLEANING PREPARATIONS, PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS
SIC	285	PAINTS, VARNISHES, LACQUERS, ENAMELS, AND ALLIED PRODUCTS
SIC	2871	FERTILIZERS
SIC	2879	AGRICULTURAL PESTICIDES, AND OTHER AGRICULTURAL CHEMICALS, NOT ELSEWHERE CLASSIFIED
SIC	2891	ADHESIVES AND GELATIN
SIC	2892	EXPLOSIVES
SIC	29	PETROLEUM REFINING AND RELATED INDUSTRIES
SIC	301, 3069	TIRES AND INNER TUBES; FABRICATED RUBBER PRODUCTS, NOT ELSEWHERE CLASSIFIED
SIC	3079	MISCELLANEOUS PLASTICS PRODUCTS
SIC	311	LEATHER TANNING AND FINISHING
SIC	32	STONE, CLAY, GLASS, AND CONCRETE PRODUCTS
SIC	331	BLAST FURNACES, STEEL WORKS, AND ROLLING AND FINISHING MILLS
SIC	332	IRON AND STEEL FOUNDRIES
SIC	333, 334	PRIMARY SMELTING AND REFINING OF NONFERROUS METALS; SECONDARY SMELTING AND REFINING OF NONFERROUS METALS
SIC	336	NONFERROUS FOUNDRIES
SIC	347	COATING, ENGRAVING, AND ALLIED SERVICES
SIC	35	MACHINERY, EXCEPT ELECTRICAL
SIC	36	ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES
SIC	37	TRANSPORTATION EQUIPMENT (EXCEPT SHIP BUILDING AND REPAIRING, SIC 3731)
SIC	3731	SHIP BUILDING AND REPAIRING
SIC	491	ELECTRIC COMPANIES AND SYSTEMS
SIC	493	COMBINATION COMPANIES AND SYSTEMS

PART A

(Note: Submission of Part A is required of all applicants whose processes are listed on page 3 above.)

(Office use only)

Discharge Serial No. 009

INFORMATION REQUIRED OF SPECIFIED INDUSTRIES

Intake		Discharge										
PARAMETER AND CODE	(DAILY AVG. CONCENTRATION) UNTREATED INTAKE WATER (1)	(DAILY AVG. CONCENTRATION) TREATED INTAKE WATER (2)	MAXIMUM CONCENTRATION PER PROCESS UNIT (3)	MAXIMUM POUNDS PER DAY (4)	DAILY AVG. CONCENTRATION (5)	AVERAGE POUNDS PER DAY (6)	SAMPLE TYPE (7)	SAMPLE FREQUENCY (8)	METHOD OF ANALYSIS (9)	CONTINUOUS MONITORING (10)	(11)
ALKALINITY (as $CaCO_3$) 00410		2A 67 / 2B 268	82	.3362	(7) 6730	74	6082	AVER	OTHR (3)	S.M.	ABS
B.O.D. 5-DAY 00310		2A 2.4 / 2B 1.8	2.0	.0082	(7) 164	1.9	156.2	AVER	OTHR (2)	S.M.	ABS
CHEMICAL OXYGEN DEMAND (C.O.D.) 00340		2A 120 / 2B 2.7	.6	.0025	(7) 49.3	.4	32.9	AVER	OTHR (4)	S.M.	ABS
TOTAL SOLIDS 00500		2A 324 / 2B 275	548	2.2466	(7) 45038	410	33697	AVER	OTHR (5)	S.M.	ABS
TOTAL DISSOLVED SOLIDS 70300		2A 200 / 2B 256	303	1.2422	(7) 24903	256	21040	AVER	OTHR (5)	S.M.	ABS
TOTAL SUSPENDED SOLIDS 00530		2A 124 / 2B 19	70	.2870	(7) 5753	44	3616	AVER	OTHR (5)	S.M.	ABS
TOTAL VOLATILE SOLIDS 00505		2A 42 / 2B 20	81	.3321	(7) 6657	52	4274	AVER	OTHR (5)	S.M.	ABS
AMMONIA (as N) 00610		2A .21 / 2B .56	.34	.0014	(7) 27.9	.25	20.5	AVER	OTHR (4)	FWQA	ABS
KJELDAHL NITROGEN 00625		2A .83 / 2B .79	.69	.0028	(7) 56.7	.59	48.5	AVER	OTHR (5)	FWQA	ABS
NITRATE (as N) 00620		2A 1.8 / 2B 1.38	1.50	.0061	(7) 123.2	.87	71.5	AVER	OTHR (4)	FWQA	ABS
PHOSPHORUS TOTAL (as P) 00665		2A .099 / 2B .105	.012	.00009	(7) .9	.003	.25	AVER	OTHR (4)	FWQA	ABS

END FORM

PART B DISCHARGE DESCRIPTION

(Note: Submission of Part B is required of all applicants who are also required to submit Part A. Only those parameters specifically indicated in the instructions are to be reported by a particular industry)

(Office use only)

Discharge Serial No. 009

B-1. PHYSICAL AND BIOLOGICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-1)

	Intake		Discharge					
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) AVERAGE (DAILY)	(4) MINIMUM (OPERATING YEAR)	(5) MAXIMUM (OPERATING YEAR)	(6) SAMPLE FREQUENCY	(7) CONTINUOUS MONITORING
COLOR 00080				X			
SPECIFIC CONDUCTANCE 00095							
TURBIDITY 00070				X			
FECAL STREPTOCOCCI BACTERIA 74054				X			
FECAL COLIFORM BACTERIA 74055				X			
TOTAL COLIFORM BACTERIA 74056				X			

PART B

(Office use only)

Discharge Serial No. 009

B-2. CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
ACIDITY (as $CaCO_3$) 00435											
TOTAL ORGANIC CARBON (T.O.C.) 00680											
TOTAL HARDNESS 00900		W									
NITRITE (as N) 00615											
ORGANIC NITROGEN 00605											
PHOSPHORUS-ORTHO (as P) 70507											
SULFATE 00945		2A 2B 66 0	272	1.1151	(2) 22354	203	16684	A	O	W	A
SULFIDE 00745											
SULFITE 00740											
BROMIDE 71870											

PART B

(Office use only)

Discharge Serial No. 009

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake		Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY	(5) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
CHLORIDE 00940		2A 2B 23 3.9	21.2	.0869	(2) 1742.4	16.8	1380.7	A	O	W	A
CYANIDE 00720											
FLUORIDE 00951		W									
ALUMINUM-TOTAL 01105											
ANTIMONY-TOTAL 01097											
ARSENIC-TOTAL 01002						(1) < .01	< .8219	A	O	W	A
BARIUM-TOTAL 01007											
BERYLLIUM-TOTAL 01012											
BORON-TOTAL 01022											
CADMIUM-TOTAL 01027						(1) .005	.4103	A	O	W	A

EPA FORM

PART B

(Office use only)

Discharge Serial No. 009

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

Intake	Discharge										
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER	(3) MAXIMUM CONCENTRATION	(4) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(5) MAXIMUM POUNDS PER DAY	(6) DAILY AVG. CONCENTRATION	(7) AVERAGE POUNDS PER DAY	(8) SAMPLE TYPE	(9) SAMPLE FREQUENCY	(10) METHOD OF ANALYSIS	(11) CONTINUOUS MONITORING
CALCIUM-TOTAL 00916						(1) 88	7250	A	O	W	A
CHROMIUM-TOTAL 01034		2A 2B <.006 <.006	<.006	<.00002	(2) <.49	<.006	<.00002	A	O	W	A
COBALT-TOTAL 01037											
COPPER-TOTAL 01042						(1) .014	1.1506	A	O	W	A
IRON-TOTAL 01045						(1) 0.28	23.0123	A	O	W	A
LEAD-TOTAL 01051						(1) .025	2.0547	A	O	W	A
MAGNESIUM-TOTAL 00927		W									
MANGANESE-TOTAL 01055		W				(1) .012	.9862	A	O	W	A
MERCURY-TOTAL 71900						(1) <.0005	<.0411	A	O	W	A
MOLYBDENUM-TOTAL 01062											

END FORM

PART B

(Office use only)

Discharge Serial No. 009

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

	Intake	Discharge									
PARAMETER AND CODE	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	MAXIMUM CONCENTRATION (3)	MAXIMUM POUNDS PER DAY PER PROCESS UNIT (4)	MAXIMUM POUNDS PER DAY (5)	DAILY AVG. CONCENTRATION (6)	AVERAGE POUNDS PER DAY (7)	SAMPLE TYPE (8)	SAMPLE FREQUENCY (9)	METHOD OF ANALYSIS (10)	CONTINUOUS MONITORING (11)
NICKEL-TOTAL 01067						(1) <.01	<.8219	A	O	W	A
POTASSIUM-TOTAL 00937		4.1	10.2	.0418	838.3	10.2		A	O	W	A
SELENIUM-TOTAL 01147						(1) <.01	<.8219	A	O	W	A
SILVER-TOTAL 01077											
SODIUM-TOTAL 00929		30.1	24.0	.0984	1972.5	24.0	1972.5	A	O	W	A
THALLIUM-TOTAL 01059											
TIN-TOTAL 01102											
TITANIUM-TOTAL 01152											
ZINC-TOTAL 01092		2A 2B .01 .01	.01	.00004	(2) .8219			A	O	W	A
OIL AND GREASE 00550											

PART B

(Office use only)

Discharge Serial No. 009

B-2. (cont.) CHEMICAL PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-2)

	Intake	Discharge									
PARAMETER AND CODE	(1) UNTREATED INTAKE WATER	(2) TREATED INTAKE WATER / MAXIMUM CONCENTRATION	(3) MAXIMUM POUNDS PER DAY PER PROCESS UNIT	(4) MAXIMUM POUNDS PER DAY	(5) DAILY AVG. CONCENTRATION	(6) AVERAGE POUNDS PER DAY	(7) SAMPLE FREQUENCY / SAMPLE TYPE	(8) METHOD OF ANALYSIS	(9)	(10) CONTINUOUS MONITORING	(11)
PHENOLS 32730		2A 2B (2) <.004 <.004	<.004	NIL	<.2	<.004	<.2	A	O	W	A
SURFACTANTS 38260											
ALGICIDES* 74051											
CHLORINATED HYDRO-CARBONS* (EXCEPT PESTICIDES) 74052											
PESTICIDES* 74053											

*Name specific compound(s) and fill in the required data for each. Use extra blanks at the end of the form and the "Remarks" space as necessary.

```
W1270100600A ELECTRIC ENERGY INC-JOPPA     /0774 16 IL0004171        3
```

PART B

(Office use only)

Discharge Serial No. 009

B-3. RADIOACTIVE PARAMETERS OF INTAKE WATER AND DISCHARGE (See Table B-3)

	Intake		Discharge						
PARAMETER AND CODE	UNTREATED INTAKE WATER (1)	TREATED INTAKE WATER (2)	AVERAGE (DAILY) (3)	MINIMUM (OPERATING YEAR) (4)	MAXIMUM (OPERATING YEAR) (5)	SAMPLE FREQUENCY (6)	CONTINUOUS MONITORING (7)
ALPHA-TOTAL 01501				X			
ALPHA COUNTING ERROR 01502				X			
BETA-TOTAL 03501				X			
BETA COUNTING ERROR 03502				X			
GAMMA-TOTAL 05501				X			
GAMMA COUNTING ERROR 05502				X			
TRITIUM-TOTAL 07000				X			
TRITIUM COUNTING ERROR 07001				X			

B-4. REMARKS Col. 2A is river water. Col. 2B is well water.

(1) Sampled from ash pond discharge and analyzed by Environmental Analysts Inc. See copy of letter June 15, 1972, attached.

(2) Calculated maximum concentration times average flow. Code 00945) Sampled 00940) 4 Times. Sampled 1 Time grab sample except as noted.

Exhibit H

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

PERMIT NUMBER: 1973-EA-1458 DATE ISSUED: July 11, 1973
PROJECT LOG NUMBERS: 2343-73

SUBJECT: ELECTRIC ENERGY, INC. (JOPPA) - Ash Pond

TO CONSTRUCT AND OPERATE: Electric Energy, Inc.
P. O. Box 165
Joppa, Illinois 62953

Permit is hereby granted to the above designated permittee to construct and/or operate water pollution control facilities described as follows:

An ash pond for settling with pH control with an average flow rate of 7,000,000 GPD with discharge to the Ohio River.

The final plans, specifications and supporting documents approved by this permit were prepared by Dr. Harry W. Gehm, R.P.E. and are identified in the records of the Illinois Environmental Protection Agency, Division of Water Pollution Control, Permit Section, by the log numbers designated in the subject heading above. This permit expires July 11, 1976.

The Standard Conditions of issuance of this permit are itemized below.

4 0 5 5 0 0 6 9 6

READ ALL CONDITIONS CAREFULLY:

STANDARD CONDITIONS

Pertaining to both construction and operation permits

1. If any statement or representation is found to be incorrect, this permit may be revoked and the permittee thereupon waives all rights thereunder.

2. During or after the construction or the installation of the sewage works, any agent duly authorized by the Environmental Protection Agency shall have the right to inspect such work and its operation.

3. The issuance of this permit (a) shall not be considered as in any manner affecting the title of the premises upon which the sewage works are to be located, (b) does not release the permittee from any liability for damage to person or property caused by or resulting from the installation, maintenance or operation of the proposed sewage works, (c) does not take into consideration the structural stability of any units or parts of the project, and (d) does not release the permittee from compliance with other applicable statutes of the State of Illinois, or with applicable local laws, regulations or ordinances.

4. Treatment works will be operated or supervised by a duly qualified sewage works operator certified under the Regulations of the Environmental Protection Agency.

5. The treatment works or wastewater source covered by this permit shall be constructed and operated in compliance with the provisions of the Environmental Protection Act and Chapter 3 of the Rules and Regulations as adopted by the Illinois Pollution Control Board.

6. Plans, specifications and other documentation submitted shall constitute a part of the application and when approved shall constitute part of the permit.

7. This Permit may not be assigned or transferred without a new permit from the Illinois Environmental Protection Agency.

Pertaining only to construction permits.

1. There shall be no deviations from the approved plans and specifications unless revised plans, specifications, and application shall first have been submitted to the Environmental Protection Agency and a supplemental written permit issued.

2. The installation shall be made under the supervision of an inspector, who is familiar with the approved plans and specifications provided by and approved by the owner, and said inspector shall require that construction is in compliance with the plans and specifications approved by this Agency.

3. Unless otherwise specified by Special Condition, construction must be completed in three (3) years for treatment works and two years for sewers and wastewater sources.

4. Unless otherwise specified by Special Condition, the issuance of this permit shall be a joint construction and operation permit provided that

a) All standard and Special Conditions are complied with.

b) The Agency is notified within ten (10) days, respectively, of the date of construction and the date of testing and start-up of full operation.

c) The submission of operating reports of the treatment works covered under this permit shall be at a frequency specified by the Agency.

d) The operation permit shall expire one year from the date of start-up of operation.

e) At least 90 days prior to the expiration date of the operation permit, the permittee shall apply for a renewal of the operation permit.

This permit is issued in accordance with the Illinois Environmental Protection Act of 1970 and the Chapter III Water Pollution Regulations adopted by the Illinois Pollution Control Board in March of 1972.

TRW/REB/cj
cc: -EPA-Champaign Surveillance
-Dr. Harry W. Gehm
-Massac County Health Dept.
-Standards Section
-Grant & Tax Certification
-Div. Water Resource Management

DIVISION OF WATER POLLUTION CONTROL

Ward L. Akers P.E.

Ward L. Akers, Acting
Manager, Permit Section

Exhibit

I

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	AS 2021-005
Petition of Electric Energy, Inc.	)	(Adjusted Standard)
For a Finding of Inapplicability or, in the	)	
Alternative, an Adjusted Standard from	)	
35 Ill. Adm. Code Part 845	)	

AFFIDAVIT OF KEEGAN MACDONNA

I, Keegan MacDonna, certify under penalty of perjury pursuant to Section 1-109 of the Illinois Code of Civil Procedure, 735 ILCS 5/1-109, that the statements set forth in this affidavit are true and correct, and further state that if called upon to testify in this matter, I would competently testify as follows:

1. I am employed by the Illinois Environmental Protection Agency ("Illinois EPA" or "Agency") as an Environmental Protection Engineer III in the Industrial Permits Section ("IPS") of the Bureau of Water, and I am located in Springfield, Illinois. I have been employed by the Illinois EPA since November of 2019.

2. I have a Bachelor of Science degree in physics from Illinois State University and a Bachelor of Science degree in mechanical engineering from the University of Illinois Urbana-Champaign.

3. As a permit engineer in the IPS, my duties include timely review of National Pollution Discharge Elimination System ("NPDES") permit applications and State construction and operating permit applications, including those for coal combustion residual ("CCR") surface impoundments under 35 Ill. Adm. Code Part 845. I am the permit engineer assigned to Joppa Energy Center ("Joppa Station") for all water pollution control permit activities.

4. I have reviewed the Petition of Electric Energy, Inc. ("EEI") for a Finding of Inapplicability or, in the Alternative, an Adjusted Standard from 35 Ill. Adm. Code Part 845 ("Petition").

5. I have personal knowledge of the facts set forth in Illinois EPA's Recommendation to the Board as stated below.

6. Attached to the Recommendation as Exhibit C ("Rec. Ex. C") is Form 2F of EEI's permit application for NPDES Permit No. IL0004171, submitted to Illinois EPA, along with the rest of the facility's NPDES permit renewal application dated January 29, 2020 and received February 3, 2020. This permit record is kept by the Illinois EPA in the regular course of business, and it is the regular course of business of the Illinois EPA to transmit the information thereof to be included in this record. NPDES permit application Form 2F for NPDES Permit No. IL0004171, submitted to Illinois EPA on February 3, 2020 and attached to the Recommendation as Exhibit C, is an exact duplicate of the original.

7. Attached to the Recommendation as Exhibit G ("Rec. Ex. G") is EEI's Application for Permit to Discharge or Work in Navigable Waters and Their Tributaries No. 072-0YE-2-000465 (Log #408-73), dated June 30, 1972 and submitted to USEPA and Illinois EPA for NPDES Permit No. IL0004171. This permit application is kept by the Illinois EPA in the regular course of business, and it is the regular course of business of the Illinois EPA to transmit the information thereof to be included in this record. Discharge Permit Application No. 072-0YE-2-000465 for NPDES Permit No. IL0004171, dated June 30, 1972 and attached to the Recommendation as Exhibit G, is an exact duplicate of the original.

8. Attached to the Recommendation as Exhibit H ("Rec. Ex. H") is Illinois EPA Water Pollution Control Permit No. 1973-EA-1458 to construct and operate the East Ash Pond, issued to EEI on July 11, 1973. This permit is kept by Illinois EPA in the regular course of business, and it

is the regular course of business of the Illinois EPA to transmit the information thereof to be included in this record. Construction Permit No. 1973-EA-1458, issued to EEI on July 11, 1973 and attached to the Recommendation as Exhibit H, is an exact duplicate of the original.

9. Attached to the Recommendation as Exhibit K ("Rec. Ex. K") is NPDES Permit No. IL0004171 issued to EEI on July 26, 1974. This permit is kept by Illinois EPA in the regular course of business, and it is the regular course of business of the Illinois EPA to transmit the information thereof to be included in this record. NPDES Permit No. IL0004171, issued to EEI on July 26, 1974 and attached to the Recommendation as Exhibit K, is an exact duplicate of the original.

10. Attached to the Recommendation as Exhibit L ("Rec. Ex. L") is Modified NPDES Permit No. IL0004171 issued to EEI on July 5, 1993. This permit is kept by Illinois EPA in the regular course of business, and it is the regular course of business of the Illinois EPA to transmit the information thereof to be included in this record. Modified NPDES Permit No. IL0004171, issued to EEI on July 5, 1993 and attached to the Recommendation as Exhibit L, is an exact duplicate of the original.

11. Attached to the Recommendation as Exhibit W ("Rec. Ex. W") is Modified NPDES Permit No. IL0004171 issued to EEI on July 27, 2017. This permit is kept by Illinois EPA in the regular course of business, and it is the regular course of business of the Illinois EPA to transmit the information thereof to be included in this record. Modified NPDES Permit No. IL0004171, issued to EEI on July 26, 2017 and attached to the Recommendation as Exhibit W, is an exact duplicate of the original.

12. The Joppa Station first obtained a permit to discharge wastewater into navigable waters from the United States Army Corps of Engineers ("USACE") on June 13, 1951, prior to the commencement of power generation at the facility in August 1953. Rec. Ex. G, p. 3.

13. Following the establishment of the Illinois EPA in July 1970, an application to discharge wastewater under the coverage of a National Pollutant Discharge Elimination System ("NPDES") Permit was submitted to the Agency and to USEPA on June 30, 1972. Rec. Ex. G.

14. The 1972 NPDES permit application lists the 1951 USACE discharge permit approval. Rec. Ex. G, p. 3. I have searched Illinois EPA records and the 1951 USACE discharge permit does not exist in any storage media that is readily queried.

15. The 1972 NPDES permit application included the proposed discharge of "surface drainage from now discontinued ash disposal pond" through Outfall 001. Rec. Ex. G, p. 9. A state construction permit to construct the East Ash Pond (Permit No. 1973-EA-1458) was issued on July 11, 1973. Rec. Ex. H. Therefore, the referenced discontinued ash disposal pond in the 1972 NPDES permit application was the West Ash Pond, as no other ash disposal ponds exist at the site.

16. USEPA Region V issued NPDES Permit No. IL0004171 to the facility, with approval from Illinois EPA, on July 26, 1974. Rec. Ex. K. Ash pond discharges authorized by this permit were for the East Ash Pond only, not the West Ash Pond.

17. No permits are on record showing approval of closure of the West Ash Pond.

18. Permits for the West Ash Pond, the construction/operation of the East Ash Pond, and the other aforementioned documents encompassing the years 1951 to 1974 are listed in Table 1, attached to Recommendation as Exhibit M.

19. EEI modified NPDES Permit No. IL0004171 in 1993 to allow for stormwater discharges from the "former ash pond" (Outfall 011) to the Ohio River. Rec. Ex. L Stormwater runoff from the West Ash Pond has been discharged to the Ohio River through Outfall 011 of the NPDES Permit since the permit was modified to include it on July 5, 1993.

20. Recommendation Exhibit N shows the Joppa Station in operation in October 1971. There is a pond to the northeast of the JWAP that is in the same location as the pond associated

with the discharge from Outfall 011 that NPDES Permit IL0004171 was modified to include in 1993. The pond functions to collect stormwater runoff from the JWAP and discharges to the Ohio River.

21. NPDES Permit No. IL0004171 currently authorizes discharge from the "former ash pond." Rec. Ex. W.

22. In January 2020, EEI submitted an NPDES renewal application for Permit No. IL0004171 to Illinois EPA. Section 4.2 of Form 2F indicates Outfall 011 (as well as the facility's two other stormwater outfalls) "have contact with or potential exposure to coal and coal combustion byproducts....." but that a SWPPP is in place. Rec. Ex C.

FURTHER AFFIANT SAYETH NOT

KEEGAN MACDONNA

11/19/21
DATE

State of Illinois
County of Sangamon

Subscribed and Sworn to before
me this 19 day of November 2021.

Notary Public

OFFICIAL SEAL
DAWN A. HOLLIS
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 03-21-2025

Exhibit J

1. DIVISION CODE W

2. FIPS COUNTY CODE 127

3. CITY/TOWNSHIP CODE 010

4. GOVERNING BODY CODE 0600A

5. NAME (FILE SUBJECT)

ELECTRIC ENERGY INC-JOPPA 1973

6. FILE DIVISION 01

7. F/S/P CODE B-1202-A-

CROSS-REFERENCE INFORMATION

8. GOVERNING BODY NAME

ELECTRIC ENERGY INC.

9. NPDES NUMBER IL0004171

File

M E M O R A N D U M

TO: DIVISION OF WATER POLLUTION CONTROL - SURVEILLANCE SECTION

FROM: Armen Asaturians - Saline Sub-Unit

SUBJECT: MASSAC COUNTY -- Electric Energy, Inc.
Joppa Power Plant
Water Pollution

DATE: November 14, 1973

****

On the above date, I made an inspection of the subject power plant for completion of the additional information form for the NPDES permit. Mr. Jesse Jacobs, the plant's Chief Mechanical and Chemical Engineer, accompanied me on a complete tour of the facilities. Electric Energy, Inc., owns and operates a coal-fired electric generating plant, with a rated capacity of 1,050,000 kilowatts. The present production is about 940,000 kilowatts per day, with a coal consumption rate of 10,000 tons per day. The plant currently employs about 350 people.

SUMMARY OF SIGNIFICANT EVENTS SINCE JUNE 30, 1971

June 30, 1971	Electric Energy, Inc., submitted its first application to U. S. Army Corps of Engineers in Louisville, Kentucky, for 1899 Refuse Act permit.
July 11, 1971	The writer was asked to prepare a referral on the subject plant for any possible water pollution violations.
August 12, 1971	The writer prepared and submitted a referral to the Division of Water Pollution Control.
August 23, 1971	The referral was forwarded to the Division of Legal Services.
September 24, 1971	The referral was forwarded to the Attorney General's Office.
May 8, 1972	Referral and formal complaint was returned to Agency by Attorney General's Office.
June 30, 1972	Electric Energy, Inc., submitted revised application to U. S. Army Corps of Engineers for 1899 Refuse Act permit.

July 26, 1972 — Electric Energy, Inc., submitted Water Pollution Control program to Illinois Environmental Protection Agency.

October 18, 1972 — Federal Water Pollution Control Act Amendments of 1972 were enacted. NPDES was established.

November 9, 1972 — Illinois Environmental Protection Agency received June 30, 1972, permit application from USEPA to be used for NPDES permit purposes.

January 15, 1973 — IEPA received a variance petition, filed by Electric Energy, Inc., seeking exemption from Rule 903(a) operating permits of Chapter 3. The variance petition was later withdrawn by the petitioner.

March 1, 1973 — The Agency granted operating permits to Electric Energy Inc., for discharge points entitled #001, #003, #004, #005, #006, #007, and #009. A permit for discharge #002 was not sought; because it was discovered that although this point was specified in the application to Corps of Engineers, it was clogged and no longer had a discharge. As a result of this clogging, the water which would ordinarily flow through #002 was diverted to discharge #008. The Agency denied the permit for discharge #008 on March 12, 1973.

May 17, 1973 — The Agency issued an operating permit for discharge #008 (1973-EA-921-OP).

July 11, 1973 — Agency issued three construction and operation permits for three new treatment facilities which were first proposed in July 26, 1972, Water Pollution Control program. The treatment facilities permitted on July 11, 1973, consist of:

(A) 1973-EA-1457 -- A 4.2 acres settling lagoon designed to settle suspended solids and remove oil.

(B) 1973-AB-1459 -- An extended aeration sewage treatment plant to treat sanitary waste, with effluent chlorination and final discharge to discharge #008.

(C) 1973-EA-1458 -- An ash pond for settling bottom and fly ash with pH control equipment.

The construction of the above-mentioned facilities has started; and according to Mr. Jacobs, the projected completion date is December 31, 1973 (weather permitting). The construction and operation of above facilities is designed to eliminate or alter some of the designated nine (9) discharge points, as explained below.

Point #001 -- This discharge has an average flow of 0.144 MGD and receives flow from the following areas: wash up from coal car dump system; wash water from locomotive shop; some surface drainage; coal storage yard runoff during heavy rainfall; and bottom ash overflows from boilers #5 and #6.

The overflow from #5 and #6 boilers mentioned above will be diverted to line #3 (presently tributary to Point #008), which is to be diverted to the new settling lagoon. All other wash up water and coal yard runoff will also be diverted to settling lagoon via either the piping system or the new coal yard drainage trench, east of the coal storage yard. After this work is completed, the only flow remaining in Point #001 will be uncontaminated surface water.

Point #002 -- This is a 6" - 8" steel pipe which was originally designed to drain the conveyor belt pits via two sump pumps. This line became clogged and has not had a discharge for a long time. The water accumulated in the sumps is being bypassed to line #3, which is presently tributary to discharge #008. Since line #3 is going to be diverted to the settling lagoon, Point #002 will be eliminated as a discharge point.

Point #003 -- This is an 18" to 30" pipe which was designed to drain the western side of the coal storage yard. The pipe also receives drainage from coal crusher wash up operation. This discharge has an average flow of 0.096 MGD, with suspended solids concentration (mainly coal fines) exceeding 2,000 mg/l. This discharge will be diverted to the settling lagoon and therefore will be eliminated as a separate discharge.

Point #004 -- This is the discharge of zeolite softeners which are used to prepare suitable water for the boilers. The system uses well water which is treated by the ion-exchange columns. The average flow is 0.08 MGD, with 0.33 MGD during regeneration cycle. The discharge has a low pH (≈2.0); high dissolved solids (≈2,900 mg/l); and a suspended solids content of 27 - 53 mg/l.

This flow will be diverted to the settling lagoon; therefore, Point #004 will be eliminated as a separate discharge.

Point #005 -- This is the intake screen backwash water with an average flow of 3.72 MGD. No treatment is deemed necessary for this discharge at this time.

Point #006 -- These discharges consist of once-through condenser cooling water
Point #007 with total average flow of 540 MGD. A thermal discharge study conducted on September 10, 1970, by Agency personnel indicates compliance with present Chapter 3 Regulations. Area fishermen have reported good fishing conditions just downstream from the discharge.

Point #008 -- There are six separate discharge lines to the concrete flume, which is designated as discharge #008, as follows:

(A) Two 4" sanitary waste discharges from three septic tank systems. These discharges will be converted to the new extended aeration plant which will be equipped with effluent chlorination. The discharge is expected to meet 30 mg/l of BOD and 37 mg/l of suspended solids, and 400/100 ml of fecal coliform.

(B) Line #2 drains below grade (basement) floor drains; equipment cooling water; backwash and regenerating water from iron filters; some oil from turbine generators oil cooling reservoir and some uncontaminated cooling water. Average flow is 8.35 MGD, with a suspended solids content of 361 mg/l. All the contaminated discharges to Line #2 will be separated and diverted to the settling lagoon and oil separation system. The rest will be only once-through cooling water, suitable for discharge to the Ohio River.

(C) Line #3 gets occasional bottom ash pit overflows from Boilers #1 through #4; floor drains in boiler area for above grade levels; surface drainage from turbine deck; overflow from coal crusher pit. The bottom ash overflow of Boilers #5 and #6, which presently go into discharge #001, are to be diverted to Line #3. Then, the entire flow in Line #3 will be diverted to the settling lagoon.

(D) Line #5 - The flow in this line entirely consists of cooling water and surface runoff from transformer yard, which needs no additional treatment. This flow enters discharge #008 through a 36" pipe.

(E) Line #6 - This is a 24" pipe which carries only surface runoff from paved roads and gravel surface areas which need no additional treatment.

Point #009 -- This is the discharge of the existing ash pond which has a high pH of about 11.2; 42 mg/l of suspended solids; and an average flow of 7.04 MGD. A new ash pond has been constructed with effluent pH adjustment facilities. Sulfuric acid is to be used to reduce the pH to the acceptable range. The existing ash pond and therefore discharge #009 is to be abandoned. The new ash pond effluent will flow to the Ohio River via the natural watercourse, which, in the past, has been designated as discharge #001.

In the light of the above developments, it should be noted that the Electric Energy, Inc., will not have nine (9) discharge points as indicated on the original Corps of Engineers application, but rather six (6) points of discharge, as listed below:

1. Ash pond discharge (New)
2. Flume discharge (Old #008)
3. Settling lagoon (New)
4. Intake screen backwash (Old #005)
5 & 6. Condenser cooling discharges (Old #006 and #007)

Although the past discharges (#001 through #009) did not all have the demonstrated capability of meeting all the applicable regulations, the newly proposed discharges are expected to be in compliance with all the water pollution regulations, as soon as construction work is completed and the new facilities are put into service.

During the survey on November 14, 1973, the writer collected two samples, as listed below:

Discharge #008

Lab No. A106195

pH	8.0
BOD	4 mg/l
Suspended Solids	200 mg/l
Specific Conductance	500 micromhos
Fecal Coliform	700/100 ml
Ammonia (N)	0.13 mg/l

Discharge #009

Lab No. A106196

pH	9.4
Suspended Solids	36 mg/l
Iron (Total)	1.23 mg/l
Specific Conductance	710 micromhos
Hardness	304 mg/l
Alkalinity	60 mg/l

The writer will make another visit to this plant as soon as the construction of the new treatment facilities is completed, which should be within the next several weeks.

Armen Asaturians

Armen Asaturians, Supervisor
Saline Sub-Unit
Surveillance Section, DWPC

AA:cw
12-11-73
cc: K. L. Baumann
DWPC - Permit Section

Exhibit K

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W1270100600A ELECTRIC ENERGY INC-JOPPA      /0774 13 IL0004171        1
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INFORMATION TO BE CONTAINED ON NPDES MICROFILM JACKET

OWNERSHIP CODE: PRI FACILITY TYPE: 0

1. DIVISION CODE W

2. FIPS COUNTY CODE 127

3. CITY/TOWNSHIP CODE 010

4. GOVERNING BODY CODE 0600A

5. PERMITTEE NAME (FILE SUBJECT)

ELECTRIC ENERGY INC-JOPPA / 0774

6. FILE DIVISION 13

7. NPDES NUMBER IL0004171

OTHER INFORMATION NECESSARY FOR CROSS-REFERENCING

8. GOVERNING BODY NAME
ELECTRIC ENERGY INC.

F/S/P CODE

10. DATE IDENTIFIED IN THE FIELD REFERS TO:

A. PERMIT ISSUE DATE 07-26-74

B. PERMIT CANCELLATION DATE

C. NO PERMIT REQUIRED DATE

11. PERMIT EXPIRATION DATE 06-30-79

Richard Rice Issued Electric Energy, Inc, Joppa
NPDES #408-73
Region 5 (BM) Permits

AUG 5 1974

ENVIRONMENTAL PROTECTION AGENCY
DIV. OF WATER POLLUTION CONTROL
PERMIT SECTION - SPRINGFIELD

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

JUL 26 1974

modified Permit Issued: 6/28/76

Mr. George A. Rice
Vice President
Electric Energy, Inc. #408-73
Post Office Box 165
Joppa, Illinois 62953

Re: NPDES Permit
No. IL 0004171

Dear Mr. Rice:

Your application IL 072 OYE 2 000465 for a National Pollutant Discharge Elimination System (NPDES) Permit has been processed in accordance with Sections 402 and 405 of the Federal Water Pollution Control Act Amendments of 1972, (86 Stat. 816; Public Law 92-500, 33 U.S.C. 1251 et. seq.).

The enclosed NPDES Permit covers your operations which discharge into the Ohio River at Joppa, Illinois. All discharges from this facility shall be consistent with the terms and conditions of this permit.

Very truly yours,

ORIGINAL SIGNED BY JAMES O. McDONALD

James O. McDonald, Director
Enforcement Division

Enclosures
Permit
Reporting Forms

cc: Mr. W. H. Busch, Illinois Environmental Protection Agency, w/Permit

Permit No. IL 0004171

Application No. IL 072 OYE 2 000465

AUTHORIZATION TO DISCHARGE UNDER THE

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

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

ELECTRIC ENERGY, INC. #408-73

is authorized by the United States Environmental Protection Agency, Region V, to discharge from a facility located at Joppa, Illinois

to receiving waters named the Ohio River

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

This permit shall become effective on the date of issuing authority's signature.

This permit and the authorization to discharge shall expire at midnight, June 30, 1979 . Permittee shall not discharge after the above date of expiration. In order to receive authorization to discharge beyond the above date of expiration, the permittee shall submit such information, forms, and fees as are required by the Agency authorized to issue NPDES permits no later than 180 days prior to the above date of expiration.

Signed this JUL 2 6 1974

James O. McDonald

Director, Enforcement Division

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date of this permit and lasting until June 30, 1979 the permittee is authorized to discharge from outfall(s) serial number(s) 001.

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

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS kg/day (lbs/day)		DISCHARGE LIMITATIONS Other Units (Specify)		MONITORING REQUIREMENTS Measurement Frequency	MONITORING REQUIREMENTS Sample Type
	Daily Avg	Daily Max	Daily Avg	Daily Max		
Flow M^3/Day (MGD)	-	-	-	-	Monthly	Continuous duri sampling
Suspended Solids	-	-	-	15 mg/l	Monthly	24 hour composi
Oil & Grease	-	-	10 mg/l	15 mg/l	Monthly	Grab
Total Dissolved Solids	-	-	-	▲750 mg/l	Monthly	24 hour composi
Total Iron	-	-	-	2.0 mg/l	Quarterly	24 hour composi
Total Lead	-	-	-	0.05 mg/l	Quarterly	24 hour composi
Total Cadmium	-	-	-	0.01 mg/l	Quarterly	24 hour composi
Total Manganese	-	-	-	1.0 mg/l	Quarterly	24 hour composi

The pH shall not be less than 6.0 nor greater than 9.0 and shall be monitored by weekly grab samples.

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): At a point representative of the discharge but prior to entry into the Ohio River.

Compliance with the numerical effluent standards is not required when effluent concentrations in the excess of the standards result entirely from influent contamination, evaporation; and/or the incidental addition of trace materials not utilized or produced in the activity that is the source of the waste.

If the permittee after monitoring for at least 6 months determines that he is consistently meeting the effluent limits contained in Part I, A (1), the permittee may request of the Regional Administrator and the Director that the monitoring requirements be reduced to twice or once per year or be eliminated. Upon written notification by the Regional Administrator and the Director, the permittee will monitor as directed.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginningon the effective date of this permit and lasting until June 30, 1979 the permittee is authorized to discharge from outfall(s) serial number(s) 005- intake screen wash.

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

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS kg/day (lbs/day)		Other Units (Specify)		MONITORING REQUIREMENTS	
	Daily Avg	Daily Max	Daily Avg	Daily Max	Measurement Frequency	Sample Type
Flow-M^3/Day (MGD)	-	-	-	-	Daily	-

There shall be no discharge of debris from intake screen washing operations.

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): At a point representative of the discharge but prior to entry into the Ohio River.

Permit No. IL 0004171

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

3. During the period beginning on the effective date of this permit and lasting until June 30, 1979 the permittee is authorized to discharge from outfall(s) serial number(s) 006 & 007.

The total of the discharges from all of these outfalls shall not exceed the limitations specified below. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS kg/day (lbs/day)		Other Units (Specify)		MONITORING REQUIREMENTS	
	Daily Avg	Daily Max	Daily Avg	Daily Max	Measurement Frequency	Sample Type
Flow-M^3/Day (MGD)	-	-	-	-	Continuous	-
Temperature	-	-	-	-	Continuous	-
Total Chlorine Residual	-	-	-	* 0.2 mg/l	Weekly	Grab

*To be determined in the discharge channel after mixing of discharges 006 and 007.

The pH shall not be less than 6.0 nor greater than 9.0 and shall be monitored by weekly grab samples.

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): At a point representative of the discharge but prior to entry into the Ohio River.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

4. During the period beginning on the effective date of this permit and lasting until June 30, 1979 the permittee is authorized to discharge from outfall(s) serial number(s) 008 - aeration tank effluent.

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

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS kg/day (lbs/day) Daily Avg	Daily Max	Other Units (Specify) Daily Avg	Daily Max	MONITORING REQUIREMENTS Measurement Frequency	Sample Type
Flow-M^3/Day (MGD)	-	-	-	-	Measure when sampling	
BOD_5	-	-	*30 mg/l	45 mg/l	Monthly	24 hour composit
Suspended Solids	-	-	*30 mg/l	45 mg/l	Monthly	24 hour composit
Fecal Coliform	-	-	200/100 ml	400/100 ml	Monthly	Grab

*Or 85% removal, whichever is less.

The pH shall not be less than 6.0 nor greater than 9.0 and shall be monitored monthly, grab sample.

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): At a point representative of the discharge but prior to entry into the Ohio River.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

5. During the period beginning on the effective date of this permit and lasting until June 30, 1979 the permittee is authorized to discharge from outfall(s) serial number(s) 008.

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

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS kg/day (lbs/day) Daily Avg	kg/day (lbs/day) Daily Max	Other Units (Specify) Daily Avg	Other Units (Specify) Daily Max	MONITORING REQUIREMENTS Measurement Frequency	Sample Type
Flow-M^3/Day (MGD)	-	-	-	-	Measure when sampling	
Oil & Grease	-	-	10 mg/l	15 mg/l	Monthly	Grab
Suspended Solids	-	-	-	15 mg/l	Monthly	24 hour composite

The pH shall not be less than 6.0 nor greater than 9.0 and shall be monitored monthly, grab sample.

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): At a point representative of the discharge but prior to entry into the Ohio River.

Compliance with the numerical effluent standards is not required when effluent concentrations in excess of the standards result entirely from influent contamination, evaporation, and/or the incidental addition of trace of material not utilized or produced in the activity that is the source of the waste.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

6. During the period beginning on the effective date of this permit and lasting until June 30, 1979 the permittee is authorized to discharge from outfall(s) serial number(s) 010.

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

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS kg/day (lbs/day) Daily Avg	Daily Max	Other Units (Specify) Daily Avg	Daily Max	MONITORING REQUIREMENTS Measurement Frequency	Sample Type
Flow-M^3/Day (MGD)	-	-	-	-	Measure when sampling	
Oil & Grease	-	-	10 mg/l	15 mg/l	Monthly	Grab
Suspended Solids	-	-	-	15 mg/l	Monthly	24 hour composit

The pH shall not be less than 6.0 nor greater than 9.0 and shall be monitored monthly, grab sample.

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): At a point representative of the discharge but prior to entry into the Ohio River.

Compliance with the numerical effluent standards is not required when effluent concentrations in excess of the standards result entirely from influent contamination, evaporation, and/or the incidental addition of trace of materials not utilized or produced in the acitivty that is the source of the waste.

B. MONITORING AND REPORTING

1. Representative Sampling

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

2. Reporting

Monitoring results obtained during the previous three months shall be summarized and reported on a Discharge Monitoring Report Form (EPA No. 3320-1), postmarked no later than the 28th day of the month following the completed reporting period. The first report is due on October 28, 1974. Duplicate signed copies of these, and all other reports required herein, shall be submitted to the Regional Administrator and the State at the following addresses:

U. S. Environmental Protection Agency
Region V, Enforcement Division
ATTN: Chief, Compliance Section
1 North Wacker Drive
Chicago, Illinois 60606

Environmental Protection Agency
State of Illinois
Division of Water Pollution Control
2200 Churchill Road
Springfield, Illinois 62706

3. Definitions

a. "Daily Average" Discharge

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

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

b. "Daily Maximum" Discharge

1. Weight Basis - the "daily maximum" discharge means the total discharge by weight during any calendar day.

2. Concentration Basis - the "daily maximum" concentration means the daily determination of concentration for any calendar day.

4. Test Procedures

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

5. Recording of Results

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

a. The exact place, date, and time of sampling;

b. The dates the analyses were performed;

c. The person(s) who performed the analyses;

d. The analytical techniques or methods used; and

e. The results of all required analyses.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(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 Discharge Monitoring Report From (EPA No. 3320-1). Such increased frequency shall also be indicated.

7. Records Retention

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

C. SCHEDULE OF COMPLIANCE

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

Alternative schedule providing for off stream cooling facilities in conformance with the requirements of Section 301 of the Act.

Completion of Preliminary Plans by	-	December 31, 1975
Final Plans by	-	June 30, 1976
Contract Awarded by	-	September 30, 1976
Commencement of Construction by	-	December 31, 1976
Progress Report	-	June 30, 1977
Progress Report	-	March 31, 1978
Progress Report	-	December 31, 1978
*Progress Report	-	September 30, 1979
*Completion of Construction by	-	March 31, 1980
*Attainment of Operational Level by	-	June 30, 1980

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

*These dates are included in the schedule of compliance to alert the Permittee to the proposed requirements for off-stream cooling as set forth in 39 Federal Register 8294-8307 (March 4, 1974).

PART II

A. MANAGEMENT REQUIREMENTS

1. Change in Discharge

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

2. Noncompliance Notification

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

a. A description of the discharge and cause of noncompliance; and

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

3. Facilities Operation

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

4. Adverse Impact

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

5. Bypassing

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

6. Removed Substances

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

7. Power Failures

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

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

or, if no date for implementation appears in Part I,

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

B. RESPONSIBILITIES

1. Right of Entry

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

a. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and

b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any discharge of pollutants.

2. Transfer of Ownership or Control

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

3. Availability of Reports

Except for data determined to be confidential under Section 308 of the Act, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the State water pollution control agency and the Regional Administrator. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act.

4. Permit Modification

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

a. Violation of any terms or conditions of this permit;

b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

5. Toxic Pollutants

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

6. Civil and Criminal Liability

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

7. Oil and Hazardous Substance Liability

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

8. State Laws

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

9. Property Rights

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

10. Severability

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

PART III

OTHER REQUIREMENTS

1. THERMAL LIMITATIONS AND MONITORING REQUIREMENTS

Beginning with the effective date of this permit and lasting until June 30, 1979, the permittee is authorized to discharge from outfalls 006 & 007 a heated effluent which shall at no time raise the natural temperature of the Ohio River more than 2.8°C (5°F) at the edge of a mixing zone which shall not exceed the area of a circle with a radius of 183 meters (600 feet). In addition, the water temperature outside the mixing zone shall not exceed the maximum limits in the following 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 outside the mixing zone exceed the maximum limits in the following table by more than 1.7°C (3°F):

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
°C	10.0	10.0	15.6	21.1	26.7	30.6	31.7	31.7	30.6	25.6	21.1	13.9
°F	50	50	60	70	80	87	89	89	87	78	70	57

The mixing zone shall not extend over more than 25% of the cross-sectional area of the river.

The permittee shall determine the 2.8°C (5°F) contour, the contour of the applicable monthly maximum temperature, and the areas within these contours at three month intervals for a period of one year after the effective date of this permit. After the initial year of measurements, the permittee shall continue to determine these contours and areas every three months but may use estimating procedures based on the first year's data. The results of these determinations shall be reported to the Regional Administrator and the Illinois EPA on a quarterly basis.

If, as a result of the above thermal monitoring, the permittee determines that compliance with the above thermal limitations is not acheived at all times, the permittee shall, within 60 days, submit a schedule for compliance with the above thermal restrictions by July 1, 1977.

By August 31, 1974 the permittee shall submit to the Regional Administrator for approval a plan of study for the investigation of the effects of the heated effluent on the ecology of the receiving waters. After one year of study the permittee shall submit annual status reports. In addition, a summary status report of this study shall be submitted as a part of the application for renewal of this permit.

PART III

All data and records associated with this study shall be retained in their entirety by the permittee and shall be made available subject to the request of the Regional Administrator and/or the Illinois Environmental Protection Agency.

The permittee shall report the quarterly average load factor for the plant along with other monitoring data.

2. THERMAL DISCHARGE WAIVER

Permittee has requested a waiver of requirements for off-stream cooling under the provisions of Section 316(a) of the Act. By August 31, 1974, the permittee shall submit a plan of study to show that the requirements of off-stream cooling are not necessary to assure protection and propagation of a balanced indigenous population of fish, shellfish, and wildlife on and in that body of water. Semi-annual interim reports will be submitted, and the study will be completed and a report submitted to the Regional Administrator by not later than December 31, 1975. Results from the first year of the investigation of the thermal effects upon the ecology may be utilized as part of the requirement for this demonstration.

Development of the demonstration shall be guided by the draft "Proposed Guidelines for Administration of the 316(a) Regulations" as proposed by the U.S. EPA.

3. INTAKE STRUCTURES

Within fourteen months of the effective date of this permit, the permittee shall submit a report to the Regional Administrator and the Illinois Environmental Protection Agency providing proposals for measures to be taken by the permittee to meet the requirements of Section 316 of the Act for the best cooling water intake technology available. The report shall contain a detailed demonstration that the proposed measures will minimize the adverse environmental impact and a summary of monitoring data collected to determine the effects of the present intake on the various species and life stages of fish. Such monitoring data shall also be submitted quarterly with other reports.

Development of the report shall be guided by the "Development Document for Best Technology Available for Minimizing Adverse Environmental Impact of Cooling Water Intake Structures" as proposed by the U.S. EPA.

If the permittee represents his existing system or some minor modification of it, or best available technology, the monitoring program shall include at a minimum a tabulation of all fish trapped by the present intake structure. This tabulation shall be performed every fourth day (or according to some other schedule requested by the applicant and approved by the Regional Administrator and the Illinois Environmental Protection Agency within 15 days after the effective date of this permit). The tabulation shall begin within 30 days after the effective date of this permit and ending within one year of the

PART III

the effective date of this permit and shall include the number, weight, size, and species of each fish entrapped.

The report shall be evaluated with regard to Section 316(b) of the Act. As a result of this evaluation, the Regional Administrator may modify the permit in accordance with Part II.B.4. to establish an implementation schedule to insure compliance with Section 316(b).

4. ADDITIONAL REPORTING OF MONITORING TO ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

Monitoring results obtained during the previous one month shall be summarized and reported on a Discharge Monitoring Report Form (EPA No. 3320-1), postmarked no later than the 15 th day of the month following the completed reporting period. The first monthly report is due on September 15, 1974. The signed reports required herein, shall be submitted monthly to the State at the following address:

Environmental Protection Agency
State of Illinois
Division of Water Pollution Control
2200 Churchill Road
Springfield, Illinois 62706

Exhibit L

W12701006O0A ELECTRIC ENERGY INC-JOPPA /0793 13 IL0004171

INFORMATION TO BE CONTAINED ON NPDES MICROFILM JACKET

OWNERSHIP CODE: PRI FACILITY TYPE: J

1. DIVISION CODE W

2. FIPS COUNTY CODE 127

3. CITY/TOWNSHIP CODE 010

4. GOVERNING BODY CODE 0600A

5. PERMITTEE NAME (FILE SUBJECT)

ELECTRIC ENERGY INC-JOPPA / 0793

6. FILE DIVISION 13

7. NPDES NUMBER IL0004171

OTHER INFORMATION NECESSARY FOR CROSS-REFERENCING

8. GOVERNING BODY NAME
ELECTRIC ENERGY INC.

F/S/P CODE B - 1 2 0 2 - A - - - - - - - - - -

10. DATE IDENTIFIED IN THE FIELD REFERS TO:

A. PERMIT ISSUE DATE 07-05-93

B. PERMIT CANCELLATION DATE - - - - - -

C. NO PERMIT REQUIRED DATE - - - - - -

11. PERMIT EXPIRATION DATE 08-01-94

State of Illinois
ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/782-0610

July 5, 1993

Electric Energy, Inc.
Post Office Box 165
Joppa, Illinois 62953

Re: Electric Energy, Inc.
Electric Energy, Inc.
NPDES Permit No. IL0004171
Modification of NPDES Permit (After Public Notice)

Gentlemen:

The Illinois Environmental Protection Agency has reviewed the request for modification of the above-referenced NPDES Permit and issued a public notice based on that request. The final decision of the Agency is to modify the Permit as follows:

Include three new outfalls for storm water runoff and incorporate special conditions involving treated storm water and a Storm Water Pollution Pollution Prevention Plan (SWPPP).

Enclosed is a copy of the modified Permit. You have the right to appeal this modification to the Illinois Pollution Control Board within a 30 day period following the modification date shown on the first page of the permit.

Should you have any question or comments regarding the above, please contact Fred Rosenblum of my staff.

Very truly yours,

Thomas G. McSwiggin, P.E.
Manager, Permit Section
Division of Water Pollution Control

TGM:FR:ct,1282v,10

Attachment: Modified Permit
cc: Records
Marion Region
USEPA
CAS

NPDES Permit No. IL0004171

Illinois Environmental Protection Agency

Division of Water Pollution Control

2200 Churchill Road

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Modified (NPDES) Permit

Expiration Date: August 1, 1994

Issue Date: October 20, 1989
Effective Date: November 19, 1989
Modification Issue Date: July 5, 1993
Modification Effective Date: July 5, 1993

Name and Address of Permittee:

Electric Energy, Incorporated
Post Office Box 165
Joppa, Illinois 62953

Facility Name and Address:

Electric Energy, Incorporated
Joppa Generating Station
Post Office Box 165
Joppa, Illinois 62953
(Massac County)

Discharge Number and Name:

No. 001 Ash Pond Discharge

No. 005 Intake Screen Backwash
No. 006 Condenser Cooling Water Units 1-4
No. 007 Condenser Cooling Water Units 5-6
No. 008 Flume Discharge
No. 008(a) Sewage Treatment Plant Effluent
No. 008(b) Boiler Blowdown
No. 010 Settling Lagoon Discharge
No. 011 Storm water runoff from former ash pond
No. 012 Storm water runoff from railroad car unloading facility
No. 013 Storm water runoff from railroad car unloading facility and berm of an ash pond

Receiving Waters

Unnamed tributary to the Ohio River

Ohio River

In compliance with the provisions of the Illinois Environmental Protection Act, Subtitle C Rules and Regulations of the Illinois Pollution Control Board, and the FWPCA, 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.

Thomas G. McSwigg Jr., P.E.
Manager, Permit Section
Division of Water Pollution Control

TGM:TRK:FLR:jd/sp/1449d

Modification Date: July 5, 1993

NPDES Permit No. IL0004171

Effluent Limitations and Monitoring

PARAMETER	LOAD LIMITS lbs/day 30 DAY AVG.	LOAD LIMITS lbs/day DAILY MAX.	CONCENTRATION LIMITS mg/l 30 DAY AVG.	CONCENTRATION LIMITS mg/l DAILY MAX.	SAMPLE FREQUENCY	SAMPLE TYPE

1. From the effective date of this permit until August 1, 1994, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): No. 001 Ash Pond Discharge** Approximate Flow
This discharge consists of:
1. Bottom ash and fly ash sluice water 8.5 MGD
2. Air heater wash water Intermittent
3. Demineralizer regenerant waste 0.04 MGD
4. Central water treatment building floor drains Intermittent

Flow (MGD)					1/Week	Calculation
pH	See Special Condition No. 1				1/Week	Grab
Total Suspended Solids			15.0	30.0	1/Week	24-Hour Composite
Oil and Grease			15.0	20.0	1/Month	Grab

Outfall(s): No. 005 Intake Screen Backwash Approximate Flow 0.08 MGD

Flow (MGD)					1/Month	Calculation

There shall be no discharge of collected debris other than trace amounts.

Outfall(s): 006 Condenser Cooling Water Units 1-4
007 Condenser Cooling Water Units 5-6
Approximate Flow 460 MGD

Flow (MGD)					Continuous	Calculated
pH	See Special Condition No. 1				1/Week	Grab
Total Residual Chlorine	See Special Condition No. 5			0.2	2/Month	Concentration Curve
Temperature	See Special Condition No. 3				Continuous	

**See Special Condition No. 13

Modification Date: July 5, 1993

NPDES Permit No. IL0004171

Effluent Limitations and Monitoring

PARAMETER	LOAD LIMITS lbs/day 30 DAY AVG.	LOAD LIMITS lbs/day DAILY MAX.	CONCENTRATION LIMITS mg/l 30 DAY AVG.	CONCENTRATION LIMITS mg/l DAILY MAX.	SAMPLE FREQUENCY	SAMPLE TYPE

1. From the effective date of this permit until August 1, 1994, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): 008 Flume Discharge*

This discharge consists of:

	Approximate Flow
1. Sewage treatment plant effluent	0.042 MGD
2. Boiler blowdown	Intermittent
3. Auxiliary cooling water discharges	1.1 MGD
4. Yard storm drains	Intermittent
5. Basement floor drains	Intermittent

Flow (MGD)					1/Week	Estimate
pH	See Special Condition No. 1				1/Month	Grab
Oil and Grease			15.0	20.0	1/Month	Grab

Outfall(s): 008(a) Sewage Treatment Plant Effluent**

Approximate Flow
0.042 MGD
(DMF 0.060 MGD)

Flow (MGD)					Continuous	Calculated
pH	See Special Condition No. 1				1/Month	Grab
BOD_5	15.0	30.0	30.0	60.0	1/Month	24-Hour Composite
Total Suspended Solids	15.0	30.0	30.0	60.0	1/Month	24-Hour Composite
Fecal Coliform	See Special Condition No. 7				1/Month	Grab

*See Special Condition No. 12
**See Special Condition No. 13

Modification Date: July 5, 1993

NPDES Permit No. IL0004171

Effluent Limitations and Monitoring

PARAMETER	LOAD LIMITS lbs/day 30 DAY AVG.	LOAD LIMITS lbs/day DAILY MAX.	CONCENTRATION LIMITS mg/l 30 DAY AVG.	CONCENTRATION LIMITS mg/l DAILY MAX.	SAMPLE FREQUENCY	SAMPLE TYPE
1. From the effective date of this permit until August 1, 1994, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:						
Outfall(s): 008(b) Boiler Blowdown					Approximate Flow 0.016 MGD	
Flow (MGD)					Continuous	Calculated
Total Suspended Solids			15.0	30.0	1/Month	8-Hour Composite
Outfall(s): No. 010 Settling Lagoon Discharge** This discharge consists of:					Approximate Flow	
1. Coal pile runoff					Intermittent	
2. Coal reclaim pit sump pump discharge					Intermittent	
3. Coal car dumper drains					Intermittent	
4. Crusher house floor drains					0.5 MGD	
5. Main plant floor drains					1.7 MGD	
6. Bottom ash hopper overflow					1.0 MGD	
7. Potable water filter backwash					Intermittent	
8. Potable water iron filter backwash and regenerate waste					Intermittent	
9. North plant area storm drainage					Intermittent	
10. Auxiliary equipment cooling water					0.001 MGD	
Flow (MGD)					Continuous	
pH	See Special Condition No. 1				2/Week	Grab
Total Suspended Solids*			15.0	30.0	1/Week	24-Hour Composite
Oil and Grease			15.0	20.0	1/Month	Grab

Compliance with the numerical effluent concentration is not required when effluent concentrations in excess of the standards result entirely from influent concentration, evaporation and/or incidental addition of traces of materials not utilized or produced in the activity that is the source of the waste. If credit for the background concentration is requested the following determinations shall be made and reported:

1. Determine the total suspended solids of the river water (sample to be taken after the duplex filter).

2. Determine the total flow of river water used for non-contact cooling going to the settling lagoon.

3. Determine the total flow from the settling lagoon (Outfall 010).

4. Determine the total suspended solids of the settling lagoon effluent.

5. Determine the adjusted effluent concentration limit.

**See Special Condition No. 13

Modification Date: July 5, 1993

NPDES Permit No. IL0004171

Effluent Limitations and Monitoring

PARAMETER	LOAD LIMITS lbs/day 30 DAY AVG.	LOAD LIMITS lbs/day DAILY MAX.	CONCENTRATION LIMITS mg/l 30 DAY AVG.	CONCENTRATION LIMITS mg/l DAILY MAX.	SAMPLE FREQUENCY	SAMPLE TYPE

1. From the effective date of this permit until August 1, 1994, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): No. 011, 012 and 013*

*See Special Condition No. 12

NPDES Permit No. IL0004171

Special Conditions

1. The pH shall be in the range of 6.0 to 9.0.

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.

3. Thermal Discharge: Electric Energy Incorporated may operate Joppa Generating Station with a once-through cooling water system as long as thermal discharges from this facility do not exceed those levels associated with maximum power production capacity existing on February 22, 1977 (1,086 megawatts).

   A. The permittee shall report the monthly average load factor and the monthly maximum power production.

   B. Condenser cooling water temperature data shall be reported on DMR's as: the monthly average temperature of the discharge, the maximum daily discharge temperature recorded for the month and the minimum daily discharge temperature recorded for the month.

4. If effluent monitoring cannot be completed for Outfall No. 008 during periods of continued flooding (Ohio River elevation 324.0 or greater) the Ohio River elevation shall be reported.

5. Chlorine may not be discharged from each unit's main cooling condensers for more than two hours in any one day. Samples taken for chlorine monitoring purposes may be taken in the condenser cooling water discharge bay at a point representative of the discharge but prior to confluence with the rivers edge.

   A. The reported mean concentration and maximum concentration for Total Residual Chlorine shall be based on a chlorine concentration curve generated during the respective chlorination period of a pair of units randomly selected for each monitoring period. Chlorine concentration curves shall be submitted along with the monthly Discharge Monitoring Reports. The time samples were collected, the time and duration of the chlorine dosing period plus the amount of chlorine applied shall be reported.

   B. Electric Energy, Inc. shall provide this Agency an evaluation of station compliance with BAT and BPT chlorine limitations at 40 CFR 423 if present chlorination practices are increased. Present circulating water chlorination practices are:
   Duration: six minutes injection/unit/every four hours
   Dosage: maximum 4500 lbs/day total chlorine usage.
   If present circulating water chlorination is increased, this permit is subject to modification to reflect BPT or BAT limits, whichever is more stringent.

6. There shall be no discharge of chemical metal cleaning agents and associated rinses unless this permit has been modified to include the new discharge.

7. The daily maximum fecal coliform count measured once per month shall not exceed 400/100 ml.

8. There shall be no discharge of polychlorinated biphenyl compounds.

9. Electric Energy, Incorporated demonstration for the Joppa Generating Station in accordance with Section 316(b) of the CWA was approved by this Agency by letter dated April 12, 1979. It is determined that no additional intake monitoring or modification is required for reissuance of this NPDES permit.

10. Electric Energy Incorporated demonstration for the Joppa Generating Station in accordance with Section 316(a) of the CWA was approved by the Illinois Pollution Control Board in Order 77-124 dated September 1, 1977. It is determined by this Agency that no modification is required for reissuance of this NPDES permit.

11. The permittee shall record monitoring results on Discharge Monitoring Report forms using one such form for each discharge each month.

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

Discharge Monitoring Reports shall be mailed to the IEPA at the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
2200 Churchill Road
Springfield, Illinois 62706

Attention: Compliance Assurance Section

Special Conditions

12. STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR OUTFALLS 008, 011, 012 and 013

A. A storm water pollution prevention plan shall be developed 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.

B. The plan shall be completed within 180 days of the effective date of this permit. Plans shall provide for compliance with the terms of the plan within 365 days of the effective date of this permit. The owner or operator of the facility shall make a copy of the plan available to the Agency 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 G 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 the shortest reasonable period of time, and shall be provided to the Agency for review upon request.

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.

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, diversions, 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.

Special Conditions

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.

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.

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 clean up 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;

   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.

Special Conditions

v. Storm Water Diversion - Storm water diversion away from materials manufacturing, storage and other areas of potential storm water contamination;

vi. Covered Storage or Manufacturing Areas - Covered fueling operations, materials manufacturing and storage areas to prevent contact with storm water.

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 and 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. 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.

H. 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 thereunder, and Best Management Programs under 40 CFR 125.100.

I. The plan is considered a report that shall be available to the public under Section 308(b) of the CWA. The permittee may claim portions of the plan as confidential business information, including any portion describing facility security measures.

J. 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.

REPORTING

K. The facility shall submit an annual inspection report to the Illinois Environmental Protection Agency. The report shall include results of the annual facility inspection which is required by Part G of the Storm Water Pollution Prevention Plan of this permit. 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).

L. 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.

M. Annual inspection reports shall be mailed to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Compliance Assurance Section
Annual Inspection Report
2200 Churchill Road
P.O. Box 19276
Springfield, Illinois 62794-9276

N. If the facility performs inspections more frequently than required by this permit, the results shall be included as additional information in the annual report.

Special Conditions

13. The Agency has determined that the effluent limitations in this permit constitute BAT/BCT for storm water which is treated in the existing treatment facilities (Outfalls 001, 008(a) and 010) 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.

ATTACHMENT H

Standard Conditions

Definitions

Act means the Illinois Environmental Protection Act, Ch. 111 1/2 Ill. Rev. Stat., Sec. 1001-1051 as Amended.

Agency means the Illinois Environmental Protection Agency.

Board means the Illinois Pollution Control Board.

Clean Water Act (formerly referred to as the Federal Water Pollution Control Act) means Pub. L. 92-500, as amended. 33 U.S.C. 1251 et seq.

NPDES (National Pollutant Discharge Elimination System) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318 and 405 of the Clean Water Act.

USEPA means the United States Environmental Protection Agency.

Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Maximum Daily Discharge Limitation (daily maximum) means the highest allowable daily discharge.

Average Monthly Discharge Limitation (30 day average) means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Discharge Limitation (7 day average) means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Aliquot means a sample of specified volume used to make up a total composite sample.

Grab Sample means an individual sample of at least 100 milliliters collected at a randomly-selected time over a period not exceeding 15 minutes.

24 Hour Composite Sample means a combination of at least 8 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24-hour period.

8 Hour Composite Sample means a combination of at least 3 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over an 8-hour period.

Flow Proportional Composite Sample means a combination of sample aliquots of at least 100 milliliters collected at periodic intervals such that either the time interval between each aliquot or the volume of each aliquot is proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot.

(1) **Duty to comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

(2) **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 and obtain a new permit. If the permittee submits a proper application as required by the Agency no later than 180 days prior to the expiration date, this permit shall continue in full force and effect until the final Agency decision on the application has been made.

(3) **Need to halt or reduce activity not a defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(4) **Duty to mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(5) **Proper operation and maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up, or auxiliary facilities, or similar systems only when necessary to achieve compliance with the conditions of the permit.

(6) **Permit actions.** This permit may be modified, revoked and reissued, or terminated for cause by the Agency pursuant to 40 CFR 122.62. 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.

(7) **Property rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.

(8) **Duty to provide information.** The permittee shall furnish to the Agency within a reasonable time, any information which the Agency may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also furnish to the Agency, upon request, copies of records required to be kept by this permit.

(9) **Inspection and entry.** The permittee shall allow an authorized representative of the Agency, upon the presentation of credentials and other documents as may be required by law, to:

(a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

(d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance, or as otherwise authorized by the Act, any substances or parameters at any location.

(10) **Monitoring and records.**

(a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(b) 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 this permit, measurement, report or application. This period may be extended by request of the Agency at any time.

(c) Records of monitoring information shall include:

(1) The date, exact place, and time of sampling or measurements;

(2) The individual(s) who performed the sampling or measurements;

(3) The date(s) analyses were performed;

(4) The individual(s) who performed the analyses;

(5) The analytical techniques or methods used; and

(6) The results of such analyses.

(d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit. Where no test procedure under 40 CFR Part 136 has been approved, the permittee must submit to the Agency a test method for approval. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.

(11) **Signatory requirement.** All applications, reports or information submitted to the Agency shall be signed and certified.

(a) **Application.** All permit applications shall be signed as follows:

(1) For a corporation: by a principal executive officer of at least the level of vice president or a person or position having overall responsibility for environmental matters for the corporation;

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

(b) **Reports.** All reports required by permits, or other information requested by the Agency shall be signed by a person described in paragraph (a) or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph (a); and

(2) The authorization specifies either an individual or a position responsible for the overall operation of the facility, from which the discharge originates, such as a plant manager, superintendent or person of equivalent responsibility; and

(3) The written authorization is submitted to the Agency.

(c) **Changes of Authorization.** If an authorization under (b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of (b) must be submitted to the Agency prior to or together with any reports, information, or applications to be signed by an authorized representative.

(12) **Reporting requirements.**

(a) **Planned Changes.** The permittee shall give notice to the Agency as soon as possible of any planned physical alterations or additions to the permitted facility.

(b) **Anticipated noncompliance.** The permittee shall give advance notice to the Agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) **Compliance schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(d) **Monitoring reports.** Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(1) Monitoring results must be reported on a Discharge Monitoring Report (DMR).

(2) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

(3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Agency in the permit.

(e) **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 written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The following shall be included as information which must be reported within 24 hours:

(1) Any unanticipated bypass which exceeds any effluent limitation in the permit;

(2) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Agency in the permit to be reported within 24 hours;

The Agency may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

(f) **Other noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs (12)(c), (d), or (e), at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (12)(e).

(g) **Other information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Agency, it shall promptly submit such facts or information.

(13) **Transfer of permits.** A permit may be automatically transferred to a new permittee if:

(a) The current permittee notifies the Agency at least 30 days in advance of the proposed transfer date;

(b) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittees; and

(c) The Agency does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement.

(14) All manufacturing, commercial, mining, and silvicultural dischargers must notify the Agency as soon as they know or have reason to believe:

(a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant identified under Section 307 of the Clean Water Act 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 value reported for that pollutant in the NPDES permit application; or

(4) The level established by the Agency in this permit.

(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 NPDES permit application.

(15) All Publicly Owned Treatment Works (POTW's) must provide adequate notice to the Agency of the following:

(a) Any new introduction of pollutants into that POTW from an indirect discharger which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and

(b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

(c) For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(16) If the permit is issued to a publicly owned or publicly regulated treatment works, the permittee shall require any industrial user of such treatment works to comply with federal requirements concerning:

(1) User charges pursuant to Section 204(b) of the Clean Water Act and applicable regulations appearing in 40 CFR 35;

(2) Toxic pollutant effluent standards and pretreatment standards pursuant to Section 307 of the Clean Water Act; and

(3) Inspection, monitoring and entry pursuant to Section 308 of the Clean Water Act.

(17) If an applicable standard or limitation is promulgated under Section 301(b)(2)(C) and (D), 304(b)(2), or 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked, and reissued to conform to that effluent standard or limitation.

(18) Any authorization to construct issued to the permittee pursuant to 35 Ill. Adm. Code 309.154 is hereby incorporated by reference as a condition of this permit.

(19) The permittee shall not make any false statement, representation or certification in any application, record, report, plan or other document submitted to the Agency or the USEPA, or required to be maintained under this permit.

(20) The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307, or 308 of the Clean Water Act is subject to a fine of not less than $2,500, nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both.

(21) The 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 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.

(22) The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit shall, including monitoring reports or reports of compliance or non-compliance 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.

(23) Collected screening, slurries, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those wastes (or runoff from the wastes) into waters of the State. The proper authorization for such disposal shall be obtained from the Agency and is incorporated as part hereof by reference.

(24) In case of conflict between these standard conditions and any other condition(s) included in this permit, the other condition(s) shall govern.

(25) The permittee shall comply with, in addition to the requirements of the permit, all applicable provisions of 35 Ill. Adm. Code, Subtitle C, Subtitle D, Subtitle E, and all applicable orders of the Board.

(26) The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit is held invalid, the remaining provisions of this permit shall continue in full force and effect.

Exhibit M

Table 1

Summary of Permits Issued 1951 to 1974

Illinois Environmental Protection Agency Recommendation in AS 2021-005

Electric Energy, Inc's Petition For A Finding of Inapplicability, or in the Alternative, an Adjusted Standard from 35 Ill. Admin. Code Part 845

Illinois Environmental Protection Agency, Bureau of Water

Date of Approval	Expiration Date	PermitID	Permitted Activity	Ponds Associated with Activity	Ex. #
6/13/1951			Army Corps of Engineers Discharge Permit	First discharge permit issued to the facility.	G by ref.
6/30/1972		IL072-OYE-2-000465, Log#408-73	Army Corps of Engineers Discharge Permit/NPDES Permit Application for West Ash Pond.	Outfall 001 is listed as discharging surface drainage from "discontinued ash disposal pond", must be West Ash Pond based on date of document.	G
7/11/1973		1973-EA-1458	Permit to construct an ash pond for settling bottom and fly ash	East Ash Pond, still in use today. The projected completion date was 12/31/73, so it is implied that the West Ash Pond was still in use until at least the end of '73.	H
11/14/1973			Memo from Saline Sub-Unit to DWPC Surveillance Section	States that discharge from existing ash pond (West Ash Pond) was permitted under an operating permit (dated 3/1/73) as discharging from "Point #009". Clarifies that West Ash Pond discharge will be discontinued and the pond abandoned due to construction of the East Ash Pond.	J
7/26/1974	6/30/1979	IL0004171	Discharge of wastewater including discharge from Outfall 001 (East Ash Pond)	First recorded issuance of an NPDES permit for the facility	K

Notes:

Permits issued were issued by the IEPA unless otherwise indicated.

Summary of Permits issued is limited to 1951 to 1974.

Approved permits after 1974 do not provide evidence of an approved closure of the West Ash Pond.

Exhibit N

Joppa October 1971

Illinois Environmental Protection Agency Response to Adjusted Standard Petition for Electric Energy, Inc's Joppa West Ash Pond

Electric Energy's Petition for a Finding of Inapplicability, or in the Alternative, an Adjusted Standard for Joppa West Ash Pond

Illinois Environmental Protection Agency, Bureau of Water

Exhibit O

Joppa August 1980

Illinois Environmental Protection Agency Response to Adjusted Standard Petition for Electric Energy, Inc's Joppa West Ash Pond

Electric Energy's Petition for a Finding of Inapplicability, or in the Alternative, an Adjusted Standard for Joppa West Ash Pond

Illinois Environmental Protection Agency, Bureau of Water

Exhibit

P

Joppa March 1993

Illinois Environmental Protection Agency Response to Adjusted Standard Petition for Electric Energy, Inc's Joppa West Ash Pond

Electric Energy's Petition for a Finding of Inapplicability, or in the Alternative, an Adjusted Standard for Joppa West Ash Pond

Illinois Environmental Protection Agency, Bureau of Water

Exhibit Q

Joppa November 1998

Illinois Environmental Protection Agency Response to Adjusted Standard Petition for Electric Energy, Inc's Joppa West Ash Pond

Electric Energy's Petition for a Finding of Inapplicability, or in the Alternative, an Adjusted Standard for Joppa West Ash Pond

Illinois Environmental Protection Agency, Bureau of Water

Exhibit

R

Joppa March 2005

Illinois Environmental Protection Agency Response to Adjusted Standard Petition for Electric Energy, Inc's Joppa West Ash Pond

Electric Energy's Petition for a Finding of Inapplicability, or in the Alternative, an Adjusted Standard for Joppa West Ash Pond

Illinois Environmental Protection Agency, Bureau of Water

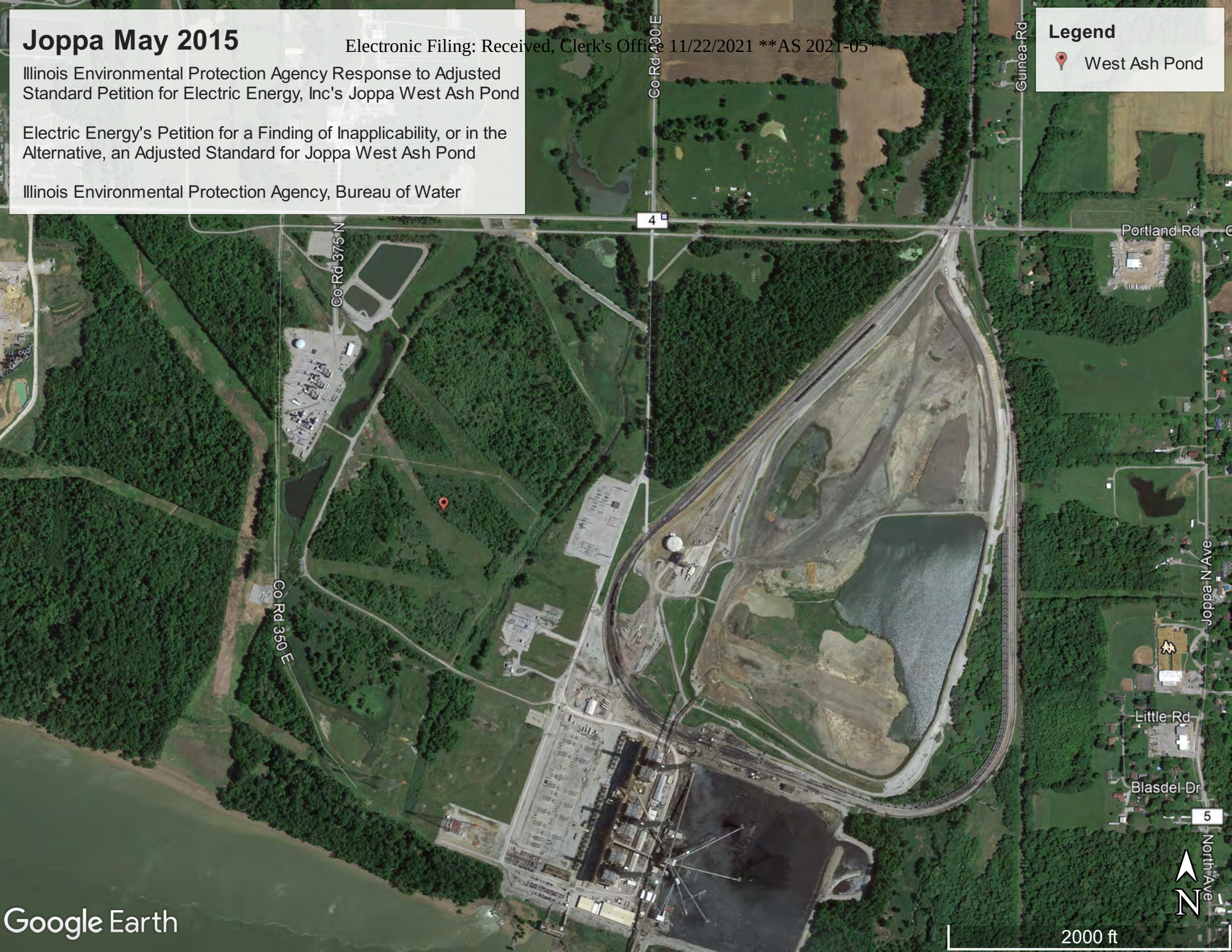
Exhibit S

Joppa May 2015

Illinois Environmental Protection Agency Response to Adjusted Standard Petition for Electric Energy, Inc's Joppa West Ash Pond

Electric Energy's Petition for a Finding of Inapplicability, or in the Alternative, an Adjusted Standard for Joppa West Ash Pond

Illinois Environmental Protection Agency, Bureau of Water



Exhibit

T

Joppa March 2017

Illinois Environmental Protection Agency Response to Adjusted Standard Petition for Electric Energy, Inc's Joppa West Ash Pond

Electric Energy's Petition for a Finding of Inapplicability, or in the Alternative, an Adjusted Standard for Joppa West Ash Pond

Illinois Environmental Protection Agency, Bureau of Water

Exhibit U

Joppa September 2018

Illinois Environmental Protection Agency Response to Adjusted Standard Petition for Electric Energy, Inc's Joppa West Ash Pond

Electric Energy's Petition for a Finding of Inapplicability, or in the Alternative, an Adjusted Standard for Joppa West Ash Pond

Illinois Environmental Protection Agency, Bureau of Water

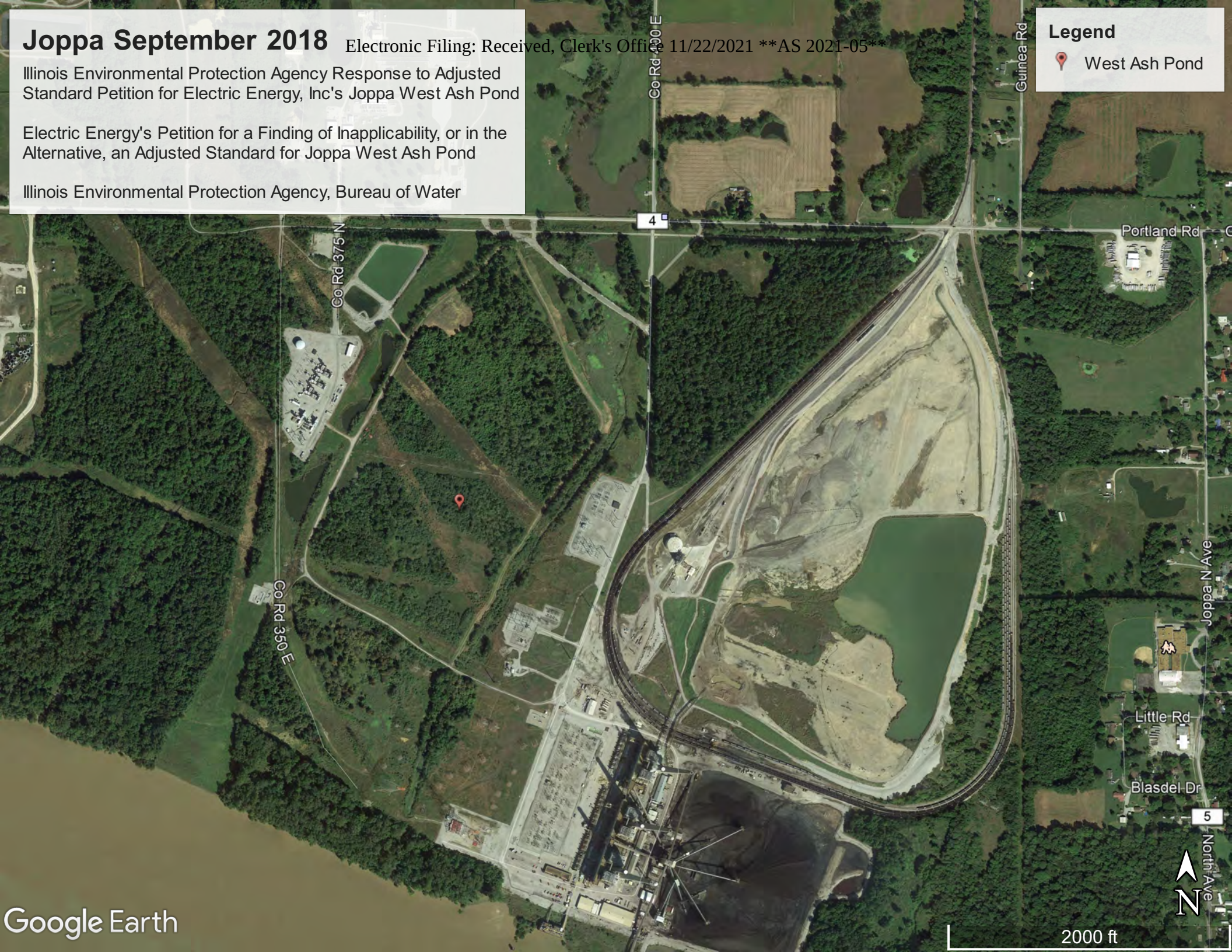


Exhibit V

Joppa February 2020

Illinois Environmental Protection Agency Response to Adjusted Standard Petition for Electric Energy, Inc's Joppa West Ash Pond

Electric Energy's Petition for a Finding of Inapplicability, or in the Alternative, an Adjusted Standard for Joppa West Ash Pond

Illinois Environmental Protection Agency, Bureau of Water

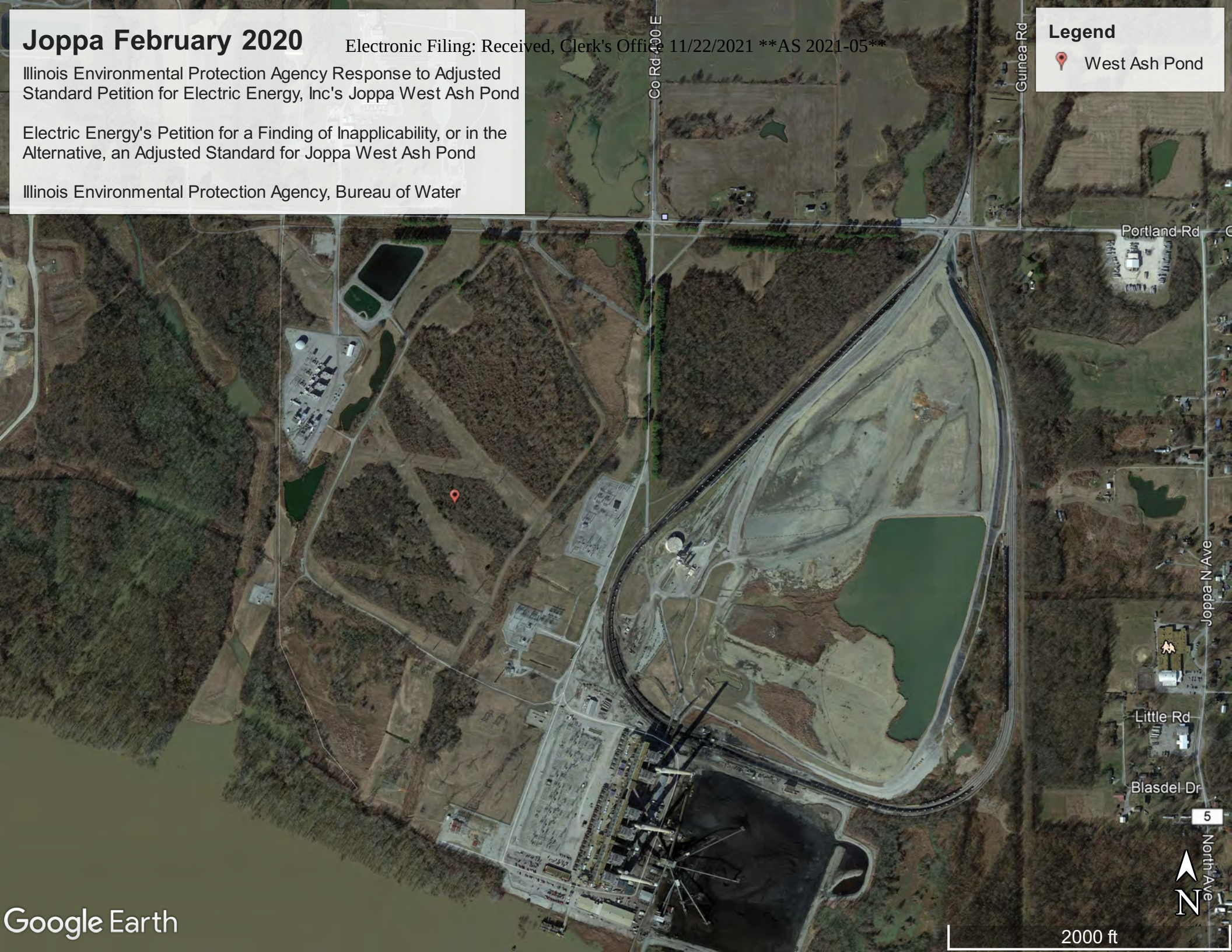


Exhibit W

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397
BRUCE RAUNER, GOVERNOR ALEC MESSINA, ACTING DIRECTOR

217/782-0610

MAJOR

July 26, 2017

Electric Energy, Inc.
Water and Waste Permitting / Environmental Compliance
1500 Eastport Plaza Drive
Collinsville, IL 62234

Re: Electric Energy, Inc. - Joppa Energy Center
NPDES Permit No. IL0004171
Modified Permit

Gentlemen:

The Illinois Environmental Protection Agency has reviewed the request for modification of the above-referenced NPDES Permit and issued a public notice based on that request. The final decision of the Agency is to modify the Permit as follows:

1. Internal outfall B08, Boiler Blowdown, was removed.
2. Internal outfall A10, Metal Cleaning Waste (Non-Chemical Only), was removed.
3. Added outfall 008, Flume Discharge (Interim Wastestreams and Limitations).
4. Added outfall 008, Flume Discharge (Final Wastestreams and Limitations).
5. Added outfall 010, Settling Lagoon Discharge (Interim Wastestreams and Limitations).
6. Added outfall 010, Settling Lagoon Discharge (Final Wastestreams and Limitations).
7. Revised Special Condition 22.
8. The flow sampling frequency for outfall 014 was revised.
9. The flow monitoring type for outfalls 006 and 007 was revised.
10. The sampling frequency for molluscicide was revised at outfalls 001, 006, 007, 008, and 010.
11. Added Special Condition 25 to clarify when the interim and final waststreams and limitations applied at outfalls 008 and 010.

Enclosed is a copy of the modified Permit. You have the right to appeal this modification to the Illinois Pollution Control Board within a 35 day period following the modification date shown on the first page of the permit.

4302 N. Main St., Rockford, IL 61103 (815) 987-7760
595 S. State, Elgin, IL 60123 (847) 608-3131
2125 S. First St., Champaign, IL 61820 (217) 278-5800
9511 Harrison St., Des Plaines, IL 60016 (847) 294-4000
412 SW Washington St., Suite D, Peoria, IL 61602 (309) 671-3022
2309 W. Main St., Suite 116, Marion, IL 62959 (618) 993-7200

Should you have questions concerning the Permit, please contact Leslie Lowry at 217/782-0610.

Sincerely,

Alan Keller by DGL

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

SAK:LRL:14100901.docx

Attachment: Final Permit

cc: Records Unit
Compliance Assurance Section
Marion Region

MAJOR

NPDES Permit No. IL0004171

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

Modified (NPDES) Permit

Expiration Date: July 31, 2020

Issue Date: July 30, 2015
Effective Date: August 1, 2015
Modification Date: July 26, 2017

Name and Address of Discharger:

Electric Energy, Inc.
Water & Waste Permitting / Environmental Compliance
1500 Eastport Plaza Drive
Collinsville, Illinois 62234

Name and Address of Facility:

Electric Energy, Inc.
Joppa Energy Center
2100 Portland Road
Joppa, Illinois 62953
(Massac County)

Discharge Number and Name:		Receiving Waters
001	Ash Pond Discharge	Unnamed Tributary to Ohio River
005	Intake Screen Backwash	Ohio River
006	Condenser Cooling Water Units 1 - 4 and Auxiliary Equipment Cooling Water	Ohio River
007	Condenser Cooling Water Units 5 – 6, Auxiliary Equipment Cooling Water, and Cooling Water Intake Structure Warming Line	Ohio River
008	Flume Discharge	Ohio River
010	Settling Lagoon Discharge	Ohio River
011	Stormwater Runoff from Former Ash Pond	Unnamed Tributary to Ohio River
012	Stormwater Runoff from Railroad Car Unloading Facility	Unnamed Tributary to Ohio River
013	Stormwater Runoff from Railroad Car Unloading Facility and Berm of an Ash Pond	Unnamed Tributary to Ohio River
014	Lagoon Sewage Treatment Plant Effluent and MEPI Sanitary Waste	Unnamed Tributary to Ohio 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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Modification Date: July 26, 2017

NPDES Permit No. IL0004171

Effluent Limitations and Monitoring

1. From the modification date of this permit until the expiration date, the effluent of the following discharges 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	30 DAY AVERAGE	DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Outfall 001 - Ash Pond Discharge*** (Average Flow = 7.2 MGD)						
This discharge consists of: 1. Bottom Ash and Fly Ash Sluice Water 2. Demineralizer Regenerant Waste 3. Central Water Treatment Building Floor Drains 4. Settling Lagoon and Intake Dredging Wastewater* 5. Reverse Osmosis / Demineralizer System Backwash 6. Wastewater from Gas Turbine Site** 7. Ash Landfill Leachate 8. Metal Cleaning Waste (Non-Chemical Only)						
Flow (MGD)	See Special Condition 1.				1/Week	Calculation
pH	See Special Condition 2.				1/Week	Grab
Total Suspended Solids			15.0	30.0	1/Month	Composite****
Oil & Grease			15.0	20.0	1/Month	Grab
Molluscicide	See Special Condition 17.				1/Discharge Event	Grab
Mercury	See Special Condition 21.		Monitor Only		1/Quarter	Grab

* - Discharge to the ash pond is an alternate routing.
** - The incidental amounts of wastewater from the facility's gas turbine site includes collected rainwater, turbine water injection, inlet fogging water, and turbine wash water.
*** - See Special Conditions 16, 19, and 23.
**** - A grab sample can be used in place of a composite sample during periods of maintenance and/or low-flow events.

Modification Date: July 26, 2017

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Effluent Limitations and Monitoring

1. From the modification date of this permit until the expiration date, the effluent of the following discharges 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	30 DAY AVERAGE	DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Outfall 005 - Intake Screen Backwash* (Average Flow = 0.4 MGD)						
Flow (MGD)	See Special Condition 1.				1/Month	Calculation

* - There shall be no discharge of collected debris from the outer bar racks other than trace amounts.

Outfall 006 - Condenser Cooling Water Units 1 - 4 and Auxiliary Equipment Cooling Water* (Average Flow = 410 MGD)					
Flow (MGD)	See Special Condition 1.			Continuous	Estimate or Calculate
pH	See Special Condition 2.			1/Month	Grab
Temperature	See Special Condition 4.			Continuous	Measure
Total Residual Chlorine / Total Residual Halogen	See Special Condition 7.		0.05	1/Month	Grab
Molluscicide	See Special Condition 17.			1/Discharge Event	Grab

* - See Special Condition 19.

Outfall 007 - Condenser Cooling Water Units 5 – 6, Auxiliary Equipment Cooling Water, and Cooling Water Intake Structure Warming Line* (Average Flow = 182 MGD)					
Flow (MGD)	See Special Condition 1.			Continuous	Estimate or Calculate
pH	See Special Condition 2.			1/Month	Grab
Temperature	See Special Condition 4.			Continuous	Measure
Total Residual Chlorine / Total Residual Halogen	See Special Condition 7.		0.05	1/Month	Grab
Molluscicide	See Special Condition 17.			1/Discharge Event	Grab

* - See Special Condition 19.

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Effluent Limitations and Monitoring

1. From the modification date of this permit until the expiration date, the effluent of the following discharges shall be monitored and limited at all times as follows:

PARAMETER	LOAD LIMITS lbs/day DAF (DMF) 30 DAY AVERAGE	LOAD LIMITS lbs/day DAF (DMF) DAILY MAXIMUM	CONCENTRATION LIMITS mg/l 30 DAY AVERAGE	CONCENTRATION LIMITS mg/l DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Outfall 008 - Flume Discharge* (Interim Wastestreams and Limitations)*** (Average Flow = 1.4 MGD)						
This discharge consists of: 1. Boiler Blowdown 2. Auxiliary Cooling Water Discharges 3. Yard Storm Drains** 4. Basement Floor Drains 5. Metal Cleaning Waste (Non-Chemical Only)						
Flow (MGD)	See Special Condition 1.				1/Week	Measure
pH	See Special Condition 2.				1/Month	Grab
Temperature	See Special Condition 4.				1/Month	Single Reading
Total Suspended Solids	See Special Condition 22.		15.0	30.0	1/Month	Grab
Oil & Grease			15.0	20.0	1/Month	Grab
Molluscicide	See Special Condition 17.				1/Discharge Event	Grab

* - See Special Condition 19.
** - The limits do not apply to the yard storm drains, See Special Condition 15.
*** - See Special Condition 25.

PARAMETER	LOAD LIMITS lbs/day DAF (DMF) 30 DAY AVERAGE	LOAD LIMITS lbs/day DAF (DMF) DAILY MAXIMUM	CONCENTRATION LIMITS mg/l 30 DAY AVERAGE	CONCENTRATION LIMITS mg/l DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Outfall 008 - Flume Discharge* (Final Wastestreams and Limitations)*** (Average Flow = 0.656 MGD)						
This discharge consists of: 1. Auxiliary Cooling Water Discharges 2. Yard Storm Drains**						
Flow (MGD)	See Special Condition 1.				1/Week	Measure
pH	See Special Condition 2.				1/Month	Grab
Temperature	See Special Condition 4.				1/Month	Single Reading
Molluscicide	See Special Condition 17.				1/Discharge Event	Grab

* - See Special Condition 19.
** - The limits do not apply to the yard storm drains, See Special Condition 15.
*** - See Special Condition 25.

Modification Date: July 26, 2017

NPDES Permit No. IL0004171

Effluent Limitations and Monitoring

1. From the modification date of this permit until the expiration date, the effluent of the following discharges 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	30 DAY AVERAGE	DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Outfall 010 - Settling Lagoon Discharge** (Interim Wastestreams and Limitations)**** (Average Flow = 3.2 MGD)						
This discharge consists of: 1. Coal Pile Runoff 2. Coal Reclaim Pit Sump Pump Discharge 3. Coal Car Dumper Drains 4. Crusher House Floor Drains 5. Main Plant Floor Drains 6. Bottom Ash Hopper Overflow 7. North Plant Area Storm Drainage 8. Auxiliary Equipment Cooling Water 9. Settling Lagoon and Intake Dredging Wastewater* 10. Reverse Osmosis / Demineralizer System Blowdown 11. Metal Cleaning Waste (Non-Chemical Only)						
Flow (MGD)	See Special Condition 1.				1/Week	Measure
pH	See Special Condition 2.				1/Week	Grab
Total Suspended Solids	See Special Condition 22.		15.0	30.0	1/Week	Composite***
Oil & Grease			15.0	20.0	1/Month	Grab
Molluscicide	See Special Condition 17.				1/Discharge Event	Grab
Mercury	See Special Condition 21.		Monitor Only		1/Quarter	Grab

* - This wastestream may be directed to the ash pond.
** - See Special Condition 16, 19, and 23.
*** - A grab sample can be used in place of a composite sample during periods of maintenance and/or low-flow events.
**** - See Special Condition 25.

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Effluent Limitations and Monitoring

1. From the modification date of this permit until the expiration date, the effluent of the following discharges 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	30 DAY AVERAGE	DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Outfall 010 - Settling Lagoon Discharge** (Final Wastestreams and Limitations)**** (Average Flow = 3.506 MGD)						
This discharge consists of: 1. Coal Pile Runoff 2. Coal Reclaim Pit Sump Pump Discharge 3. Coal Car Dumper Drains 4. Crusher House Floor Drains 5. Main Plant Floor Drains 6. Bottom Ash Hopper Overflow 7. North Plant Area Storm Drainage 8. Auxiliary Equipment Cooling Water 9. Settling Lagoon and Intake Dredging Wastewater* 10. Reverse Osmosis / Demineralizer System Blowdown 11. Metal Cleaning Waste (Non-Chemical Only) 12. Basement Floor Drains 13. Boiler Blowdown						
Flow (MGD)	See Special Condition 1.				1/Week	Measure
pH	See Special Condition 2.				1/Week	Grab
Temperature	See Special Condition 4.				1/Month	Single Reading
Total Suspended Solids	See Special Condition 22.		15.0	30.0	1/Week	Composite***
Oil & Grease			15.0	20.0	1/Month	Grab
Molluscicide	See Special Condition 17.				1/Discharge Event	Grab
Mercury	See Special Condition 21.		Monitor Only		1/Quarter	Grab

* - This wastestream may be directed to the ash pond.
** - See Special Condition 16, 19, and 23.
*** - A grab sample can be used in place of a composite sample during periods of maintenance and/or low-flow events.
**** - See Special Condition 25.

Modification Date: July 26, 2017

NPDES Permit No. IL0004171

Effluent Limitations and Monitoring

1. From the modification date of this permit until the expiration date, the effluent of the following discharges shall be monitored and limited at all times as follows:

PARAMETER	LOAD LIMITS lbs/day DAF (DMF) 30 DAY AVERAGE	LOAD LIMITS lbs/day DAF (DMF) DAILY MAXIMUM	CONCENTRATION LIMITS mg/l 30 DAY AVERAGE	CONCENTRATION LIMITS mg/l DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Outfall 011 - Stormwater Runoff from Former Ash Pond* (Intermittent Discharge)						
* - See Special Condition 15.						
Outfall 012 - Stormwater Runoff from Railroad Car Unloading Facility* (Intermittent Discharge)						
Mercury	See Special Condition 21.		Monitor Only		1/Quarter	Grab
* - See Special Condition 15.						
Outfall 013 - Stormwater Runoff from Railroad Car Unloading Facility and Berm of an Ash Pond* (Intermittent Discharge)						
* - See Special Condition 15.						
Outfall 014 - Lagoon Sewage Treatment Plant Effluent and MEPI Sanitary Waste* (DMF = 0.075 MGD)						
Flow (MGD)	See Special Condition 1.				1/Week When Discharging	Measure
pH	See Special Condition 2.				1/Month	Grab
BOD_5	18	37	30	60	1/Month	Grab
Total Suspended Solids	23	46	37	74	1/Month	Grab
Dissolved Oxygen**					1/Month	Grab
Fecal Coliform***			Monitor Only		1/Month	Grab

* - See Special Condition 10.
** - The DO concentration shall not be less than 6 mg/l. DO shall be reported as a monthly minimum concentration.
*** - Sampling once a month May - October.

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Special Conditions

SPECIAL CONDITION 1. Flow shall be measured in units of Million Gallons per Day (MGD) and reported as a monthly average and a daily maximum on the Discharge Monitoring Report.

SPECIAL CONDITION 2. The pH shall be in the range of 6.0 to 9.0 and reported as a monthly minimum and monthly maximum.

SPECIAL CONDITION 3. 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 4. Electric Energy, Inc. demonstration for the Joppa Energy Center in accordance with Section 316(a) of the CWA was approved by the Illinois Pollution Control Board in Order 77-124 dated September 1, 1977, which resulted in the following thermal limitation.

Thermal Discharge: Electric Energy, Inc. may operate Joppa Energy Center with a once-through cooling water system as long as thermal discharges from this facility do not exceed those levels associated with maximum power production capacity existing on February 22, 1977 (1,100 megawatts gross based on a 24-hour average).

In accordance with the 316(a) approved by the Board in Order 77-124, the maximum power production capacity shall not exceed 1,100 megawatts gross (24-hour average). The permittee shall report the monthly average load factor, maximum BTU/hour heat rejection for the month, and the maximum power production (24-hour average) on the Discharge Monitoring Report.

SPECIAL CONDITION 5. If the permittee intends to request the continuation of the 316(a) alternative thermal limits in its next reissued NPDES permit, the permittee shall submit the information necessary to comply with 35 Ill. Adm. Code 106.1180 as part of the application for renewal of this permit.

SPECIAL CONDITION 6. If effluent monitoring cannot be completed for Outfall 008 during periods of continued flooding (Ohio River elevation 324.0 feet or greater) the Ohio River elevation shall be reported.

SPECIAL CONDITION 7. Total Residual Chlorine measured as Total Residual Halogen may not be discharged from each unit's main cooling condensers for more than two hours in any one day. Samples taken for chlorine/bromine monitoring purposes may be taken in the condenser cooling water discharge bay at a point representative of the discharge but prior to confluence with the rivers edge. Chlorine and bromine usage shall be subject to the following limitation.

All uses of the chlorine/bromine containing biocide approved by this Agency, such as for biofouling control, and regardless of duration, are subject to the discharge limit of 0.05 mg/l TRH (Total Residual Halogen) as an instantaneous maximum. Total Residual Halogen (TRH) shall be measured as the residuals from chlorine and/or bromine.

SPECIAL CONDITION 8. There shall be no discharge of chemical metal cleaning agents and associated rinses unless this permit has been modified to include the new discharge.

SPECIAL CONDITION 9. If effluent monitoring cannot be completed for Outfall 010 during periods of continued flooding (Ohio River elevation 326.0 feet or greater) the Ohio River elevation shall be reported.

SPECIAL CONDITION 10. Any use of chlorine to control slime growths odors or as an operational control, etc. shall not exceed the limit of 0.05 mg/l (daily maximum) total residual chlorine in the effluent. Sampling is required on a daily grab basis during the chlorination process. Reporting shall be submitted with the (DMR's) on a monthly basis.

SPECIAL CONDITION 11. There shall be no discharge of polychlorinated biphenyl compounds.

SPECIAL CONDITION 12. The applicant may use copper sulfate addition to the ash pond and lagoon to prevent algae growth in summer months.

SPECIAL CONDITION 13. In the event the permittee shall require the use of additives other than those previously approved by this Agency, or in the event the permittee increases the feed rate or quantity of the additives used beyond what has previously been approved by this Agency, the permittee shall notify this Agency in writing in accordance with the Standard Conditions, Attachment H.

SPECIAL CONDITION 14. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) electronic 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.

Special Conditions

The Permittee is required to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA beginning December 21, 2016 unless a waiver has been granted by the Agency. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, http://www.epa.state.il.us/water/net-dmr/index.html.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 28th day of the following month, unless otherwise specified by the permitting authority.

Permittees that have been granted a waiver 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
Attention: Compliance Assurance Section, Mail Code # 19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

SPECIAL CONDITION 15.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) For Outfalls 008, 011, 012, and 013

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 quarterly visual observation required by paragraph H or the annual facility inspection required by paragraph I 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.

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 evapotranspirate 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.

9. 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.

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Special Conditions

H. Quarterly Visual Observation of Discharges - The requirements and procedures for quarterly visual observations are applicable to all outfalls covered by this condition.

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.

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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.

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 annual inspection 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 submitted electronically at epa.npdes.inspection@illinois.gov or 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

SPECIAL CONDITION 16. The Agency has determined that the effluent limitations in this permit constitute BAT/BCT for stormwater which is treated in the existing treatment facilities (Outfalls 001 and 010) for purposes of this permit reissuance, and no pollution prevention plan will be required for such stormwater. 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 stormwater discharge associated with industrial activity, and determine whether any facility modifications have occurred which result in previously-treated stormwater 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 17. Application of Spectrus CT1300 and BULAB 6086 with detoxification for zebra mussel control:

A. Application of Spectrus CT1300 and BULAB 6086 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 up to a 15 mg/l concentration in the service water pump discharge header of the fire protection and service water systems. The application shall last twelve consecutive hours and not exceed three annual molluscicide applications.

Special Conditions

C. The discharge shall be completely detoxified as necessary using bentonite clay product. The detoxification chemical shall be injected at a ratio of 10 parts bentonite clay product to 1 part of detected Spectrus CT1300 and BULAB 6086. The detoxification chemical shall be injected as far up stream as possible to allow for optimum mixing.

D. The discharge for Spectrus CT1300 and BULAB 6086 shall be below detection (< 0.2 PPM). The discharge concentration shall be monitored at least twice (6-hours apart) during the twelve hour dosing period and twice (6-hours apart) during the twelve hour period following the application period.

SPECIAL CONDITION 18. The use or operation of this facility shall be by or under the supervision of a Certified Class K operator.

SPECIAL CONDITION 19. The use of any molluscicides, other than Spectrus CT1300 and BULAB 6086, require prior approval from the Agency and may require a modification of this permit. To obtain approval, the permittee shall submit a request for modification of this permit and prepare a preliminary plan for bio-monitoring, and submit the plan to IEPA for review and approval. Within ninety (90) days, unless specified otherwise in writing, after approval of the bio-monitoring plan and authorization for use of the new molluscicides either by letter or by modification of this permit, the permittee shall begin bio-monitoring of the effluent discharge, when molluscicides are in use.

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 LC_{50} Bioassay using 1- to 14-day old fathead minnows (Pimephales promelas).

   b. Invertebrate 48-hour static LC_{50} Bioassay using Ceriodaphnia.

2. Testing Frequency - The above tests shall be conducted the first two times each molluscicide (other than Spectrus CT-1300 and BULAB 6086) 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 Spectrus CT-1300 and BULAB 6086) 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 14.

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.

SPECIAL CONDITION 20. Electric Energy, Inc. demonstration for the Joppa Energy Center in accordance with Section 316(b) of the CWA was approved by this Agency by letter dated April 12, 1979. Based on available information, the Agency has determined that the operation of the cooling water intake structure meets the equivalent of Best Technology Available (BTA) in accordance with the Best Professional Judgment provisions of 40 CFR 125.3 and 40 CFR 125.90(b), based on information available at the time of permit reissuance.

However, the Permittee shall comply with the requirements of the Cooling Water Intake Structure Existing Facilities Rule as found at 40 CFR 122 and 125. Any application materials and submissions required for compliance with the Existing Facilities Rule, shall be submitted to the Agency no later than 4 years from the effective date of this permit.

Nothing in this permit authorizes take for the purposes of a facility's compliance with the Endangered Species Act.

If for any reason, the Cooling Water Intake Structure Existing Facilities Rule is stayed or remanded by the courts, the Permittee shall comply with the requirements below. The information required below is necessary to further evaluate cooling water intake structure operations based on the most up to date information, in accordance with the Best Professional Judgment provisions of 40 CFR 125.3 and 40 CFR 125.90(b), in existence prior to the effective date of the new Existing Facilities Rule:

A. The permittee shall submit the following information/studies within 4 years of the effective date of the permit:

   1. Source Water Physical Data to include:

a. A narrative description and scaled drawings showing the physical configuration of all source water bodies used by the facility including aerial dimensions, depths, salinity and temperature regimes;

b. Identification and characterization of the source waterbody's hydrological and geomorphological features, as well as the methods used to conduct any physical studies to determine the intake's area of influence and the results of such studies; and

c. Location maps.

2. Source Waterbody Flow Information.

The permittee shall provide the annual mean flow of the waterbody, any supporting documentation and engineering calculations to support the analysis of whether the design intake flow is greater than five percent of the mean annual flow of the river or stream for purposes of determining applicable performance standards. Representative historical data (from a period of time up to 10 years) shall be used, if available.

3. Impingement Mortality and Entrainment Characterization Study.

The permittee shall submit an Impingement Mortality and Entrainment Characterization Study whose purpose is to provide information to support the development of a calculation baseline for evaluating impingement mortality and entrainment and to characterize current impingement mortality and entrainment. The Study shall include the following in sufficient detail to support establishment of baseline conditions:

a. Taxonomic identification of all life stages of fish and shellfish and any species protected under Federal, State, or Tribal law (including threatened or endangered species) that are in the vicinity of the cooling water intake structure(s) and are susceptible to impingement and entrainment;

b. A characterization of all life stages of fish and shellfish, and any species protected under Federal, or State law, including a description of the abundance and temporal and spatial characteristics in the vicinity of the cooling water intake structure(s). These may include historical data that are representative of the current operation of the facility and of biological conditions at the site; and

c. Documentation of the current impingement mortality and entrainment of all life stages of fish, shellfish, and any species protected under Federal , State, or Tribal Law (including threatened or endangered species) and an estimate of impingement mortality and entrainment to be used as the calculation baseline. The documentation may include historical data that are representative of the current operation of the facility and of biological conditions at the site. Impingement mortality and entrainment samples to support the calculations required must be collected during periods of representative operational flows for the cooling water intake structure and the flows associated with the samples must be documented.

B. The permittee shall comply with the following requirements:

1. At all times properly operate and maintain the intake equipment as demonstrated in the application material supporting the BTA determination.

2. Inform IEPA of any proposed changes to the cooling water intake structure or proposed changes to operations at the facility that affect impingement mortality and/or entrainment.

3. Debris collected on intake screens is prohibited from being discharged back to the canal. Debris does not include living fish or other living aquatic organisms.

4. Compliance Alternatives. The permittee must evaluate each of the following alternatives for establishing BTA for minimizing adverse environmental impacts at the facility due to operation of the intake structure:

a. Evaluate operational procedures and/or propose facility modifications to reduce the intake through-screen velocity to less than 0.5 ft/sec. The operational evaluation may consider modified circulating water pump operation; reduced flow associated with capacity utilization, recalculation or determination of actual total water withdrawal capacity. The evaluation report and any implementation plan for the operational changes and/ or facility modification shall be submitted to the Agency with the renewal application for this permit.

b. Complete a fish impingement and entrainment mortality minimization alternatives evaluation. The evaluation may include an assessment of modification of the traveling screens, consideration of a separate fish and debris return

system and include time frames and cost analysis to implement these measures. The evaluation report and implementation plan for any operational changes and/ or facility modifications shall be submitted to the Agency with the renewal application for this permit.

C. All required reports shall be submitted to the Industrial Unit, Permit Section and Compliance Assurance Section at the address in Special Condition 14.

This special condition does not relieve the permittee of the responsibility of complying with any other laws, regulations, or judicial orders issued pursuant to Section 316(b) of the Clean Water Act.

SPECIAL CONDITION 21. Outfalls 001, 010, and 012 shall be monitored for mercury on a quarterly basis. Samples must be analyzed by EPA Method 1631E using the digestion procedure described in Section 11.1.1.2 of 1631E, which dictates that samples must be heated at 50°C for 6 hours in a bromine chloride (BrCl) solution in closed vessels.

SPECIAL CONDITION 22. Compliance with the numerical effluent concentrations (15 mg/l monthly average, 30 mg/l daily maximum) for total suspended solids is not required when effluent concentrations in excess of the standards result entirely from influent concentration, evaporation and/or incidental addition of traces of materials not utilized or produced in the activity that is the source of the waste. If credit for the background concentration is requested the following determinations shall be made and reported, and alternative limits must be calculated:

1. Determine the total suspended solids concentration of the river water (sample to be taken after the duplex filter).

2. Determine the total flow of river water used for auxiliary cooling water at Outfalls 008 and 010.

3. Determine the total flow from the settling lagoon (Outfall 010) and/or the flow discharging to the flume via the basement sump (Outfall 008).

4. Determine the total suspended solids concentration of the settling lagoon effluent and/or the effluent to the flume via the basement sump.

5. Determine the adjusted effluent concentration limit for Outfall 008 by using the formula below. NOTE: Water used to produce the low volume waste stream is river water.

$$C_{EA} = \frac{C_R F_{NCCW} + (C_R + 15)(F_T - F_{NCCW})}{F_T}$$

$$C_{EM} = \frac{C_R F_{NCCW} + (C_R + 30)(F_T - F_{NCCW})}{F_T}$$

C_{EA} = Calculated 30-Day Average Effluent Limit for Outfall 008 or 010
C_{EM} = Calculated Daily Maximum Effluent Limit for Outfall 008 or 010
C_R = Total Suspended Solids Concentration of the River Water (sample to be taken after the duplex filter)
F_{NCCW} = Flow of Auxiliary Cooling Water
$F_T - F_{NCCW}$ = Total Flow at Outfall – Flow of Auxiliary Cooling Water
F_T = Total Flow at Outfall 008 or 010

6. Determine the adjusted effluent concentration limit for Outfall 010 by using the formula below.

$$C_{EA} = \frac{C_R F_{NCCW} + 15(F_T - F_{NCCW})}{F_T}$$

$$C_{EM} = \frac{C_R F_{NCCW} + 30(F_T - F_{NCCW})}{F_T}$$

C_{EA} = Calculated 30-Day Average Effluent Limit for Outfall 008 or 010
C_{EM} = Calculated Daily Maximum Effluent Limit for Outfall 008 or 010
C_R = Total Suspended Solids Concentration of the River Water (sample to be taken after the duplex filter)
F_{NCCW} = Flow of Auxiliary Cooling Water
$F_T - F_{NCCW}$ = Total Flow at Outfall – Flow of Auxiliary Cooling Water
F_T = Total Flow at Outfall 008 or 010

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7. The facility must provide justification for the background credit consistent with 40 CFR 122.45(g) and 35 Ill. Adm. Code 304.103. This justification must be submitted with the DMR at the time the credit is claimed.

SPECIAL CONDITION 23. The Permittee shall monitor Outfalls 001 and 010 for the following parameters on a semi-annual 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:

STORET CODE	PARAMETER	MINIMUM REPORTING LIMIT
01002	Arsenic	0.05 mg/l
01027	Cadmium	0.001 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
01067	Nickel	0.005 mg/l
32730	Phenols (grab)	0.005 mg/l
01147	Selenium	0.005 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 solids, suspended, or dissolved, elemental or combined, including all oxidation states.

SPECIAL CONDITION 24. The effluent, alone or in combination with other sources, shall not cause a violation of any applicable water quality standard outlined in 35 Ill. Adm. Code 302.

SPECIAL CONDITION 25. The interim wastestreams and limitations for outfalls 008 and 010 are effective as of the modification date of this permit. The final wastestreams and limitations for outfalls 008 and 010 will not take effect until after the tie-in piping has been completed and the new piping system has been determined to be fully functional. The permittee shall notify the Agency within 30-days after the tie-in piping has been completed. The final wastestream and limitations will be effective upon such written notification. Compliance with the final limits should be noted on the next months DMRs.

Attachment H
Standard Conditions

Definitions

Act means the Illinois Environmental Protection Act, 415 ILCS 5 as Amended.

Agency means the Illinois Environmental Protection Agency.

Board means the Illinois Pollution Control Board.

Clean Water Act (formerly referred to as the Federal Water Pollution Control Act) means Pub. L 92-500, as amended. 33 U.S.C. 1251 et seq.

NPDES (National Pollutant Discharge Elimination System) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318 and 405 of the Clean Water Act.

USEPA means the United States Environmental Protection Agency.

Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Maximum Daily Discharge Limitation (daily maximum) means the highest allowable daily discharge.

Average Monthly Discharge Limitation (30 day average) means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Discharge Limitation (7 day average) means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Aliquot means a sample of specified volume used to make up a total composite sample.

Grab Sample means an individual sample of at least 100 milliliters collected at a randomly-selected time over a period not exceeding 15 minutes.

24-Hour Composite Sample means a combination of at least 8 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24-hour period.

8-Hour Composite Sample means a combination of at least 3 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over an 8-hour period.

Flow Proportional Composite Sample means a combination of sample aliquots of at least 100 milliliters collected at periodic intervals such that either the time interval between each aliquot or the volume of each aliquot is proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot.

(1) **Duty to comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirements.

(2) **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 and obtain a new permit. If the permittee submits a proper application as required by the Agency no later than 180 days prior to the expiration date, this permit shall continue in full force and effect until the final Agency decision on the application has been made.

(3) **Need to halt or reduce activity not a defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(4) **Duty to mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(5) **Proper operation and maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up, or auxiliary facilities, or similar systems only when necessary to achieve compliance with the conditions of the permit.

(6) **Permit actions.** This permit may be modified, revoked and reissued, or terminated for cause by the Agency pursuant to 40 CFR 122.62 and 40 CFR 122.63. 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.

(7) **Property rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.

(8) **Duty to provide information.** The permittee shall furnish to the Agency within a reasonable time, any information which the Agency may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also furnish to the Agency upon request, copies of records required to be kept by this permit.

(9) **Inspection and entry.** The permittee shall allow an authorized representative of the Agency or USEPA (including an authorized contractor acting as a representative of the Agency or USEPA), upon the presentation of credentials and other documents as may be required by law, to:
  (a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
  (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
  (d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance, or as otherwise authorized by the Act, any substances or parameters at any location.

(10) **Monitoring and records.**
  (a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
  (b) 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 this permit, measurement, report or application. Records related to the permittee's sewage sludge use and disposal activities shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the Agency or USEPA at any time.
  (c) Records of monitoring information shall include:
    (1) The date, exact place, and time of sampling or measurements;
    (2) The individual(s) who performed the sampling or measurements;
    (3) The date(s) analyses were performed;
    (4) The individual(s) who performed the analyses;
    (5) The analytical techniques or methods used; and
    (6) The results of such analyses.
  (d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit. Where no test procedure under 40 CFR Part 136 has been approved, the permittee must submit to the Agency a test method for approval. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.

(11) **Signatory requirement.** All applications, reports or information submitted to the Agency shall be signed and certified.
  (a) **Application.** All permit applications shall be signed as follows:
    (1) For a corporation: by a principal executive officer of at least the level of vice president or a person or position having overall responsibility for environmental matters for the corporation:
    (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
    (3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.
  (b) **Reports.** All reports required by permits, or other information requested by the Agency shall be signed by a person described in paragraph (a) or by a duly authorized representative of that person. A person is a duly authorized representative only if:
    (1) The authorization is made in writing by a person described in paragraph (a); and
    (2) The authorization specifies either an individual or a position responsible for the overall operation of the facility, from which the discharge originates, such as a plant manager, superintendent or person of equivalent responsibility; and
    (3) The written authorization is submitted to the Agency.
  (c) **Changes of Authorization.** If an authorization under (b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of (b) must be submitted to the Agency prior to or together with any reports, information, or applications to be signed by an authorized representative.
  (d) **Certification.** Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

  I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(12) **Reporting requirements.**
  (a) **Planned changes.** The permittee shall give notice to the Agency as soon as possible of any planned physical alterations or additions to the permitted facility.
  Notice is required when:
    (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source pursuant to 40 CFR 122.29 (b); or
    (2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements pursuant to 40 CFR 122.42 (a)(1).
    (3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
  (b) **Anticipated noncompliance.** The permittee shall give advance notice to the Agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
  (c) **Transfers.** This permit is not transferable to any person except after notice to the Agency.
  (d) **Compliance schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(e) **Monitoring reports.** Monitoring results shall be reported at the intervals specified elsewhere in this permit.
(1) Monitoring results must be reported on a Discharge Monitoring Report (DMR).
(2) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
(3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Agency in the permit.

(f) **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 written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and time; and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The following shall be included as information which must be reported within 24-hours:
(1) Any unanticipated bypass which exceeds any effluent limitation in the permit.
(2) Any upset which exceeds any effluent limitation in the permit.
(3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Agency in the permit or any pollutant which may endanger health or the environment.
The Agency may waive the written report on a case-by-case basis if the oral report has been received within 24-hours.

(g) **Other noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs (12) (d), (e), or (f), at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (12) (f).

(h) **Other information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Agency, it shall promptly submit such facts or information.

(13) **Bypass.**
(a) Definitions.
(1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
(2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
(b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (13)(c) and (13)(d).
(c) Notice.
(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph (12)(f) (24-hour notice).
(d) Prohibition of bypass.
(1) Bypass is prohibited, and the Agency may take enforcement action against a permittee for bypass, unless:
(i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
(ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
(iii) The permittee submitted notices as required under paragraph (13)(c).
(2) The Agency may approve an anticipated bypass, after considering its adverse effects, if the Agency determines that it will meet the three conditions listed above in paragraph (13)(d)(1).

(14) **Upset.**
(a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
(b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (14)(c) are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
(c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
(1) An upset occurred and that the permittee can identify the cause(s) of the upset;
(2) The permitted facility was at the time being properly operated; and
(3) The permittee submitted notice of the upset as required in paragraph (12)(f)(2) (24-hour notice).
(4) The permittee complied with any remedial measures required under paragraph (4).
(d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

(15) **Transfer of permits.** Permits may be transferred by modification or automatic transfer as described below:
  (a) Transfers by modification. Except as provided in paragraph (b), a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued pursuant to 40 CFR 122.62 (b) (2), or a minor modification made pursuant to 40 CFR 122.63 (d), to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act.
  (b) Automatic transfers. As an alternative to transfers under paragraph (a), any NPDES permit may be automatically transferred to a new permittee if:
    (1) The current permittee notifies the Agency at least 30 days in advance of the proposed transfer date;
    (2) The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage and liability between the existing and new permittees; and
    (3) The Agency does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement.

(16) All manufacturing, commercial, mining, and silvicultural dischargers must notify the Agency as soon as they know or have reason to believe:
  (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant identified under Section 307 of the Clean Water Act 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 value reported for that pollutant in the NPDES permit application; or
    (4) The level established by the Agency in this permit.
  (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 NPDES permit application.

(17) All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Agency of the following:
  (a) Any new introduction of pollutants into that POTW from an indirect discharge which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and
  (b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
  (c) For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(18) If the permit is issued to a publicly owned or publicly regulated treatment works, the permittee shall require any industrial user of such treatment works to comply with federal requirements concerning:
  (a) User charges pursuant to Section 204 (b) of the Clean Water Act, and applicable regulations appearing in 40 CFR 35;
  (b) Toxic pollutant effluent standards and pretreatment standards pursuant to Section 307 of the Clean Water Act; and
  (c) Inspection, monitoring and entry pursuant to Section 308 of the Clean Water Act.

(19) If an applicable standard or limitation is promulgated under Section 301(b)(2)(C) and (D), 304(b)(2), or 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked, and reissued to conform to that effluent standard or limitation.

(20) Any authorization to construct issued to the permittee pursuant to 35 Ill. Adm. Code 309.154 is hereby incorporated by reference as a condition of this permit.

(21) The permittee shall not make any false statement, representation or certification in any application, record, report, plan or other document submitted to the Agency or the USEPA, or required to be maintained under this permit.

(22) The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed $25,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both.
Additional penalties for violating these sections of the Clean Water Act are identified in 40 CFR 122.41 (a)(2) and (3).

(23) The 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, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

(24) The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance 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.

(25) Collected screening, slurries, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those wastes (or runoff from the wastes) into waters of the State. The proper authorization for such disposal shall be obtained from the Agency and is incorporated as part hereof by reference.

(26) In case of conflict between these standard conditions and any other condition(s) included in this permit, the other condition(s) shall govern.

(27) The permittee shall comply with, in addition to the requirements of the permit, all applicable provisions of 35 Ill. Adm. Code, Subtitle C, Subtitle D, Subtitle E, and all applicable orders of the Board or any court with jurisdiction.

(28) The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit is held invalid, the remaining provisions of this permit shall continue in full force and effect.