

*Exelon Generation LLC's Responses  
to the Board's Questions*

**ATTACHMENT 5**

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

July 6, 2012

Exelon Generation Company, LLC	)	
Dresden Nuclear Generation Station	)	
	)	
Petitioner,	)	
	)	
v.	)	IEPA – 12-22
	)	(Provisional Variance-Water)
ILLINOIS ENVIRONMENTAL	)	
PROTECTION AGENCY,	)	
	)	
Respondent.	)	

Re: Provisional Variance From Special Condition 3C of NPDES Permit IL0002224

Dear Mr. Marik:

The Illinois Environmental Protection Agency (Illinois EPA) has completed its technical review of the attached provisional variance request, dated July 6, 2012, submitted by Exelon Generation Company, LLC for its Dresden Nuclear Generation Station (“Exelon Dresden”). (Exhibit A) Exelon Dresden has requested a provisional variance because intake temperatures at approximately 90° F or above present an undue hardship for Exelon Dresden to meet the effluent thermal limits of 90° F contained in NPDES Permit IL0002224. (Exhibit B)

Based on its review, the Illinois EPA GRANTS Exelon Dresden a provisional variance from the thermal limits in Special Condition 3C of NPDES Permit IL0002224, subject to the specific conditions set forth below.

*Background*

Exelon Dresden is a nuclear-fueled steam electric generating facility located at the confluence of the Des Plaines and Kankakee Rivers near Morris, Illinois, at River Mile 272.3. The two boiling water reactors have a maximum generating capacity of 1892 megawatts electric. Circulating water used to cool and condense the steam from the generating process is discharged to a 1275 acre cooling pond.

NPDES Permit IL0002224 authorizes Exelon Dresden to operate in indirect open cycle mode from June 15th to September 30th of each year (about 3 1/2 months). In the indirect open cycle mode, approximately 1,000,000 gpm of cooling water is drawn into Exelon Dresden's cribhouse intake structure from the Kankakee River via the intake canal. This cooling water passes through Exelon Dresden's heat exchangers and discharges to the hot canal that routes the water approximately two miles to the lift station. The lift station

transfers the cooling water approximately 20 feet from the hot canal to the aboveground cooling pond. The cooling water is routed around the cooling pond and over the spillway into the cold canal. The cold canal routes the cooling water approximately two miles back to the station. The flow regulating gates divert all the cooling water flow (approximately 1,000,000 gpm) to the Illinois River via Outfall 002.

Exelon Dresden is currently manually controlling the spillway gates to slow the movement in the cooling pond in an attempt to further decrease the discharge temperature by increasing the hold time of the water in the cooling pond. Exelon Dresden is also manipulating the cooling pond spillway to increase cooling pond residence time and limit the discharge through Outfall 002, beginning July 5, 2012. Exelon Dresden is currently operating 54 cooling towers to support additional cooling of its surface water discharge.

Exelon Dresden has derated the units in an attempt to maintain the temperature under 90° F in response to elevated intake temperatures. However, derating the units at this time will not prevent exceeding the 259.2 excursion hour allotment granted in Special Condition 3C, of NPDES Permit IL0002224 due primarily to the high ambient temperature of the Kankakee River.

The upstream river temperature of the Kankakee River, near Exelon Dresden's intake, was measured at 90.14° F on July 5, 2012. Weather forecasts suggest that hot weather and limited precipitation conditions will continue through the following week. Lack of precipitation and high temperatures have affected the cooling capabilities of the cooling towers and the cooling ponds. Exelon Dresden began using excursion hours on July 2, 2012. Exelon Dresden had used 82.75 excursion hours at the time of the July 6, 2012 request.

*Relief Requested*

Exelon Dresden requests a provisional variance from Special Condition 3C in NPDES Permit IL0002224, which provides:

The permittee may discharge cooling pond blowdown using an indirect open cycle cooling mode from June 15 through September 30 in accordance with the following limitation in lieu of 35 Ill. Adm. Code 302.211(d) and 302.211(e) as written above in Special condition 3A and 3B respectively. During the period June 15 through September 30, the temperature of the plant discharge shall not exceed 32.2° C (90° F) more than 10% of the time in the period and never will exceed 33.9° C (93° F).

A provisional variance is being requested from the restriction in Special Condition 3C of the NPDES Permit which states that Exelon Dresden's effluent shall not exceed 90° F more than 10% (259.2 hours) of the time in the period between June 15 and September 30. Exelon Dresden requests that the term of the provisional variance begin on Friday July 6, 2012 and continue through the month of July 2012, and that the maximum

temperature limit stated in Special Condition 3C increase from 93° F to no more than 95° F.

*Illinois EPA Determinations*

The Illinois EPA has reviewed the requested provisional variance and has concluded the following:

1. Any environmental impact from the requested relief shall be closely monitored, and the Illinois EPA shall be immediately notified of any adverse impacts.
2. No reasonable alternatives appear available;
3. No public water supplies should be affected;
4. No federal regulations will preclude the granting of this request; and
5. Exelon Dresden will face an arbitrary and unreasonable hardship if the request is not granted.

*Conditions*

The Illinois EPA hereby GRANTS Exelon Dresden a provisional variance from the thermal limits indicated in Special Condition 3C of NPDES Permit IL0002224, subject to the following conditions:

- A. The term of this provisional variance begins when the temperature exceeds 93° F, but not before July 6, 2012 and shall end no later than July 16, 2012. This provisional variance is granted based on the facts and circumstances described in the request dated July 6, 2012. If the facts and circumstances described in the request dated July 6, 2012 abate, the term of this provisional variance shall end.
- B. Exelon Dresden shall provide the best operation of its available equipment to produce the best effluent possible at all times during the term of this provisional variance. Exelon Dresden will continue to utilize the cooling lake spillway gates to manage lake levels and maximize use of cooling towers to manage discharge temperature. At no time shall the plant discharge exceed a temperature of 95° F during the term of this provisional variance.
- C. Exelon Dresden must continuously monitor discharge and receiving water temperatures and visually inspect all discharge areas at least four times per day during daylight hours to assess any mortalities to fish and other aquatic life. This monitoring shall occur during the period of the provisional variance and shall continue for a minimum of four days after the provisional variance expires.

- D. Exelon Dresden shall document environmental conditions during the term of the provisional variance, including the activities described in item C. of this Section, and submit the documentation to the Illinois EPA and the Illinois Department of Natural Resources ("Illinois DNR") within seven (7) days after this provisional variance expires.
- E. Exelon Dresden shall immediately notify the Illinois EPA and Illinois DNR of any unusual conditions, including mortalities of fish or other aquatic life, immediately take action to remedy the problem, investigate and document the cause and seriousness of the unusual conditions while providing updates to the Illinois EPA and Illinois DNR as changes occur until normal conditions return; notify the Illinois EPA and Illinois DNR when normal conditions return and submit the documentation to the Illinois EPA and Illinois DNR within seven (7) days after normal conditions return.
- F. Exelon Dresden shall develop and implement a response and recovery plan to address any adverse environmental impact due to thermal conditions that could result from the provisional variance, including loss and damage to aquatic life.
- G. Exelon Dresden shall notify Roger Callaway, Illinois EPA, by telephone at 217-782-9720 when the period of this provisional variance begins and ends, under Section A, above. Written confirmation shall be sent within five days after the discharge specified in this provisional variance ends to the following address:
- Illinois Environmental Protection Agency  
Bureau of Water - Water Pollution Control  
Attention: Roger Callaway  
1021 North Grand Avenue East, CAS #19  
Springfield IL 62794-9276
- H. Exelon Dresden shall sign a certificate of acceptance of this provisional variance and forward that certificate to Roger Callaway at the address indicated above within one day of the date of this order.

The certification should take the following form:

*I (We) \_\_\_\_\_, hereby accept and agree to be bound by all terms and conditions of the provisional variance granted by the Illinois EPA in \_\_\_\_\_ dated \_\_\_\_\_.*

\_\_\_\_\_  
*Petitioner*


\_\_\_\_\_  
*Authorized Agent*

\_\_\_\_\_  
*Title*

\_\_\_\_\_  
*Date*

- I. Exelon Dresden shall continue to monitor all parameters and comply with all other conditions specified in NPDES Permit IL0002224.

Sincerely,



Julie Armitage  
Acting Chief Legal Counsel

cc: Marcia Willhite  
Roger Callaway  
Chad Kruse



Nuclear

Exelon Generation Company, LLC      www.exeloncorp.com  
Dresden Nuclear Power Station  
6500 North Dresden Road  
Morris, IL 60450-9765

July 6, 2012

Mr. Roger Callaway (CAS-19)  
Wastewater Compliance Unit Manager  
Illinois Environmental Protection Agency  
Bureau of Water  
Compliance Assurance Section #19  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, Illinois 62794-9274

Subject:      Dresden Nuclear Generation Station  
                 NPDES Permit No. IL0002224  
                 Request for Provisional Variance  
                 PMLTR 12-0039

Dear Mr. Callaway:

Exelon Generation Company, L.L.C. ("Exelon") hereby requests that the Illinois Environmental Protection Agency ("IEPA" or "Agency") grant a provisional variance for Dresden Nuclear Power Station ("Dresden", "Station", or "Facility"), pursuant to Section 35(b) of the Environmental Protection Act ("Act") 415 ILCS 5/35. Exelon submits this Application for a provisional variance consistent with the IEPA procedures at 35 Illinois Administrative Code 104.300. The Station discharges wastewater pursuant to NPDES Permit No. IL0002224, which IEPA issued on November 3, 2011, and which expires on November 30, 2016. Exelon requests that a provisional variance be issued to Dresden Station through the end of July allowing the station to increase its maximum temperature limit stated in Special Condition 3C of NPDES Permit No. IL0002224 from 93°F to no more than 95°F. This relief shall begin on July 6 and will end on July 31, 2012.

**BACKGROUND**

Dresden is a nuclear-fueled steam electric generating facility located at the confluence of the Des Plaines and Kankakee Rivers near Morris, Illinois, at River Mile 272.3. The Station operates two boiling water reactors, which have a maximum generating capacity

of 1892 megawatts electric. Circulating water used to cool and condense the steam from the generating process is discharged to a 1275 acre cooling pond. The Station operates two boiling water reactors, which have a combined maximum generating capacity of 5,914 megawatts thermal. The Station is currently operating at approximately 87 % capacity. The Station's capacity factor from January 1, 2012 through May 31, 2012, was 99.5 %. Dresden Station's generation output is used as base load generation and is transmitted to the PJM Interconnection Grid. PJM Interconnection is a regional transmission organization ("RTO"), which coordinates the movement of wholesale electricity in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia. PJM has issued a hot weather alert and has recommended that regional electrical sources continue to provide electricity due to the large demand on the electrical grid.

The Station normally operates in an In-Direct Open Cycle configuration from June 15<sup>th</sup> through September 30<sup>th</sup> of each year (about 3-1/2 months). In this mode, the Station draws cooling water from the Kankakee River via the Intake Canal into the plant systems. The water is then released from the Station, passing once through the Cooling Pond, and is then discharged to the Illinois River via Outfall 002. The maximum design flow during In-Direct Open Cycle operation is 1548 MGD. This operational scheme, as well as the related alternate thermal standards, was approved by the Illinois Pollution Control Board on July 9, 1981 (IPCB #79-134).

The available temperature data shows that the Kankakee River water temperature at the Station's intake is approaching the monthly maximum temperature standards. For example, the upstream river temperature of the Kankakee River was measured at 90.14 °F on July 5, 2012. The Station has also experienced high ambient temperatures, above 95°F, with high wet bulb temperatures, and limited precipitation from the period of June 28, 2012 through July 5, 2012. Weather forecasts suggest that hot weather and limited precipitation conditions will continue through the following week. Lack of precipitation and high wet bulb temperatures have affected the cooling capabilities of the cooling towers and the cooling pond. The Kankakee River, which serves as the intake water source, currently is experiencing a low river flow which causes the river to heat up. The Kankakee River flow was 928 cfs on July 6, 2012 and the average Kankakee River flow is 3870 cfs. The Des Plaines River flow, which is the contributing water source to the Illinois River where the Station discharges, was 284 cfs on July 6, 2012 and the average Des Plaines River flow is 365 cfs.

As a consequence of the unusually warm weather, low river flows, high ambient river temperatures, and the absence of cooling during the evening hours, the capacity of the Illinois River and the Station's cooling pond to dissipate heat has been drastically reduced beyond its normal capabilities. The river is not cooling off during the evening hours as is typical this time of year. Without nighttime cooling, the river retains the heat introduced to it during the daytime hours, both upstream and downstream of the Station. As a result of these conditions, Dresden Station began using excursion hours on July 2,



2012, at approximately 13:30. Dresden Station has used 82.75 excursion hours to date and continues to take measures to maintain Station discharges below 93°F.

Dresden Station submitted a request to IEPA in March 2012 for relief from Special Condition 3(b) of NPDES Permit IL IL0002224 for the period of March 21, 2012 to April 1, 2012. The permitted excursion hours for the period of October 1 through June 14 were exhausted in March as a result of continued record breaking warm weather recorded throughout the mid-western states. Dresden Station first began using excursion hours on March 15, 2012 when upstream Illinois River Temperatures were equal to the station's effluent limitation of 60°F. IEPA issued Provisional Variance IEPA 12-14 to Dresden Station on March 21, 2012. The Provisional Variance allowed the station to exceed the non-excursion hour temperature limit for March of 60°F as stated in Special Condition 3(b) of NPDES Permit No. IL0002224 for the period of March 21, 2012 to April 1, 2012 by no more than 3°F (63°F for March) or 2°F above ambient river temperature, whichever is greater. A total of one provisional variance day was accumulated by Dresden Station during March of 2012.

At *no time* has the difference between ambient river temperature and the temperature at the edge of the mixing zone exceeded 5 degree F.

#### **I. RELIEF REQUESTED**

Exelon requests that a provisional variance be issued to Dresden Station through the end of July allowing the station to increase its maximum temperature limit stated in Special Condition 3C of NPDES Permit No. IL0002224 from 93°F to no more than 95°F. This relief shall begin on July 5 and will end on July 31, 2012.

#### **II. NECESSITY FOR REQUEST**

When the ambient river temperatures approach or exceed the non-excursion hour limits, the Station has no option other than to use excursion hours, and once its allotment of excursion hours is depleted, the Station must significantly derate or cease operating altogether to maintain compliance with the NPDES Permit.

As a rule, Dresden Station has been able to operate well within its permitted thermal limits due to the fact that the ambient temperatures of the River (measured upstream of the discharge) generally remain below the non-excursion hour limit. It is only during periods when the ambient river temperatures are very close to or exceed the non-excursion hour limits or during periods of extreme low flows that the Station is forced to use a significant number of its excursion hour allowance.

Dresden is currently operating 54 cooling towers to support additional cooling of the Station's surface water discharge. The Station is also manually controlling the spillway gates to slow the movement of water in the cooling pond in an attempt to further

decrease the discharge temperature by increasing the hold time of the water in the cooling pond.

In addition to operating the cooling towers at full capacity and minimizing flow from the cooling pond, Dresden has derated the units in an attempt to maintain the temperature under 90°F/93°F in response to elevated intake temperatures. However, derating the units at this time will not prevent the exceedance of the permitted excursion hour allotment granted in Special Condition 3C, of the NPDES permit due primarily to the high ambient temperatures of the Kankakee River.

Dresden Station also manipulated the cooling pond spillway to increase cooling pond residence time and limit the discharge through Outfall 002 on July 5, 2012. The current configuration instills additional thermal challenges on the plant equipment since there will be reduced fresh makeup water and the circulating water temperature will increase. Auxiliary systems (e.g., equipment heat exchangers) that support the nuclear generation process are currently experiencing higher than normal thermal load which challenges plant equipment and thermal cooling capabilities.

Reduced blowdown from Outfall 002 will alter cooling pond water chemistry and will result in negative impacts on plant equipment. Lack of blowdown and cooling pond make up will increase temperatures, increase pH, concentrate impurities, and create an environment where algae thrive in our cooling pond. Increased temperatures and the presence of algae, causes an algae bloom and increases pH and total alkalinity in the cooling pond and plant cooling systems. These conditions promote scaling of plant equipment, particularly in the main steam condensers and safety related heat exchangers. Scaling ultimately could result in the replacement of approximately 120,000 condenser tubes and safety related heat exchangers, with corresponding extended plant shut downs for both units to perform these repairs. Lack of blowdown and cooling water from the river during the summer months will also limit the capability of plant cool down and challenge plant cooling systems.

Due to these risks, there are technical specifications that Dresden Station must meet pursuant to its operating license issued by the Nuclear Regulatory Commission. If pH values and cooling water environment is not maintained within proper specifications, the plant is required to shut down until cooling water parameters return to specified ranges. Unless relief is granted by way of this provisional variance request, it is likely that the Station will be forced to shut down for correspondingly significant durations. Shutting down or significantly derating a base-loaded nuclear power plant such as Dresden could jeopardize the stability of the electrical grid (and availability/reliability of electricity in the region), particularly if other plants are required to shut down or derate due to the unusual weather conditions being experienced. With both units offline and not immediately able to return to service, Dresden Station would not be available to support the voltage requirements that could occur under changing grid conditions.

### III. ASSESSMENT OF ADVERSE ENVIRONMENTAL IMPACTS

The thermal impact of the proposed variance with respect to the near-field aquatic community is expected to be minimal. The aquatic community is already experiencing much higher than normal ambient temperatures, with no apparent impact to date.

Because Dresden Station is not proposing to increase cooling water flows there will be no increase in impingement or entrainment as a result of the issuance of the requested Provisional Variance. Additionally, because the ambient river temperature increase has been gradual, resident fish species have either acclimated to the higher temperature or have found thermal refuge. Therefore, resident fish species will not be subject to any heat shock as a result of increasing the allotment of excursion hours for Dresden Station.

The Station normally discharges a blowdown flow of warmer cooling pond water to the Illinois River during the closed cycle operating mode. Thus, fish inhabiting the discharge canal will be acclimated to temperatures above ambient river temperature and should be sufficiently reactive to avoid areas that are out of their desired temperature range.

Despite Dresden's significant discharge volume, the thermal plume has been characterized as buoyant in all previous studies submitted to the IEPA. Therefore, benthic organisms are not likely to be adversely affected by the short-term relief requested. The overall impact of the Station's thermal plume on the Illinois River is expected to be minimal.

The Illinois River (Segment D-10) and Kankakee River (Segment F-01) are impaired due to mercury and polychlorinated biphenyls. The issuance of the required provisional variance is not expected to influence those parameters.

### IV. ALTERNATIVES TO REQUESTED RELIEF

Exelon considered various alternatives to seeking regulatory relief related to the thermal variance currently requested. Exelon is currently operating in In-Direct Open Cycle per the terms of the NPDES permit. Due to the elevated river temperatures, Dresden Station is operating all available cooling towers (54 towers out of 54 towers).

Exelon has also considered shutting down or significantly derating. Derating a base-loaded nuclear power plant such as Dresden, could jeopardize the stability of the electrical grid (and availability/reliability of electricity in the region), particularly if other plants are required to shut down or derate due to the unusual weather conditions being experienced.

**V. MITIGATIVE ACTIONS TO BE TAKEN DURING THE VARIANCE PERIOD**

During the period when the Station exceeds 93°F authorized by the requested provisional variance, Dresden Station will do the following: (1) continuously monitor the intake and discharge temperatures and assess water temperatures at the edge of the mixing zone using the NPDES Permit temperature monitoring curve or field measurements; (2) on a daily basis, inspect the intake and discharge areas to assess any mortalities to aquatic life, and report the results of these monitoring activities to the Agency within 30 days of the expiration of the provisional variance (or such other time as agreed upon by the Agency); and (3) notify the Agency of any significant adverse environmental conditions observed that might be caused by operations authorized by the provisional variance, including mortalities to fish or other aquatic life, investigate the cause of such conditions, provide the Agency updates regarding the situation, including when normal conditions return, and submit a report to the Agency regarding these matters within 30 days of the expiration of the provisional variance period (or such other time as agreed upon by the Agency).

**VI. ADDITIONAL ENVIRONMENTAL MONITORING**

The thermal impact of the proposed variance with respect to the near-field aquatic community is expected to be minimal because the aquatic community is presently experiencing higher than normal ambient temperatures for this time of year with no apparent impact to date. The thermal load placed on the biological community will be minimal. Dresden Station does not plan to do any additional environmental monitoring because the upstream ambient river temperatures are causing Dresden Station to exceed its 90<sup>0</sup> F discharge temperature limit in July 2012.

**VII. SUMMARY**

Exelon requests that a provisional variance be issued to Dresden Station through the end of July allowing the station to increase its maximum temperature limit stated in Special Condition 3C of NPDES Permit No. IL0002224 from 93°F no more than 95°F. This relief shall begin on July 5 and will end on July 31, 2012.

It is Exelon's position that not granting this provisional variance would impose an arbitrary and unreasonable hardship due to unseasonably warmer Kankakee River Intake temperatures, challenge to base load power generation and electrical grid stability, and additional thermal impacts to plant equipment.

There is no other provisional variance relief in effect at this time for Dresden Station.

Should you require any further information in order to expedite the processing of this request or have any questions, please contact Morgan Davis of my staff at 815-416-3287.

Sincerely,

---

Shane Marik  
Dresden Station Plant Manager

CC: D. Leggett    Z. Karpa  
     M. Davis     R. Ruffin  
     J. Petro       File  
     J. Gould  
     S. Neal



## ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217) 782-2829  
James R. Thompson Center, 100 West Randolph, Suite 11-300, Chicago, IL 60601 • (312) 814-6026

PAT QUINN, GOVERNOR

DOUGLAS P. SCOTT, DIRECTOR

217/782-0610

November 3, 2011

Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, Illinois 60555-5701

Re: Exelon Generation Company, LLC  
Dresden Generating Station  
NPDES Permit No. IL0002224  
Final Permit

Gentlemen:

Attached is the final NPDES Permit for your discharge. The Permit as issued covers discharge limitations, monitoring, and reporting requirements. Failure to meet any portion of the Permit could result in civil and/or criminal penalties. The Illinois Environmental Protection Agency is ready and willing to assist you in interpreting any of the conditions of the Permit as they relate specifically to your discharge.

The Agency received your letter dated June 24, 2011 regarding the draft NPDES permit. Based on the information provided the following changes were made to the permit.

1. The suggested language for outfall 002 was used.
2. Unit 2 Auxiliary Boiler Area Oil/Water Separator, 138 KV Switchyard Oil/Water Separator, and 345 KV Switchyard Oil/Water Separator were added back to outfall 002 has contributory wastestreams.
3. The 0.05 mg/l Total Residual Chlorine (TRC) limit for outfalls 002, 003, and 004 will remain in the permit. Special Condition 4 for TRC will also remain in the permit. The facility can meet this limit by de-chlorination. The 0.05 mg/l limit was listed as a Best Available Technology (BAT), Effluent limitation in the public notice factsheet but is also the detection limit for TRC. It is also used as an effluent limitation to show compliance with the water quality standard for TRC, which is actually lower than the 0.05 mg/l limit.
4. The suggested language for internal outfall D02 was used.
5. Internal outfall E02 was removed from the permit. The wastestream of Northwest Material Access Runoff will remain as a contributory flow to outfall 002 and the requirement for the Stormwater Pollution Prevention Plan for this wastestream was included at outfall 002.

REPRODUCTION OF RECORDS MANAGEMENT  
RELEASABLE

APR 09 2012

6. The load limit for daily maximum is based on the design maximum flow. The load limit for 30-day average is based on the design average flow. There will be no changes to the load limits for BOD and TSS at outfall 003.
7. The suggested language for outfall 004 was used.
8. Outfall 005 will remain in the permit. Intermittent discharge was added to this outfall.
9. Outfall 006 will remain in the permit.
10. The suggested language for special condition 3 was used.
11. The suggested language for special condition 10 was used.

The Agency also received a letter dated June 27, 2011 from USEPA regarding the draft NPDES permit. Based on the information provided the following changes were made to the final permit.

1. Additional language was added to special condition 18 requiring that for the next permit application for renewal, the facility must prepare and submit monitoring studies to support their original 316(a) demonstration, pursuant to 40 CFR 125.72(c).
2. Illinois Pollution Control Board Order 79-134 is applicable for the period June 15 through September 30. During the time period October 1 through June 14, a mixing zone is applicable.

Special Condition 3 was modified to ensure that the water quality standards were met outside of the mixing zone from October 1 through June 14 and the alternate effluent standard as per IPCB 79-134 was applicable from June 15 through September 30.

The Agency has begun a program allowing the submittal of electronic Discharge Monitoring Reports (eDMRs) instead of paper Discharge Monitoring Reports (DMRs). If you are interested in eDMRs, more information can be found on the Agency website, <http://epa.state.il.us/water/edmr/index.html>. If your facility is not registered in the eDMR program, a supply of preprinted paper DMR Forms for your facility will be sent to you prior to the initiation of DMR reporting under the reissued permit. Additional information and instructions will accompany the preprinted DMRs upon their arrival.

The attached Permit is effective as of the date indicated on the first page of the Permit. Until the effective date of any re-issued Permit, the limitations and conditions of the previously-issued Permit remain in full effect. You have the right to appeal any condition of the Permit to the Illinois Pollution Control Board within a 35 day period following the issuance date.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Alan Keller". The signature is fluid and cursive, with the first name "Alan" and last name "Keller" clearly distinguishable.

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

SAK:LRL:11041402.bah

Attachment: Final Permit

cc: Records Unit  
Compliance Assurance Section  
Des Plaines Region  
Billing  
USEPA



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: November 30, 2016

Issue Date: November 3, 2011

Effective Date: December 1, 2011

Name and Address of Permittee:

Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, Illinois 60555-5701

Facility Name and Address:

Dresden Generating Station  
6500 North Dresden Road  
Morris, Illinois 60450  
(Grundy County)

Discharge Number and Name:

001 Unit 1 House Service Water  
A01 Unit 1 Intake Screen Backwash  
002 Cooling Pond Blowdown  
A02 Unit 2/3 Intake Screen Backwash  
B02 Wastewater Treatment System Effluent  
C02 Rad Waste Treatment System Effluent  
D02 Demineralizer Regenerate Waste and Filter Backwash  
003 Sewage Treatment Plant Effluent  
004 Cooling Pond Siphon Discharge  
005 South East Area Runoff  
006 North East Area Runoff

Receiving Waters:

Illinois River  
Illinois River  
Kankakee River  
Kankakee River  
Kankakee River  
Kankakee River

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

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



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

NPDES Permit No. IL0002224

Effluent Limitations and Monitoring

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

PARAMETER	LOAD LIMITS lbs/day		CONCENTRATION		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
<u>Outfall 001 – Unit 1 House Service Water</u> (Average Flow = 4.32 MGD)						
The discharge consists of:						
	1. Unit 1 Fire Pump & Equipment Cooling Water					
	2. Unit 1 Intake Screen Backwash (A01)					
	3. Stormwater Runoff*					
Flow (MGD)	See Special Condition 1.				Daily**	Continuous
pH	See Special Condition 2.				1/Month**	Grab
Temperature	See Special Condition 3.				1/Month**	Grab
Total Residual Chlorine	See Special Condition 4.			0.05	1/Month**	Grab
Total Suspended Solids			15	30	1/Month**	Grab
Oil/Grease			15	20	1/Month**	Grab

\* - See Special Condition 10 and 12.

\*\* - When Discharging

Outfall A01 – Unit 1 Intake Screen Backwash\*  
(Intermittent Discharge)

\* - There shall be no discharge of collected debris.

Outfall 002 – Cooling Pond Blowdown  
(Average Flow = 472 MGD)

The discharge consists of:

1. Unit 2 & 3 Condenser Cooling Water
2. Demineralizer Regenerant Waste and Filter Backwash (D02)
3. Rad Waste Treatment System Effluent (C02)
4. Wastewater Treatment System Effluent (B02)
5. Units 2 & 3 Intake Screen Backwash (A02)
6. Northwest Material Access Runoff\*
7. Units 2 & 3 House Service Water
8. Unit 2 Auxiliary Boiler Area Oil/Water Separator\*
9. 138 KV Switchyard Oil/Water Separator\*
10. 345 KV Switchyard Oil/Water Separator\*

Flow (MGD)	See Special Condition 1.				Daily	Continuous
pH	See Special Condition 2.				1/Month	Grab
Temperature	See Special Condition 3.				Daily	Continuous
Total Residual Chlorine	See Special Condition 4 & 21.			0.05	1/Month	Grab

\* - See Special Condition 10.

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Effluent Limitations and Monitoring

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

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/L		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
<u>Outfall A02</u> – Unit 2/3 Intake Screen Backwash* (Intermittent Discharge)						

\* - There shall be no discharge of collected debris.

Outfall B02 – Wastewater Treatment System Effluent  
(DAF = 0.068 MGD)

The discharge consists of:

1. Unit 1 and 2/3 Oil/Water Separators
2. Building Floor Drains
3. Building Roof Drains
4. Stormwater Runoff\*

Flow (MGD)	See Special Condition 1.			Daily	Continuous
Total Suspended Solids			15	30	1/Month 24-Hour Composite
Oil/Grease			10	20	1/Month Grab

\* - See Special Condition 9.

Outfall C02 – Rad Waste Treatment System Effluent  
(DAF = 0.073 MGD)

The discharge consists of:

1. Contaminated Equipment Drains
2. Contaminated Floor Drains
3. Chemistry Laboratory Drains
4. Decontamination System Drains
5. Condensate Polisher Sonic Cleaning Waste
6. Units 2 and 3 Auxiliary Boiler Blowdown

Flow (MGD)	See Special Condition 1.				1/Month Continuous
Total Suspended Solids			15	30	1/Month Grab
Oil/Grease			15	20	1/Month Grab

Outfall D02 – Demineralizer Regenerate Waste and Filter Backwash  
(Average Flow = 0.0082 MGD)

Flow (MGD)	See Special Condition 1.				1/Month Measure
Total Suspended Solids			15	30	1/Month 8-Hour Composite

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Effluent Limitations and Monitoring

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

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/L		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
<u>Outfall 003 – Sewage Treatment Plant Effluent</u> (DAF = 0.031 MGD)						
Flow (MGD)	See Special Condition 1.				1/Month	Continuous
pH	See Special Condition 2.				1/Month	Grab
BOD <sub>5</sub>	7.76	37.53	30	60	1/Month	24-Hour Composite
Total Suspended Solids	7.76	37.53	30	60	1/Month	24-Hour Composite
Fecal Coliform	See Special Condition 17.			400/100 ml	1/Month	Grab
Total Residual Chlorine	See Special Condition 4.			0.05	1/Day*	Grab

\* - When chlorinating.

Outfall 004 – Cooling Pond Siphon Discharge\*  
(Average Flow = 32.316 MGD)

Flow (MGD)	See Special Condition 1.				1/Day When Discharging	Measure
pH	See Special Condition 2.				1/Discharge Event	Grab
Temperature	See Special Condition 11.				1/Day When Discharging	Grab
Total Residual Chlorine	See Special Condition 4 & 21.			0.05	1/Discharge Event	Grab

\* - See Special Conditions 15 and 20.

Outfall 005 – South East Area Runoff\*  
(Intermittent Discharge)

\* - See Special Conditions 10 and 12.

Outfall 006 – North East Area Runoff\*  
(Intermittent Discharge)

\* - See Special Conditions 10 and 12.

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Special Conditions

**SPECIAL CONDITION 1.** Flow shall be measured in units of Million Gallons per Day (MGD) and reported as a monthly average and a daily maximum on the Discharge Monitoring Report.

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

**SPECIAL CONDITION 3.** (For outfalls 001 and 002) This facility meets the criteria for establishment of a formal mixing zone for thermal discharges pursuant to 35 IAC 302.102. Water quality standards for temperature listed in the table below must be met at every point outside of the mixing zone from the dates October 1 through June 14.

	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>
°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

- A. The maximum temperature rise above natural temperatures shall not exceed 2.8° C (5° F).
- B. Water temperature at representative locations in the main river shall not exceed the maximum limits in the table above during more than one (1) percent of the hours in the 12-month period ending with any month. Moreover, at no time shall the water temperature at such locations exceed the maximum limits in the table above by more than 3° F (1.7° C). Main river temperatures are temperatures of those portions of the river essentially similar to and following the same thermal regime as the temperatures of the main flow of the river.
- C. The permittee may discharge cooling pond blowdown using an indirect open cycle cooling mode from June 15 through September 30 in accordance with the following limitation in lieu of 35 Ill. Adm. Code 302.211(d) and 302.211(e) as written above in 3A and 3B respectively. During the period June 15 through September 30, the temperature of the plant discharge shall not exceed 32.2° C (90° F) more than 10% of the time in the period and never will exceed 33.9° C (93° F).
- D. 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.
- E. The Dresden Station shall be operated closed cycle during the period October 1 through June 14. The station may be operated in accordance with the Unit 2/3 Variable Blowdown Plan (governed by the original July 6, 1977 Thermal Compliance Plan calculations) from June 1 through June 14, as deemed necessary by station management.
- F. Compliance with the thermal limitations shall be determined by maintaining a continuous temperature and flow record for cooling pond blowdown to the Illinois River. If the variable blowdown plan will be used from June 1 to June 15, data acquisition and records for the parameters necessary to implement the plan shall be maintained.
- G. Additional water temperature monitoring shall be continued as follows:
1. A continuous water temperature record of water temperature at the Dresden Lock and Dam and the Dresden Station intake shall be maintained during the period of June 15 through September 30.
  2. Water temperature recorded at these locations shall be tabulated and submitted to the Agency, Industrial Unit, Division of Water Pollution Control by December 31, of each year.
  3. Permittee's failure to submit the temperature monitoring data from these locations due to equipment malfunction shall not be deemed a permit violation provided the permittee employs reasonable efforts to repair the malfunction. If the malfunction lasts more than 24 hours, a manual measurement shall be made at least once per day.
- H. The station may bypass the cooling pond, that is operate open cycle, only during periods when both generating units have been taken out of service.
- I. The monthly maximum value measured at the Dresden Lock and Dam and the percentage of time the discharge exceeds the temperatures listed in the table above from October 1 through June 14 shall be reported on the DMR form.
- J. The monthly maximum value measured at the outfall and the percentage of time the discharge exceeds 32.2° C (90° F) from June 15 through September 30 shall be reported on the DMR form.

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SPECIAL CONDITION 4. 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.

SPECIAL CONDITION 5. 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 6. 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 7. This permit authorizes the use of water treatment additives that were requested as part of this renewal. 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 8. 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 9. The Agency has determined that the effluent limitations in this permit constitute BAT/BCT for storm water which is treated in the existing treatment facilities for purposes of this permit reissuance, and no pollution prevention plan will be required for such storm water. In addition to the chemical specific monitoring required elsewhere in this permit, the permittee shall conduct an annual inspection of the facility site to identify areas contributing to a storm water discharge associated with industrial activity, and determine whether any facility modifications have occurred which result in previously-treated storm water discharges no longer receiving treatment. If any such discharges are identified the permittee shall request a modification of this permit within 30 days after the inspection. Records of the annual inspection shall be retained by the permittee for the term of this permit and be made available to the Agency on request.

SPECIAL CONDITION 10

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.

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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;

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- 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 or 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.



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- 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.
  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.

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- 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. The permittee may claim portions of the plan as exempt from public disclosure as confidential business information or as otherwise required by law, including any portion of the plan related to facility security.
- 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 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

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- 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 11. (For outfall 004) This facility meets the allowed mixing criteria for thermal discharges pursuant to 35 IAC 302.102. No reasonable potential exists for the discharge to exceed thermal water quality standards. This determination is based on a temperature range of 60° F to 77° F and a flow of 50 cfs. The permittee shall monitor the flow and temperature of the discharge prior to entry into the receiving water body. Monitoring results shall be reported on the monthly Discharge Monitoring Report. This permit may be modified to include formal temperature limitations should the results of the monitoring show that there is reasonable potential to exceed a thermal water quality standard. Modification of this permit shall follow public notice and opportunity for comment.

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.

SPECIAL CONDITION 12. The North East Area Runoff discharges to the Unit 1 intake canal. When the Unit 1 service water system is in use, the discharge will be drawn into the intake and eventually discharged at outfall 001. During those times when the Unit 1 service water system is out of service, this discharge will remain in the intake canal and eventually flow into the Kankakee River through outfalls 005 and 006.

SPECIAL CONDITION 13. There shall be no discharge of polychlorinated biphenyl compounds.

SPECIAL CONDITION 14. The "Upset" defense provisions listed under 40 CFR 122.41(n) are hereby incorporated by reference.

SPECIAL CONDITION 15. The responsibility for outfall 004, Cooling Pond Discharge, will be transferred to the Will County Emergency Management Agency upon issuance of a separate NPDES permit for operation of the Dresden Station siphon Ice Melt system. Upon issuance of a permit to Will County EMA, Exelon Generation Company shall submit a request to terminate the monitoring and reporting requirements associated with outfall 004, in writing to the Agency.

SPECIAL CONDITION 16. 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 17. For outfall 003, the daily maximum Fecal Coliform count shall not exceed 400/100 ml. Fecal Coliform limits for Outfall 003 are effective May through October. Sampling of Fecal Coliform concentrations are only required during this time period.

SPECIAL CONDITION 18. Exelon Generation Company, LLC formerly known as Commonwealth Edison Company has complied with 35 Ill. Adm. Code 302.211(f) and Section 316(a) of the Clean Water Act in demonstrating that the thermal discharge from its Dresden Nuclear Power Station has not caused and cannot be reasonably expected to cause significant ecological damage to receiving waters as approved by the Illinois Pollution Control Board in PCB Order 73-359 dated January 17, 1974 and PCB Order 79-134 dated July 9, 1981. Pursuant to 35 Ill. Adm. Code 302.211(g), no additional monitoring or modification is now being required for reissuance of this NPDES Permit

Pursuant to 40 CFR 125.72(c), the permittee shall submit an updated 316(a) demonstration based on current facility operating conditions. This updated demonstration may include new studies or other information necessary to support the seasonal alternative effluent limitations granted under the original demonstration. This information shall be submitted with the next permit renewal application.

SPECIAL CONDITION 19. Pursuant to Section 316(b) of the Clean Water Act, a past determination for the Dresden Nuclear Power Station was not made. Data was submitted at that time by Exelon Generation Company, LLC formerly known as Commonwealth Edison Company pursuant to Section 316(b) of the CWA for the Dresden Nuclear Power Station. This data was reviewed by the Illinois Environmental Protection Agency and the review determination was: That where as additional intake monitoring is not being required at this time, further monitoring is not precluded if determined necessary at the time of any modification or reissuance of NPDES Permit No. IL0002224.

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 submitted should be in accordance with the previously submitted information collection proposal received by Agency on May 23, 2005.

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

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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.

**SPECIAL CONDITION 20.** The permittee shall minimize make-up water requirements to the cooling pond system during cooling pond water diversion to the Kankakee River in order to minimize fish impingement losses. This should be accomplished by eliminating to the extent feasible normal closed cycle blowdown flows of 50,000 gpm to the Illinois River except during a discharge from the Rad Waste Treatment System and/or other water conservation measures. Such measures and operations taken by the station to minimize make-up water requirements during diversion shall be documented and reported with monthly discharge monitoring reports.

## A. Operating requirements:

1. The siphon will be operated for only two runs during the winter, each run lasting no more than 14 days.
2. Thermal monitoring at established transects and narrative observations will be recorded during operations in accordance with the siphon Operations Plan dated November, 1993 and a report of findings made available to this Agency in June of each year.
3. The maximum amount of heat that will be placed in the Kankakee River shall be <0.5 billion BTUs per hour.
4. A fish barrier net must be in place around the siphon inlet before the siphon is operated, and must remain intact throughout the run.

**SPECIAL CONDITION 21.** For a period of 2 years following the effective date of this Permit during times when the condenser cooling water is chlorinated intermittently, Total Residual Chlorine may not be discharged from each unit's main cooling condensers for more than 2 hours per day. The discharge limit during this period is 0.2 mg/l, measured as an instantaneous maximum.

A Total Residual Chlorine limit of 0.05 mg/l (Daily Maximum) for outfalls 002 and 004 shall become effective 2 years from the effective date of this Permit.

The Permittee shall construct a dechlorination system or some alternative means of compliance in accordance with the following schedule:

- |                           |                                   |
|---------------------------|-----------------------------------|
| 1. Status Report          | 6 months from the effective date  |
| 2. Commence Construction  | 12 months from the effective date |
| 3. Status Report          | 18 months from the effective date |
| 4. Complete Construction  | 22 months from the effective date |
| 5. Obtain Operation Level | 24 months from the effective date |

Compliance dates set out in this Permit may be superseded or supplemented by compliance dates in judicial orders, or Pollution Control Board orders. This Permit may be modified, with Public Notice, to include such revised compliance dates.

The Permittee shall operate the dechlorination system or an alternative means of compliance in a manner to ensure continuous compliance with the Total Residual Chlorine limit, not to the extent that will result in violations of other permitted effluent characteristic, or water quality standards.

REPORTING

The Permittee shall submit a report no later than fourteen (14) days following the completion dates indicated above for each numbered item in the compliance schedule, indicating, a) the date the item was completed, or b) that the item was not completed, the reason for non-completion, and the anticipated completion date.

## Standard Conditions

## Definitions

**Act** means the Illinois Environmental Protection Act, 415 ILCS 5 as amended.

**Agency** means the Illinois Environmental Protection Agency.

**Board** means the Illinois Pollution Control Board.

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

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

**EPA** means the United States Environmental Protection Agency.

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

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

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

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

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

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

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

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

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

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

- (1) **Duty to comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirements.
- (2) **Duty to reapply.** If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. If the permittee submits a proper application as required by the Agency no later than 180 days prior to the expiration date, this permit shall continue in full force and effect until the final Agency decision on the application has been made.
- (3) **Need to halt or reduce activity not a defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (4) **Duty to mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
- (5) **Proper operation and maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up, or auxiliary facilities, or similar systems only when necessary to achieve compliance with the conditions of the permit.
- (6) **Permit actions.** This permit may be modified, revoked and reissued, or terminated for cause by the Agency pursuant to 40 CFR 122.62 and 40 CFR 122.63. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- (7) **Property rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.
- (8) **Duty to provide information.** The permittee shall furnish to the Agency within a reasonable time, any information which the Agency may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also furnish to the Agency upon request, copies of records required to be kept by this permit.

- 9) **Inspection and entry.** The permittee shall allow an authorized representative of the Agency or USEPA (including an authorized contractor acting as a representative of the Agency or USEPA), upon the presentation of credentials and other documents as may be required by law, to:
- Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
  - Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
  - Sample or monitor at reasonable times, for the purpose of assuring permit compliance, or as otherwise authorized by the Act, any substances or parameters at any location.
- 10) **Monitoring and records.**
- Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
  - The permittee shall retain records of all monitoring information, including all calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation, copies of all data reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of this permit, measurement, report or application. Records related to the permittee's sewage sludge use and disposal activities shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the Agency or USEPA at any time.
  - Records of monitoring information shall include:
    - The date, exact place, and time of sampling or measurements;
    - The individual(s) who performed the sampling or measurements;
    - The date(s) analyses were performed;
    - The individual(s) who performed the analyses;
    - The analytical techniques or methods used; and
    - The results of such analyses.
  - Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit. Where no test procedure under 40 CFR Part 136 has been approved, the permittee must submit to the Agency a test method for approval. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.
- 1) **Signatory requirement.** All applications, reports or information submitted to the Agency shall be signed and certified.
- Application.** All permit applications shall be signed as follows:
    - For a corporation: by a principal executive officer of at least the level of vice president or a person or position having overall responsibility for environmental matters for the corporation;
    - For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
    - For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.
  - Reports.** All reports required by permits, or other information requested by the Agency shall be signed by a person described in paragraph (a) or by a duly authorized representative of that person. A person is a duly authorized representative only if:
    - The authorization is made in writing by a person described in paragraph (a); and
    - The authorization specifies either an individual or a position responsible for the overall operation of the facility, from which the discharge originates, such as a plant manager, superintendent or person of equivalent responsibility; and
    - The written authorization is submitted to the Agency.
  - Changes of Authorization.** If an authorization under (b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of (b) must be submitted to the Agency prior to or together with any reports, information, or applications to be signed by an authorized representative.
  - Certification.** Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:
 

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.
- (12) **Reporting requirements.**
- Planned changes.** The permittee shall give notice to the Agency as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required when:
    - The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source pursuant to 40 CFR 122.29 (b); or
    - The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements pursuant to 40 CFR 122.42 (a)(1).
    - The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
  - Anticipated noncompliance.** The permittee shall give advance notice to the Agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
  - Transfers.** This permit is not transferable to any person except after notice to the Agency.
  - Compliance schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
  - Monitoring reports.** Monitoring results shall be reported at the intervals specified elsewhere in this permit.
    - Monitoring results must be reported on a Discharge Monitoring Report (DMR).

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

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

(f) **Twenty-four hour reporting.** The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24-hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and time; and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The following shall be included as information which must be reported within 24-hours:

- (1) Any unanticipated bypass which exceeds any effluent limitation in the permit.
  - (2) Any upset which exceeds any effluent limitation in the permit.
  - (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Agency in the permit or any pollutant which may endanger health or the environment.
- The Agency may waive the written report on a case-by-case basis if the oral report has been received within 24-hours.

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

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

3) **Bypass.**

(a) **Definitions.**

- (1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
- (2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(b) **Bypass not exceeding limitations.** The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (13)(c) and (13)(d).

(c) **Notice.**

- (1) **Anticipated bypass.** If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
- (2) **Unanticipated bypass.** The permittee shall submit notice of an unanticipated bypass as required in paragraph (12)(f) (24-hour notice).

(1) **Prohibition of bypass.** Bypass is prohibited, and the Agency may take enforcement action against a permittee for bypass, unless:

- (i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- (ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
- (iii) The permittee submitted notices as required under paragraph (13)(c).

(2) The Agency may approve an anticipated bypass, after considering its adverse effects, if the Agency determines that it will meet the three conditions listed above in paragraph (13)(d)(1).

(14) **Upset.**

(a) **Definition.** Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(b) **Effect of an upset.** An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (14)(c) are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(c) **Conditions necessary for a demonstration of upset.** A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
  - (2) The permitted facility was at the time being properly operated; and
  - (3) The permittee submitted notice of the upset as required in paragraph (12)(f)(2) (24-hour notice).
  - (4) The permittee complied with any remedial measures required under paragraph (4).
- (d) **Burden of proof.** In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

(15) **Transfer of permits.** Permits may be transferred by modification or automatic transfer as described below:

(a) **Transfers by modification.** Except as provided in paragraph (b), a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued pursuant to 40 CFR 122.62 (b) (2), or a minor modification made pursuant to 40 CFR 122.63 (d), to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

(b) **Automatic transfers.** As an alternative to transfers under paragraph (a), any NPDES permit may be automatically transferred to a new permittee if:

- (1) The current permittee shall notify the Agency at least 30 days in advance of the proposed transfer date;
- (2) The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage and liability between the existing and new permittees; and
- (3) The Agency does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement.
- 16) All manufacturing, commercial, mining, and silvicultural dischargers must notify the Agency as soon as they know or have reason to believe:
- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant identified under Section 307 of the Clean Water Act which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
- (1) One hundred micrograms per liter (100 ug/l);
- (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6 dinitrophenol; and one milligram per liter (1 mg/l) for antimony.
- (3) Five (5) times the maximum concentration value reported for that pollutant in the NPDES permit application; or
- (4) The level established by the Agency in this permit.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the NPDES permit application.
- 17) All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Agency of the following:
- (a) Any new introduction of pollutants into that POTW from an indirect discharge which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and
- (b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
- (c) For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.
- 18) If the permit is issued to a publicly owned or publicly regulated treatment works, the permittee shall require any industrial user of such treatment works to comply with federal requirements concerning:
- (a) User charges pursuant to Section 204 (b) of the Clean Water Act, and applicable regulations appearing in 40 CFR 35;
- (b) Toxic pollutant effluent standards and pretreatment standards pursuant to Section 307 of the Clean Water Act; and
- (c) Inspection, monitoring and entry pursuant to Section 308 of the Clean Water Act.
- 9) If an applicable standard or limitation is promulgated under Section 301(b)(2)(C) and (D), 304(b)(2), or 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked, and reissued to conform to that effluent standard or limitation.
- (20) Any authorization to construct issued to the permittee pursuant to 35 Ill. Adm. Code 309.154 is hereby incorporated by reference as a condition of this permit.
- (21) The permittee shall not make any false statement, representation or certification in any application, record, report, plan or other document submitted to the Agency or the USEPA, or required to be maintained under this permit.
- (22) The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed \$25,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both. Additional penalties for violating these sections of the Clean Water Act are identified in 40 CFR 122.41 (a)(2) and (3).
- (23) The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both.
- (24) The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.
- (25) Collected screening, slurrries, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those wastes (or runoff from the wastes) into waters of the State. The proper authorization for such disposal shall be obtained from the Agency and is incorporated as part hereof by reference.
- (26) In case of conflict between these standard conditions and any other condition(s) included in this permit, the other condition(s) shall govern.
- (27) The permittee shall comply with, in addition to the requirements of the permit, all applicable provisions of 35 Ill. Adm. Code, Subtitle C, Subtitle D, Subtitle E, and all applicable orders of the Board or any court with jurisdiction.
- (28) The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit is held invalid, the remaining provisions of this permit shall continue in full force and effect.



*Exelon Generation LLC's Responses  
to the Board's Questions*

**ATTACHMENT 6**

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

July 18, 2012

Exelon Generation Company, LLC	)	
Dresden Nuclear Generation Station	)	
	)	
Petitioner,	)	
	)	
v.	)	IEPA – 12-23
	)	(Provisional Variance-Water)
ILLINOIS ENVIRONMENTAL	)	
PROTECTION AGENCY,	)	
	)	
Respondent.	)	

Re: Provisional Variance From Special Condition 3C of NPDES Permit IL0002224

Dear Mr. Matik:

The Illinois Environmental Protection Agency (Illinois EPA) has completed its technical review of the attached provisional variance request, dated July 17, 2012, submitted by Exelon Generation Company, LLC for its Dresden Nuclear Generation Station (“Exelon Dresden”). (Exhibit A) Exelon Dresden has requested a provisional variance because the challenges encountered as a result of the continuing unseasonable high temperatures, elevated intake source water temperatures, very low flows in the Kankakee and Des Plaines Rivers, and lack of local precipitation present an undue hardship for Exelon Dresden to meet the effluent thermal limits of 90° F contained in NPDES Permit IL0002224. (Exhibit B)

Based on its review, the Illinois EPA GRANTS Exelon Dresden a provisional variance from the thermal limits in Special Condition 3C of NPDES Permit IL0002224, subject to the specific conditions set forth below.

*Background*

Exelon Dresden is a nuclear-fueled steam electric generating facility located at the confluence of the Des Plaines and Kankakee Rivers near Morris, Illinois, at River Mile 272.3. The two boiling water reactors have a maximum generating capacity of 1892 megawatts electric. Circulating water used to cool and condense the steam from the generating process is discharged to a 1275 acre cooling pond.

NPDES Permit IL0002224 authorizes Exelon Dresden to operate in indirect open cycle mode from June 15th to September 30th of each year (about 3 1/2 months). In the indirect open cycle mode, approximately 1,000,000 gpm of cooling water is drawn into Exelon Dresden's cribhouse intake structure from the Kankakee River via the intake canal. This

cooling water passes through Exelon Dresden's heat exchangers and discharges to the hot canal that routes the water approximately two miles to the lift station. The lift station transfers the cooling water approximately 20 feet from the hot canal to the above ground cooling pond. The cooling water is routed around the cooling pond and over the spillway into the cold canal. The cold canal routes the cooling water approximately two miles back to the station. The flow regulating gates divert all the cooling water flow (approximately 1,000,000 gpm) to the Illinois River via Outfall 002.

The upstream river temperature of the Kankakee River was measured at 89.6° F on July 15, 2012. The Station has also experienced high ambient temperatures, above 95° F, with high wet bulb temperatures, and limited precipitation from the period of June 28, 2012 through July 17, 2012. Weather forecasts suggest that hot weather and limited precipitation conditions will continue through the following week (the week of July 23). Lack of precipitation and high wet bulb temperatures have affected the cooling capabilities of the cooling towers and the cooling pond.

The Kankakee River is also currently experiencing a very low flow of 458 cfs, and it continues to decrease. The average Kankakee River flow is 3,870 cfs. The Des Plaines River flow, which is the contributing water source to the Illinois River where the Station discharges, has been holding just below 200 cfs for most of July, which is almost half of the 365 cfs average flow. The capacity of the Illinois River and the Station's cooling pond to dissipate heat has been drastically reduced beyond its normal capabilities. Additionally, the river is not cooling off during the evening hours. As a result of these conditions, Exelon Dresden began using excursion hours on July 2, 2012, at approximately 13:30 and as of July 17, 2012, Exelon Dresden has used 221 excursion hours.

The high demand for electricity coupled with the uncharacteristic weather and surface water conditions continues to challenge Exelon Dresden's ability to maintain thermal discharge compliance. However, according to Exelon Dresden, at no time has the difference between ambient river temperature and the temperature at the edge of the mixing zone exceeded 5° F.

Exelon Dresden is currently operating all available cooling towers to support additional cooling of the Station's surface water discharge. The Station is also manually controlling the spillway gates to slow the movement of water in the cooling pond in an attempt to further decrease the discharge temperature by increasing the hold time of the water in the cooling pond. Exelon Dresden has derated the units in an attempt to maintain the temperature under 90°/93° F in response to elevated intake temperatures.

Exelon Dresden has also provided that it did not experience any environmental effect during the provisional variance issued on July 6, 2012.<sup>1</sup>

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<sup>1</sup> See e-mail from Ronald Novy. (Exhibit C)

*Relief Requested*

Exelon Dresden requests a provisional variance from Special Condition 3C in NPDES Permit IL0002224, which provides:

The permittee may discharge cooling pond blowdown using an indirect open cycle cooling mode from June 15 through September 30 in accordance with the following limitation in lieu of 35 Ill. Adm. Code 302.211(d) and 302.211(e) as written above in Special condition 3A and 3B respectively. During the period June 15 through September 30, the temperature of the plant discharge shall not exceed 32.2° C (90° F) more than 10% of the time in the period and never will exceed 33.9° C (93° F).

Exelon Dresden requests that a provisional variance be issued for Dresden Station allowing the Station to: (1) Increase its maximum temperature limit stated in Special Condition 3C of NPDES Permit No. IL0002224 from 93°F to no more than 95°F for the provisional variance duration period and (2) Increase the current excursion allotment stated in Special Condition 3C of the NPDES Permit by an additional 14 days from the time the original 259.2 excursion hours is exhausted.<sup>2</sup>

Dresden Station anticipates that its original 259.2 excursion hours will be exhausted by mid-day on July 18, 2012.

*Illinois EPA Determinations*

The Illinois EPA has reviewed the requested provisional variance and has concluded the following:

1. Any environmental impact from the requested relief shall be closely monitored, and the Illinois EPA shall be immediately notified of any adverse impacts.
2. No reasonable alternatives appear available;
3. No public water supplies should be affected;
4. No federal regulations will preclude the granting of this request; and
5. Exelon Dresden will face an arbitrary and unreasonable hardship if the request is not granted.

*Conditions*

The Illinois EPA hereby GRANTS Exelon Dresden a provisional variance from the thermal limits indicated in Special Condition 3C of NPDES Permit IL0002224, subject to the following conditions:

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<sup>2</sup> See e-mail from Ronald Novy attached (Exhibit D).

- A. The term of this provisional variance begins (1) for excursion hours: when all permitted excursion hours have been exhausted; (2) for maximum temperature limits: when the temperature exceeds 93° F. The term of this provisional variance shall begin on July 18, 2012 and end no later than August 1, 2012. This provisional variance is granted based on the facts and circumstances described in the request dated July 17, 2012. If the facts and circumstances described in the request dated July 17, 2012 abate the term of this provisional variance will end.
- B. Exelon Dresden shall provide the best operation of its available equipment to produce the best effluent possible at all times during the term of this provisional variance. At no time shall the plant discharge exceed a temperature of 95° F during the term of this provisional variance.
- C. Exelon Dresden must continuously monitor discharge and receiving water temperatures and visually inspect all discharge areas at least four times per day during daylight hours to assess any mortalities to fish and other aquatic life. This monitoring shall occur during the period of the provisional variance and shall continue for a minimum of four days after the provisional variance expires.
- D. Exelon Dresden shall document environmental conditions during the term of the provisional variance, including the activities described in item C. of this Section, and submit the documentation to the Illinois EPA and the Illinois Department of Natural Resources ("Illinois DNR") within seven (7) days after this provisional variance expires.
- E. Exelon Dresden shall immediately notify the Illinois EPA and Illinois DNR of any unusual conditions, including mortalities of fish or other aquatic life, immediately take action to remedy the problem, investigate and document the cause and seriousness of the unusual conditions while providing updates to the Illinois EPA and Illinois DNR as changes occur until normal conditions return; notify the Illinois EPA and Illinois DNR when normal conditions return and submit the documentation to the Illinois EPA and Illinois DNR within seven (7) days after normal conditions return.
- F. Exelon Dresden shall develop and implement a response and recovery plan to address any adverse environmental impact due to thermal conditions that could result from the provisional variance, including loss and damage to aquatic life.
- G. Exelon Dresden shall notify Roger Callaway, Illinois EPA, by telephone at 217-782-9720 when the period of this provisional variance begins and ends, under Section A, above. Written confirmation shall be sent within five days after the

discharge specified in this provisional variance ends to the following address:

Illinois Environmental Protection Agency  
Bureau of Water - Water Pollution Control  
Attention: Roger Callaway  
1021 North Grand Avenue East, CAS #19  
Springfield IL 62794-9276

- H. Exelon Dresden shall sign a certificate of acceptance of this provisional variance and forward that certificate to Roger Callaway at the address indicated above within one day of the date of this provisional variance.

The certification should take the following form:

*I (We) \_\_\_\_\_, hereby accept and agree to be bound by all terms and conditions of the provisional variance granted by the Illinois EPA in \_\_\_\_\_ dated \_\_\_\_\_.*

\_\_\_\_\_  
*Petitioner*

\_\_\_\_\_  
*Authorized Agent*

\_\_\_\_\_  
*Title*

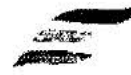
\_\_\_\_\_  
*Date*

- I. Exelon Dresden shall continue to monitor all parameters and comply with all other conditions specified in NPDES Permit IL0002224.

Sincerely,

John J. Kim  
Interim Director

cc: Marcia Willhite  
Roger Callaway  
Chad Kruse



Exelon Generation

Exelon Generation Company, LLC  
Dresden Nuclear Power Station  
6500 North Dresden Road  
Morris, IL 60450-9765

www.exeloncorp.com

July 17, 2012

Mr. Roger Callaway (CAS-19)  
Wastewater Compliance Unit Manager  
Illinois Environmental Protection Agency  
Bureau of Water  
Compliance Assurance Section #19  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, Illinois 62794-9274

Subject: Dresden Nuclear Generation Station  
NPDES Permit No. IL0002224  
Request for Provisional Variance  
PMLTR 12-0044

Dear Mr. Callaway:

Exelon Generation Company, L.L.C. ("Exelon") hereby requests that the Illinois Environmental Protection Agency ("IEPA" or "Agency") grant a provisional variance for Dresden Nuclear Power Station ("Dresden", "Station", or "Facility"), pursuant to Section 35(b) of the Environmental Protection Act ("Act") 415 ILCS 5/35. Exelon submits this Application for a provisional variance consistent with the IEPA procedures at 35 Illinois Administrative Code 104.300. The Station discharges wastewater pursuant to NPDES Permit No. IL0002224, which IEPA issued on November 3, 2011, and which expires on November 30, 2016.

Exelon requests that a provisional variance be issued for Dresden Station allowing the Station to: (1) increase its maximum temperature limit stated in Special Condition 3C of NPDES Permit No. IL0002224 from 93°F to no more than 95°F, and (2) accrue additional excursion hours beyond the allotted 259.2 hours, as stated in Special Condition 3C, for a period of no more than ten days.

Dresden requests that the provisional variance period begins when the maximum temperature exceeds 93°F or the Station's allotted 259.2 excursion hours expire and that the provisional variance period extend for a period of ten days once either of these conditions is met. Dresden Station anticipates that its original 259.2 excursion hours will be exhausted by mid day on July 18, 2012.

Dresden Station has operated all available cooling towers during this unseasonably warm summer period and continues to manage the cooling pond in an effort to preserve excursion hours and maintain thermal discharges below 93 °F. This provisional variance request is necessary due to the challenges encountered as a result of the continuing unseasonable high temperatures, elevated intake source water temperatures, very low flows in the Kankakee and Des Plaines Rivers, and lack of local precipitation. Dresden Station has utilized 221 of its 259.2 excursion hours allotted under Permit # IL0002224 as of July 17, 2012.

## **BACKGROUND**

Dresden is a nuclear-fueled steam electric generating facility located at the confluence of the Des Plaines and Kankakee Rivers near Morris, Illinois, at River Mile 272.3. The Station operates two boiling water reactors, which have a maximum generating capacity of 1,892 megawatts electric. Circulating water, used to cool and condense the steam from the generating process, is discharged to a 1,275 acre cooling pond.

The Station is currently operating at approximately 94.9 % capacity as of July 17, 2012. The Station's capacity factor from January 1, 2012 through June 30, 2012, was 99.5 %.

Dresden Station's generation output is used as baseload generation and is transmitted to the PJM Interconnection Grid. PJM Interconnection is a regional transmission organization, which coordinates the movement of wholesale electricity in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia. PJM has issued a hot weather alert and has recommended that regional electrical sources continue to provide electricity due to the large demand on the electrical grid.

The Station normally operates in an In-Direct Open Cycle configuration from June 15<sup>th</sup> through September 30<sup>th</sup> of each year (about 3-1/2 months). In this mode, the Station draws cooling water from the Kankakee River via the Intake Canal into the plant systems. The water is then released from the Station, passing once through the Cooling Pond, and is then discharged to the Illinois River via Outfall 002. The maximum design flow during In-Direct Open Cycle operation is 1,548 MGD. This operational scheme, as well as the related alternate thermal standards, was approved by the Illinois Pollution Control Board on July 9, 1981 (IPCB #79-134).

The available temperature data shows that the Kankakee River water temperature at the Station's intake has approached the monthly maximum temperature standards. For example, the upstream river temperature of the Kankakee River was measured at 89.6 °F on July 15, 2012. The Station has also experienced high ambient temperatures, above 95°F, with high wet bulb temperatures, and limited precipitation from the period of June 28, 2012 through July 17, 2012. Weather forecasts suggest that hot weather and limited precipitation conditions will continue through the following week. Lack of precipitation and high wet bulb temperatures have affected the cooling capabilities of the cooling towers and the cooling pond.



The Kankakee River is also currently experiencing a very low flow of 458 cfs on July 17, 2012. The average Kankakee River flow is 3,870 cfs. The Des Plaines River flow, which is the contributing water source to the Illinois River where the Station discharges, has been holding just below 200 cfs for most of July, which is almost half of the 365 cfs average flow. As a consequence of the unusually warm weather, high ambient river temperatures, and the absence of cooling during the evening hours, the capacity of the Illinois River and the Station's cooling pond to dissipate heat has been drastically reduced beyond its normal capabilities. Additionally, the river is not cooling off during the evening hours as is typical this time of year. Without nighttime cooling, the river retains the heat introduced to it during the daytime hours, both upstream and downstream of the Station. As a result of these conditions, Dresden Station began using excursion hours on July 2, 2012, at approximately 13:30 and as of July 17, 2012, Dresden Station has used 221 excursion hours.

Dresden Station submitted a provisional variance request to IEPA on July 6, 2012 for relief from Special Condition 3C of NPDES Permit No. IL0002224 for the period of July 6, 2012 to July 16, 2012, due to environmental conditions similar to those currently being experienced by Dresden Station. IEPA granted the requested relief on July 6, 2012.

At no time has the difference between ambient river temperature and the temperature at the edge of the mixing zone exceeded 5 degree F.

## **I. RELIEF REQUESTED**

Exelon requests that a provisional variance be issued for Dresden Station allowing the Station to:

- (1) Increase its maximum temperature limit stated in Special Condition 3C of NPDES Permit No. IL0002224 from 93°F to no more than 95°F for the provisional variance duration period and
- (2) Increase the current excursion allotment stated in Special Condition 3C of the NPDES Permit by an additional 10 days from the time the original 259.2 excursion hours is exhausted.

Dresden requests that the provisional variance period begins when the maximum temperature exceeds 93°F or the Station's allotted 259.2 excursion hours expire and that the provisional variance period extend for a period of ten days once either of these conditions is met. Dresden Station anticipates that its original 259.2 excursion hours will be exhausted by mid-day on July 18, 2012.

## **II. NECESSITY FOR REQUEST**

When the ambient river temperatures approach or exceed the non-excursion hour limits, the Station has no option other than to use excursion hours, and once its allotment of

excursion hours is depleted, the Station must significantly derate or cease operating altogether to maintain compliance with the NPDES Permit.

As a rule, Dresden Station has been able to operate well within its permitted thermal limits due to the fact that the ambient temperatures of the River (measured upstream of the discharge) generally remain below the non-excursion hour limit. It is only during periods when the ambient river temperatures are very close to or exceed the non-excursion hour limits or during periods of extreme low flows that the Station is forced to use a significant number of its excursion hour allowance.

Dresden is currently operating all available cooling towers to support additional cooling of the Station's surface water discharge. The Station is also manually controlling the spillway gates to slow the movement of water in the cooling pond in an attempt to further decrease the discharge temperature by increasing the hold time of the water in the cooling pond.

In addition to operating the available cooling towers at full capacity and minimizing flow from the cooling pond, Dresden has derated the units in an attempt to maintain the temperature under 90°F/93°F in response to elevated intake temperatures. However, derating the units at this time will not prevent the exceedance of the permitted excursion hour allotment granted in Special Condition 3C, of the NPDES permit. This is primarily due to the continuing unseasonable high temperatures that have been above 90°F for numerous consecutive days. In addition, the very low flows in the Kankakee and Des Plaines Rivers as a result of the ongoing drought that is impacting the region makes thermal mixing harder. Furthermore, the high ambient temperatures of the Station's source water (Kankakee River) increases these cooling challenges. All of these conditions coupled together make thermal transfer very difficult even with all of the Station's cooling efforts in place.

Currently, the auxiliary systems (e.g., equipment heat exchangers) that support the nuclear generation process are experiencing higher than normal thermal load which challenges plant equipment and thermal cooling capabilities.

Dresden Station has made exhaustive efforts to maintain the cooling water discharges below the regulated permit levels including manipulating the cooling pond spillway to increase cooling pond residence time and limit the discharge through Outfall 002 throughout the summer period. The current configuration instills additional thermal challenges on the plant equipment since there will be reduced fresh makeup water and the circulating water temperature will increase.

Reduced blowdown from Outfall 002 will alter cooling pond water chemistry and will result in negative impacts on plant equipment. Lack of blowdown and cooling pond make up will increase temperatures, increase pH, concentrate impurities, and create an environment where algae thrive in our cooling pond. Increased temperatures and the presence of algae, causes an algae bloom and increases pH and total alkalinity in the cooling pond and plant cooling systems. These conditions promote scaling of plant equipment, particularly in the main steam condensers and safety related heat

exchangers. Scaling ultimately could result in the replacement of approximately 120,000 condenser tubes and safety related heat exchangers, with corresponding extended plant shut downs for both units to perform these repairs. Lack of blowdown and cooling water from the river during the summer months will also limit the capability of plant cool down and challenge plant cooling systems.

Due to these risks, there are technical specifications that Dresden Station must meet pursuant to its operating license issued by the Nuclear Regulatory Commission. If pH values and cooling water environment is not maintained within proper specifications, the plant is required to shut down until cooling water parameters return to specified ranges. Unless relief is granted by way of this provisional variance request, it is likely that the Station will be forced to shut down for correspondingly significant durations. Shutting down or significantly derating a base-loaded nuclear power plant such as Dresden could jeopardize the stability of the electrical grid (and availability/reliability of electricity in the region), particularly if other plants are required to shut down or derate due to the unusual weather conditions being experienced. With both units offline and not immediately able to return to service, Dresden Station would not be available to support the voltage requirements that could occur under changing grid conditions.

### **III. ASSESSMENT OF ADVERSE ENVIRONMENTAL IMPACTS**

The thermal impact of the proposed variance with respect to the near-field aquatic community is expected to be minimal. The aquatic community is already experiencing much higher than normal ambient temperatures, with no apparent impact to date.

Because Dresden Station is not proposing to increase cooling water flows there will be no increase in impingement or entrainment as a result of the issuance of the requested Provisional Variance. Additionally, because the ambient river temperature increase has been gradual, resident fish species have either acclimated to the higher temperature or have found thermal refuge. Therefore, resident fish species will not be subject to any heat shock as a result of increasing the allotment of excursion hours for Dresden Station.

The Station normally discharges a blowdown flow of warmer cooling pond water to the Illinois River during the In-Direct Open Cycle operating mode. Thus, fish inhabiting the discharge canal will be acclimated to temperatures above ambient river temperature and should be sufficiently reactive to avoid areas that are out of their desired temperature range.

Despite Dresden's significant discharge volume, the thermal plume has been characterized as buoyant in all previous studies submitted to the IEPA. Therefore, benthic organisms are not likely to be adversely affected by the short-term relief requested. The overall impact of the Station's thermal plume on the Illinois River is expected to be minimal.

The Illinois River (Segment D-10) and Kankakee River (Segment F-01) are impaired due to mercury and polychlorinated biphenyls levels. The issuance of the required provisional variance is not expected to influence those parameters.

#### **IV. ALTERNATIVES TO REQUESTED RELIEF**

Exelon considered various alternatives to seeking regulatory relief related to the thermal variance currently requested. Exelon is currently operating in In-Direct Open Cycle per the terms of the NPDES permit. Due to the elevated river temperatures, Dresden Station is operating all available cooling towers.

Exelon has also considered shutting down or significantly derating. Derating a base-loaded nuclear power plant such as Dresden, could jeopardize the stability of the electrical grid (and availability/reliability of electricity in the region), particularly if other plants are required to shut down or derate due to the unusual weather conditions being experienced.

#### **V. MITIGATIVE ACTIONS TO BE TAKEN DURING THE VARIANCE PERIOD**

During the period when the Station discharge temperatures go above the 93°F level as outlined in Special Condition 3C of the NPDES Permit. No. IL0002224, Dresden Station will do the following: (1) continuously monitor the intake and discharge temperatures and assess water temperatures at the edge of the mixing zone using the NPDES Permit temperature monitoring probe/field measurements; (2) on a daily basis, inspect the intake and discharge areas to assess any mortalities to aquatic life during daylight hours, and report the results of these monitoring activities to the Agency within 30 days of the expiration of the provisional variance (or such other time as agreed upon by the Agency); and (3) notify the Agency of any significant adverse environmental conditions observed that might be caused by operations authorized by the provisional variance, including mortalities to fish or other aquatic life, investigate the cause of such conditions, provide the Agency updates regarding the situation, including when normal conditions return, and submit a report to the Agency regarding these matters within 30 days of the expiration of the provisional variance period (or such other time as agreed upon by the Agency).

#### **VI. ADDITIONAL ENVIRONMENTAL MONITORING**

The thermal impact of the proposed variance with respect to the near-field aquatic community is expected to be minimal because the aquatic community is presently experiencing higher than normal ambient temperatures for this time of year with no apparent impact to date. The thermal load placed on the biological community will be minimal. Dresden Station does not plan to perform additional environmental monitoring due to the upstream ambient river temperatures contributing to Dresden Station exceeding the 90<sup>0</sup> F discharge temperature limit in July 2012.

## VII. SUMMARY

Exelon requests that a provisional variance be issued for Dresden Station allowing the Station to:

- (1) Increase its maximum temperature limit stated in Special Condition 3C of NPDES Permit No. IL0002224 from 93°F to no more than 95°F for the provisional variance duration period, and;
- (2) Increase the current excursion allotment stated in Special Condition 3C of the NPDES Permit by an additional 10 days from the time the original 259.2 excursion hours is exhausted.

Dresden requests that the provisional variance period begins when the maximum temperature exceeds 93°F or the Station's allotted 259.2 excursion hours expire and that the provisional variance period extend for a period of ten days once either of these conditions is met. Dresden Station anticipates that its original 259.2 excursion hours will be exhausted by mid-day on July 18, 2012.

It is Exelon's position that not granting this provisional variance would impose an arbitrary and unreasonable hardship due to unseasonably warmer Kankakee River Intake temperatures, challenge to base load power generation and electrical grid stability, and additional thermal impacts to plant equipment.

Should you require any further information in order to expedite the processing of this request or have any questions, please contact Morgan Davis of my staff at 815-416-3287.

Sincerely,



Shane Marik  
Dresden Station Plant Manager

CC: D. Leggett    Z. Karpa  
M. Davis        R. Novy  
J. Petro         R. Ruffin  
J. Gould         File  
S. Neal

Electronic Filing - Received, Clerk's Office, 07/18/2012  
\* \*Electronic Filing Received, Clerk's Office : 10/16/2015

B



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217) 782-2829  
James R. Thompson Center, 100 West Randolph, Suite 11-300, Chicago, IL 60601 • (312) 814-6026

PAT QUINN, GOVERNOR

DOUGLAS P. SCOTT, DIRECTOR

217/782-0610

November 3, 2011

Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, Illinois 60555-5701

Re: Exelon Generation Company, LLC  
Dresden Generating Station  
NPDES Permit No. IL0002224  
Final Permit

Gentlemen:

Attached is the final NPDES Permit for your discharge. The Permit as issued covers discharge limitations, monitoring, and reporting requirements. Failure to meet any portion of the Permit could result in civil and/or criminal penalties. The Illinois Environmental Protection Agency is ready and willing to assist you in interpreting any of the conditions of the Permit as they relate specifically to your discharge.

The Agency received your letter dated June 24, 2011 regarding the draft NPDES permit. Based on the information provided the following changes were made to the permit.

1. The suggested language for outfall 002 was used.
2. Unit 2 Auxiliary Boiler Area Oil/Water Separator, 138 KV Switchyard Oil/Water Separator, and 345 KV Switchyard Oil/Water Separator were added back to outfall 002 as contributory wastestreams.
3. The 0.05 mg/l Total Residual Chlorine (TRC) limit for outfalls 002, 003, and 004 will remain in the permit. Special Condition 4 for TRC will also remain in the permit. The facility can meet this limit by de-chlorination. The 0.05 mg/l limit was listed as a Best Available Technology (BAT) effluent limitation in the public notice factsheet but is also the detection limit for TRC. It is also used as an effluent limitation to show compliance with the water quality standard for TRC, which is actually lower than the 0.05 mg/l limit.
4. The suggested language for internal outfall D02 was used.
5. Internal outfall E02 was removed from the permit. The wastestream of Northwest Material Access Runoff will remain as a contributory flow to outfall 002 and the requirement for the Stormwater Pollution Prevention Plan for this wastestream included at outfall 002.

ILLINOIS DEPARTMENT OF RECORDS MANAGEMENT  
RELEASABLE

APR 09 2012

6. The load limit for daily maximum is based on the design maximum flow. The load limit for 30-day average is based on the design average flow. There will be no changes to the load limits for BOD and TSS at outfall 003.
7. The suggested language for outfall 004 was used.
8. Outfall 005 will remain in the permit. Intermittent discharge was added to this outfall.
9. Outfall 006 will remain in the permit.
10. The suggested language for special condition 3 was used.
11. The suggested language for special condition 10 was used.

The Agency also received a letter dated June 27, 2011 from USEPA regarding the draft NPDES permit. Based on the information provided the following changes were made to the final permit.

1. Additional language was added to special condition 18 requiring that for the next permit application for renewal, the facility must prepare and submit monitoring studies to support their original 316(a) demonstration, pursuant to 40 CFR 125.72(c).
2. Illinois Pollution Control Board Order 79-134 is applicable for the period June 15 through September 30. During the time period October 1 through June 14, a mixing zone is applicable.

Special Condition 3 was modified to ensure that the water quality standards were met outside of the mixing zone from October 1 through June 14 and the alternate effluent standard as per IPCB 79-134 was applicable from June 15 through September 30.

The Agency has begun a program allowing the submittal of electronic Discharge Monitoring Reports (eDMRs) instead of paper Discharge Monitoring Reports (DMRs). If you are interested in eDMRs, more information can be found on the Agency website, <http://epa.state.il.us/water/edmr/index.html>. If your facility is not registered in the eDMR program, a supply of preprinted paper DMR Forms for your facility will be sent to you prior to the initiation of DMR reporting under the reissued permit. Additional information and instructions will accompany the preprinted DMRs upon their arrival.

The attached Permit is effective as of the date indicated on the first page of the Permit. Until the effective date of any re-issued Permit, the limitations and conditions of the previously-issued Permit remain in full effect. You have the right to appeal any condition of the Permit to the Illinois Pollution Control Board within a 35 day period following the issuance date.



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

Sincerely,



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

SAK:LRL:11041402.bah

Attachment: Final Permit

cc: Records Unit  
Compliance Assurance Section  
Des Plaines Region  
Billing  
USEPA

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: November 30, 2016

Issue Date: November 3, 2011

Effective Date: December 1, 2011

Name and Address of Permittee:

Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, Illinois 60555-5701

Facility Name and Address:

Dresden Generating Station  
6500 North Dresden Road  
Morris, Illinois 60450  
(Grundy County)

Discharge Number and Name:

001 Unit 1 House Service Water  
A01 Unit 1 Intake Screen Backwash  
002 Cooling Pond Blowdown  
A02 Unit 2/3 Intake Screen Backwash  
B02 Wastewater Treatment System Effluent  
C02 Rad Waste Treatment System Effluent  
D02 Demineralizer Regenerate Waste and Filter Backwash  
003 Sewage Treatment Plant Effluent  
004 Cooling Pond Siphon Discharge  
005 South East Area Runoff  
006 North East Area Runoff

Receiving Waters:

Illinois River  
  
Illinois River  
  
Kankakee River  
Kankakee River  
Kankakee River  
Kankakee River

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

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



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

NPDES Permit No. IL0002224

Effluent Limitations and Monitoring

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

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/L		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
<u>Outfall 001</u> – Unit 1 House Service Water (Average Flow = 4.32 MGD)						
The discharge consists of:						
1. Unit 1 Fire Pump & Equipment Cooling Water						
2. Unit 1 Intake Screen Backwash (A01)						
3. Stormwater Runoff*						
Flow (MGD)	See Special Condition 1.				Daily**	Continuous
pH	See Special Condition 2.				1/Month**	Grab
Temperature	See Special Condition 3.				1/Month**	Grab
Total Residual Chlorine	See Special Condition 4.			0.05	1/Month**	Grab
Total Suspended Solids			15	30	1/Month**	Grab
Oil/Grease			15	20	1/Month**	Grab

\* - See Special Condition 10 and 12.

\*\* - When Discharging

Outfall A01 – Unit 1 Intake Screen Backwash\*  
(Intermittent Discharge)

\* - There shall be no discharge of collected debris.

Outfall 002 – Cooling Pond Blowdown  
(Average Flow = 472 MGD)

The discharge consists of:

1. Unit 2 & 3 Condenser Cooling Water
2. Demineralizer Regenerant Waste and Filter Backwash (D02)
3. Rad Waste Treatment System Effluent (C02)
4. Wastewater Treatment System Effluent (B02)
5. Units 2 & 3 Intake Screen Backwash (A02)
6. Northwest Material Access Runoff\*
7. Units 2 & 3 House Service Water
8. Unit 2 Auxiliary Boiler Area Oil/Water Separator\*
9. 138 KV Switchyard Oil/Water Separator\*
10. 345 KV Switchyard Oil/Water Separator\*

Flow (MGD)	See Special Condition 1.				Daily	Continuous
pH	See Special Condition 2.				1/Month	Grab
Temperature	See Special Condition 3.				Daily	Continuous
Total Residual Chlorine	See Special Condition 4 & 21.			0.05	1/Month	Grab

\* - See Special Condition 10.

NPDES Permit No. IL0002224

Effluent Limitations and Monitoring

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

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/L		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
<u>Outfall A02</u> – Unit 2/3 Intake Screen Backwash* (Intermittent Discharge)						

\* - There shall be no discharge of collected debris.

Outfall B02 – Wastewater Treatment System Effluent  
(DAF = 0.068 MGD)

The discharge consists of:

1. Unit 1 and 2/3 Oil/Water Separators
2. Building Floor Drains
3. Building Roof Drains
4. Stormwater Runoff\*

Flow (MGD)	See Special Condition 1.				Daily	Continuous 24-Hour Composite
Total Suspended Solids			15	30	1/Month	Grab
Oil/Grease			10	20	1/Month	Grab

\* - See Special Condition 9.

Outfall C02 – Rad Waste Treatment System Effluent  
(DAF = 0.073 MGD)

The discharge consists of:

1. Contaminated Equipment Drains
2. Contaminated Floor Drains
3. Chemistry Laboratory Drains
4. Decontamination System Drains
5. Condensate Polisher Sonic Cleaning Waste
6. Units 2 and 3 Auxiliary Boiler Blowdown

Flow (MGD)	See Special Condition 1.				1/Month	Continuous
Total Suspended Solids			15	30	1/Month	Grab
Oil/Grease			15	20	1/Month	Grab

Outfall D02 – Demineralizer Regenerate Waste and Filter Backwash  
(Average Flow = 0.0082 MGD)

Flow (MGD)	See Special Condition 1.				1/Month	Measure 8-Hour Composite
Total Suspended Solids			15	30	1/Month	

NPDES Permit No. IL0002224

Effluent Limitations and Monitoring

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

PARAMETER	LOAD LIMITS lbs/day		CONCENTRATION LIMITS mg/L		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
<u>Outfall 003</u> – Sewage Treatment Plant Effluent (DAF = 0.031 MGD)						
Flow (MGD)	See Special Condition 1.				1/Month	Continuous
pH	See Special Condition 2.				1/Month	Grab
BOD <sub>5</sub>	7.76	37.53	30	60	1/Month	24-Hour Composite
Total Suspended Solids	7.76	37.53	30	60	1/Month	24-Hour Composite
Fecal Coliform	See Special Condition 17.			400/100 ml	1/Month	Grab
Total Residual Chlorine	See Special Condition 4.			0.05	1/Day*	Grab

\* - When chlorinating.

Outfall 004 – Cooling Pond Siphon Discharge\*  
(Average Flow = 32.316 MGD)

Flow (MGD)	See Special Condition 1.				1/Day When Discharging	Measure
pH	See Special Condition 2.				1/Discharge Event	Grab
Temperature	See Special Condition 11.				1/Day When Discharging	Grab
Total Residual Chlorine	See Special Condition 4 & 21.			0.05	1/Discharge Event	Grab

\* - See Special Conditions 15 and 20.

Outfall 005 – South East Area Runoff\*  
(Intermittent Discharge)

\* - See Special Conditions 10 and 12.

Outfall 006 – North East Area Runoff\*  
(Intermittent Discharge)

\* - See Special Conditions 10 and 12.

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SPECIAL CONDITION 1. Flow shall be measured in units of Million Gallons per Day (MGD) and reported as a monthly average and a daily maximum on the Discharge Monitoring Report.

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

SPECIAL CONDITION 3. (For outfalls 001 and 002) This facility meets the criteria for establishment of a formal mixing zone for thermal discharges pursuant to 35 IAC 302.102. Water quality standards for temperature listed in the table below must be met at every point outside of the mixing zone from the dates October 1 through June 14.

	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>
'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

- A. The maximum temperature rise above natural temperatures shall not exceed 2.8° C (5° F).
- B. Water temperature at representative locations in the main river shall not exceed the maximum limits in the table above during more than one (1) percent of the hours in the 12-month period ending with any month. Moreover, at no time shall the water temperature at such locations exceed the maximum limits in the table above by more than 3° F (1.7° C). Main river temperatures are temperatures of those portions of the river essentially similar to and following the same thermal regime as the temperatures of the main flow of the river.
- C. The permittee may discharge cooling pond blowdown using an indirect open cycle cooling mode from June 15 through September 30 in accordance with the following limitation in lieu of 35 Ill. Adm. Code 302.211(d) and 302.211(e) as written above in 3A and 3B respectively. During the period June 15 through September 30, the temperature of the plant discharge shall not exceed 32.2° C (90° F) more than 10% of the time in the period and never will exceed 33.9° C (93° F).
- D. 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.
- E. The Dresden Station shall be operated closed cycle during the period October 1 through June 14. The station may be operated in accordance with the Unit 2/3 Variable Blowdown Plan (governed by the original July 6, 1977 Thermal Compliance Plan calculations) from June 1 through June 14, as deemed necessary by station management.
- F. Compliance with the thermal limitations shall be determined by maintaining a continuous temperature and flow record for cooling pond blowdown to the Illinois River. If the variable blowdown plan will be used from June 1 to June 15, data acquisition and records for the parameters necessary to implement the plan shall be maintained.
- G. Additional water temperature monitoring shall be continued as follows:
  - 1. A continuous water temperature record of water temperature at the Dresden Lock and Dam and the Dresden Station Intake shall be maintained during the period of June 15 through September 30.
  - 2. Water temperature recorded at these locations shall be tabulated and submitted to the Agency, Industrial Unit, Division of Water Pollution Control by December 31, of each year.
  - 3. Permittee's failure to submit the temperature monitoring data from these locations due to equipment malfunction shall not be deemed a permit violation provided the permittee employs reasonable efforts to repair the malfunction. If the malfunction lasts more than 24 hours, a manual measurement shall be made at least once per day.
- H. The station may bypass the cooling pond, that is operate open cycle, only during periods when both generating units have been taken out of service.
- I. The monthly maximum value measured at the Dresden Lock and Dam and the percentage of time the discharge exceeds the temperatures listed in the table above from October 1 through June 14 shall be reported on the DMR form.
- J. The monthly maximum value measured at the outfall and the percentage of time the discharge exceeds 32.2° C (90° F) from June 15 through September 30 shall be reported on the DMR form.

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**SPECIAL CONDITION 4.** 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.

**SPECIAL CONDITION 5.** 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 6.** 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 7.** This permit authorizes the use of water treatment additives that were requested as part of this renewal. 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 8.** 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 9.** The Agency has determined that the effluent limitations in this permit constitute BAT/BCT for storm water which is treated in the existing treatment facilities for purposes of this permit reissuance, and no pollution prevention plan will be required for such storm water. In addition to the chemical specific monitoring required elsewhere in this permit, the permittee shall conduct an annual inspection of the facility site to identify areas contributing to a storm water discharge associated with industrial activity, and determine whether any facility modifications have occurred which result in previously-treated storm water discharges no longer receiving treatment. If any such discharges are identified the permittee shall request a modification of this permit within 30 days after the inspection. Records of the annual inspection shall be retained by the permittee for the term of this permit and be made available to the Agency on request.

SPECIAL CONDITION 10

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.

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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;



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- 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 or 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.

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- 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.
  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.

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- 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. The permittee may claim portions of the plan as exempt from public disclosure as confidential business information or as otherwise required by law, including any portion of the plan related to facility security.
- 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 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

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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 11. (For outfall 004) This facility meets the allowed mixing criteria for thermal discharges pursuant to 35 IAC 302.102. No reasonable potential exists for the discharge to exceed thermal water quality standards. This determination is based on a temperature range of 60° F to 77° F and a flow of 50 cfs. The permittee shall monitor the flow and temperature of the discharge prior to entry into the receiving water body. Monitoring results shall be reported on the monthly Discharge Monitoring Report. This permit may be modified to include formal temperature limitations should the results of the monitoring show that there is reasonable potential to exceed a thermal water quality standard. Modification of this permit shall follow public notice and opportunity for comment.

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.

SPECIAL CONDITION 12. The North East Area Runoff discharges to the Unit 1 intake canal. When the Unit 1 service water system is in use, the discharge will be drawn into the intake and eventually discharged at outfall 001. During those times when the Unit 1 service water system is out of service, this discharge will remain in the intake canal and eventually flow into the Kankakee River through outfalls 005 and 006.

SPECIAL CONDITION 13. There shall be no discharge of polychlorinated biphenyl compounds.

SPECIAL CONDITION 14. The "Upset" defense provisions listed under 40 CFR 122.41(n) are hereby incorporated by reference.

SPECIAL CONDITION 15. The responsibility for outfall 004, Cooling Pond Discharge, will be transferred to the Will County Emergency Management Agency upon issuance of a separate NPDES permit for operation of the Dresden Station siphon Ice Melt system. Upon issuance of a permit to Will County EMA, Exelon Generation Company shall submit a request to terminate the monitoring and reporting requirements associated with outfall 004, in writing to the Agency.

SPECIAL CONDITION 16. 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 17. For outfall 003, the daily maximum Fecal Coliform count shall not exceed 400/100 ml. Fecal Coliform limits for Outfall 003 are effective May through October. Sampling of Fecal Coliform concentrations are only required during this time period.

SPECIAL CONDITION 18. Exelon Generation Company, LLC formerly known as Commonwealth Edison Company has complied with 35 Ill. Adm. Code 302.211(f) and Section 316(a) of the Clean Water Act in demonstrating that the thermal discharge from its Dresden Nuclear Power Station has not caused and cannot be reasonably expected to cause significant ecological damage to receiving waters as approved by the Illinois Pollution Control Board in PCB Order 73-359 dated January 17, 1974 and PCB Order 79-134 dated July 9, 1981. Pursuant to 35 Ill. Adm. Code 302.211(g), no additional monitoring or modification is now being required for reissuance of this NPDES Permit

Pursuant to 40 CFR 125.72(c), the permittee shall submit an updated 316(a) demonstration based on current facility operating conditions. This updated demonstration may include new studies or other information necessary to support the seasonal alternative effluent limitations granted under the original demonstration. This information shall be submitted with the next permit renewal application.

SPECIAL CONDITION 19. Pursuant to Section 316(b) of the Clean Water Act, a past determination for the Dresden Nuclear Power Station was not made. Data was submitted at that time by Exelon Generation Company, LLC formerly known as Commonwealth Edison Company pursuant to Section 316(b) of the CWA for the Dresden Nuclear Power Station. This data was reviewed by the Illinois Environmental Protection Agency and the review determination was: That where as additional intake monitoring is not being required at this time, further monitoring is not precluded if determined necessary at the time of any modification or reissuance of NPDES Permit No. IL0002224.

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 submitted should be in accordance with the previously submitted information collection proposal received by Agency on May 23, 2005.

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

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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.

SPECIAL CONDITION 20. The permittee shall minimize make-up water requirements to the cooling pond system during cooling pond water diversion to the Kankakee River in order to minimize fish impingement losses. This should be accomplished by eliminating to the extent feasible normal closed cycle blowdown flows of 50,000 gpm to the Illinois River except during a discharge from the Rad Waste Treatment System and/or other water conservation measures. Such measures and operations taken by the station to minimize make-up water requirements during diversion shall be documented and reported with monthly discharge monitoring reports.

A. Operating requirements:

1. The siphon will be operated for only two runs during the winter, each run lasting no more than 14 days.
2. Thermal monitoring at established transects and narrative observations will be recorded during operations in accordance with the siphon Operations Plan dated November, 1993 and a report of findings made available to this Agency in June of each year.
3. The maximum amount of heat that will be placed in the Kankakee River shall be <0.5 billion BTUs per hour.
4. A fish barrier net must be in place around the siphon inlet before the siphon is operated, and must remain intact throughout the run.

SPECIAL CONDITION 21. For a period of 2 years following the effective date of this Permit during times when the condenser cooling water is chlorinated intermittently, Total Residual Chlorine may not be discharged from each unit's main cooling condensers for more than 2 hours per day. The discharge limit during this period is 0.2 mg/l, measured as an instantaneous maximum.

A Total Residual Chlorine limit of 0.05 mg/l (Daily Maximum) for outfalls 002 and 004 shall become effective 2 years from the effective date of this Permit.

The Permittee shall construct a dechlorination system or some alternative means of compliance in accordance with the following schedule:

- |                           |                                   |
|---------------------------|-----------------------------------|
| 1. Status Report          | 6 months from the effective date  |
| 2. Commence Construction  | 12 months from the effective date |
| 3. Status Report          | 18 months from the effective date |
| 4. Complete Construction  | 22 months from the effective date |
| 5. Obtain Operation Level | 24 months from the effective date |

Compliance dates set out in this Permit may be superseded or supplemented by compliance dates in judicial orders, or Pollution Control Board orders. This Permit may be modified, with Public Notice, to include such revised compliance dates.

The Permittee shall operate the dechlorination system or an alternative means of compliance in a manner to ensure continuous compliance with the Total Residual Chlorine limit, not to the extent that will result in violations of other permitted effluent characteristic, or water quality standards.

REPORTING

The Permittee shall submit a report no later than fourteen (14) days following the completion dates indicated above for each numbered item in the compliance schedule, indicating, a) the date the item was completed, or b) that the item was not completed, the reason for non-completion, and the anticipated completion date.

## Standard Conditions

## Definitions

**Act** means the Illinois Environmental Protection Act, 415 ILCS 5 as amended.

**Agency** means the Illinois Environmental Protection Agency.

**Board** means the Illinois Pollution Control Board.

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

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

**Federal Act** means the United States Environmental Protection Agency.

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

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

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

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

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

**Composite Sample** means a sample of specified volume used to make up a composite sample.

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

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

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

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

- (1) **Duty to comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirements.
- (2) **Duty to reapply.** If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. If the permittee submits a proper application as required by the Agency no later than 180 days prior to the expiration date, this permit shall continue in full force and effect until the final Agency decision on the application has been made.
- (3) **Need to halt or reduce activity not a defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (4) **Duty to mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
- (5) **Proper operation and maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up, or auxiliary facilities, or similar systems only when necessary to achieve compliance with the conditions of the permit.
- (6) **Permit actions.** This permit may be modified, revoked and reissued, or terminated for cause by the Agency pursuant to 40 CFR 122.62 and 40 CFR 122.63. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- (7) **Property rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.
- (8) **Duty to provide information.** The permittee shall furnish to the Agency within a reasonable time, any information which the Agency may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also furnish to the Agency upon request, copies of records required to be kept by this permit.

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

- (a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- (d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance, or as otherwise authorized by the Act, any substances or parameters at any location.

**Monitoring and records.**

- (a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- (b) The permittee shall retain records of all monitoring information, including all calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of this permit, measurement, report or application. Records related to the permittee's sewage sludge use and disposal activities shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the Agency or USEPA at any time.
- c) Records of monitoring information shall include:
  - (1) The date, exact place, and time of sampling or measurements;
  - (2) The individual(s) who performed the sampling or measurements;
  - (3) The date(s) analyses were performed;
  - (4) The individual(s) who performed the analyses;
  - (5) The analytical techniques or methods used; and
  - (6) The results of such analyses.
- d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit. Where no test procedure under 40 CFR Part 136 has been approved, the permittee must submit to the Agency a test method for approval. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.

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

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

- (1) For a corporation: by a principal executive officer of at least the level of vice president or a person or position having overall responsibility for environmental matters for the corporation;
- (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
- (3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

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

- (1) The authorization is made in writing by a person described in paragraph (a); and
  - (2) The authorization specifies either an individual or a position responsible for the overall operation of the facility, from which the discharge originates, such as a plant manager, superintendent or person of equivalent responsibility; and
  - (3) The written authorization is submitted to the Agency.
- (c) **Changes of Authorization.** If an authorization under (b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of (b) must be submitted to the Agency prior to or together with any reports, information, or applications to be signed by an authorized representative.
- (d) **Certification.** Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(12) **Reporting requirements.**

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

Notice is required when:

- (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source pursuant to 40 CFR 122.29 (b); or
- (2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements pursuant to 40 CFR 122.42 (a)(1).

(3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

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

(c) **Transfers.** This permit is not transferable to any person except after notice to the Agency.

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

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

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

- (2) If the permittee monitors effluent discharges more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
- (3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Agency in the permit.
- f) **Twenty-four hour reporting.** The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24-hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and time; and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The following shall be included as information which must be reported within 24-hours:
- (1) Any unanticipated bypass which exceeds any effluent limitation in the permit.
  - (2) Any upset which exceeds any effluent limitation in the permit.
  - (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Agency in the permit or any pollutant which may endanger health or the environment.
- The Agency may waive the written report on a case-by-case basis if the oral report has been received within 24-hours.
- g) **Other noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs (12) (d), (e), or (f), at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (12) (f).
- h) **Other information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Agency, it shall promptly submit such facts or information.

#### **Bypass.**

##### (a) Definitions.

- (1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
  - (2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- (b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (13)(c) and (13)(d).
- (c) Notice.

- (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
- (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph (12)(f) (24-hour notice).

(1) Bypass is prohibited, and the Agency may take enforcement action against a permittee for bypass, unless:

- (i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- (ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
- (iii) The permittee submitted notices as required under paragraph (13)(c).

(2) The Agency may approve an anticipated bypass, after considering its adverse effects, if the Agency determines that it will meet the three conditions listed above in paragraph (13)(d)(1).

#### (14) Upset.

(a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (14)(c) are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
- (2) The permitted facility was at the time being properly operated; and
- (3) The permittee submitted notice of the upset as required in paragraph (12)(f)(2) (24-hour notice).
- (4) The permittee complied with any remedial measures required under paragraph (4).

(d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

#### (15) Transfer of permits. Permits may be transferred by modification or automatic transfer as described below:

(a) Transfers by modification. Except as provided in paragraph (b), a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued pursuant to 40 CFR 122.62 (b) (2), or a minor modification made pursuant to 40 CFR 122.63 (d), to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

(b) Automatic transfers. As an alternative to transfers under paragraph (a), any NPDES permit may be automatically transferred to a new permittee if:



- (1) The current permittee notifies the Agency at least 30 days in advance of the proposed transfer date;
- (2) The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage and liability between the existing and new permittees; and
- (3) The Agency does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement.

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

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant identified under Section 307 of the Clean Water Act which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
  - (1) One hundred micrograms per liter (100 ug/l);
  - (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6 dinitrophenol; and one milligram per liter (1 mg/l) for antimony.
  - (3) Five (5) times the maximum concentration value reported for that pollutant in the NPDES permit application; or
  - (4) The level established by the Agency in this permit.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the NPDES permit application.

All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Agency of the following:

- (a) Any new introduction of pollutants into that POTW from an indirect discharge which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and
- (b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
- (c) For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

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

- (a) User charges pursuant to Section 204 (b) of the Clean Water Act, and applicable regulations appearing in 40 CFR 35;
- (b) Toxic pollutant effluent standards and pretreatment standards pursuant to Section 307 of the Clean Water Act; and
- (c) Inspection, monitoring and entry pursuant to Section 308 of the Clean Water Act.

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

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

- (21) The permittee shall not make any false statement, representation or certification in any application, record, report, plan or other document submitted to the Agency or the USEPA, or required to be maintained under this permit.
- (22) The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed \$25,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 308, 307, 308, 318 or 405 of the Clean Water Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both. Additional penalties for violating these sections of the Clean Water Act are identified in 40 CFR 122.41 (a)(2) and (3).
- (23) The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both.
- (24) The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.
- (25) Collected screening, sludges, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those wastes (or runoff from the wastes) into waters of the State. The proper authorization for such disposal shall be obtained from the Agency and is incorporated as part hereof by reference.
- (26) In case of conflict between these standard conditions and any other condition(s) included in this permit, the other condition(s) shall govern.
- (27) The permittee shall comply with, in addition to the requirements of the permit, all applicable provisions of 35 Ill. Adm. Code, Subtitle C, Subtitle D, Subtitle E, and all applicable orders of the Board or any court with jurisdiction.
- (28) The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit is held invalid, the remaining provisions of this permit shall continue in full force and effect.

(Rev. 7-9-2010 bah)

Electronic Filing - Received, Clerk's Office, 07/18/2012  
\* \* Electronic Filing Received, Clerk's Office : 10/16/2015

C

**Kruse, Chad**

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**From:** Ronald.Novy@exeloncorp.com  
**Sent:** Tuesday, July 17, 2012 3:28 PM  
**To:** Kruse, Chad; Callaway, Roger  
**Subject:** RE: Provisional Variance Request for Dresden Station July 17, 2012

I have verified with several staff and we did not experience any environmental effects during the current PV.

Sorry for the delay,  
Ron

---

**From:** Kruse, Chad [mailto:Chad.Kruse@Illinois.gov]  
**Sent:** Tuesday, July 17, 2012 3:19 PM  
**To:** Novy, Ronald H.:(GenCo-Nuc); Callaway, Roger  
**Subject:** RE: Provisional Variance Request for Dresden Station July 17, 2012

When can we expect your verification?

**Chad M. Kruse** - Illinois EPA Assistant Counsel, Division of Legal Counsel, Bureau of Water

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If you are not the intended recipient, please be advised that you have received this e-mail in error and that the use, dissemination, forwarding, printing or copying of this e-mail is strictly prohibited.

If you have received this e-mail in error, please notify:

Chad M. Kruse, Assistant Counsel, Illinois Environmental Protection Agency

Telephone: 217-782-5544; E-mail address: [Chad.Kruse@illinois.gov](mailto:Chad.Kruse@illinois.gov)

 **Please consider the environment before printing this e-mail**

**From:** Ronald.Novy@exeloncorp.com [mailto:Ronald.Novy@exeloncorp.com]  
**Sent:** Tuesday, July 17, 2012 3:04 PM  
**To:** Kruse, Chad; Callaway, Roger  
**Cc:** Morgan.Davis@exeloncorp.com; john.petro@exeloncorp.com  
**Subject:** RE: Provisional Variance Request for Dresden Station July 17, 2012

Chad,

I'm verifying this information now.

---

**From:** Kruse, Chad [mailto:Chad.Kruse@Illinois.gov]  
**Sent:** Tuesday, July 17, 2012 2:57 PM  
**To:** Novy, Ronald H.:(GenCo-Nuc); Callaway, Roger  
**Cc:** Davis, Morgan:(GenCo-Nuc); Petro, John R.:(GenCo-Nuc)  
**Subject:** RE: Provisional Variance Request for Dresden Station July 17, 2012

Mr. Novy,

Could Exelon Dresden please confirm that there were no environmental effects during the previous Provisional Variance period this month? If so, we are just about good to go.

This information was provided in the Quad Cities situation. Please see the top of Page 6 of that PV if it is unclear what we are seeking.

Sincerely,

**Chad M. Kruse** - Illinois EPA Assistant Counsel, Division of Legal Counsel, Bureau of Water

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Telephone: 217-782-5544; E-mail address: [Chad.Kruse@illinois.gov](mailto:Chad.Kruse@illinois.gov)

 ***Please consider the environment before printing this e-mail***

**From:** Ronald.Novy@exeloncorp.com [mailto:Ronald.Novy@exeloncorp.com]  
**Sent:** Tuesday, July 17, 2012 1:49 PM  
**To:** Callaway, Roger  
**Cc:** Kruse, Chad; Morgan.Davis@exeloncorp.com; john.petro@exeloncorp.com; dennis.leggett@exeloncorp.com; Jennifer.Gould@exeloncorp.com; sharon.neal@exeloncorp.com  
**Subject:** RE: Provisional Variance Request for Dresden Station July 17, 2012

Roger,

As per our conversation, Dresden would like to ask that the total number of days that we would like the provisional variance to be in effect would be 14 days in place of the 10 days as requested. We would also ask that the PV be in effect starting today 7/17/12 as our temps are close to 93F as we speak.

Thank you for your diligent efforts on this issue.

Thank you,

*Ronald Novy*

Sr. Environmental Chemist, Dresden Station

815 416-3211

815 767-8048 pager

 Exelon Generation

**From:** Callaway, Roger [mailto:Roger.Callaway@Illinois.gov]  
**Sent:** Tuesday, July 17, 2012 1:18 PM  
**To:** Novy, Ronald H.:(GenCo-Nuc)  
**Subject:** RE: Provisional Variance Request for Dresden Station July 17, 2012

Can you give me a call—have a small request that you will like. . 217-782-9852

**From:** Ronald.Novy@exeloncorp.com [mailto:Ronald.Novy@exeloncorp.com]  
**Sent:** Tuesday, July 17, 2012 12:22 PM  
**To:** Callaway, Roger  
**Cc:** Morgan.Davis@exeloncorp.com; dennis.leggett@exeloncorp.com; john.petro@exeloncorp.com; Jennifer.Gould@exeloncorp.com; sharon.neal@exeloncorp.com; Kruse, Chad  
**Subject:** Provisional Variance Request for Dresden Station July 17, 2012  
**Importance:** High

Mr. Callaway,

Attached please find a request for a provisional variance to the NPDES Permit for the Dresden Station in Morris, IL. For your convenience, I have included a PDF and Word format of the request. As you are aware we are attempting to expedite this application and we at Dresden Station appreciate your attention to this request. If there is any way we can further assist you is this issue, please do not hesitate to contact myself or Morgan Davis (815-416-3287) directly.

Thank you,

*Ronald Novy*

Sr. Environmental Chemist, Dresden Station  
815 416-3211  
815 767-8048 pager



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D

**Kruse, Chad**

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**To:** Callaway, Roger  
**Cc:** Kruse, Chad; Morgan.Davis@exeloncorp.com; john.petro@exeloncorp.com; dennis.leggett@exeloncorp.com; Jennifer.Gould@exeloncorp.com; sharon.neal@exeloncorp.com  
**Subject:** RE: Provisional Variance Request for Dresden Station July 17, 2012  
**Attachments:** image001.jpg

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Thank you,

*Ronald Novy*

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 Exelon Generation

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**To:** Novy, Ronald H.:(GenCo-Nuc)  
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**Sent:** Tuesday, July 17, 2012 12:22 PM  
**To:** Callaway, Roger  
**Cc:** [Morgan.Davis@exeloncorp.com](mailto:Morgan.Davis@exeloncorp.com); [dennis.leggett@exeloncorp.com](mailto:dennis.leggett@exeloncorp.com); [john.petro@exeloncorp.com](mailto:john.petro@exeloncorp.com); [Jennifer.Gould@exeloncorp.com](mailto:Jennifer.Gould@exeloncorp.com); [sharon.neal@exeloncorp.com](mailto:sharon.neal@exeloncorp.com); Kruse, Chad  
**Subject:** Provisional Variance Request for Dresden Station July 17, 2012  
**Importance:** High

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Thank you,

*Ronald Novy*

Sr. Environmental Chemist, Dresden Station

815 416-3211  
815 767-8048 pager



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*Exelon Generation LLC's Responses  
to the Board's Questions*

**ATTACHMENT 7**

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

August 3, 2012

Exelon Generation Company, LLC	)	
Dresden Nuclear Generation Station	)	
	)	
Petitioner,	)	
	)	
v.	)	IEPA – 12-25
	)	(Provisional Variance-Water)
ILLINOIS ENVIRONMENTAL	)	
PROTECTION AGENCY,	)	
	)	
Respondent.	)	

Re: Provisional Variance From Special Condition 3C of NPDES Permit IL0002224

Dear Mr. Marik:

The Illinois Environmental Protection Agency (Illinois EPA) has completed its technical review of the attached provisional variance request, dated August 2, 2012, submitted by Exelon Generation Company, LLC for its Dresden Nuclear Generation Station (“Exelon Dresden”). (Exhibit A) Exelon Dresden has requested a provisional variance because of the continuing unseasonable high temperatures, elevated intake source water temperatures, very low flows in the Kankakee and Des Plaines Rivers, and lack of local precipitation. These factors present an undue hardship for Exelon Dresden to meet the effluent thermal limits of 90° F contained in Special Condition 3C of NPDES Permit IL0002224. (Exhibit B)

Based on its review, the Illinois EPA GRANTS Exelon Dresden a provisional variance from the thermal limits in Special Condition 3C of NPDES Permit IL0002224, subject to the specific conditions set forth below.

*Background*

Exelon Dresden is a nuclear-fueled steam electric generating facility located at the confluence of the Des Plaines and Kankakee Rivers near Morris, Illinois, at River Mile 272.3. The two boiling water reactors have a maximum generating capacity of 1892 megawatts electric. Circulating water used to cool and condense the steam from the generating process is discharged to a 1275 acre cooling pond.

NPDES Permit IL0002224 authorizes Exelon Dresden to operate in indirect open cycle mode from June 15th to September 30th of each year (about 3 1/2 months). In the indirect open cycle mode, approximately 1,000,000 gpm of cooling water is drawn into Exelon Dresden's cribhouse intake structure from the Kankakee River via the intake canal. This

cooling water passes through Exelon Dresden's heat exchangers and discharges to the hot canal that routes the water approximately two miles to the lift station. The lift station transfers the cooling water approximately 20 feet from the hot canal to the above ground cooling pond. The cooling water is routed around the cooling pond and over the spillway into the cold canal. The cold canal routes the cooling water approximately two miles back to the station. The flow regulating gates divert all the cooling water flow (approximately 1,000,000 gpm) to the Illinois River via Outfall 002.

According to Dresden, "[t]he Kankakee River is currently experiencing a very low flow of 652 cfs on August 2, 2012 which is only 29% of the average 2,220 cfs flow rate. The Des Plaines River flow, which is the contributing water source to the Illinois River where the Station discharges, was 1,860 cfs on August 2, 2012, which is only 40% of the 4560 cfs average flow rate." Additionally, the rivers are not cooling off during the evening hours.

The Station has also experienced high ambient temperatures, sometimes above 95° F, with high wet bulb temperatures, and limited precipitation from the period of June 28, 2012 through the present. Weather forecasts predict hot weather and limited precipitation conditions will continue. Lack of precipitation and high wet bulb temperatures have affected the cooling capabilities of the cooling towers and the cooling pond.

The high demand for electricity complicates Exelon Dresden's ability to maintain thermal discharge compliance. However, according to Exelon Dresden, at no time has the difference between ambient river temperature and the temperature at the edge of the mixing zone exceeded 5° F nor did the discharge ever exceed 95° F.

Exelon Dresden is currently operating all available cooling towers to support additional cooling of the Station's surface water discharge. The Station is also manually controlling the spillway gates to slow the movement of water in the cooling pond in an attempt to further decrease the discharge temperature by increasing the hold time of the water in the cooling pond.

*Relief Requested*

Exelon Dresden requests a provisional variance from Special Condition 3C in NPDES Permit IL0002224, which provides:

The permittee may discharge cooling pond blowdown using an indirect open cycle cooling mode from June 15 through September 30 in accordance with the following limitation in lieu of 35 Ill. Adm. Code 302.211(d) and 302.211(e) as written above in Special condition 3A and 3B respectively. During the period June 15 through September 30, the temperature of the plant discharge shall not exceed 32.2° C (90° F) more than 10% of the time in the period and never will exceed 33.9° C (93° F).

Specifically, Exelon requests, "that a provisional variance be issued for Dresden Station allowing the Station to: Increase the current excursion hour allotment stated in Special Condition 3C of the NPDES Permit by an additional 14 days starting August 3, 2012 through August 17, 2012."

Dresden Station has received three provisional variances this year for a total of 38 provisional variance days leaving 52 days remaining of the 90 day allowable limit under the Illinois Pollution Control Board regulations. Beginning July 17, 2012, Dresden had exhausted all excursion hours provided in NPDES Permit IL0002224.

Illinois EPA notes that relief from the 93° F maximum temperature for Exelon Dresden's discharge is absent from the August 2 request.

#### *Illinois EPA Determinations*

The Illinois EPA has reviewed the requested provisional variance and has concluded the following:

1. Any environmental impact from the requested relief shall be closely monitored, and the Illinois EPA shall be immediately notified of any adverse impacts.
2. No reasonable alternatives appear available;
3. No public water supplies should be affected;
4. The Illinois EPA is not authorized to grant additional excursion hours;
5. No federal regulations will preclude the granting of this request; and
6. Exelon Dresden will face an arbitrary and unreasonable hardship if the request is not granted.

#### *Conditions*

The Illinois EPA hereby GRANTS Exelon Dresden a provisional variance from the thermal limits indicated in Special Condition 3C of NPDES Permit IL0002224, subject to the following conditions:

- A. The term of this provisional variance begins when the temperature of the plant discharge exceeds 90° F, but not before August 3, 2012. Beginning August 3, 2012, and through August 16, 2012, any exceedance of 90° F for any length of time during a 24-hour period, 12:00 a.m. to 11:59 p.m. constitutes one day of variance relief. When no exceedance occurs during a 24-hour period, 12:00 a.m. to 11:59 p.m., that 24-hour period shall not be deducted from the remaining available time of variance relief for Exelon Dresden pursuant to Section 36(c) of the Illinois Environmental Protection Act, 415 ILCS 5/36(c)(2010) and 35 Il.

Adm. Code 104.308. Exelon Dresden must record the time and date when each exceedance begins and ends.

- B. During the term of this provisional variance, Exelon Dresden must record: a) temperature of the water in the Kankakee River at Exelon Dresden's intake; b) temperature of the plant discharge; c) stream flow at both the Kankakee and Des Plaines rivers; d) air temperature and weather conditions in the general area of the facility; and e) any PJM alerts issued during the term of this provisional variance. These five items must be recorded at least twice per day, once at approximately 9:00 a.m., and again at approximately 5:00 p.m.
- C. Exelon Dresden must continuously monitor discharge and receiving water temperatures and visually inspect all discharge areas at least four times per day during daylight hours to assess any mortalities to fish and other aquatic life. This monitoring shall occur during the period of the provisional variance and shall continue for a minimum of four days after the provisional variance expires.
- D. At the conclusion of the term of this provisional variance and as a part of its application for any future regulatory relief, Exelon Dresden must submit to the Illinois EPA the number of excursion hours exhausted, pursuant to paragraph A above.
- E. Exelon Dresden shall document environmental conditions during the term of the provisional variance, including the activities described in paragraphs B and C of this Section, and submit the documentation to the Illinois EPA and the Illinois Department of Natural Resources ("Illinois DNR") within seven (7) days after this provisional variance expires. Documentation must be submitted to Illinois EPA using the address indicated in paragraph H, below.
- F. Exelon Dresden shall immediately notify the Illinois EPA and Illinois DNR of any unusual conditions, including mortalities of fish or other aquatic life, immediately take action to remedy the problem, investigate and document the cause and seriousness of the unusual conditions while providing updates to the Illinois EPA and Illinois DNR as changes occur until normal conditions return; notify the Illinois EPA and Illinois DNR when normal conditions return and submit the documentation to the Illinois EPA and Illinois DNR within seven (7) days after normal conditions return.
- G. Exelon Dresden shall develop and implement a response and recovery plan to address any adverse environmental impact due to thermal conditions that could result from the provisional variance, including loss and damage to aquatic life.
- H. Exelon Dresden shall notify Roger Callaway, Illinois EPA, by telephone at 217-782-9720 when the period of this provisional variance begins, pursuant to paragraph A, above. Written confirmation shall be sent within five days after the discharge specified in this provisional variance ends to the following address:

Illinois Environmental Protection Agency  
Bureau of Water - Water Pollution Control  
Attention: Roger Callaway  
1021 North Grand Avenue East, CAS #19  
Springfield IL 62794-9276

- I. Exelon Dresden shall sign a certificate of acceptance of this provisional variance and forward that certificate to Roger Callaway at the address indicated above within one day of the date of this provisional variance.

The certification should take the following form:

*I (We) \_\_\_\_\_, hereby accept and agree to be bound by all terms and conditions of the provisional variance granted by the Illinois EPA in \_\_\_\_\_ dated \_\_\_\_\_.*

\_\_\_\_\_  
*Petitioner*

\_\_\_\_\_  
*Authorized Agent*

\_\_\_\_\_  
*Title*

\_\_\_\_\_  
*Date*

- J. Exelon Dresden shall continue to monitor all parameters and comply with all other conditions specified in NPDES Permit IL0002224.

Sincerely,

  
Julie Armitage  
Acting Chief Legal Counsel

cc: Marcia Willhite  
Roger Callaway  
Chad Kruse

A



Exelon Generation Company, LLC  
Dresden Nuclear Power Station  
6500 North Dresden Road  
Morris, IL 60450-9765

www.exeloncorp.com

August 2, 2012

Mr. Roger Callaway (CAS-19)  
Wastewater Compliance Unit Manager  
Illinois Environmental Protection Agency  
Bureau of Water  
Compliance Assurance Section #19  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, Illinois 62794-9274

Subject: Dresden Nuclear Generation Station  
NPDES Permit No. IL0002224  
Request for Provisional Variance  
PMLTR 12-0052

Dear Mr. Callaway:

Exelon Generation Company, L.L.C. ("Exelon") hereby requests that the Illinois Environmental Protection Agency ("IEPA" or "Agency") grant a provisional variance for Dresden Nuclear Power Station ("Dresden", "Station", or "Facility"), pursuant to Section 35(b) of the Environmental Protection Act ("Act") 415 ILCS 5/35. Exelon submits this Application for a provisional variance consistent with the IEPA procedures at 35 Illinois Administrative Code 104.300. The Station discharges wastewater pursuant to NPDES Permit No. IL0002224, which IEPA issued on November 3, 2011, and which expires on November 30, 2016.

Exelon requests that a provisional variance be issued for Dresden Station allowing the Station to accrue additional excursion hours beyond the allotted 259.2 hours, as stated in Special Condition 3C.

Dresden Station has operated all available cooling towers during this unseasonably warm summer period and continues to manage the cooling pond in an effort to preserve maintain thermal discharges below 90 °F. However, as of July 17, 2012, Dresden Station has exhausted all of its excursion hours and was operating under Provisional Variances 12-22 and 12-23. The most recent provisional variance (12-23)

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has since expired at the end of the day August 1, 2012 leaving no excursion hours available.

This provisional variance request is necessary due to the challenges encountered as a result of the continuing unseasonable high temperatures, elevated intake source water temperatures, very low flows in the Kankakee and Des Plaines Rivers, and lack of local precipitation.

## **BACKGROUND**

Dresden is a nuclear-fueled steam electric generating facility located at the confluence of the Des Plaines and Kankakee Rivers near Morris, Illinois, at River Mile 272.3. The Station operates two boiling water reactors, which have a maximum generating capacity of 1,892 megawatts electric. Circulating water, used to cool and condense the steam from the generating process, is discharged to a 1,275 acre cooling pond.

Dresden Station's generation output is used as baseload generation and is transmitted to the PJM Interconnection Grid. PJM Interconnection is a regional transmission organization, which coordinates the movement of wholesale electricity in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia. PJM has issued a hot weather alert and has recommended that regional electrical sources continue to provide electricity due to the large demand on the electrical grid.

The Station normally operates in an In-Direct Open Cycle configuration from June 15<sup>th</sup> through September 30<sup>th</sup> of each year (about 3-1/2 months). In this mode, the Station draws cooling water from the Kankakee River via the Intake Canal into the plant systems. The water is then released from the Station, passing once through the Cooling Pond, and is then discharged to the Illinois River via Outfall 002. The maximum design flow during In-Direct Open Cycle operation is 1,548 MGD. This operational scheme, as well as the related alternate thermal standards, was approved by the Illinois Pollution Control Board on July 9, 1981 (IPCB #79-134).

The available temperature data shows that the Kankakee River water temperature at the Dresden Station's intake have been in the upper 80's to low 90's during the early 2012 summer season. Consequently, continued hot temperatures are historically still ahead leaving Dresden Station without an available excursion hours. The Dresden Station has also experienced continued high ambient temperatures, above 90°F, with high wet bulb temperatures, and below normal precipitation the past several months. Weather forecasts suggest that hot weather and limited precipitation conditions will continue through at least the end of this week. Lack of precipitation and high wet bulb temperatures have affected the cooling capabilities of the cooling towers and the cooling pond.



The Kankakee River is currently experiencing a very low flow of 652 cfs on August 2, 2012, which is only 29% of the average 2,220 cfs flow rate. The Des Plaines River flow, which is the contributing water source to the Illinois River where the Station discharges, was 1,860 cfs for on August 2, 2012, which is only 40% of the 4560 cfs average flow rate. As a consequence of the unusually warm weather, high ambient river temperatures, and the absence of cooling during the evening hours, the capacity of the Illinois River and the Station's cooling pond to dissipate heat has been drastically reduced beyond its normal capabilities. Additionally, the river is not cooling off during the evening hours as is typical this time of year. Without nighttime cooling, the river retains the heat introduced to it during the daytime hours, both upstream and downstream of the Station.

Dresden Station previously received three provisional variances this year as outlined for a total of 38 provisional variance days leaving 52 days remaining of the 90 day allowable limit under the Illinois Pollution Control Board Rules and Regulations (IPCB). We would also like to note that at no time has the difference between ambient river temperature and the temperature at the edge of the mixing zone exceeded 5 degree F nor did the discharge ever exceed 95 degrees F.

#### **I. RELIEF REQUESTED**

Exelon requests that a provisional variance be issued for Dresden Station allowing the Station to:

Increase the current excursion hour allotment stated in Special Condition 3C of the NPDES Permit by an additional 14 days starting August 3, 2012 through August 17, 2012.

#### **II. NECESSITY FOR REQUEST**

When the ambient river temperatures approach or exceed the non-excursion hour limits, the Station has no option other than to use excursion hours, and once its allotment of excursion hours is depleted, the Station must significantly derate or cease operating altogether to maintain compliance with the NPDES Permit.

As a rule, Dresden Station has been able to operate well within its permitted thermal limits due to the fact that the ambient temperatures of the River (measured upstream of the discharge) generally remain below the non-excursion hour limit. It is only during periods when the ambient river temperatures are very close to or exceed the non-excursion limits or during periods of extreme low flows that the Station is forced to use a significant number of its excursion hour allowance.

Dresden is currently operating all available cooling towers to support additional cooling of the Station's surface water discharge. The Station is also manually

controlling the spillway gates to slow the movement of water in the cooling pond in an attempt to further decrease the discharge temperature by increasing the hold time of the water in the cooling pond.

In addition to operating the available cooling towers at full capacity and minimizing flow from the cooling pond, the Dresden Station has managed its operations to reduce the discharge temperatures to the lowest extent practical. However, temperatures are forecasted for the mid 90's and will challenge the Stations ability to meet cooling abilities. In addition, the very low flows in the Kankakee and Des Plaines Rivers as a result of the ongoing drought that is impacting the region makes thermal mixing more difficult. Furthermore, the high ambient temperatures of the Station's source water (Kankakee River) increases these cooling challenges. All of these conditions coupled together make thermal transfer very difficult even with all of the Station's cooling efforts in place.

Reduced blowdown from Outfall 002 will alter cooling pond water chemistry and will result in negative impacts on plant equipment. Lack of blowdown and cooling pond make up will increase temperatures, increase pH, concentrate impurities, and create an environment where algae thrive in our cooling pond. Increased temperatures and the presence of algae, causes an algae bloom and increases pH and total alkalinity in the cooling pond and plant cooling systems. These conditions promote scaling of plant equipment, particularly in the main steam condensers and safety related heat exchangers. Scaling ultimately could result in the replacement of approximately 120,000 condenser tubes and safety related heat exchangers, with corresponding extended plant shut downs for both units to perform these repairs. Lack of blowdown and cooling water from the river during the summer months will also limit the capability of plant cool down and challenge plant cooling systems.

Due to these risks, there are technical specifications that Dresden Station must meet pursuant to its operating license issued by the Nuclear Regulatory Commission. If pH values and cooling water environment is not maintained within proper specifications, the plant is required to shut down until cooling water parameters return to specified ranges.

Unless relief is granted by way of this provisional variance request, it is likely that the Station will be forced to significantly derate or ultimately shut down for correspondingly significant durations. Shutting down or significantly derating a base-loaded nuclear power plant such as Dresden could jeopardize the stability of the electrical grid (and availability/reliability of electricity in the region), particularly if other plants are required to shut down or derate due to the unusual weather conditions being experienced. With both units offline and not immediately able to return to service, Dresden Station would not be available to support the voltage requirements that could occur under changing grid conditions.

### **III. ASSESSMENT OF ADVERSE ENVIRONMENTAL IMPACTS**

The thermal impact of the proposed variance with respect to the near-field aquatic community is expected to be minimal. The aquatic community is already experiencing much higher than normal ambient temperatures, with no apparent impact to date. Because Dresden Station is not proposing to increase cooling water flows there will be no increase in impingement or entrainment as a result of the issuance of the requested Provisional Variance. Additionally, because the ambient river temperature increase has been gradual, resident fish species have either acclimated to the higher temperature or have found thermal refuge. Therefore, resident fish species will not be subject to any heat shock as a result of increasing the allotment of excursion hours for Dresden Station.

The Station normally discharges a blowdown flow of warmer cooling pond water to the Illinois River during the In-Direct Open Cycle operating mode. Thus, fish inhabiting the discharge canal will be acclimated to temperatures above ambient river temperature and should be sufficiently reactive to avoid areas that are out of their desired temperature range.

Despite Dresden's significant discharge volume, the thermal plume has been characterized as buoyant in all previous studies submitted to the IEPA. Therefore, benthic organisms are not likely to be adversely affected by the short-term relief requested. The overall impact of the Station's thermal plume on the Illinois River is expected to be minimal.

The Illinois River (Segment D-10) and Kankakee River (Segment F-01) are impaired due to mercury and polychlorinated biphenyls levels. The issuance of the required provisional variance is not expected to influence those parameters.

### **IV. ALTERNATIVES TO REQUESTED RELIEF**

Exelon considered various alternatives to seeking regulatory relief related to the thermal variance currently requested. Exelon is currently operating in In-Direct Open Cycle per the terms of the NPDES permit. Due to the elevated river temperatures, Dresden Station is operating all available cooling towers.

Exelon has also considered shutting down or significantly derating. Derating a base-loaded nuclear power plant such as Dresden, could jeopardize the stability of the electrical grid (and availability/reliability of electricity in the region), particularly if other plants are required to shut down or derate due to the unusual weather conditions being experienced.

**V. MITIGATIVE ACTIONS TO BE TAKEN DURING THE VARIANCE PERIOD**

During the period when the Station discharge temperatures go above the 93°F level as outlined in Special Condition 3C of the NPDES Permit. No. IL0002224, Dresden Station will do the following: (1) continuously monitor the intake and discharge temperatures and assess water temperatures at the edge of the mixing zone using the NPDES Permit temperature monitoring probe/field measurements; (2) on a daily basis, inspect the intake and discharge areas to assess any mortalities to aquatic life during daylight hours, and report the results of these monitoring activities to the Agency within 30 days of the expiration of the provisional variance (or such other time as agreed upon by the Agency); and (3) notify the Agency of any significant adverse environmental conditions observed that might be caused by operations authorized by the provisional variance, including mortalities to fish or other aquatic life, investigate the cause of such conditions, provide the Agency updates regarding the situation, including when normal conditions return, and submit a report to the Agency regarding these matters within 30 days of the expiration of the provisional variance period (or such other time as agreed upon by the Agency).

**VI. ADDITIONAL ENVIRONMENTAL MONITORING**

The thermal impact of the proposed variance with respect to the near-field aquatic community is expected to be minimal because the aquatic community is presently experiencing higher than normal ambient temperatures for this time of year with no apparent impact to date. The thermal load placed on the biological community will be minimal. Dresden Station does not plan to perform additional environmental monitoring due to the upstream ambient river temperatures contributing to Dresden Station exceeding the 90<sup>0</sup> F discharge temperature limit in July 2012.

**VII. SUMMARY**


Exelon requests that a provisional variance be issued for Dresden Station allowing the Station to:

Increase the current excursion hour allotment stated in Special Condition 3C of the NPDES Permit by an additional 14 days starting August 3, 2012 through August 17, 2012.

It is Exelon's position that not granting this provisional variance would impose an arbitrary and unreasonable hardship due to unseasonably warmer Kankakee River Intake temperatures, challenge to base load power generation and electrical grid stability, and additional thermal impacts to plant equipment.

Should you require any further information in order to expedite the processing of this request or have any questions, please contact Morgan Davis of my staff at 815-416-3287.

Sincerely,

  
\_\_\_\_\_  
Shane Marik  
Dresden Station Plant Manager

CC: D. Leggett    Z. Karpa  
M. Davis        R. Novy  
J. Petro         R. Ruffin  
J. Gould         File  
S. Neal

Electronic Filing - Received, Clerk's Office, 08/3/2012  
\* Electronic Filing - Received, Clerk's Office : 10/16/2015

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# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217) 782-2829  
James R. Thompson Center, 100 West Randolph, Suite 11-300, Chicago, IL 60601 • (312) 814-6026

PAT QUINN, GOVERNOR

DOUGLAS P. SCOTT, DIRECTOR

217/782-0610

November 3, 2011

Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, Illinois 60555-5701

Re: Exelon Generation Company, LLC  
Dresden Generating Station  
NPDES Permit No. IL0002224  
Final Permit

Gentlemen:

Attached is the final NPDES Permit for your discharge. The Permit as issued covers discharge limitations, monitoring, and reporting requirements. Failure to meet any portion of the Permit could result in civil and/or criminal penalties. The Illinois Environmental Protection Agency is ready and willing to assist you in interpreting any of the conditions of the Permit as they relate specifically to your discharge.

The Agency received your letter dated June 24, 2011 regarding the draft NPDES permit. Based on the information provided the following changes were made to the permit.

1. The suggested language for outfall 002 was used.
2. Unit 2 Auxiliary Boiler Area Oil/Water Separator, 138 KV Switchyard Oil/Water Separator, and 345 KV Switchyard Oil/Water Separator were added back to outfall 002 as contributory wastestreams.
3. The 0.05 mg/l Total Residual Chlorine (TRC) limit for outfalls 002, 003, and 004 will remain in the permit. Special Condition 4 for TRC will also remain in the permit. The facility can meet this limit by de-chlorination. The 0.05 mg/l limit was listed as a Best Available Technology (BAT) effluent limitation in the public notice factsheet but is also the detection limit for TRC. It is also used as an effluent limitation to show compliance with the water quality standard for TRC, which is actually lower than the 0.05 mg/l limit.
4. The suggested language for internal outfall D02 was used.
5. Internal outfall E02 was removed from the permit. The wastestream of Northwest Material Access Runoff will remain as a contributory flow to outfall 002 and the requirement for the Stormwater Pollution Prevention Plan for this wastestream was included at outfall 002.

ILLINOIS DEPARTMENT OF RECORDS MANAGEMENT  
RELEASABLE

APR 09 2012

6. The load limit for daily maximum is based on the design maximum flow. The load limit for 30-day average is based on the design average flow. There will be no changes to the load limits for BOD and TSS at outfall 003.
7. The suggested language for outfall 004 was used.
8. Outfall 005 will remain in the permit. Intermittent discharge was added to this outfall.
9. Outfall 006 will remain in the permit.
10. The suggested language for special condition 3 was used.
11. The suggested language for special condition 10 was used.

The Agency also received a letter dated June 27, 2011 from USEPA regarding the draft NPDES permit. Based on the information provided the following changes were made to the final permit.

1. Additional language was added to special condition 18 requiring that for the next permit application for renewal, the facility must prepare and submit monitoring studies to support their original 316(a) demonstration, pursuant to 40 CFR 125.72(c).
2. Illinois Pollution Control Board Order 79-134 is applicable for the period June 15 through September 30. During the time period October 1 through June 14, a mixing zone is applicable.

Special Condition 3 was modified to ensure that the water quality standards were met outside of the mixing zone from October 1 through June 14 and the alternate effluent standard as per IPCB 79-134 was applicable from June 15 through September 30.

The Agency has begun a program allowing the submittal of electronic Discharge Monitoring Reports (eDMRs) instead of paper Discharge Monitoring Reports (DMRs). If you are interested in eDMRs, more information can be found on the Agency website, <http://epa.state.il.us/water/edmr/index.html>. If your facility is not registered in the eDMR program, a supply of preprinted paper DMR Forms for your facility will be sent to you prior to the initiation of DMR reporting under the reissued permit. Additional information and instructions will accompany the preprinted DMRs upon their arrival.

The attached Permit is effective as of the date indicated on the first page of the Permit. Until the effective date of any re-issued Permit, the limitations and conditions of the previously-issued Permit remain in full effect. You have the right to appeal any condition of the Permit to the Illinois Pollution Control Board within a 35 day period following the issuance date.



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

Sincerely,



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

SAK:LRL:11041402.bah

Attachment: Final Permit

cc: Records Unit  
Compliance Assurance Section  
Des Plaines Region  
Billing  
USEPA

NPDES Permit No. IL0002224

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: November 30, 2016

Issue Date: November 3, 2011

Effective Date: December 1, 2011

Name and Address of Permittee:

Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, Illinois 60555-5701

Facility Name and Address:

Dresden Generating Station  
6500 North Dresden Road  
Morris, Illinois 60450  
(Grundy County)

Discharge Number and Name:

001 Unit 1 House Service Water  
A01 Unit 1 Intake Screen Backwash  
002 Cooling Pond Blowdown  
A02 Unit 2/3 Intake Screen Backwash  
B02 Wastewater Treatment System Effluent  
C02 Rad Waste Treatment System Effluent  
D02 Demineralizer Regenerate Waste and Filter Backwash  
003 Sewage Treatment Plant Effluent  
004 Cooling Pond Siphon Discharge  
005 South East Area Runoff  
006 North East Area Runoff

Receiving Waters:

Illinois River  
Illinois River  
Kankakee River  
Kankakee River  
Kankakee River  
Kankakee River

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

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



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

NPDES Permit No. IL0002224

Effluent Limitations and Monitoring

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

PARAMETER	LOAD LIMITS lbs/day		CONCENTRATION		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
<u>Outfall 001</u> – Unit 1 House Service Water (Average Flow = 4.32 MGD)						
The discharge consists of:						
	1. Unit 1 Fire Pump & Equipment Cooling Water					
	2. Unit 1 Intake Screen Backwash (A01)					
	3. Stormwater Runoff*					
Flow (MGD)	See Special Condition 1.				Daily**	Continuous
pH	See Special Condition 2.				1/Month**	Grab
Temperature	See Special Condition 3.				1/Month**	Grab
Total Residual Chlorine	See Special Condition 4.			0.05	1/Month**	Grab
Total Suspended Solids			15	30	1/Month**	Grab
Oil/Grease			15	20	1/Month**	Grab

\* - See Special Condition 10 and 12.

\*\* - When Discharging

Outfall A01 – Unit 1 Intake Screen Backwash\*  
(Intermittent Discharge)

\* - There shall be no discharge of collected debris.

Outfall 002 – Cooling Pond Blowdown  
(Average Flow = 472 MGD)

The discharge consists of:

1. Unit 2 & 3 Condenser Cooling Water
2. Demineralizer Regenerant Waste and Filter Backwash (D02)
3. Rad Waste Treatment System Effluent (C02)
4. Wastewater Treatment System Effluent (B02)
5. Units 2 & 3 Intake Screen Backwash (A02)
6. Northwest Material Access Runoff\*
7. Units 2 & 3 House Service Water
8. Unit 2 Auxiliary Boiler Area Oil/Water Separator\*
9. 138 KV Switchyard Oil/Water Separator\*
10. 345 KV Switchyard Oil/Water Separator\*

Flow (MGD)	See Special Condition 1.				Daily	Continuous
pH	See Special Condition 2.				1/Month	Grab
Temperature	See Special Condition 3.				Daily	Continuous
Total Residual Chlorine	See Special Condition 4 & 21.			0.05	1/Month	Grab

\* - See Special Condition 10.

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Effluent Limitations and Monitoring

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

PARAMETER	LOAD LIMITS lbs/day		CONCENTRATION		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
<u>Outfall A02</u> – Unit 2/3 Intake Screen Backwash* (Intermittent Discharge)						

\* - There shall be no discharge of collected debris.

Outfall B02 – Wastewater Treatment System Effluent  
(DAF = 0.068 MGD)

The discharge consists of:

1. Unit 1 and 2/3 Oil/Water Separators
2. Building Floor Drains
3. Building Roof Drains
4. Stormwater Runoff\*

Flow (MGD)	See Special Condition 1.			Daily	Continuous
Total Suspended Solids			15	30	1/Month 24-Hour Composite
Oil/Grease			10	20	1/Month Grab

\* - See Special Condition 9.

Outfall C02 – Rad Waste Treatment System Effluent  
(DAF = 0.073 MGD)

The discharge consists of:

1. Contaminated Equipment Drains
2. Contaminated Floor Drains
3. Chemistry Laboratory Drains
4. Decontamination System Drains
5. Condensate Polisher Sonic Cleaning Waste
6. Units 2 and 3 Auxiliary Boiler Blowdown

Flow (MGD)	See Special Condition 1.				1/Month Continuous
Total Suspended Solids			15	30	1/Month Grab
Oil/Grease			15	20	1/Month Grab

Outfall D02 – Demineralizer Regenerate Waste and Filter Backwash  
(Average Flow = 0.0082 MGD)

Flow (MGD)	See Special Condition 1.				1/Month Measure
Total Suspended Solids			15	30	1/Month 8-Hour Composite

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Effluent Limitations and Monitoring

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

PARAMETER	LOAD LIMITS lbs/day		CONCENTRATION		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
<u>Outfall 003 – Sewage Treatment Plant Effluent</u> (DAF = 0.031 MGD)						
Flow (MGD)	See Special Condition 1.				1/Month	Continuous
pH	See Special Condition 2.				1/Month	Grab
BOD <sub>5</sub>	7.76	37.53	30	60	1/Month	24-Hour Composite
Total Suspended Solids	7.76	37.53	30	60	1/Month	24-Hour Composite
Fecal Coliform	See Special Condition 17.			400/100 ml	1/Month	Grab
Total Residual Chlorine	See Special Condition 4.			0.05	1/Day*	Grab

\* - When chlorinating.

Outfall 004 – Cooling Pond Siphon Discharge\*  
(Average Flow = 32.316 MGD)

Flow (MGD)	See Special Condition 1.				1/Day When Discharging	Measure
pH	See Special Condition 2.				1/Discharge Event	Grab
Temperature	See Special Condition 11.				1/Day When Discharging	Grab
Total Residual Chlorine	See Special Condition 4 & 21.			0.05	1/Discharge Event	Grab

\* - See Special Conditions 15 and 20.

Outfall 005 – South East Area Runoff\*  
(Intermittent Discharge)

\* - See Special Conditions 10 and 12.

Outfall 006 – North East Area Runoff\*  
(Intermittent Discharge)

\* - See Special Conditions 10 and 12.

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Special Conditions

SPECIAL CONDITION 1. Flow shall be measured in units of Million Gallons per Day (MGD) and reported as a monthly average and a daily maximum on the Discharge Monitoring Report.

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

SPECIAL CONDITION 3. (For outfalls 001 and 002) This facility meets the criteria for establishment of a formal mixing zone for thermal discharges pursuant to 35 IAC 302.102. Water quality standards for temperature listed in the table below must be met at every point outside of the mixing zone from the dates October 1 through June 14.

	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>
°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

- A. The maximum temperature rise above natural temperatures shall not exceed 2.8° C (5° F).
- B. Water temperature at representative locations in the main river shall not exceed the maximum limits in the table above during more than one (1) percent of the hours in the 12-month period ending with any month. Moreover, at no time shall the water temperature at such locations exceed the maximum limits in the table above by more than 3° F (1.7° C). Main river temperatures are temperatures of those portions of the river essentially similar to and following the same thermal regime as the temperatures of the main flow of the river.
- C. The permittee may discharge cooling pond blowdown using an indirect open cycle cooling mode from June 15 through September 30 in accordance with the following limitation in lieu of 35 Ill. Adm. Code 302.211(d) and 302.211(e) as written above in 3A and 3B respectively. During the period June 15 through September 30, the temperature of the plant discharge shall not exceed 32.2° C (90° F) more than 10% of the time in the period and never will exceed 33.9° C (93° F).
- D. 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.
- E. The Dresden Station shall be operated closed cycle during the period October 1 through June 14. The station may be operated in accordance with the Unit 2/3 Variable Blowdown Plan (governed by the original July 6, 1977 Thermal Compliance Plan calculations) from June 1 through June 14, as deemed necessary by station management.
- F. Compliance with the thermal limitations shall be determined by maintaining a continuous temperature and flow record for cooling pond blowdown to the Illinois River. If the variable blowdown plan will be used from June 1 to June 15, data acquisition and records for the parameters necessary to implement the plan shall be maintained.
- G. Additional water temperature monitoring shall be continued as follows:
  - 1. A continuous water temperature record of water temperature at the Dresden Lock and Dam and the Dresden Station intake shall be maintained during the period of June 15 through September 30.
  - 2. Water temperature recorded at these locations shall be tabulated and submitted to the Agency, Industrial Unit, Division of Water Pollution Control by December 31, of each year.
  - 3. Permittee's failure to submit the temperature monitoring data from these locations due to equipment malfunction shall not be deemed a permit violation provided the permittee employs reasonable efforts to repair the malfunction. If the malfunction lasts more than 24 hours, a manual measurement shall be made at least once per day.
- H. The station may bypass the cooling pond, that is operate open cycle, only during periods when both generating units have been taken out of service.
- I. The monthly maximum value measured at the Dresden Lock and Dam and the percentage of time the discharge exceeds the temperatures listed in the table above from October 1 through June 14 shall be reported on the DMR form.
- J. The monthly maximum value measured at the outfall and the percentage of time the discharge exceeds 32.2° C (90° F) from June 15 through September 30 shall be reported on the DMR form.

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SPECIAL CONDITION 4. 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.

SPECIAL CONDITION 5. 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 6. 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 7. This permit authorizes the use of water treatment additives that were requested as part of this renewal. 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 8. 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 9. The Agency has determined that the effluent limitations in this permit constitute BAT/BCT for storm water which is treated in the existing treatment facilities for purposes of this permit reissuance, and no pollution prevention plan will be required for such storm water. In addition to the chemical specific monitoring required elsewhere in this permit, the permittee shall conduct an annual inspection of the facility site to identify areas contributing to a storm water discharge associated with industrial activity, and determine whether any facility modifications have occurred which result in previously-treated storm water discharges no longer receiving treatment. If any such discharges are identified the permittee shall request a modification of this permit within 30 days after the inspection. Records of the annual inspection shall be retained by the permittee for the term of this permit and be made available to the Agency on request.

SPECIAL CONDITION 10

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.

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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;



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- 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 or 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.

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- 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.
  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.

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.

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- 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. The permittee may claim portions of the plan as exempt from public disclosure as confidential business information or as otherwise required by law, including any portion of the plan related to facility security.
- 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 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

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Special Conditions

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 11. (For outfall 004) This facility meets the allowed mixing criteria for thermal discharges pursuant to 35 IAC 302.102. No reasonable potential exists for the discharge to exceed thermal water quality standards. This determination is based on a temperature range of 60° F to 77° F and a flow of 50 cfs. The permittee shall monitor the flow and temperature of the discharge prior to entry into the receiving water body. Monitoring results shall be reported on the monthly Discharge Monitoring Report. This permit may be modified to include formal temperature limitations should the results of the monitoring show that there is reasonable potential to exceed a thermal water quality standard. Modification of this permit shall follow public notice and opportunity for comment.

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.

SPECIAL CONDITION 12. The North East Area Runoff discharges to the Unit 1 Intake canal. When the Unit 1 service water system is in use, the discharge will be drawn into the intake and eventually discharged at outfall 001. During those times when the Unit 1 service water system is out of service, this discharge will remain in the intake canal and eventually flow into the Kankakee River through outfalls 005 and 006.

SPECIAL CONDITION 13. There shall be no discharge of polychlorinated biphenyl compounds.

SPECIAL CONDITION 14. The "Upset" defense provisions listed under 40 CFR 122.41(n) are hereby incorporated by reference.

SPECIAL CONDITION 15. The responsibility for outfall 004, Cooling Pond Discharge, will be transferred to the Will County Emergency Management Agency upon issuance of a separate NPDES permit for operation of the Dresden Station siphon Ice Melt system. Upon issuance of a permit to Will County EMA, Exelon Generation Company shall submit a request to terminate the monitoring and reporting requirements associated with outfall 004, in writing to the Agency.

SPECIAL CONDITION 16. 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 17. For outfall 003, the daily maximum Fecal Coliform count shall not exceed 400/100 ml. Fecal Coliform limits for Outfall 003 are effective May through October. Sampling of Fecal Coliform concentrations are only required during this time period.

SPECIAL CONDITION 18. Exelon Generation Company, LLC formerly known as Commonwealth Edison Company has complied with 35 Ill. Adm. Code 302.211(f) and Section 316(a) of the Clean Water Act in demonstrating that the thermal discharge from its Dresden Nuclear Power Station has not caused and cannot be reasonably expected to cause significant ecological damage to receiving waters as approved by the Illinois Pollution Control Board in PCB Order 73-359 dated January 17, 1974 and PCB Order 79-134 dated July 9, 1981. Pursuant to 35 Ill. Adm. Code 302.211(g), no additional monitoring or modification is now being required for reissuance of this NPDES Permit

Pursuant to 40 CFR 125.72(c), the permittee shall submit an updated 316(a) demonstration based on current facility operating conditions. This updated demonstration may include new studies or other information necessary to support the seasonal alternative effluent limitations granted under the original demonstration. This information shall be submitted with the next permit renewal application.

SPECIAL CONDITION 19. Pursuant to Section 316(b) of the Clean Water Act, a past determination for the Dresden Nuclear Power Station was not made. Data was submitted at that time by Exelon Generation Company, LLC formerly known as Commonwealth Edison Company pursuant to Section 316(b) of the CWA for the Dresden Nuclear Power Station. This data was reviewed by the Illinois Environmental Protection Agency and the review determination was: That where as additional intake monitoring is not being required at this time, further monitoring is not precluded if determined necessary at the time of any modification or reissuance of NPDES Permit No. IL0002224.

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 submitted should be in accordance with the previously submitted information collection proposal received by Agency on May 23, 2005.

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

NPDES Permit No. IL0002224

Special Conditions

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.

SPECIAL CONDITION 20. The permittee shall minimize make-up water requirements to the cooling pond system during cooling pond water diversion to the Kankakee River in order to minimize fish impingement losses. This should be accomplished by eliminating to the extent feasible normal closed cycle blowdown flows of 50,000 gpm to the Illinois River except during a discharge from the Rad Waste Treatment System and/or other water conservation measures. Such measures and operations taken by the station to minimize make-up water requirements during diversion shall be documented and reported with monthly discharge monitoring reports.

A. Operating requirements:

1. The siphon will be operated for only two runs during the winter, each run lasting no more than 14 days.
2. Thermal monitoring at established transects and narrative observations will be recorded during operations in accordance with the siphon Operations Plan dated November, 1993 and a report of findings made available to this Agency in June of each year.
3. The maximum amount of heat that will be placed in the Kankakee River shall be <0.5 billion BTUs per hour.
4. A fish barrier net must be in place around the siphon inlet before the siphon is operated, and must remain intact throughout the run.

SPECIAL CONDITION 21. For a period of 2 years following the effective date of this Permit during times when the condenser cooling water is chlorinated intermittently, Total Residual Chlorine may not be discharged from each unit's main cooling condensers for more than 2 hours per day. The discharge limit during this period is 0.2 mg/l, measured as an instantaneous maximum.

A Total Residual Chlorine limit of 0.05 mg/l (Daily Maximum) for outfalls 002 and 004 shall become effective 2 years from the effective date of this Permit.

The Permittee shall construct a dechlorination system or some alternative means of compliance in accordance with the following schedule:

- |                           |                                   |
|---------------------------|-----------------------------------|
| 1. Status Report          | 6 months from the effective date  |
| 2. Commence Construction  | 12 months from the effective date |
| 3. Status Report          | 18 months from the effective date |
| 4. Complete Construction  | 22 months from the effective date |
| 5. Obtain Operation Level | 24 months from the effective date |

Compliance dates set out in this Permit may be superseded or supplemented by compliance dates in judicial orders, or Pollution Control Board orders. This Permit may be modified, with Public Notice, to include such revised compliance dates.

The Permittee shall operate the dechlorination system or an alternative means of compliance in a manner to ensure continuous compliance with the Total Residual Chlorine limit, not to the extent that will result in violations of other permitted effluent characteristic, or water quality standards.

REPORTING

The Permittee shall submit a report no later than fourteen (14) days following the completion dates indicated above for each numbered item in the compliance schedule, indicating, a) the date the item was completed, or b) that the item was not completed, the reason for non-completion, and the anticipated completion date.

## Standard Conditions

## Definitions

**Act** means the Illinois Environmental Protection Act, 415 ILCS 5 as amended.

**Agency** means the Illinois Environmental Protection Agency.

**Board** means the Illinois Pollution Control Board.

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

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

**EPA** means the United States Environmental Protection Agency.

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

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

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

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

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

**Composite Sample** means a sample of specified volume used to make up a composite sample.

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

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

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

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

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

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

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

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

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

(6) **Permit actions.** This permit may be modified, revoked and reissued, or terminated for cause by the Agency pursuant to 40 CFR 122.62 and 40 CFR 122.63. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

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

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

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 inspection and entry. The permittee shall allow an authorized representative of the Agency or USEPA (including an authorized contractor acting as a representative of the Agency or USEPA), upon the presentation of credentials and other documents as may be required by law, to:

- (a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- (d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance, or as otherwise authorized by the Act, any substances or parameters at any location.

**Monitoring and records.**

- (a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- (b) The permittee shall retain records of all monitoring information, including all calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of this permit, measurement, report or application. Records related to the permittee's sewage sludge use and disposal activities shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the Agency or USEPA at any time.
- (c) Records of monitoring information shall include:
  - (1) The date, exact place, and time of sampling or measurements;
  - (2) The individual(s) who performed the sampling or measurements;
  - (3) The date(s) analyses were performed;
  - (4) The individual(s) who performed the analyses;
  - (5) The analytical techniques or methods used; and
  - (6) The results of such analyses.
- (d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit. Where no test procedure under 40 CFR Part 136 has been approved, the permittee must submit to the Agency a test method for approval. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.

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

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

- (1) For a corporation: by a principal executive officer of at least the level of vice president or a person or position having overall responsibility for environmental matters for the corporation;
- (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
- (3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

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

- (1) The authorization is made in writing by a person described in paragraph (a); and
  - (2) The authorization specifies either an individual or a position responsible for the overall operation of the facility, from which the discharge originates, such as a plant manager, superintendent or person of equivalent responsibility; and
  - (3) The written authorization is submitted to the Agency.
- (c) **Changes of Authorization.** If an authorization under (b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of (b) must be submitted to the Agency prior to or together with any reports, information, or applications to be signed by an authorized representative.
- (d) **Certification.** Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**(12) Reporting requirements.**

- (a) **Planned changes.** The permittee shall give notice to the Agency as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required when:
  - (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source pursuant to 40 CFR 122.29 (b); or
  - (2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements pursuant to 40 CFR 122.42 (a)(1).
  - (3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- (b) **Anticipated noncompliance.** The permittee shall give advance notice to the Agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (c) **Transfers.** This permit is not transferable to any person except after notice to the Agency.
- (d) **Compliance schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- (e) **Monitoring reports.** Monitoring results shall be reported at the intervals specified elsewhere in this permit.
  - (1) Monitoring results must be reported on a Discharge Monitoring Report (DMR).

Page 15  
 (2) If the permittee monitors frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

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

(f) **Twenty-four hour reporting.** The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24-hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and time; and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The following shall be included as information which must be reported within 24-hours:

- (1) Any unanticipated bypass which exceeds any effluent limitation in the permit.
- (2) Any upset which exceeds any effluent limitation in the permit.
- (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Agency in the permit or any pollutant which may endanger health or the environment.

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

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

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

#### Bypass.

##### (a) Definitions.

- (1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
- (2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (13)(c) and (13)(d).

##### (c) Notice.

- (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
- (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph (12)(f) (24-hour notice).

(1) Bypass is prohibited, and the Agency may take enforcement action against a permittee for bypass, unless:

- (i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- (ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
- (iii) The permittee submitted notices as required under paragraph (13)(c).

(2) The Agency may approve an anticipated bypass, after considering its adverse effects, if the Agency determines that it will meet the three conditions listed above in paragraph (13)(d)(1).

#### (14) Upset.

(a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (14)(c) are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
- (2) The permitted facility was at the time being properly operated; and
- (3) The permittee submitted notice of the upset as required in paragraph (12)(f)(2) (24-hour notice).
- (4) The permittee complied with any remedial measures required under paragraph (4).

(d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

(15) **Transfer of permits.** Permits may be transferred by modification or automatic transfer as described below:

- (a) Transfers by modification. Except as provided in paragraph (b), a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued pursuant to 40 CFR 122.62 (b) (2), or a minor modification made pursuant to 40 CFR 122.63 (d), to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act.
- (b) Automatic transfers. As an alternative to transfers under paragraph (a), any NPDES permit may be automatically transferred to a new permittee if:



- (1) The current permittee notifies the Agency at least 30 days in advance of the proposed transfer date;
- (2) The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage and liability between the existing and new permittees; and
- (3) The Agency does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement.
- i) All manufacturing, commercial, mining, and silvicultural dischargers must notify the Agency as soon as they know or have reason to believe:
- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant identified under Section 307 of the Clean Water Act which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
- (1) One hundred micrograms per liter (100 ug/l);
- (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6 dinitrophenol; and one milligram per liter (1 mg/l) for antimony.
- (3) Five (5) times the maximum concentration value reported for that pollutant in the NPDES permit application; or
- (4) The level established by the Agency in this permit.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the NPDES permit application.
- j) All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Agency of the following:
- (a) Any new introduction of pollutants into that POTW from an indirect discharge which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and
- (b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
- (c) For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.
- If the permit is issued to a publicly owned or publicly regulated treatment works, the permittee shall require any industrial user of such treatment works to comply with federal requirements concerning:
- (a) User charges pursuant to Section 204 (b) of the Clean Water Act, and applicable regulations appearing in 40 CFR 35;
- (b) Toxic pollutant effluent standards and pretreatment standards pursuant to Section 307 of the Clean Water Act; and
- (c) Inspection, monitoring and entry pursuant to Section 308 of the Clean Water Act.
- (20) Any authorization to construct issued to the permittee pursuant to 35 Ill. Adm. Code 309.154 is hereby incorporated by reference as a condition of this permit.
- (21) The permittee shall not make any false statement, representation or certification in any application, record, report, plan or other document submitted to the Agency or the USEPA, or required to be maintained under this permit.
- (22) The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed \$25,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both. Additional penalties for violating these sections of the Clean Water Act are identified in 40 CFR 122.41 (a)(2) and (3).
- (23) The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both.
- (24) The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.
- (25) Collected screenings, sludges, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those wastes (or runoff from the wastes) into waters of the State. The proper authorization for such disposal shall be obtained from the Agency and is incorporated as part hereof by reference.
- (26) In case of conflict between these standard conditions and any other condition(s) included in this permit, the other condition(s) shall govern.
- (27) The permittee shall comply with, in addition to the requirements of the permit, all applicable provisions of 35 Ill. Adm. Code, Subtitle C, Subtitle D, Subtitle E, and all applicable orders of the Board or any court with jurisdiction.
- (28) The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit is held invalid, the remaining provisions of this permit shall continue in full force and effect.

(Rev. 7-9-2010 bah)

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

Electronic Filing - Received, Clerk's Office, 08/3/2012  
\* Electronic Filing - Received, Clerk's Office : 10/16/2015

*Exelon Generation LLC's Responses  
to the Board's Questions*

**ATTACHMENT 8**

*MMJ*  
*8/23/11*

**Attachment 2**  
**Example Verification Completion Form**  
**Page 1 of 1**

**Verification Documentation**

Correspondence/Letter number: 11-0041      Origination Date: 8/23/11  
 Agency/External Stakeholder: IEPA, IDNR      Submittal Due Date: 8/23/11  
 Recipient of Correspondence: Roger Callaway, Gary Letterbire  
(name and title if known)

Purpose of Submittal: 7 day Environmental Monitoring Report for PV 12-05

Originating Office:    Cantera       Kennett Square       Site Dresden  
(specify)

Preparer: Morgan Davis      *[Signature]*      8/23/11  
(print)      (sign)      (date)

Peer Reviewer: Dan Malauskas      Dan Malauskas pstelecom      8/23/11  
(print)      (sign)      (date)

Certified Mail Return Receipt Requested:    Yes       No      *MMJ* 8/23/11

**Approvals (check box if applicable)**

	Applicable	Date Review Needed	Signature of Reviewer	Date of Review
<b>Site Departments</b>				
Chemistry	<input checked="" type="checkbox"/>	<u>8/23/11</u>	<i>[Signature]</i>	<u>8/23/11</u>
Operations	<input type="checkbox"/>			
Engineering	<input type="checkbox"/>			
Regulatory Assurance	<input type="checkbox"/>			
Other: _____ <small>(specify)</small>	<input type="checkbox"/>			
<b>Corporate</b>				
SME/FAM	<input type="checkbox"/>			
<b>Site Management</b>				
Plant Manager	<input checked="" type="checkbox"/>		<i>[Signature]</i> <u>8/23/11</u>	
Site Vice President	<input type="checkbox"/>		<input checked="" type="checkbox"/> Report Signed and Approved	

Attach additional page for comments.

Exelon Generation Company, LLC    www.exeloncorp.com  
Dresden Nuclear Power Station  
6500 North Dresden Road  
Morris, IL 60450-9765

August 23, 2011  
SMMLTR 11-0041

Mr. Roger Callaway  
Illinois Environmental Protection Agency  
Bureau of Water – Water Pollution Control  
1021 North Grand Avenue East, CAS#19  
Springfield, Illinois 62794-9276

Subject:            Letter Report – Provisional Variances IEPA-12-05 Temperature and Environmental  
                         Condition Monitoring  
                         2H.103.A.11 Dresden NPDES - Provisional Variance

References:        IEPA Order 12-05 dated August 8, 2011 related to Dresden Nuclear Generation Station  
                         Provisional Variance Request Letter dated August 8, 2011

Dear Mr. Callaway:

On August 8, 2011 Dresden Nuclear Generating Station requested a Provisional Variance from the restriction in Special Condition 4C of NPDES Permit No. IL00002224 which states that Exelon Dresden's effluent shall not exceed 90°F more than 10% (259.2 hours) of the time in the period between June 15 and September 30. Specifically, Exelon Dresden requested a provisional variance be issued granting an additional 100 excursion hours during which Exelon Dresden may exceed the 90°F limit in Special Condition 4C of NPDES Permit No. IL0002224. Subsequently on August 8, 2011, the Illinois Environmental Protection Agency (IEPA) issued Order 12-05 granting the variance request and establishing interim discharge monitoring criteria. Condition letter B and C of the IEPA's Order required the following actions during the variance period and four days immediately following the variance period:

1. Continuous monitoring of the discharge and receiving water temperatures and at no time shall the water temperature at the edge of the mixing zone exceed a temperature of 96 degree Fahrenheit;
2. Visual inspection of all discharge areas at least four times per day to assess any mortalities to fish and other aquatic life;
3. Provide the best operation of its available equipment to produce the best effluent possible at all times during the term of this provisional variance; and
4. Documentation of environmental conditions during the term of the provisional variance and submission of the documentation to the Illinois EPA and the Illinois Department of Natural Resources within seven days after the provisional variance expires.

Dresden has attached documentation pertinent to the conditions of the Order.

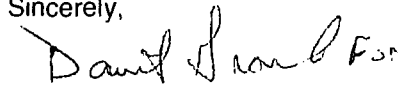
During the provisional variance term, Dresden Station used 47.55 excursion hours of the additional 100 excursion hours granted. Dresden Station promptly completed necessary cooling tower component maintenance and returned the towers to service with minimal usage of the excursion hour allotment. The

completed maintenance will increase reliability of cooling tower service for compliance with thermal discharge limits for the remainder of the indirect open cycle period specified in NPDES permit IL0002224.

Additionally, it is important to note that during the duration of the provisional variance there were no identified impacts to fish and aquatic life and Dresden Station maintained compliance with the thermal limits established in the station's NPDES Permit No. IL0002224.

If you should have any questions regarding these study plans, please contact Joan Knight at (815) 416-3200 or Morgan Davis at (815) 416-3287.

Sincerely,



Shane Marik  
Plant Manager  
Dresden Nuclear Generation Station

Attachments:

Attachment 1: Dresden Station Provisional Variance Temperature and Flow Data

Attachment 2: Dresden Station Four Times Daily Aquatic Life Visual Inspections, Discharge Temperature Data Review, and Event Logs during Provisional Variance 12-05

C:

Mr. Gary Lutterbie  
Illinois Department of Natural Resources  
301 Date Street  
Gibson City, IL 60936-1750

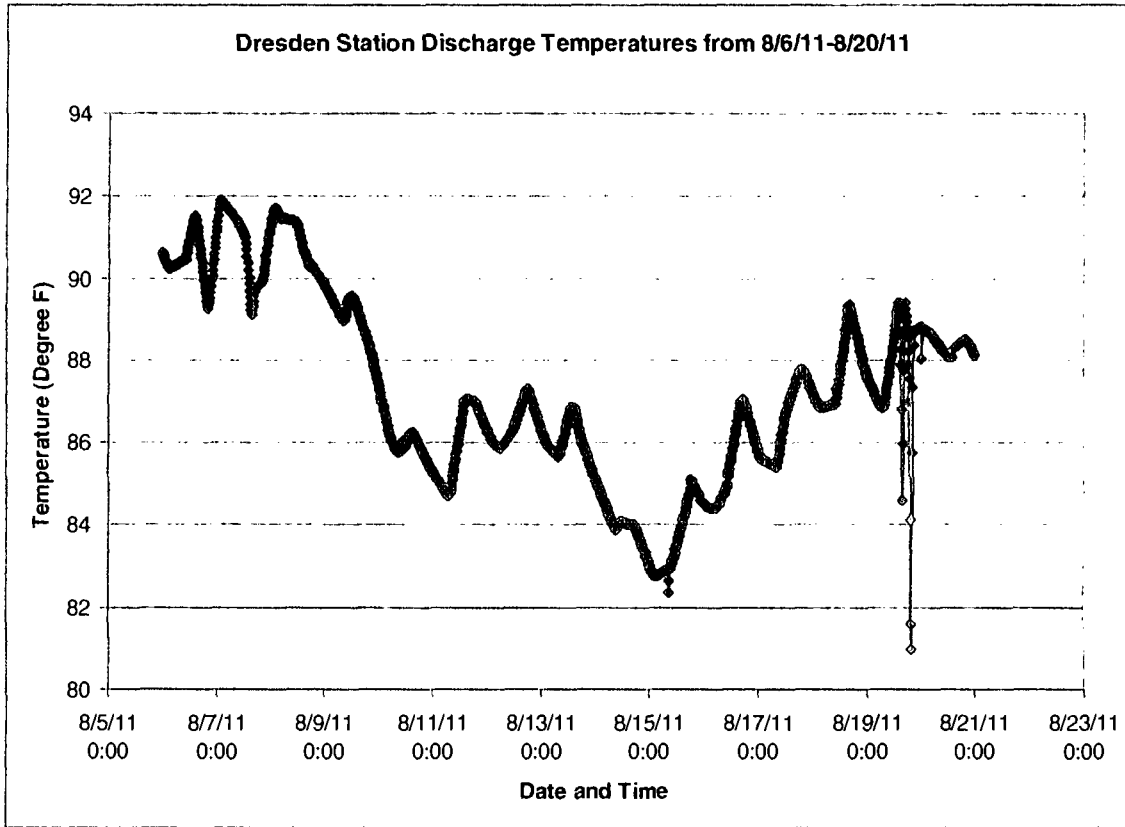
## Attachment 1

Dresden Station Provisional Variance Temperature Data  
Page 1 of 2

Date	Intake Canal Temperature Average (°F)	Discharge Canal Temperature Average (°F)	Discharge Canal Temperature Maximum (°F)	Dresden Lock & Dam Temperature Average (°F)	Dresden Lock & Dam Temperature Maximum (°F)
8/6/2011	85.16	90.66	91.54	85.79	86.35
8/7/2011	85.55	91.07	91.91	85.61	86.78
8/8/2011	85.41	91.23	91.72	85.18	87.18
8/9/2011	83.52	89.87	89.82	83.80	84.74
8/10/2011	81.53	87.47	87.44	82.45	83.19
8/11/2011	79.44	85.33	87.05	81.12	83.31
8/12/2011	79.61	86.38	87.30	82.19	83.01
8/13/2011	79.46	86.42	86.87	82.30	82.97
8/14/2011	78.90	85.17	85.15	81.06	81.81
8/15/2011	77.97	83.06	85.11	79.57	81.77
8/16/2011	77.73	84.53	87.05	80.20	83.24
8/17/2011	78.81	85.85	87.78	80.94	83.83
8/18/2011	79.77	87.25	89.37	82.44	85.00
8/19/2011	80.69	87.64	89.42	83.68	84.99
8/20/2011	82.55	88.81	88.83	83.89	85.28

Attachment 1

Dresden Station Provisional Variance Temperature Data  
Page 2 of 2



The trends on August 19, 2011 show Dresden Station reducing flow from the cooling lake to increase residence time for the cooling water and ensure that the discharge is less than 90 degrees Fahrenheit.



**Attachment 2**

**Dresden Station Four Times Daily Aquatic Life Visual Inspections,  
Discharge Temperature Data Review, and Event Logs during  
Provisional Variance 12-05  
Page 1 of 5**

Dresden Station personnel monitored discharge and receiving water temperatures and visually inspected all discharge areas at least four times per day to assess any impacts to fish and aquatic life per the conditions in the provisional variance (monitoring period: August 6, 2011 to August 20, 2011). The specific temperature points that were monitored by Dresden Station personnel were the Dresden Station intake and discharge canal as well as the Dresden Lock and Dam river temperatures. These temperatures were continuously collected and reviewed by station personnel approximately every four hours. The Dresden Station intake temperature was used as the upstream river temperature during the analysis. The Dresden intake temperatures are representative of the Kankakee River upstream of the Dresden Station discharge.

Dresden Station personnel performed four visual inspections of the Dresden discharges areas four times per day during the term of this provisional variance and the four subsequent days after the provisional variance term ended. On August 13 and August 14, Dresden Station was able to only perform two visual inspections per day due to inadequate communications on the provisional variance requirements. During this time there were no reports of fish stress and the Dresden Station discharge temperature was approximately 86 degrees Fahrenheit.

During the duration of the provisional variance there were no identified impacts to fish and aquatic life, and Dresden Station maintained compliance with the thermal limits called out in NPDES Permit No. IL0002224. At no time did the Dresden Lock and Dam temperature exceed 96 degrees Fahrenheit during the term of the provisional variance. During the course of order compliance had any observation of distressed fish or distressed aquatic wildlife been observed, both the IEPA and Illinois Department of Natural Resources would be contacted and a standby response crew would be dispatched.

**Attachment 2****Dresden Station Four Times Daily Aquatic Life Visual Inspections,  
Discharge Temperature Data Review, and Event Logs during  
Provisional Variance 12-05****Page 2 of 5**

Date/ Time	Observation
8/6/2011 12:07	Notified by Site Environmental that the IEPA has been contacted and has approved a 100 hr extension for which the Station may operate with Lake discharge temperature above 90F but below 93F.
8/6/2011 20:50	Started 2A Hot Cooling Towers.
8/7/2011 1:55	Operations secured the 2B Hot Cooling Tower pump. Cooling tower fans are left running to assist in media drying.
8/8/2011 3:05	Operations started the 2B Hot Cooling Tower to assist in cooling the hot canal. Operations shut down the 1B and 1C Hot Cooling Towers. Cooling tower fans left running to assist in media drying.
8/8/2011 14:45	Time 1445: Lake Spillway gate opened 10% (60%open) to control cooling lake level. Lake Level 523' 6", Discharge Canal Temp: 90.4F Time 1610: Lake Spillway gate opened 10% (70%open) to control cooling lake level. Lake Level 523'10", Discharge Canal Temp: 89.9F Time 1720: Lake Spillway gate opened 10% (80%open) to control cooling lake level. Lake Level 524' 0", Discharge Canal Temp: 90.1F Time 1830: Lake Spillway gate opened 10% (90%open) to control cooling lake level. Lake Level 523'09", Discharge Canal Temp: 90.2F Time 2030: Lake Spillway gate opened 10% (100%open) to control cooling lake level. Lake Level 523'09", Discharge Canal Temp: 90.3F
8/9/11 1001	Written provisional variance letter IEPA 12-05 received by Dresden Station from IEPA

**Attachment 2****Dresden Station Four Times Daily Aquatic Life Visual Inspections,  
Discharge Temperature Data Review, and Event Logs during  
Provisional Variance 12-05****Page 3 of 5**

Date/ Time	Observation
8/9/2011 16:00	<p>Dresden Station has received written authorization for a provisional variance (IEPA 12-05) from Special Condition 4C of NPDES Permit IL 0002224. This variance authorizes Dresden Station to exceed 90F discharge effluent temperature for an additional 100 hours. This is in addition to the 259.2 hours allowed by the NPDES permit. At no time shall the discharge temperature exceed 96F at the edge of the mixing zone during the terms of this variance. During the variance period (8/6/11-8/16/11) Dresden shall perform continuous monitoring of intake and discharge temperatures and operate to ensure the best effluent temperature possible given available equipment. In addition Dresden will inspect discharge areas at least 4 times per day for evidence of mortalities to fish or other aquatic life. The requirement to perform inspections will continue for four (4) days following the termination of this variance. This variance is in effect starting 8/6/2011. The variance is only applicable during times when abnormally high intake temperatures (90-93.5F) are observed and Hot Canal Cooling Tower maintenance is in progress. Should either of these conditions not exist, the variance is ended. In all cases, the variance shall end no later than 8/16/2011. Dresden will immediately notify IL EPA and IL DNR of any unusual conditions including fish/aquatic life mortalities and take action to remedy the problem.</p> <p>Should either of these conditions not exist, the variance is ended. In all cases, the variance shall end no later than 8/16/2011. Dresden will immediately notify IL EPA and IL DNR of any unusual conditions including fish/aquatic life mortalities and take action to remedy the problem</p>
8/9/2011 18:10	Operations started 1B hot cooling tower.
8/9/2011 18:15	Operations secured 3 hot cooling towers for upcoming maintenance.
8/9/2011 19:08	Performed inspection of Dresden discharge effluent at IL river per NPDES Variance (IEPA 12-05). No evidence of fish or other aquatic life mortality was observed.
8/10/2011 12:51	Inside and outside operator rounds completed. Two times this shift (4x/day check) inspect discharge canal for evidence of fish loss. Completed satisfactory. No fish loss.
8/10/2011 1:40	Operations has successfully completed starting 1C HCCT to assist in controlling hot canal temperature, IAW DOP 4450-10.
8/10/2011 1:55	Operations has successfully completed securing the 2C HCCT pump IAW DOP 4450-10. Fans left on for media drying.
8/10/2011 14:16	Performed inspection of Dresden discharge effluent at IL river per NPDES Variance (IEPA 12-05). No evidence of fish or other aquatic life mortality was observed. Inspection was completed by outside operator two times a shift.

**Attachment 2****Dresden Station Four Times Daily Aquatic Life Visual Inspections,  
Discharge Temperature Data Review, and Event Logs during  
Provisional Variance 12-05****Page 4 of 5**

Date/ Time	Observation
8/10/2011 18:48	Inside and outside operator rounds completed. Two times per shift check of discharge canal for fish loss shows no fish loss.
8/11/2011 13:59	Inside and outside operator rounds completed. Two times this shift (4x/day check) inspect discharge canal for evidence of fish loss. Completed Satisfactory. No fish loss.
8/11/2011 20:07	Inside and outside operator rounds completed. Two times per shift check of discharge canal for fish loss shows no fish loss.
8/12/2011 9:15	Operations secured 2A and 2B hot cooling towers for media drying due to elevated fill weights. 2A and 2B hot cooling tower fans remain on for media drying.. Started 2C and #3 hot cooling tower to assist in maintaining desired canal temperatures.
8/12/2011 14:20	Inside and outside operator rounds completed. Two times this shift (4x/day check) inspect discharge canal for evidence of fish loss. Completed Satisfactory. No fish loss.
8/12/2011 20:55	Inside and outside operator rounds completed. Two times this shift check of discharge canal at 1617 & 2005 for fish loss shows no fish loss.
8/13/2011 18:43	Inside and outside operator rounds completed. Two times this shift (4x/day check) inspect discharge canal for evidence of fish loss. Completed Satisfactory. No fish loss.
8/14/2011 17:35	Inside and outside operator rounds completed. Two times this shift (4x/day check) inspect discharge canal for evidence of fish loss. Completed Satisfactory. No fish loss.
8/15/2011 14:19	Inside and outside operator rounds completed. Two times this shift (4x/day check) inspect discharge canal for evidence of fish loss. Completed Satisfactory. No fish loss.
8/12/2011 20:40	Started hot cooling tower fan 3-6 and 2C-6 for continued operation.
8/15/2011 9:15	Operations started 2A hot cooling tower pump.
8/15/2011 9:20	Operations secured 2C hot cooling tower pump and left fans on to assist in media drying.
8/15/2011 22:16	HVO outside and inside rounds complete Satisfactory. Two times this shift (4x/day check) inspect discharge canal for evidence of fish loss. Completed Satisfactory. No fish loss.
8/16/2011 14:33	Inside and outside operator rounds completed. Two times this shift (4x/day check) inspect discharge canal for evidence of fish loss. Completed Satisfactory. No fish loss.

**Attachment 2****Dresden Station Four Times Daily Aquatic Life Visual Inspections,  
Discharge Temperature Data Review, and Event Logs during  
Provisional Variance 12-05****Page 5 of 5**

Date/ Time	Observation
8/16/2011 21:57	HVO outside and inside rounds complete Satisfactory. Two times this shift (4x/day check) inspect discharge canal for evidence of fish loss. Completed Satisfactory. No fish loss.
8/16/2011 11:55	Roger Calloway, IEPA Wastewater Compliance Division, was called on 08/16/11 at 1155 to notify that the provisional variance period specified in IEPA correspondence, IEPA -12-05 (Provisional Variance – Water), has ended. Operations to continue to monitor the Dresden discharge areas of the Illinois River four times a day until 0000 on 08/20/11. Operations needs to continue to document inspections in the operator logs.
8/17/2011 11:02	Operations started 2B hot cooling tower pump.
8/17/2011 11:13	Operations secured 1A hot cooling tower pump and left fans on to assist in media drying.
8/17/2011 14:24	Inside and outside operator rounds completed. Two times this shift (4x/day check) inspect discharge canal for evidence of fish loss. Completed Satisfactory. No fish loss.
8/17/2011 21:55	HVO outside and inside rounds complete Satisfactory. Two times this shift (4x/day check) inspect discharge canal for evidence of fish loss. Completed Satisfactory. No fish loss.
8/18/2011 14:08	Inside and outside operator rounds completed. Two times this shift (4x/day check) inspect discharge canal for evidence of fish loss. Completed Satisfactory. No fish loss.
8/18/2011 21:06	HVO outside and inside rounds complete Satisfactory. Two times this shift (4x/day check) inspect discharge canal for evidence of fish loss. Completed Satisfactory. No fish loss.
8/19/2011 10:00	Operations started 1C and 2A hot cooling towers.
8/19/2011 13:29	Inside and outside operator rounds completed. Two times this shift (4x/day check) inspect discharge canal for evidence of fish loss. Completed Satisfactory. No fish loss.
8/19/2011 21:03	Notified by Dresden Lock and Dam (Mike Walsh) that they will be decreasing flow from ~2000cfs to ~1000cfs. This flow level has shown to cause backflow into the Kankakee river. Implemented increased monitoring of intake temperatures.
8/19/2011 21:33	HVO outside and inside rounds complete Satisfactory. Two times this shift (4x/day check) inspect discharge canal for evidence of fish loss. Completed Satisfactory. No fish loss.
8/20/2011 17:48	Inside and outside operator rounds completed. Four times per day inspection of discharge canal for evidence of fish loss completed satisfactory. No fish loss.
8/20/2011 6:00	Dresden Island Lock Master increased river flow to approximately 2500 CFS.

10/16/2015

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Package Tracking Number **8759 2702 8964**

Tom **Express print and press hard**

Sender's FedEx Account Number **SENDER'S FEDEX ACCOUNT # 848 222 211**

Address **12311 Morgan Davis** Phone **85, 417-3287**

Address **DEXELON NUCLEAR**

Address **66500 N DRESDEN RD**

Address **MORRIS** State **IL** ZIP **60450-9711**

Internal Billing Reference

Client Name **Roger Callaway** Phone

Address **Illinois Environmental Protection Agency**

Address **Bureau of Water - Water Pollution Control**

Address **1021 North Grand Ave East, CAS #19**

Address **Springfield** State **IL** ZIP **62794-9270**

0437565945

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- No Signature Required** - Delivery to select business addresses only. Delivery is guaranteed on Monday unless SATURDAY Delivery is selected.
- Direct Signature** - Signature required at recipient's address. Delivery is guaranteed on Monday unless SATURDAY Delivery is selected.
- Indirect Signature** - Signature required at recipient's address. Delivery is guaranteed on Monday unless SATURDAY Delivery is selected.

**7 Payment Bill to:**

- Sender**
- Account in Specimen**
- Recipient**
- Third Party**
- Credit Card**
- Cash/Check**

Total Packages: **1** Total Weight: **0** Total Declared Value: **\$0.00**

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