

NPDES Permit No. IL0036919
Notice No. SBS:21012501.docx

Public Notice Beginning Date: **March 26, 2021**

Public Notice Ending Date: **April 26, 2021**

National Pollutant Discharge Elimination System (NPDES)
Permit Program

Draft Modified 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, LLC
8401 Power Road
Clinton, Illinois 61727

Name and Address of Facility:

Exelon Generation Company, LLC
Clinton Power Station
8401 Power Road
Clinton, Illinois 61727
(DeWitt 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 Sara B. Samson at 217/782-0610.

The applicant is engaged in the operation of a nuclear fueled steam electric generating facility, generating approximately 1,092 MW (SIC 4911). Plant operation results in an average discharge of 965 MGD of discharge flume wastewater from outfall 002, 0.173 MGD of sewage treatment plant effluent from internal outfall A02, 0.072 MGD of radwaste treatment system effluent from internal outfall B02, 0.288 MGD of water treatment waste from outfall 003, an intermittent discharge from the transformer area oil/water separator from outfall 004, an intermittent discharge from the diesel generator area oil/water separator from outfall 005, 0.072 MGD of screen house intake screen backwash from outfall 006, 35 MGD of safe shutdown service water system from outfall 007, an intermittent discharge of unheated pump bearing cooling waters from outfall 008, an intermittent discharge of sedimentation pond runoff from outfall 011, and an intermittent discharge of ultimate heat sink dredge pond discharge from outfall 015.

This Modified Permit does not increase the facility's DAF, DMF, concentration limits, and/or load limits.

The following modifications are proposed:

1. Removal of Zinc effluent limits. The Zinc effluent limits have been removed from the permit based on the results of a metals translator and mixing study. The corresponding compliance schedule included as Special Condition 26 has been removed.
2. Addition of New Special Condition 26. New Special Condition has been added describing the permitted mixing zone and zone of initial dilution for Zinc.
3. Corrected latitude/longitude typographical errors for outfalls 2, 3, 5, 8 and 15.

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

<u>Outfall</u>	<u>Receiving Stream</u>	<u>Latitude</u>		<u>Longitude</u>		<u>Stream Classification</u>	<u>Integrity Rating</u>
002	Clinton Lake	40° 10' 17"	North	88° 46' 17"	West	General Use	Not Rated
003	Clinton Lake	40° 10' 13"	North	88° 50' 25"	West	General Use	Not Rated
004	Clinton Lake	40° 10' 26"	North	88° 50' 13"	West	General Use	Not Rated
005	Clinton Lake	40° 10' 17"	North	88° 50' 18"	West	General Use	Not Rated
006	Clinton Lake	40° 10' 23"	North	88° 50' 13"	West	General Use	Not Rated
007	Clinton Lake	40° 10' 19"	North	88° 50' 17"	West	General Use	Not Rated
008	Clinton Lake	40° 10' 25"	North	88° 50' 15"	West	General Use	Not Rated
011	Clinton Lake	40° 09' 47"	North	88° 49' 39"	West	General Use	Not Rated
015	Clinton Lake	40° 09' 9"	North	88° 51' 09"	West	General Use	Not Rated

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

The stream segment, REI, receiving the discharge from outfalls 002 – 015 is on the 2016 303(d) list of impaired waters and is not a biologically significant stream on the 2008 Illinois Department of Natural Resources Publication – *Integrating Multiple Taxa in a Biological Stream Rating System*.

The following parameters have been identified as the pollutants causing impairment:

<u>Designated Use</u>	<u>Potential Cause</u>
Aesthetic Quality	Aquatic Algae, Cause Unknown, and Phosphorus



The discharges from the facility shall be monitored and limited at all times as follows:

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		REGULATION	CONCENTRATION LIMITS mg/l		REGULATION
	30 DAY AVERAGE	DAILY MAXIMUM		30 DAY AVERAGE	DAILY MAXIMUM	
<u>Outfall 002:</u>						
Flow (MGD)						
pH				6 – 9 s.u.		35 IAC 304.125
Total Residual Chlorine					0.05	40 CFR 125.3 & 35 IAC 302.208
Temperature						
Zinc (Total)				Monitor Only		
Phosphorus (Total)				Monitor Only		

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		REGULATION	CONCENTRATION LIMITS mg/l		REGULATION
	30 DAY AVERAGE	DAILY MAXIMUM		30 DAY AVERAGE	DAILY MAXIMUM	
<u>Outfall: A02:</u>						
Flow (MGD)						
BOD ₅	22	75	35 IAC 304.120	30	60	35 IAC 304.120
Total Suspended Solids	22	75	35 IAC 304.120	30	60	35 IAC 304.120
Fecal Coliform				Monitor Only		
<u>Outfall B02:</u>						
Flow (MGD)						
Total Suspended Solids				15	30	35 IAC 304.124
Oil and Grease				15	20	40 CFR 423.15
<u>Outfall 003:</u>						
Flow (MGD)						
pH				6 – 9 s.u.		35 IAC 304.125
Oil and Grease				15	20	40 CFR 423.15
Total Suspended Solids				15	30	35 IAC 304.124
<u>Outfall 004:</u>						
Flow (MGD)						
pH				6 – 9 s.u.		35 IAC 304.125
Oil & Grease				15	20	40 CFR 423.15
Total Suspended Solids				15	30	35 IAC 304.124

<u>Outfall 005:</u>						
Flow (MGD)						
pH				6 – 9 s.u.		35 IAC 304.125
Oil & Grease				15	20	40 CFR 423.15
Total Suspended Solids				15	30	35 IAC 304.124
<u>Outfall 006:</u>						
Flow (MGD)						
There shall be no intentional discharge of collected debris.						

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		REGULATION	CONCENTRATION LIMITS mg/l		REGULATION
	30 DAY AVERAGE	DAILY MAXIMUM		30 DAY AVERAGE	DAILY MAXIMUM	
<u>Outfall 007:</u>						
Flow (MGD)						
pH				6 – 9 s.u.		35 IAC 304.125
Total Residual Chlorine					0.05	40 CFR 125.3 & 35 IAC 302.208
Zinc (Total)				Monitor Only*		
Phosphorus (Total)				Monitor Only		
* See Special Condition 23 and 26						
<u>Outfall 008:</u>						
Flow (MGD)						
<u>Outfall 011:</u>						
SWPPP						
<u>Outfall 015:</u>						
Flow (MGD)						
pH				6 – 9 s.u.		35 IAC 304.125
Total Suspended Solids				15	30	35 IAC 304.124

Load Limit Calculations:

Load limit calculations for Outfall A02 for the following pollutant parameters were based on a design average and maximum flow of 0.088 MGD and 0.15 MGD and using the formula of design average or maximum flow (MGD) X average or maximum concentration limit (mg/l) X 8.34 = the average or maximum load limit (lbs/day): BOD₅ and Total Suspended Solids.

The load limits appearing in the permit will be the more stringent of the State and Federal Guidelines.

The following explain the conditions of the proposed permit.

The Special Conditions clarify the following flow, pH, temperature, Total Residual Chlorine, sampling location, Discharge Monitoring Report Submission, 316(a), 316(b), additives, class K operator, fecal coliform, descriptions for a mixing zone and a zone of initial dilution (ZID) for zinc at Outfall 007, and stormwater.

The reissuance of this permit will include the continued approved usage of water treatment additives as identified in the permit application.

The facility has a year-round disinfection exemption for Outfall A02, which was granted on August 21, 1989.

The facility does not have any PCB's on-site. The last know PCB component was removed no later than FY 2000.

The facility's previous thermal demonstration was approved by the Illinois Pollution Control Board on August 26, 1993 (PCB Order 92-142). The previous thermal demonstration was done pursuant to 35 Ill. Adm. Code 302.211(f). With this renewal, the facility submitted a 316(a) demonstration Study at the Clinton Power Station in accordance with Subpart K of 35 Ill. Adm. Code 106.1180. Pursuant to 35 Ill. Adm. Code 106.1180(b), a NPDES permit application for renewal of an alternative thermal effluent limitation must include sufficient information for the Agency to compare the nature of the Permittee's thermal discharge and the balanced, indigenous community of shellfish, fish, and wildlife at the time the Illinois Pollution Control Board granted the alternative thermal effluent limitation, and the current

nature of the petitioner's thermal discharge and the balanced, indigenous community of shellfish, fish, and wildlife currently extant. The facility has fulfilled this requirement through the submittal of the document discussed above. Based on the results discussed in this document, the thermal relief afforded in the expired NPDES permit has not caused any appreciable harm to the balanced, indigenous aquatic life community of Clinton Lake and should therefore be extended into the renewed permit. Special Condition 4 contains the board approved thermal relief and special condition 9 contains the requirement for the continuation of the 316(a) for the next renewal.

A Zinc Translator and mixing study has demonstrated that there is no potential for the permittee to exceed the acute water quality standard outside the ZID. The Agency further determined that there is no reasonable potential for the permittee to exceed the chronic water quality standard outside of the mixing zone. Because of this, the permittee will no longer be subject to Zinc effluent limits at outfall 007. Permittee will be required to monitor Zinc monthly at outfall 007. Special Condition 26 describes the ZID and the mixing zone.

Cooling Water Intake Structure (CWIS) Description and Operation Discussion provided by the facility:

Source Waterbody Description

The facility sources their cooling water from Clinton Lake, which is a 4,895-acre freshwater lake created by the construction of an earthen dam 1,200 feet downstream of the confluence of Salt Creek and the North Fork of Salt Creek. Clinton Station is approximately 3.5 miles northeast of the dam at an approximate grade elevation of 736 ft. Clinton Lake is a V-shaped reservoir, with a total of 130 miles of shoreline. The average depth of Clinton Lake is 15.2 feet with a maximum depth of 45 feet. Clinton Lake has a retention time of approximately 146 days.

Circulation Water Intake Structure Configuration

The screenhouse serves as a CWIS to provide a continuous supply of water from Clinton Lake to the Unit 1 reactor and non-contact cooling system. The CWIS was designed with 14 bays for 2 potential operating units, however, 7 bays are unused for Unit 2 (which was never constructed) and are not connected to the other bays. Of the remaining 7 bays that supply water to Unit 1, 6 provide cooling water to the circulating water pumps and 1 provides water to the service water pumps. There are 3 circulating water pumps, 2 service water pumps, and 1 standby service water pump in the screen house.

The screen house is a shoreline structure that is situated on the North Fork arm of Clinton Lake and extend approximately 100 feet into the waterbody. The structure is approximately 230 feet in total length, however, the length for the operating bays used for Unit 1 is approximately 115 feet. The invert elevation at the bar racks is 670 feet above MSL and the invert elevation in the screenhouse is 657.6 feet above MSL. The low water drought elevation is 685.6 feet about MSL, the low water shutdown elevation is 677 feet above MSL, the normal water level is 690 feet above MSL, and the high-water elevation is 697 feet above MSL.

Water enters the intake structure through a set of inclined bar racks at the entrance of each circulating water bay that extends from the bottom concrete slab to above the water surface. Once through the bar racks, the floor elevation drops and the water travels through the traveling water screens and is then withdrawn through the pumps. The bar racks are fixed with 4 to 6 inch diagonal opening squares. The service water bay is 7 feet wide and includes the use of fixed screens.

The 6 circulating water bays have traveling water screens with trays that are 11' 9" wide with No. 12 gauge galvanized 3/8" square mesh openings. The screens rotate at low and high speeds of 2.8 and 11.2 feet per minute, respectively. Fish and debris that are collected on the screens are washed into a trough located upstream of the traveling water screens, fish and debris travel along a sluiceway that empties into a collection basket for disposal.

Operation	Number of Installed Pumps	Design Flow Per Pump
Circulating Water	3	220,000 gpm (316.8 MGD)
Service Water	2 operating, 1 standby	22,000 gpm (31.7 MGD)

Circulating Water Pump Operations

Clinton is a baseload nuclear generating facility that operates at all times of the year except during required maintenance periods. Planned outages occur on a periodic basis. The CWIS operates to provide a continuous supply of water for non-contact cooling of the condensers.

The intake pumps that operate continuously consists of 3 circulating water pumps and 2 service water pumps. The screenhouse also included 1 standby service water pump. Standby service water pumps draw water from the service water discharge lines, therefore they are not included in the DIF.

The total DIF with all pumps except the standby service water pump is 1,013.8 MGD (704,000 gpm). The AIF, calculated as the average of all flow data points from October 2012 through 2015 is approximately 774.1 MGD (537,546 gpm). The maximum AIF from this data is 934.7 MGD (649,100 gpm).

Operation	Design Intake Flow (MGD)
Circulating Water	950.4
Service Water	63.4
Total Design Intake Flow	1,013.8

Source Water Baseline Biological Characterization Data

The facility compiled source water baseline biological characterization data from three main sources.

A fisheries community survey of Clinton Lake and impingement characterization studies at the Clinton CWIS conducted between May 2005 and May 2007. This study provides relatively recent, direct observations of impingement on Clinton's intake structure and the fish community of Clinton Lake.

A fisheries electrofishing survey conducted by Exelon and partners that characterizes game fish populations within areas of Clinton Lake. This program provides on-going data to support IDNR management and stocking of Clinton Lake with walleye, hybrid striped bass, blue catfish, and blacknose crappie.

A fish community study performed by Henningson, Durham & Richardson from April through November 2015 to support Clinton's 316(a) Demonstration provides the most recent community data available.

Cooling Water System Operation Description

The cooling water system at Clinton consists of a cooling lake, CWIS, condensers, and a discharge flume. Cooling water travels through the traveling water screens to a common plenum with the circulating water pumps.

Cooling water passes through the plant, cooling the condensers for the boiling water reactor. The water then enters a seal well, the seal well keeps the circulating water piping full and is located at the discharge flume. The water then reaches a flume which discharges the water to the Salt Creek finger of Clinton Lake. The discharge flume has a bottom width of 120 feet and returns the water from the facility to Clinton Lake.

The through-screen velocity has been calculated at the screens under normal and low water elevations for both DIF and AIF.

		Normal Water Elevation	Low Water Elevation
Water Elevation		690' MSL	685.6' MSL
Screenhouse Floor Elevation		657.6' MSL	657.6' MSL
Water Depth		32.6'	28'
Through Screen Velocity	DIF	1.14 fps	1.33 fps
	Maximum AIF	1.05 fps	1.22 fps

Chosen Method of Compliance with Impingement Mortality Standard

Clinton uses Clinton Lake, a man-made, run-of-the-river impoundment of water of the United States, as its source of cooling water. Clinton Lake was constructed as a cooling lake as part of the station's cooling systems and therefore, it acts as a closed cycle recirculating system. As defined by Section 125.93(c)(2), a closed cycle recirculating system included a system that uses a impoundment of water of the United States that was constructed for cooling purposes. Therefore, based on this definition Clinton employs a closed cycle cooling water system. This is the stations chosen alternative for BTA for Impingement Mortality.

Entrainment Performance Studies

No previously conducted entrainment studies or studies from other facilities addressing technology efficacy, through-facility entrainment survival, or other entrainment studies applicable to Clinton are available. Studies were not conducted at Clinton previously because the station uses a cooling lake which is part of the closed cycle recirculating system as defined in 40 CFR125.83. The suspended CWA Section 316(b) Phase II Rule for existing facilities stated that closed-cycle recirculating systems were deemed to have met the applicable performance standards for both impingement and mortality and entrainment and were not required to demonstrate further the achievement of performance standards. Facilities with closed-cycle recirculating systems were not required to submit a Proposal for Information Collection (PIC) or a Comprehensive Demonstration Study (CDS).

Operational Status

Clinton began commercial operation in 1987 and is a base-load nuclear plant that normally operates year-round to produce electrical power, except for maintenance outages. Scheduled outages for refueling and planned maintenance occur annually for several weeks' duration. Based on annual operations from 2011 through 2015, Clintons average net facility capacity utilization rate was 94%. In general, the surface water withdrawal system operates to support electrical generation with minor seasonal changes.

An Extended Power Uprate (EPU) was approved by the United States Nuclear Regulatory Commission (USNRC) in April 2002, which allowed for a 20% increase in rated core thermal power to 3,473 megawatts thermal (MWt) from 2,894 MWt. As part of the EPU, new high and low pressure turbines were installed and tested between May and June of 2002.

The current Clinton license was issued in April 1987 and expires in April 2027. Exelon plans to submit the License Renewal Application for Clinton Power Station Unit 1 in the first quarter of 2024.

There are no plans or schedules for new units at Clinton within the next 5 years, however USNRC has issued an Early Site Permit (ESP) No. ESP-001 to Exelon for Docket No. 52-007 on March 15, 2007 and expires on March 15, 2027. The ESP approves a combined license to operate collectively with the existing unit at no more than 6,800 MWt.

Agency Discussion:

The following language was in the previous factsheet/permit for 316(b). "Clinton Power Station's demonstration regarding water intake structure operations in accordance with Section 316(b) of the Clean Water Act is under review by this Agency. Final action on this matter is pending.

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 issued pursuant to Section 316(b) of the Clean Water Act."

40 CFR 122.21(r)(1)(ii) states that all existing facilities must submit for review the information required under paragraphs (r)(2) – (8). The permittee has fulfilled these requirements through the submittal of the document entitled 40 CFR 122.21(r) NPDES Application Requirements for Facilities with Cooling Water Intake Structures, which is summarized above. The facility withdraws more than 125 MGD therefore they are required to submit the information required by (r)(9) – (13).

To comply with the impingement standard, facilities are required to comply with one of the seven alternatives as outlined in 40 CFR 125.04(c). The facility uses a cooling lake which constitute as closed-cycle cooling, which is one of the seven BTA alternatives for impingement mortality, as defined under 40 CFR 125.94(c)(1).

For entrainment, the facility has not previously conducted studies on entrainment. The facility's cooling water intake flow is 774 MGD, which is more than 125 MGD. Therefore, if the facility withdraws more than 125 MGD they are required to submit the information required by (r)(9) – (13). 40 CFR 125.95(a)(3) allows for the Agency to waive some of the information requirements of 40 CFR 122.21(r) if the intake is located in a manmade lake or reservoir and the fisheries are stocked and managed by a State or Federal natural resources agency. The facility is on a manmade body of water created for the purpose of supplying cooling water to the station and the fisheries at the lake are stocked and managed by the IDRN, the Agency will waive the information requirements of 122.21(r)(9) – (13). In lieu of this information the Agency will require the facility to submit an Entrainment Characterization Study as required by 40 CFR 122.21(r)(9), so that the Agency can make a BTA determination for entrainment.

40 CFR 125.95(a)(2) provides that an alternative schedule may be established for the submittal of certain application requirements (as necessary), for permits which expire on or before July 14, 2018 and this permit expired on September 30, 2016. Pursuant to that section, the Agency hereby establishes an alternative schedule for the submittal of the Entrainment Characterization Study. This information should be submitted within 36 months of the effective date of this permit in accordance with Special Condition 10.

Exelon Generation Company, LLC submitted, in accordance with Section 316(b) of the Clean Water Act, the required information under 40 CFR 122.21(r)(1)(ii). Based on available information at the time of permit reissuance, 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 125.90(b) and 125.98(b)(5). The Agency has determined that the operation of the cooling lake, which constitute closed-cycle cooling, meets the Best Technology Available (BTA) for impingement mortality, as defined under 40 CFR 125.94(c)(1). Special Condition 10 requires the submittal of an Entrainment Characterization Study to be submitted in order for the Agency to make a BTA determination for entrainment.

Public Notice of Draft Permit

Public Notice Number SBS:21021601.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 IL0036919 has been prepared under 40 CFR 124.6(d) for Exelon Generation Company, LLC, 8401 Power Road, Clinton, Illinois 61727 for discharge into Clinton Lake from the Exelon Generation Company, LLC, Clinton Power Station, 8401 Power Road, Clinton, Illinois 61727. The applicant is engaged in the operation of a nuclear fueled steam electric generating facility, generating approximately 1,092 MW (SIC 4911). Plant operation results in an average discharge of 965 MGD of discharge flume wastewater from outfall 002, 0.088 MGD of sewage treatment plant effluent from internal outfall A02, 0.072 MGD of radwaste treatment system effluent from internal outfall B02, 0.288 MGD of water treatment waste from outfall 003, an intermittent discharge from the transformer area oil/water separator from outfall 004, an intermittent discharge from the diesel generator area oil/water separator from outfall 005, 0.072 MGD of screen house intake screen backwash from outfall 006, 35 MGD of safe shutdown service water system from outfall 007, an intermittent discharge of unheated pump bearing cooling waters from outfall 008, an intermittent discharge of sedimentation pond runoff from outfall 011, and an intermittent discharge of ultimate heat sink dredge pond discharge from outfall 015.

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. IL0036919

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: March 31, 2025

Issue Date: March 21, 2020

Effective Date: April 1, 2020

Modification Date:

Name and Address of Permittee:

Exelon Generation Company, LLC
8401 Power Road
Clinton, Illinois 61727

Facility Name and Address:

Exelon Generation Company, LLC
Clinton Power Station
8401 Power Road
Clinton, Illinois 61727
(DeWitt County)

Discharge Number and Name:

002 Discharge Flume
A02 Sewage Treatment Plant Effluent
B02 Radwaste Treatment System Effluent
003 Water Treatment Waste
004 Transformer Area Oil/Water Separator
005 Diesel Generator Oil/Water Separator
006 Screen House Intake Screen Backwash
007 Safe Shutdown Service Water System
008 Unheated Pump Bearing Cooling Waters
011 Sedimentation Pond Runoff
015 Ultimate Heat Sink Dredge Pond Discharge

Receiving Waters:

Clinton Lake

Clinton Lake
Clinton Lake
Clinton Lake
Clinton Lake
Clinton Lake
Clinton Lake
Clinton Lake
Clinton Lake

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.

Darin LeCrone, P.E.
Manager, Permit Section
Division of Water Pollution Control

NPDES Permit No. IL0036919

Effluent Limitations and Monitoring

1. From the effective 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)		CONCENTRATION LIMITS mg/l		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
<u>Outfall 002</u> – Discharge Flume (Average Flow = 965 MGD) This discharge consists of: <ol style="list-style-type: none"> 1. Main Condenser Cooling Water 2. Station Service Water* 3. Makeup Water Treatment System 4. Screenhouse Sump Discharges 5. Sewage Treatment Plant Effluent (A02) 6. Radwaste Treatment System Effluent (B02) 						
Flow (MGD)	See Special Condition 1.				Daily	Estimate
pH	See Special Condition 2.				1/Month	Grab
Total Residual Chlorine	See Special Conditions 3 and 6.			0.05	1/Month	Grab
Temperature	See Special Condition 4 and 22.				Daily	Continuous
Zinc (Total)	See Special Condition 23.		Monitor Only		1/Quarter	Grab
Phosphorus (Total)	See Special Condition 24.		Monitor Only		1/Quarter	Grab
* - Station Service Water discharge consists of various pump and bearing cooling waters, various heat exchangers, chillers, and HVAC system and fire protection system maintenance flush waters.						

NPDES Permit No. IL0036919

Effluent Limitations and Monitoring

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PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/l		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
<u>Outfall A02</u> – Sewage Treatment Plant Effluent (DAF = 0.088 MGD)						
This discharge consists of:						
<ol style="list-style-type: none"> 1. Sewage Treatment Plant Effluent 2. Process Simulator Refrigeration Unit 3. Ventilation & Service Air Compressor Condensate 4. Equipment Maintenance Wastewater 5. Fire Protection & Service Water 6. Laboratory Chemicals* 						
Flow (MGD)	See Special Condition 1.				Daily	Measure
BOD ₅	22	75	30	60	1/Month	24-Hour Composite
Total Suspended Solids	22	75	30	60	1/Month	24-Hour Composite
Fecal Coliform**	See Special Condition 16.		Monitor Only		1/Month	Grab
* - See Special Condition 11.						
** - During the months of May – October.						
<u>Outfall B02</u> – Radwaste Treatment System Effluent (Average Flow = 0.072 MGD)						
This discharge consists of:						
<ol style="list-style-type: none"> 1. Equipment Drain Subsystem 2. Floor Drain Subsystem 3. Laundry Waste Subsystem 4. Chemical Waste Subsystem 5. Laboratory Chemicals* 6. Equipment Maintenance Wastewater 						
Flow (MGD)	See Special Condition 1.				Daily	Measure
Total Suspended Solids			15	30	1/Month	Grab**
Oil & Grease			15	20	1/Month	Grab**
* - See Special Condition 11.						
** - See Special Condition 12.						

NPDES Permit No. IL0036919

Effluent Limitations and Monitoring

1. From the effective 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)		CONCENTRATION LIMITS mg/l		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
<u>Outfall 003 – Water Treatment Wastes</u> (Average Flow = 0.288 MGD) This discharge consists of: <ol style="list-style-type: none"> 1. Upflow Filter backwash 2. Reverse Osmosis Unit Reject Waste 3. Mixed Bed Polishers Off - Specification Water 4. Sand Filter Backwash 5. Auxillary Boiler Blowdown 6. Standby Liquid Control Pump 7. Surveillance Operation Wastewater 8. Equipment Maintenance Wastewater 9. Laboratory Chemicals 10. Reverse Osmosis Unit Cleaning Chemicals 11. Ventilation and Service Air Compressor Condensate 						
Flow (MGD)	See Special Condition 1.				Daily	Measure
pH	See Special Condition 2.				1/Month	Grab
Total Suspended Solids			15	30	1/Month	Grab
Oil & Grease			15	20	1/Month	Grab
<u>Outfall 004 – Transformer Area Oil/Water Separator</u> (Intermittent Discharge) This discharge consists of: <ol style="list-style-type: none"> 1. Machine Shop Area Floor Drains 2. Paint Storage Room Floor Drains 3. Oil Tank Area & Turbine Oil Transfer Pump Area Drains 4. Transformer Area Drains 5. Diesel Generator Area Drains 6. Equipment Maintenance Wastewater 7. Stormwater Runoff 8. Ventilation and Service Air Compressor Condensate 						
Flow (MGD)	See Special Condition 1.				1/Month	Estimate
pH	See Special Condition 2.				1/Month	Grab
Oil & Grease			15	20	1/Month	Grab
Total Suspended Solids			15	30	1/Month	Grab

NPDES Permit No. IL0036919

Effluent Limitations and Monitoring

1. From the effective 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)		CONCENTRATION LIMITS mg/l		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
<p><u>Outfall 005</u> – Diesel Generator Area Oil/Water Separator (Intermittent Discharge)</p> <p>This discharge consists of:</p> <ol style="list-style-type: none"> 1. Diesel Generator Building Floor Drains 2. Diesel Fuel Storage Area Drains 3. Fuel Unloading Area Drains 4. Equipment Maintenance Wastewaters 5. Transformer Area Drains 6. Stormwater Runoff 						
Flow (MGD)	See Special Condition 1.				1/Month	Estimate
pH	See Special Condition 2.				1/Month	Grab
Total Suspended Solids			15	30	1/Month	Grab
Oil & Grease			15	20	1/Month	Grab
<p><u>Outfall 006</u> – Screenhouse Intake Discharges (Average Flow = 0.072 MGD)</p> <p>This discharge consists of:</p> <ol style="list-style-type: none"> 1. Screenhouse Intake Screen Backwash* 2. Warming Line Waters 3. Service Water Backflow 4. Non-Chlorinated Sample Water 						
Flow (MGD)	See Special Condition 1.				1/Month	Estimate
<p>* - There shall be no intentional discharge of collected debris. See Special Condition 5.</p>						

NPDES Permit No. IL0036919

Effluent Limitations and Monitoring

1. From the effective 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)		CONCENTRATION LIMITS mg/l		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
<u>Outfall 007 – Safe Shutdown Service Water System</u> (Average Flow = 35 MGD) This discharge consists of: 1. Equipment Cooling Water 2. Diesel Generator Cooling Water 3. Residual Heat Removal Heat Exchangers						
Flow (MGD)	See Special Condition 1.				Daily	Measure
pH	See Special Condition 2.				1/Month	Grab
Total Residual Chlorine	See Special Condition 6.			0.05	1/Month	Grab
Zinc (Total)	See Special Condition 23 and 26.		Monitor Only		1/Month	Grab
Phosphorus (Total)	See Special Condition 24.		Monitor Only		1/Quarter	Grab
<u>Outfall 008 – Unheated Pump Bearing Cooling Waters*</u> (Intermittent Discharge)						
Flow (MGD)	See Special Condition 1.				1/Day When Discharging	Estimate
* - This discharge occurs only during refueling and other forced outages.						

NPDES Permit No. IL0036919

Effluent Limitations and Monitoring

1. From the effective 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)		CONCENTRATION LIMITS mg/l		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
<u>Outfall 011</u> – Sedimentation Pond Runoff* (Intermittent Discharge)						
* - See Special Condition 14.						
<u>Outfall 015</u> – Ultimate Heat Sink Dredge Pond Discharge (Intermittent Discharge)						
Flow (MGD)	See Special Condition 1.				1/Day When Discharging	Estimate
pH	See Special Condition 2.				1/Day When Discharging	Grab
Total Suspended Solids			15	30	1/Day When Discharging	Grab

Special Conditions

SPECIAL CONDITION 1. Flow shall be measured in units of Million Gallons per Day 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. The minimum and maximum values shall be reported on the DMR form.

SPECIAL CONDITION 3. Continuous monitoring throughout a representative chlorination period shall be performed once per month above the second drop structure in the discharge flume during the respective chlorination period allowing for lag time between the initiation of chlorination and the point of sampling. If continuous monitoring cannot be performed, a single grab sample (1/month) shall be taken in the discharge flume during a discharge representative of a chlorination period. The result of the grab sample shall be reported including the time of collection, the time and duration of the chlorine dosing period plus the amount (lbs/day) of chlorine applied. For continuous chlorine monitoring, analytical data from only one representative 24-hr monitoring period each month need be reported on the monthly discharge monitoring report. For continuous monitoring, the chlorine concentration curve, the time of sampling, the time and duration of the chlorine dosing period plus the amount (lbs/day) of chlorine applied shall be reported.

If only service water is discharged to the discharge flume during a normal monthly monitoring period, a single grab sample (1/month) may be taken for determining compliance with TRC limitations. The single grab sample must be taken during a representative chlorination period, with the duration of chlorination reported in the quarterly reports.

SPECIAL CONDITION 4. Exelon Generation, LLC's demonstration for the Clinton Generating Station in accordance with Section 316(a) of the CWA was approved by the Illinois Pollution Control Board in Order 92-142, dated August 26, 1993, which resulted in the following thermal limitation and is hereby being renewed in accordance with 35 Ill. Adm. Code 106.1180.

The temperature of the discharge to Clinton Lake from Clinton Power Station, as measured at the second drop structure of the discharge flume, shall be limited to a daily average temperature which (1) does not exceed 99 degrees Fahrenheit during more than 90 days in a fixed calendar year running from January 1, through December 31, and (2) does not exceed 110.7 degrees Fahrenheit for any given day.

Compliance with the water temperature monitoring requirements shall be determined by reporting the daily average and daily maximum water temperature of the discharge. The number of days the daily average temperature exceeds 99.0° F during the calendar year shall also be reported.

For up to 15-days per calendar year Clinton Power Station may measure compliance with the thermal limits of this Special Condition 4 by subtracting 8.5°F from the condenser water outlet temperature if two circulating pumps are in operation or by subtracting 6.3°F if three circulating pumps are in operation. All calculated second drop temperatures must be identified. The permittee shall report to the Agency those times when continuous monitoring was not performed, the reason it was not performed, and the amount of days.

SPECIAL CONDITION 5. The intake structures shall be operated and maintained so as to minimize the possible adverse impact on water quality which might result from the discharge of any collected debris or fish. So as to minimize possible adverse impacts, for purposes of this permit, intake structure operation and maintenance shall include, but not be limited to, the following: Outer bar racks and intake screens shall be routinely cleaned and collected debris properly disposed.

SPECIAL CONDITION 6. All samples for Total Residual Chlorine shall be analyzed by an applicable method contained in 40 CFR 136, equivalent in accuracy to low-level amperometric titration. Any analytical variability of the method used shall be considered when determining the accuracy and precision of the results obtained.

For the purposes of this permit, TRC means those substances which include combined and uncombined forms of both chlorine and bromine and which are expressed, by convention, as an equivalent concentration of molecular chlorine.

SPECIAL CONDITION 7. There shall be no discharge of polychlorinated biphenyl compounds (PCBs).

SPECIAL CONDITION 8. In accordance with IPCB Order PCB 92-142, Clinton Power Station is required to conduct a continuous Temperature Monitoring Program at site 1.5 that will be located at a submerged depth of 0.5 meters in Salt Creek approximately 100 feet down the stream from the bottom of the spillway of Clinton Lake during the months of June, July, and August of each year, during the life of this permit. Results shall be submitted to the Agency by the following January.

SPECIAL CONDITION 9. 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. The permittee must reevaluate the study area using methods similar to those used in pre-variance fish surveys to demonstrate that the discharge has not caused appreciable harm to the balanced, indigenous population of shellfish, fish, and wildlife in Clinton Lake.

NPDES Permit No. IL0036919

Special Conditions

SPECIAL CONDITION 10. Exelon Generation Company, LLC submitted, in accordance with Section 316(b) of the Clean Water Act, the required information under 40 CFR 122.21(r)(1)(ii). The Agency has determined that the operation of the cooling lake, which constitutes closed-cycle cooling, meets the Best Technology Available (BTA) for impingement mortality, as defined under 40 CFR 125.94(c)(1). Based on available information at the time of permit reissuance, the Agency has determined that the operation of the cooling water intake structure meets the equivalent of Best Technology Available (BTA) for entrainment in accordance with the Best Professional Judgment provisions of 40 CFR 125.90(b) and 125.98(b)(5). In order for the Agency to make a BTA determination for entrainment the facility must complete an entrainment characterization study as approved by the Agency. Exelon shall submit an entrainment study plan to the Agency within 90 days of the effective date of this permit. The entrainment study plan shall require that the results of the entrainment characterization study be submitted to the Agency within 36 months of the date of approval of the entrainment study plan.

Nothing in this permit authorizes take for the purposes of a facility's compliance with the Endangered Species Act.

- A. The permittee shall conduct visual inspections and/or employ remote monitoring devices during times when the cooling water intake structure is in operation on a weekly basis to ensure that all technologies operated to comply with 40 CFR 125.94 are maintained and operated to function as designed. These weekly monitoring inspections shall be noted on the monthly NetDMR form. The weekly visual inspection documentation shall be made available to the Agency and general public upon written request.
- B. The permittee shall submit an annual certification statement signed by the responsible corporate office as defined in 40 CFR 122.22 subject to the following:
 1. If the information contained in the previous year's annual certification is still pertinent, you may simply state as such in a letter and the letter, along with any applicable data submission requirements specified in this section shall constitute the annual certification.
 2. If you have substantially modified operation of any unit at your facility that impacts cooling water withdrawals or operation of your cooling water intake structures, you must provide a summary of those changes in the report. In addition, you must submit revisions to the information required pursuant to 40 CFR 122.21(r) in your next permit application.

SPECIAL CONDITION 11. Unused laboratory chemicals shall be discharged at a rate and in a manner so as not to upset normal operation or cause pass through at the sewage treatment plant, or the Radwaste Treatment System.

SPECIAL CONDITION 12. A grab sample shall be taken during the discharge of each Radwaste Treatment System effluent holding tank. A grab sample shall be taken each time a tank is discharged.

SPECIAL CONDITION 13. 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.

The Permittee is required to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA 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 ConditionsSPECIAL CONDITION 14.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 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

NPDES Permit No. IL0036919

Special Conditions

- 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.

NPDES Permit No. IL0036919

Special Conditions

- ii. Oil & Grease Separation - Oil/water separators, booms, skimmers or other methods to minimize oil contaminated storm water discharges.
 - iii. Debris & Sediment Control - Screens, booms, sediment ponds or other methods to reduce debris and sediment in storm water discharges.
 - iv. Waste Chemical Disposal - Waste chemicals such as antifreeze, degreasers and used oils shall be recycled or disposed of in an approved manner and in a way which prevents them from entering storm water discharges.
 - v. Storm Water Diversion - Storm water diversion away from materials manufacturing, storage and other areas of potential storm water contamination. Minimize the quantity of storm water entering areas where material handling equipment of activities, raw material, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water using green infrastructure techniques where practicable in the areas outside the exposure area, and otherwise divert storm water away from exposure area.
 - vi. Covered Storage or Manufacturing Areas - Covered fueling operations, materials manufacturing and storage areas to prevent contact with storm water.
 - vii. Storm Water Reduction - Install vegetation on roofs of buildings within adjacent to the exposure area to detain and evapotranspire runoff where precipitation falling on the roof is not exposed to contaminants, to minimize storm water runoff; capture storm water in devices that minimize the amount of storm water runoff and use this water as appropriate based on quality.
6. Sediment and Erosion Prevention - The plan shall identify areas which due to topography, activities, or other factors, have a high potential for significant soil erosion. The plan shall describe measures to limit erosion.
 7. Employee Training - Employee training programs shall inform personnel at all levels of responsibility of the components and goals of the storm water pollution control plan. Training should address topics such as spill response, good housekeeping and material management practices. The plan shall identify periodic dates for such training.
 8. Inspection Procedures - Qualified plant personnel shall be identified to inspect designated equipment and plant areas. A tracking or follow-up procedure shall be used to ensure appropriate response has been taken in response to an inspection. Inspections and maintenance activities shall be documented and recorded.
- G. Non-Storm Water Discharge - The plan shall include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharge. The certification shall include a description of any test for the presence of non-storm water discharges, the methods used, the dates of the testing, and any onsite drainage points that were observed during the testing. Any facility that is unable to provide this certification must describe the procedure of any test conducted for the presence of non-storm water discharges, the test results, potential sources of non-storm water discharges to the storm sewer, and why adequate tests for such storm sewers were not feasible.
- H. Quarterly Visual Observation of Discharges - The requirements and procedures for quarterly visual observations are applicable to all outfalls covered by this condition.
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.

NPDES Permit No. IL0036919

Special Conditions

4. You may exercise a waiver of the visual observation requirement at a facility that is inactive or unstaffed, as long as there are no industrial materials or activities exposed to storm water. If you exercise this waiver, you must maintain a certification with your SWPPP stating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to storm water.
5. Representative Outfalls - If your facility has two or more outfalls that you believe discharge substantially identical effluents, based on similarities of the industrial activities, significant materials, size of drainage areas, and storm water management practices occurring within the drainage areas of the outfalls, you may conduct visual observations of the discharge at just one of the outfalls and report that the results also apply to the substantially identical outfall(s).
6. The visual observation documentation shall be made available to the Agency and general public upon written request.
- I. The permittee shall conduct an annual facility inspection to verify that all elements of the plan, including the site map, potential pollutant sources, and structural and non-structural controls to reduce pollutants in industrial storm water discharges are accurate. Observations that require a response and the appropriate response to the observation shall be retained as part of the plan. Records documenting significant observations made during the site inspection shall be submitted to the Agency in accordance with the reporting requirements of this permit.
- J. This plan should briefly describe the appropriate elements of other program requirements, including Spill Prevention Control and Countermeasures (SPCC) plans required under Section 311 of the CWA and the regulations promulgated there under, and Best Management Programs under 40 CFR 125.100.
- K. The plan is considered a report that shall be available to the public at any reasonable time upon request.
- L. The plan shall include the signature and title of the person responsible for preparation of the plan and include the date of initial preparation and each amendment thereto.
- M. Facilities which discharge storm water associated with industrial activity to municipal separate storm sewers may also be subject to additional requirement imposed by the operator of the municipal system

Construction Authorization

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

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

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

NPDES Permit No. IL0036919

Special Conditions

- S. The first report shall contain information gathered during the one year time period beginning with the October 1st of each year and shall be submitted no later than December 1st after this one year period has expired. Each subsequent report shall contain the previous year's information and shall be submitted no later December 1st of the following year.
- 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

- 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 15. The Nuclear Regulatory Commission has required that Clinton Power Station obtain, train personnel in the usage of, and periodically test additional pumps which can be used in the event of emergencies to provide additional water to station equipment. The station is permitted to pump water from Clinton Lake at locations including, but not limited to, the Screen House and the Point and discharge to Clinton Lake at location including, but not limited to, the Screen House, the Point, and nearby ground surfaces. This is the testing of emergency pumps only, and during such activities, water will be pumped from Clinton Lake and returned directly to the Lake.

SPECIAL CONDITION 16. Fecal Coliform samples shall be obtained once per month during the months of May through October.

SPECIAL CONDITION 17. 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 waters.

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

SPECIAL CONDITION 20. This permit authorizes the use of water treatment additives that were requested as part of this renewal and water treatment additives that were previously approved by the Agency. The use of any new additives, or change in those previously approved by the Agency, or if the permittee increases the feed rate or quantity of the additives used beyond what has been approved by the Agency, the permittee shall request a modification of this permit in accordance with the Standard Conditions – Attachment H.

SPECIAL CONDITION 21. There shall be no discharge of complexed metal bearing wastestreams and associated rinses from chemical metal cleaning, unless this permit has been modified to include the new discharge.

SPECIAL CONDITION 22. There shall be no abnormal temperature changes that may adversely affect aquatic life, including but not limited to fish kills, unless caused by natural conditions. Appropriate corrective measures will be required if, upon complaint filed in accordance with Illinois Pollution Control Board rules, it is found at any time that any heated effluent causes significant ecological damage to the receiving stream.

Any planned plant shutdowns shall be conducted in a manner to minimize rapid temperature changes that may result in adverse aquatic life impacts such as temperature shock. The Illinois Department of Natural Resources Region III Office and the Illinois EPA Champaign Regional Office shall be notified of any planned plant shutdown due to a refueling outage one week prior to the shutdown occurring.

The Illinois Department of Natural Resources Region III Office and the Illinois EPA Champaign Regional Office shall be notified immediately if any fish kills are observed.

Special Conditions

SPECIAL CONDITION 23. Monitoring for zinc shall only be required when using a corrosion inhibitor containing zinc.

SPECIAL CONDITION 24. Quarterly monitoring for phosphorus shall only be required when using a corrosion inhibitor containing phosphorus.

SPECIAL CONDITION 25. 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 26. A mixing zone for Zinc is recognized with dimensions extending 33 feet by 6.5 feet from the point of discharge at Outfall 007. Within the mixing zone 4:1 dilution is afforded. A zone of initial dilution (ZID) is recognized for Zinc with dimensions extending 7.1 feet by 1.6 feet from the point of discharge at Outfall 007. Within the mixing zone 3.3:1 dilution is afforded.