NPDES Permit No. IL0048321
Notice No. JMC:12091801 IL0048321 Exelon Braidwood.docx

Public Notice Beginning Date: **February 19, 2014**

Public Notice Ending Date: **March 21, 2014**

National Pollutant Discharge Elimination System (NPDES)
Permit Program

Draft Reissued NPDES Permit to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

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

Name and Address of Discharger:

Exelon Generation Company
35100 South Route 53
Braceville, Illinois 60407-9619

Name and Address of Facility:

Exelon Generation Company
Braidwood Nuclear Power Station
Rural Route 1, Box 84
Braceville, Illinois 60407
(Will County)

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

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

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

The applicant operates Braidwood Nuclear Power Station which is a nuclear fueled steam electric generating facility located on Route 53 in Braceville, Will County, Illinois. Two pressurized water, nuclear fission reactors provide steam to turbine generators with a maximum generating capacity of 2520 MW or 3650 MWt (SIC 4911). Cooling and service water for station operations is withdrawn from a 2,537 acre cooling pond. Main condenser cooling water and service water is discharged to the cooling pond for dissipation of waste heat and is recycled. A portion of the recycled water is discharged as blowdown to the Kankakee River. Make-up water is pumped from the Kankakee River to the cooling pond to compensate for evaporation and blowdown losses. Station process wastewaters are discharged to the cooling pond or the cooling pond blowdown line which discharges to the Kankakee River. Station area runoff is discharge via two runoff collection area overflow discharges. Stormwater runoff from the station switchyard and from the west side of the plant site is discharged to unnamed natural drainage ditches tributary to the Mazon River. The station area runoff and stormwater runoff combine with the emergency cooling pond overflow in the unnamed ditches tributary to the Mazon River. The sewage treatment plant effluent has been rerouted to the City of Braidwood Wastewater Treatment Plant, a publically owned treatment works. Treatment of sanitary wastewater will no longer occur at the site.

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

Outfall	Receiving Stream	Latitude	Longitude	Stream Classification	Integrity Rating
001	Kankakee River	41° 15' 00" North	88° 08' 00" West	General Use and Public and Food Processing Supply	B
A01	Kankakee River	41° 15' 00" North	88° 08' 00" West		
B01	Sanitary Waste has been Rerouted to Braidwood Sanitary District				
C01	Kankakee River	41° 15' 00" North	88° 08' 00" West		
D01	Kankakee River	41° 15' 00" North	88° 08' 00" West		
E01	Kankakee River	41° 15' 00" North	88° 08' 00" West		
002	Mazon River	41° 12' 15" North	88° 16' 45" West	General Use	A
003	Mazon River	41° 12' 15" North	88° 16' 45" West	General Use	A
004	Mazon River	41° 12' 15" North	88° 16' 45" West	General Use	A

To assist you further in identifying the location of the discharge please see the attached map.

The stream segment (F-16) receiving the discharge from outfall(s) 001, is on the draft 2012 303(d) list of impaired waters and is a biologically significant stream on the 2008 Illinois Department of Natural Resources Publication – *Integrating Multiple Taxa in a Biological Stream Rating System*.

Potential Cause		Designated Use
PCBs		Fish Consumption
Mercury		Fish Consumption
Manganese		Public and Food Processing Supply

The stream segment (DV-06) receiving the discharge from outfall(s) 002, 003, and 004 is on the draft 2012 303(d) list of impaired waters and not is a biologically significant stream on the 2008 Illinois Department of Natural Resources Publication – *Integrating Multiple Taxa in a Biological Stream Rating System*.

Potential Cause		Designated Use
PCBs		Fish Consumption
Mercury		Fish Consumption

The discharge(s) from the facility shall be monitored and limited at all times as follows:

Outfall: 001 - Cooling Pond Blowdown Line

	LOAD LIMITS lbs/day DAF (DMF)			CONCENTRATION LIMITS mg/l		
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION
Flow						
pH					6-9	35 IAC 304.125
Temperature					Standard	35 IAC 302.211
Total Residual Chlorine					0.2	40 CFR 423.13
Total Residual Oxidant					0.05	40 CFR 125.3
Outfall: A01 - Wastewater Treatment Plant Effluent						
Flow						
Total Suspended Solids				15	30	35 IAC 304.124
Oil & Grease				15	20	40 CFR 423.12
Outfall: B01 - Sewage Treatment Plant Effluent (Removed)						
Outfall: C01 - Radwaste Treatment System Effluent						
Flow						
Total Suspended Solids				15	30	35 IAC 304.124
Oil & Grease				15	20	40 CFR 423.12
Outfall: D01 - Demineralizer Regement Wastes						
Flow						
Total Suspended Solids				15	30	35 IAC 304.124
Outfall: 002 North Site Stormwater Runoff Basin						
Flow						
Oil & Grease				15	30	35 IAC 304.124

Outfall 002, 003 and 004 will be required to update Stormwater Pollution Prevention Plan.

The following explain the conditions of the proposed permit:

The draft permit contains several Special Conditions that serve to clarify operating conditions, limitations and monitoring requirements.

Additional Special Conditions clarify flow, pH, monitoring locations, discharge monitoring report submission, temperature, stormwater, additives, and total residual chlorine.

Special condition 6 does not allow the discharge of polychlorinated biphenyl compounds as required in 40 CFR 423.12(b)(2). The facility does not have any PCB transformers.

Since last permit renewal the facility has installed a dechlorination system to help aid in the removal of residual chlorine.

Braidwood Station's intake structure that is located on the Kankakee River near Custer Park, Illinois consists of three circulating water makeup pumps, two of which are used for normal operations and one for backup. These three make-up pumps are used to replace water lost from the plant's main cooling lake due to evaporation, seepage and blowdown. Water from the Kankakee River is pumped 3.5 miles into a small freshwater holding pond that is located on the northeast shoreline of the cooling lake and from there flows into the cooling pond. Historically, the freshwater holding pond supplied potable and non-safety-related water to the plant, however, in 2010, a deep well was installed that now supplies groundwater for these systems.

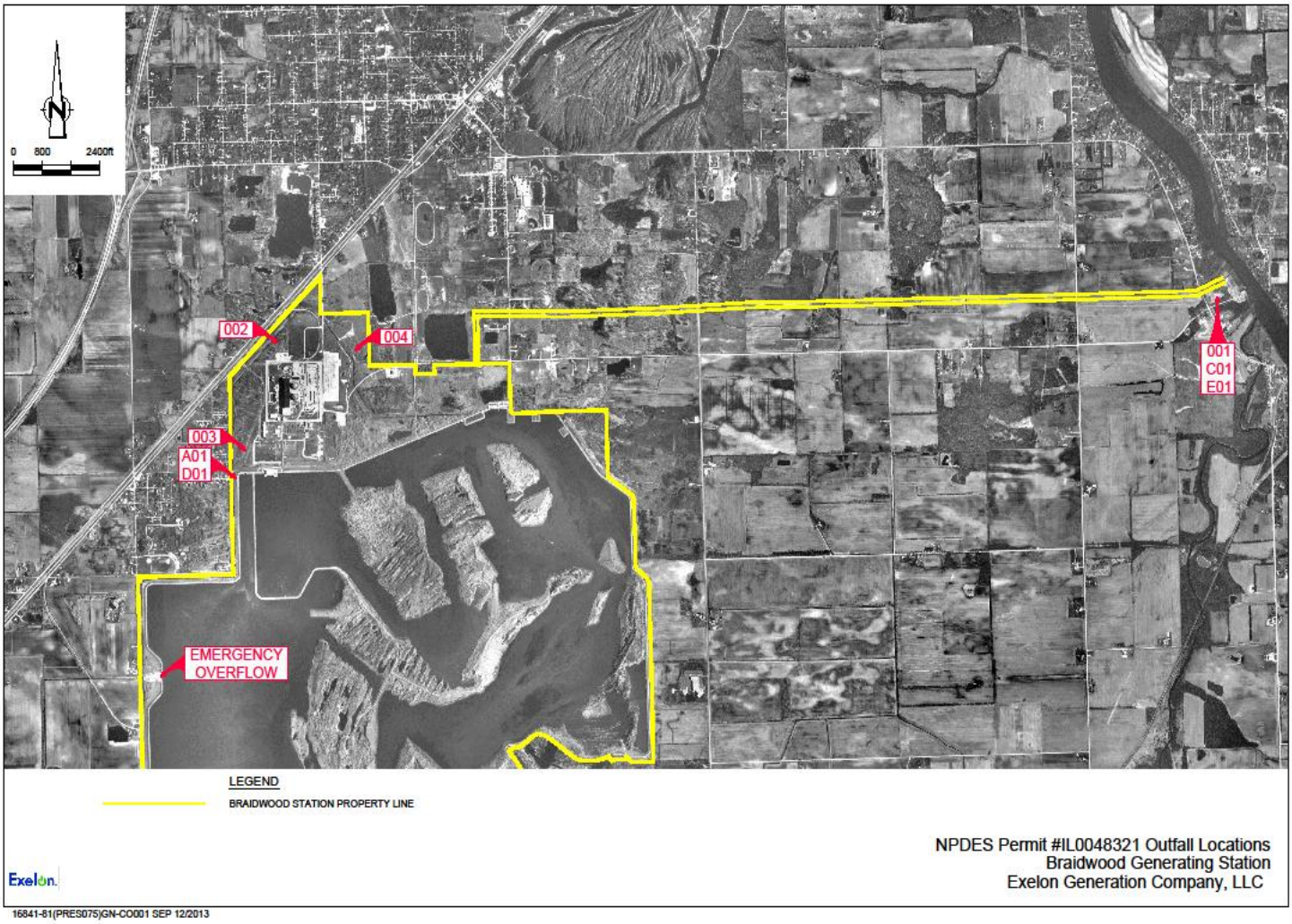
The intake bays housing the three make-up pumps are protected by bar grills, traveling screens and trash rakes to protect the pumps from ice and debris. Debris from the traveling screens and trash rakes at the river screen house is collected in a trash basket and later taken offsite by an approved independent contractor for offsite disposal.

Each make-up pump's rated capacity is 24,000 gpm. Maximum water withdrawal from the Kankakee River is, therefore, approximately 72,000 gallons per minute (gpm) or 160.4 cubic feet per second (cfs). Normal water withdrawal with two pumps operating is 48,000 gpm.

Water enters the river screen house at a velocity of 0.32 to 0.48 feet per second (fps) depending on river level, when both units are operating -- a rate that is compatible with the protection of aquatic species.

Braidwood Station utilizes a closed-cycle recirculating cooling system, a 2,537 acre cooling pond, for cooling of plant condensers and is determined to be the equivalent of Best Technology Available (BTA) for cooling water intake structures to prevent/minimize impingement mortality in accordance with the Best Professional Judgment (BPJ) provisions of 40 CFR 125.3 because it allows the facility to only withdraw the amount of water necessary to maintain the cooling pond level rather than the entire volume used for cooling of the plant condensers. For a similar sized generating facility operating an open cycle system, the condenser water make-up would be 1.0 million gallons per minute; therefore by utilize the cooling pond a 95% percent reduction of intake water is achieved.

Special Condition 17 requires additional information to be submitted to the Agency pursuant to 316(b), so that the Agency can evaluate the potential impacts of the cooling water intake structure operations pursuant to 40 CFR 125.90(b).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BRAIDWOOD STATION PROPERTY LINE
Exelon.
NPDES Permit #IL0048321 Outfall Locations
Braidwood Generating Station
Exelon Generation Company, LLC
16841-81(PRES075)GN-CO001 SEP 12/2013

Public Notice of Draft Permit

Public Notice Number JMC:12091801 IL0048321 Exelon Braidwood.docx is hereby given by Illinois EPA, Division of Water Pollution Control, Permit Section, 1021 North Grand Avenue East, Post Office Box 19276, Springfield, Illinois 62794-9276 (herein Agency) that a draft National Pollutant Discharge Elimination System (NPDES) Permit Number IL0048321 has been prepared under 40 CFR 124.6(d) for Exelon Generation Company, Braidwood Nuclear Power Station, 1411 Opus Place, Suite 250, Downers Grove, IL 60515 for discharge into the Kankakee and Mazon River from the Exelon Generation Company, Braidwood Nuclear Power Station, Rural Route 1, Braceville Illinois 60407, (Will County). The applicant operates the Braidwood Nuclear Power Station which is an existing nuclear fueled steam electric generating facility that generates 2520 MW of energy. The station discharges condenser cooling and service water to a cooling pond which then discharges to the Kankakee River. Stormwater runoff discharges to an unnamed ditch which is tributary to the Mazon River.

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

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

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

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

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NPDES Permit No. IL0048321

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date:

Issue Date:
Effective Date:

Name and Address of Permittee:

Exelon Generation Company
1411 Opus Place, Suite 250
Warrenville, Illinois 6055

Facility Name and Address:

Exelon Generation Company
Braidwood Nuclear Power Station
Rural Route 1, Box 84
Braceville, Illinois 60407

Discharge Number and Name:	Receiving Waters:
001 Cooling Pond Blowdown Line	Kankakee River
A01 Wastewater Treatment Plant Effluent	
B01 Sewage Treatment Plant Effluent (Removed)	
C01 Radwaste Treatment System Effluent	
D01 Demineralizer Regenerant Wastes	
E01 Intake Screen Backwash	
002 North Site Stormwater Runoff Basin	Mazon River
003 South Site Stormwater Runoff Basin	
004 Switchyard Area Runoff	

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.

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

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NPDES Permit No. IL0048321

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 the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): 001 Cooling Pond Blowdown Line* (DAF = 30,000 gpm or 43.2 MGD)

This discharge consists of:	Approximate Flow
1. Condenser cooling water	11.31 MGD
2. House service water	1.3 MGD
3. Essential service water	1.3 MGD
4. Demineralizer regenerant waste	0.028 MGD
5. Wastewater treatment plant effluent	0.079 MGD
6. Radwaste treatment system effluent	0.032 MGD
7. House service water strainer backwash	0.03 MGD
8. Essential service water strainer backwash	0.017 MGD
9. Sewage treatment plant effluent (Removed)	0.00 MGD
10. Water treatment system filter backwashes	0.03 MGD
11. River intake screen backwash	0.112 MGD
12. Cooling pond intake screen backwash	0.4 MGD

Flow (MGD)	See Special Condition 1		Daily	Continuous
pH	See Special Condition 2		1/Week	Grab
Temperature	See Special Condition 4		Daily	Continuous
Total Residual Chlorine**		0.2	1/Month	Grab**
Total Residual Oxidant**		0.05	1/Month	Grab**

*See Special Condition 13
**See Special Condition 5

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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 the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): A01 Wastewater Treatment Plant Effluent

This discharge consists of: Approximate Flow

1. Turbine building fire and oil sump* 0.079 MGD
   a. Turbine building floor drain tank*
      i. Turbine building floor drain sumps
      ii. Essential service water drain sumps
      iii. Condensate pit sumps
   b. Turbine building equipment drain tank*
   c. Units 1 and 2 tendon tunnel sumps
   d. Auxiliary boiler blowdown
   e. Units 1 and 2 diesel fuel storage tank sumps
   f. Oil-water separator No. 1 effluent
   g. Secondary-Side drain water
   h. Miscellaneous non-contaminated auxiliary building drains
2. Water treatment area floor and equipment drain sumps Intermittent
3. Wastewater treatment system sand filter backwash 0.002 MGD
4. Condensate polisher regenerant wastes (alternate route) Intermittent
5. Demineralizer regenerant waste drains (alternate route) Intermittent

Flow (MGD)	See Special Condition 1			Daily	24 Hour Total
Total Suspended Solids		15.0	30.0	1/Week	24 Hour Composite
Oil and Grease		15.0	20.0	1/Month	Grab

*These wastestreams may be directed to the Radwaste Treatment System depending on the results of the process radiation monitors.

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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 the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): B01 Sewage Treatment Plant Effluent

Internal Outfall B01 has been removed from the permit. Sanitary waste is now directed to the Braidwood Wastewater Treatment Plant.

Outfall(s): C01 Radwaste Treatment System Effluent

This discharge consists of:	Approximate Flow:
1. Steam generator condensate blowdown	Intermittent
2. Cooling jacket blowdown	Intermittent
3. Auxiliary building and turbine building floor drains	Intermittent
4. Laundry waste treatment system drains	0.001 MGD
5. Chemical and volume control system drains	Intermittent
6. Boron recycle system blowdown	Intermittent
7. Radwaste demineralizer regenerant wastes and filter backwash	0.002 MGD
8. Reactor building floor and equipment drains	Intermittent
9. Turbine building floor drain tank (Alternate Route)	Intermittent
10. Turbine building fire and oil sump (Alternate Route)	Intermittent
11. Turbine building equipment drain tank (Alternate Route)	Intermittent
12. Evaporator wastewater	Intermittent

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
Flow (MGD)	See Special Condition 1				Daily	Continuous
Total Suspended Solids			15.0	30.0	1/Week	Discharge Tank Composite
Oil and Grease			15.0	20.0	2/Year	Grab

NPDES Permit No. IL0048321

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 the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): D01 Demineralizer Regenerant Wastes

This discharge consists of	Approximate Flow
1. Make-up demineralizer regenerant waste***	0.028 MGD
2. Condensate polisher regenerant waste***	
3. Regenerant chemical area drains	
4. Portable demineralizer regenerate wastes	

Flow (MGD)	See Special Condition 1				Daily	Continuous
Total Suspended Solids			15.0	30.0	1/Week	8 Hour Composite

***This wastestream may be alternately routed to the wastewater treatment system.

Outfall(s): E01 River Intake Screen Backwash*

*See Special Condition 15

NPDES Permit No. IL0048321

Effluent Limitations and Monitoring

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

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

Outfall(s): 002 North Site Stormwater Runoff Basin*

This discharge consists of: Approximate Flow:

1. Parking lot runoff — Intermittent
2. Transformer area runoff — Intermittent
3. North station area runoff — Intermittent
4. Turbine building, auxiliary building and waste treatment building roof drains — Intermittent

Flow (MGD)	See Special Condition 1				1/Quarter	Measure When Monitoring
Oil & Grease			15	30	1/Quarter	Grab

*See Special Conditions 9 and 15

Outfall(s): 003 South Site Stormwater Runoff Basin*

Approximate Flow

Intermittent

*See Special Condition 9

Outfall(s): 004 Switchyard Area Runoff*

Approximate Flow

Intermittent

*See Special Condition 9

Special Conditions

SPECIAL CONDITION 1. Flow shall be reported as a monthly average and a daily maximum.

SPECIAL CONDITION 2. The pH shall be in the range 6.0 to 9.0. The monthly minimum and monthly maximum values shall be reported on the DMR form.

During the months of May through September the pH maximum limitation may be exceeded if the elevated pH level is caused entirely by algae in the treatment lagoon(s), in which case there is no upper pH limit.

The burden of proving algae is the cause of pH exceedance is upon the discharger.

If such exceedance occurs the applicant shall provide a written statement on the Discharge Monitoring Report explaining the cause of the exceedance.

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 . This facility meets the criteria for establishment of a formal mixing zone for thermal discharges pursuant to 35 IAC 302.102. The following mixing zone defines the area and volume of the receiving water body in which mixing is allowed to occur. Water quality standards for temperature listed in table below must be met at every point outside of the mixing zone.

A. The facility has installed a high rate diffuser and has completed a CORMIX model to determine the size of the mixing zone, which is 35 meters wide by 25 meters downstream of the diffuser.

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

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

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

D. The water temperature at the edge of the mixing zone defined above 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 at the edge of the mixing zone exceed the maximum limits in the following table by more than 1.7° C (3° F).

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

Compliance with this part shall be determined by the following equation:

$$T_{EDGE} = [0.25 \times (Q_{US} \times T_{US}) + Q_E \times T_E] / (0.25 \times Q_{US} + Q_E)$$

Where:

T_{EDGE} = Temperature at the edge of the mixing zone.
Q_{US} = Upstream Flow
T_{US} = Upstream Temperature
Q_E = Effluent Flow
T_E = Temperature of the effluent.

Upstream Temperature is USGS temperature probe on the Kankakee River just upstream from the Braidwood Station intake structure.

E. The monthly maximum value shall be reported on the DMR form.

SPECIAL CONDITION 5. Chlorine or bromine may not be discharged from each unit's main cooling condensers for more than two hours per day. The reported mean concentration and maximum concentration of Total Residual Chlorine/Total Residual Oxidant (TRC/TRO) shall be based on a minimum of three grab samples taken at approximately five minute intervals at Outfall 001. The

time samples were collected, the time and duration of oxidant dosing period plus the monthly average and daily maximum amount of oxidant applied shall be reported on the Discharge Monitoring Reports. The reported average concentration of TRC/TRO is the average of all values measured for a sampling event and the reported maximum concentration is the highest value measured for a single grab sample. Discharge Monitoring Reports shall indicate whether bromine and/or chlorine compounds were used during the month. A discharge limit, as measured at the blowdown to the Kankakee River, of 0.05 mg/l (instantaneous maximum) shall be achieved for total residual oxidant (total residual chlorine/total residual halogen) when bromine biocides are used for condenser biofouling control.

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

SPECIAL CONDITION 7. There shall be no discharge of complex metal bearing wastestreams or associated rinses from chemical metal cleaning unless this permit has been modified to include the new discharge.

SPECIAL CONDITION 8. Intake impacts will be reduced by limiting pumping from the river during the peak entrainment period. For a four-week period (last three weeks in May and first week in June), pumping will be allowed only during the day (between one hour after sunrise and one hour before sunset). In addition, during the four-week period, pumping will be minimized during the day. Pumping will occur when needed to fill the freshwater holding pond and to maintain efficient operation of the cooling pond. In an extreme emergency, and upon immediate notification of the Agency, pumping could occur at night. Such pumping would cease as soon as the emergency was over. Records of all pumping during the four-week period will be maintained. Such records will include dates, number of pumps operating and start and end times.

SPECIAL CONDITION 9.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

A. A storm water pollution prevention plan shall be maintained by the permittee for the storm water associated with industrial activity at this facility. The plan shall identify potential sources of pollution which may be expected to affect the quality of storm water discharges associated with the industrial activity at the facility. In addition, the plan shall describe and ensure the implementation of practices which are to be used to reduce the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit. The permittee shall modify the plan if substantive changes are made or occur affecting compliance with this condition.

    1. Waters not classified as impaired pursuant to Section 303(d) of the Clean Water Act.

       Unless otherwise specified by federal regulation, the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event.

    2. Waters classified as impaired pursuant to Section 303(d) of the Clean Water Act

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

B. The operator or owner of the facility shall make a copy of the plan available to the Agency at any reasonable time upon request.

   Facilities which discharge to a municipal separate storm sewer system shall also make a copy available to the operator of the municipal system at any reasonable time upon request.

C. The permittee may be notified by the Agency at any time that the plan does not meet the requirements of this condition. After such notification, the permittee shall make changes to the plan and shall submit a written certification that the requested changes have been made. Unless otherwise provided, the permittee shall have 30 days after such notification to make the changes.

D. The discharger shall amend the plan whenever there is a change in construction, operation, or maintenance which may affect the discharge of significant quantities of pollutants to the waters of the State or if a facility inspection required by paragraph H of this condition indicates that an amendment is needed. The plan should also be amended if the discharger is in violation of any conditions of this permit, or has not achieved the general objective of controlling pollutants in storm water discharges. Amendments to the plan shall be made within 30 days of any proposed construction or operational changes at the facility, and shall be provided to the Agency for review upon request.

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.

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.

8. Inspection Procedures - Qualified plant personnel shall be identified to inspect designated equipment and plant areas. A tracking or follow-up procedure shall be used to ensure appropriate response has been taken in response to an inspection. Inspections and maintenance activities shall be documented and recorded.

G. Non-Storm Water Discharge - The plan shall include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharge. The certification shall include a description of any test for the presence of non-storm water discharges, the methods used, the dates of the testing, and any onsite drainage points that were observed during the testing. Any

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facility that is unable to provide this certification must describe the procedure of any test conducted for the presence of non-storm water discharges, the test results, potential sources of non-storm water discharges to the storm sewer, and why adequate tests for such storm sewers were not feasible.

H. Quarterly Visual Observation of Discharges - The requirements and procedures for quarterly visual observations are applicable to all outfalls covered by this condition.

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).

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N. If any statement or representation is found to be incorrect, this authorization may be revoked and the permittee there upon waives all rights there under.

O. The issuance of this authorization (a) does not release the permittee from any liability for damage to persons or property caused by or resulting from the installation, maintenance or operation of the proposed facilities; (b) does not take into consideration the structural stability of any units or part of this project; and (c) does not release the permittee from compliance with other applicable statutes of the State of Illinois, or other applicable local law, regulations or ordinances.

P. Plans and specifications of all treatment equipment being included as part of the stormwater management practice shall be included in the SWPPP.

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

REPORTING

R. The facility shall submit an electronic copy of the annual inspection report to the Illinois Environmental Protection Agency. The report shall include results of the annual facility inspection which is required by Part I of this condition. The report shall also include documentation of any event (spill, treatment unit malfunction, etc.) which would require an inspection, results of the inspection, and any subsequent corrective maintenance activity. The report shall be completed and signed by the authorized facility employee(s) who conducted the inspection(s). The annual inspection report is considered a public document that shall be available at any reasonable time upon request.

S. The first report shall contain information gathered during the one year time period beginning with the effective date of coverage under this permit and shall be submitted no later than 60 days after this one year period has expired. Each subsequent report shall contain the previous year's information and shall be submitted no later than one year after the previous year's report was due.

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

U. The permittee shall retain the annual inspection report on file at least 3 years. This period may be extended by request of the Illinois Environmental Protection Agency at any time.

Annual inspection reports shall be mailed to the following address:

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

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

SPECIAL CONDITION 10.

Withdrawal from and discharge to adjacent impoundments in which permittee has water rights is permitted during periods of low flow in the Kankakee River, when the station must decouple its operation from the river.

No monitoring is required for this permitted activity. The IEPA shall be promptly notified during such operations.

SPECIAL CONDITION 11. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) Forms using one such form for each outfall each month.

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

The Permittee may choose to submit electronic DMRs (eDMRs) instead of mailing paper DMRs to the IEPA. More information,

including registration information for the eDMR program, can be obtained on the IEPA website, http://www.epa.state.il.us/water/edmr/index.html.

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

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

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

Attention: Compliance Assurance Section, Mail Code # 19

SPECIAL CONDITION 12. The "upset" defense provisions of Title 40, Section 122.41(n) of the Federal Regulations are hereby incorporated into this permit by reference.

SPECIAL CONDITION 13. An emergency cooling pond overflow discharges to an unnamed drainage ditch which is tributary to the Mazon River. Discharges from this overflow shall be subject to the bypass provisions of 40 CFR 122.41(m).

When the emergency overflow is being utilized the applicant shall monitor the discharge for same parameters as Outfall 001. Flow shall be best estimate with parameters being monitored at same frequency. If discharge occurs results shall be submitted to the Agency monthly as an addendum to the DMR.

SPECIAL CONDITION 14. The Agency has reviewed the Oil Separator Oil Level Quarterly Surveillance (Document 0BwOS OD-Q1) standard operating procedures document.

This surveillance in conjunction with effluent limits monitoring requirements shall be conducted as described unless Agency interaction deems otherwise.

Any maintenance activities required as a result of these inspections shall be recorded and submitted to the Agency on a semi-annual basis with the July and January DMRs for the preceding six-month period.

SPECIAL CONDITION 15. 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.

SPECIAL CONDITON 16. Blowdown Line Vacuum Breaker Monitoring

The applicant shall conduct monitoring of vacuum breaker(s) as outlined in Consent Order No. 06 MR 248.

SPECIAL CONDITION 17.

Braidwood Station utilizes a closed-cycle recirculating cooling system, a 2,537 acre cooling pond, for cooling of plant condensers and is determined to be the equivalent of Best Technology Available (BTA) for cooling water intake structures to prevent/minimize impingement mortality in accordance with the Best Professional Judgment (BPJ) provisions of 40 CFR 125.90(b) because it allows the facility to only withdraw the amount of water necessary to maintain the cooling pond level rather than the entire volume used for cooling of the plant condensers.

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

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

Upon the receipt and review of this information, the permit may be modified to require the submittal of additional information based on a Best Professional Judgment review by the Agency. This permit may also be revised or modified in accordance with any laws,

regulations, or judicial orders pursuant to Section 316(b) of the Clean Water Act.

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

SPECIAL CONDITION 18.

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

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

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

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