



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

BOB MARTIN
Commissioner

**IN THE MATTER OF EXELON :
GENERATION COMPANY, LLC. : ADMINISTRATIVE
OYSTER CREEK GENERATING : CONSENT ORDER
STATION : :**

This Administrative Consent Order (hereinafter "ACO") is entered into pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection ("NJDEP" or "Department") by N.J.S.A. 13:1D-1 et seq. and the Water Pollution Control Act ("WPCA"), N.J.S.A. 58:10A-1 et seq., and its implementing regulations at N.J.A.C. 7:14A-1 et seq.

FINDINGS

A. The Oyster Creek Generating Station ("Station" or "facility") is a nuclear fueled electric generating station (SIC Code 4911). The facility is located between the South Branch of the Forked River and Oyster Creek, two tributaries of Barnegat Bay. The facility consists of a single boiling water reactor rated to produce 670 megawatts. It was constructed between December 1964 and September 1969 and operation commenced in December 1969. The facility operates under a license issued by the United States Nuclear Regulatory Commission ("USNRC"), which most recently renewed the license on April 1, 2009 for a 20-year time period, to 2029.

B. The facility uses a once-through cooling system. The facility intake canal includes two surface water intake structures. The Circulating Water Intake withdraws water from Forked River in an amount up to 662 million gallons per day (“MGD”) for cooling the main condenser at the facility. The Dilution Water Intake withdraws water into the facility from the Forked River in an amount up to 748.8 MGD for moderating (diluting) the thermal effects of the condenser cooling water. All intake water is discharged into a discharge canal. The receiving water for the discharge canal is Oyster Creek and Barnegat Bay is the downstream receiving basin.

C. The surface water intakes at the facility have two types of effects which result in injury to and loss of aquatic organisms. The first effect, impingement, occurs when organisms are caught on intake screens or trash racks. The second effect, entrainment, occurs when organisms pass through the facility’s intake screens and into the facility itself with the cooling water. The facility is equipped with a number of existing measures to reduce impingement mortality and entrainment (“IM&E”) losses, including a system of Ristroph-type screens and fish handling mechanisms. The IM&E reduction measures currently in operation at the facility shall be referred to herein as the “Existing Measures.”

D. In addition to the cooling water discharges described above, the facility also discharges approximately 3.53 MGD of wastewater and washwater, approximately 3.5 MGD of chlorinated non-contact cooling water from the radioactive waste treatment system’s heat exchangers, and approximately 30 gallons per day of pump seal wastewater which is treated by an oil/water separator prior to discharge. The facility is classified as a major discharger by the Department in accordance with U.S. Environmental Protection Agency (“USEPA”) criteria.

E. Exelon Generation Company, LLC (“Exelon” or “Permittee”) holds New Jersey Pollution Discharge Elimination System (“NJPDDES”) Surface Water Permit No.

NJ0005550 for the facility. The Permittee applied for a renewal permit through an application dated May 28, 1999. The existing permit remains in force and effect pursuant to N.J.A.C. 7:14A-2.8. The Department issued a draft renewal permit on July 19, 2005 which incorporated conditions consistent with the then final regulations issued by the USEPA for Phase II facilities for which the facility meets the eligibility criteria. However, as articulated in a July 9, 2009 Federal Register notice, the USEPA has suspended the Phase II regulation as a result of a court decision. USEPA has directed states and permitting authorities to issue permits in accordance with best professional judgment pursuant to 40 C.F.R. 401.14.

F. Given the reliance of the July 19, 2005 permit on the subsequently suspended USEPA regulations, the Department redrafted the NJPDES permit consistent with N.J.A.C. 7:14A-15.14.

G. The Department issued a new draft permit on January 7, 2010. The draft permit proposed to authorize the intake of waters from the Forked River as well as the discharge of wastewater to both the Forked River and Oyster Creek and to provide the Department's determination pursuant to Section 316(b) of the federal Clean Water Act. Whereas the facility now uses a once-through cooling system, the Department proposed to determine in connection with the January 7, 2010 draft permit that closed-cycle cooling (i.e. cooling towers) constitutes the best technology available for the facility in accordance with best professional judgment. The Department's proposed determination was based, among other things, on Exelon's plan to operate the facility until the expiration of its USNRC operating license in 2029.

H. Exelon commented on the January 7, 2010 draft permit and proposed Section 316(b) determination, challenging the permit requirement for closed-cycle cooling and other conditions. Exelon's comments were set forth in a letter dated March 15, 2010 and in its testimony at public hearings on February 24, 2010 and March 3, 2010. In its comments, its

testimony and in materials submitted into the administrative record, Exelon has maintained that due to a variety of factors, including the cost of closed-cycle cooling, the lengthy period required for permitting and construction of cooling towers and the limited remaining life of the facility, closed-cycle cooling is not economically feasible for the facility, and the costs of closed-cycle cooling would substantially outweigh any benefits provided. In its comments, Exelon also informed the Department that if the Department were to require closed-cycle cooling at the facility, then Exelon would close the facility rather than install closed-cycle cooling. Exelon also stated this intention to close the facility in its filings with the U.S. Securities and Exchange Commission. Exelon reserved its right to request an adjudicatory hearing and to pursue all available appeals if the Department issued a final permit which required closed-cycle cooling.

I. Based on discussions with the Department, Exelon has agreed that it will not operate the facility until the expiration of its USNRC operating license in 2029, but instead will permanently cease power generation operations at the facility no later than December 31, 2019 under the terms provided in this ACO. For purposes of this ACO, the terms “Termination” and “Terminate Operations” shall be used to refer to the permanent cessation of power generation operations at the facility and the associated reduction in intake volume commensurate with closed-cycle cooling as described in paragraph 7. Notwithstanding the preceding sentence or any other provisions of this ACO, the parties agree that other ongoing and necessary operations and activities at the Station, such as SAFESTOR and decommissioning activities, shall continue after Termination and shall require continuing cooling water intake and discharge. The parties recognize that the facility will require significantly less cooling water after Termination.

J. Exelon's commitment to Terminate Operations on or before December 31, 2019 is a material change to the analysis that the Department used in its proposed January 7, 2010 Section 316(b) determination.

K. In reliance upon Exelon's commitment to Terminate Operations no later than December 31, 2019, the Department has determined that closed-cycle cooling is not the best technology available given the length of time that would be required to retrofit from the existing once-through cooling system to a closed-cycle cooling system, and the limited life span of the facility after implementation of the closed-cycle cooling system. The facility has physical limitations which constrain the location and types of closed-cycle systems that could be installed. As stated in the January 7, 2010 draft permit, the length of time required to design, permit and construct closed-cycle cooling technology at the facility would likely be at least seven years and would involve significant costs. Based on its consideration of these and other factors, in its best professional judgment, the Department has determined that the Existing Measures represent the best technology available for the facility's cooling water intake through Termination and with respect to post-Termination activities described in paragraph I above.

L. Due to these changed circumstances, the Department finds that it is appropriate to propose a new draft permit which reflects its new determination, pursuant to N.J.A.C. 7:14A-15.

M. The Department and the Permittee, in order to resolve disputes between them concerning the terms of a renewed NJPDES permit for the facility with respect to a federal Clean Water Act Section 316(b) determination and in order to facilitate issuance of a new draft and final NJPDES permit for the facility, have determined to enter into this Administrative Consent Order wherein the Permittee agrees to Terminate Operations no later than December 31,

2019, and the Department agrees to propose a new draft permit which incorporates the Department's best technology available determination as set forth in paragraph K above.

NOW, THEREFORE, it is hereby ordered and agreed as follows:

1. Exelon shall Terminate Operations on or before December 31, 2019.
2. In furtherance of its commitment in this ACO to Terminate Operations on

or before December 31, 2019, Permittee also agrees that:

Permittee shall maintain the facility throughout its period of operation in a manner that ensures operation is fully in accord with its permits and consistent with the operating license issued by the USNRC;

Permittee shall not sell or otherwise transfer the facility to another entity for use as a facility for generation of electric power except in compliance with paragraph 35 below;

Permittee shall apply for a renewed NJPDES permit which also provides for the agreed-upon Termination date of December 31, 2019 at least 180 days prior to the expiration of the final permit, issued pursuant to paragraph 10, below, and in accordance with N.J.A.C. 7:14A-4.2(e)3;

Permittee shall not seek a modification of the NJPDES permit for operations beyond Termination, unless it can meet that intake flow commensurate with closed-cycle cooling as described in paragraph 7 below.

3. Exelon shall make an annual payment of \$100,000 into a dedicated account to be established by the Department for Barnegat Bay to conduct research and programs for the protection of the Barnegat Bay ecosystem. The first payment shall be due within 30 days

of the date when a final permit is issued consistent with those terms described in paragraphs 6 – 9 of this ACO and Exhibit A hereof and any appeals of such permit have either expired or been resolved. Thereafter, the payment shall be due by January 30th of each subsequent year until Termination of operations.

IMPLEMENTATION SCHEDULE

4. The Permittee shall take the following steps, within the time set forth, consistent with a process to Terminate Operations on or before December 31, 2019:

a) Pursuant to USNRC regulations, Exelon shall, within 30 days of the date of execution of this ACO by the parties, submit written certification under oath or affirmation to the USNRC that the Station will Terminate Operations on or before December 31, 2019;

b) By December 31, 2013, Exelon shall certify to the Department that the fuel parameters and planning for the scheduled 2014 plant outage are to be based on a five-year period of operation ending on December 31, 2019, and not the standard six-year period;

c) By December 31, 2014, Exelon shall take into account the Termination in the calculation of the anticipated decommissioning cost and earnings estimates for the Station, which shall be included in the biennial or annual reports regarding decommissioning funding assurance submitted to the USNRC;

d) By December 31, 2014, Exelon shall include in the next biennial or annual report to the USNRC regarding decommissioning funding assurance the fact that Exelon intends to Terminate Operations on or

before December 31, 2019, and shall have the anticipated decommissioning cost and earnings estimates reflect that date;

e) By December 31, 2014, Exelon shall certify to the Department that the Station's five-year outage schedule lists the 2018 outage as the final scheduled refueling outage;

f) By May 31, 2016, Exelon shall certify to the Department that the Station's output was not bid into the PJM capacity market auction for delivery after December 31, 2019;

g) By December 31, 2018, Exelon shall submit the Post-Shutdown Decommissioning Activities Report ("PSDAR") to the USNRC based on the December 31, 2019 Termination, in accordance with 10 CFR 50.82(a)(4)(i); and

h) After Termination, Exelon may retain spent fuel, high-level waste, and other materials in the Station's pressure vessel and/or spent fuel pool, as authorized by the Station's NRC license, for a period of time that is consistent with USNRC regulations and license requirements. Once the U.S. Department of Energy ("DOE") begins accepting waste for handling in a long-term disposal or other facility, Exelon will request that DOE expeditiously remove the fuel rods from the Station site. Exelon's request will be consistent with the terms of the Standard Contract (see 10 CFR Part 961, Subpart B) and any settlement thereunder between DOE and Exelon.

5. The Department shall, pursuant to N.J.A.C. 7:14A-15 and -16, propose a revised draft renewal NJPDES permit and Section 316(b) determination in accordance with paragraphs 6 – 9, below.

6. The proposed draft renewal permit and Section 316 (a) and (b) determinations shall include the language set forth in Exhibit A.

7. The proposed draft renewal permit shall also provide that if the final permit issued to the Permittee is administratively extended and remains in effect on January 1, 2020, then the facility shall reduce its surface water intake to the greater of 40,000 gpm or to a flow that is commensurate with that achievable using closed-cycle cooling. This flow is necessary to operate the service water/emergency service water and radwaste systems, which are all required equipment for SAFESTOR and decommissioning activities.

8. The proposed draft renewal permit shall include an Implementation Schedule consistent with paragraph 4 above.

9. The proposed draft renewal permit shall contain:

a. no requirement that the Permittee will conduct studies of Barnegat Bay or other areas, such as those studies the Department proposed to require in Part IV, paragraph G.5 of the January 7, 2010 draft permit; and

b. a requirement that, upon Termination, Permittee shall lower reactor power slowly so that the rate of change in the discharge canal water temperature is no greater than 1.7 degrees F per hour. If thermal shock nevertheless results in harm to aquatic life, the Permittee shall have an affirmative defense with respect to any liability resulting from same; and

c. the same Option 2 temperature limitations contained in Table III – A-1, Surface Water DMR Limits and Monitoring Requirements, in Part

III, Limiting and Monitoring Requirements, in the draft NJPDES permit issued on January 7, 2010. The permittee shall comply with “Option 2 Limits” for outfall DSN 001A during an Emergency Condition as declared by the PJM Interconnection Office of Information Dispatcher, including Capacity, Weather/Environmental, Sabotage/Terrorism, and Transmission Security Emergencies as such terms are defined in the PJM Interconnection Office of Information Emergency Operations Manual M-13, Emergency Operations Manual M-13, Emergency Operations, Revision 41, effective October 1, 2010, provided that the number of days per year when such Emergency Conditions apply shall not exceed 20. Within eight hours of the Permittee being advised by PJM that Emergency Operations are required, the Permittee shall notify DEP’s Central Bureau of Water Compliance and Enforcement by Telephone that the Station has invoked the use of the alternate thermal limits of the permit. This provision keeps the permit consistent with changes in the PJM Manual that have occurred since the issuance of the 1994 permit.

10. After public notice and comment on the proposed draft renewal permit, the Department shall issue a final permit pursuant to N.J.A.C. 7:14A-15 and -16.

11. By entering into this ACO, Permittee agrees not to request an adjudicatory hearing on the Section 316 (a) and (b) determinations and Implementation Schedule in the final permit issued pursuant to paragraph 10 above, provided the final permit conforms to the requirements imposed on the draft permit under paragraphs 6 – 9 and Exhibit A hereof, and is otherwise consistent with the terms of this ACO. This ACO shall not be construed to limit

Permittee from participating in any adjudicatory hearing on the permit commenced by a third party.

12. In the event any NJPDES permit issued for the Station, whether issued pursuant to paragraph 10 above, or in response to or resulting from any judicial action, including any subsequent NJPDES permit issued for the Station, contains conditions which require closed-cycle cooling prior to January 1, 2020, or which are otherwise inconsistent with the terms the Department is required to include in the proposed draft renewal permit described under this ACO, including but not limited to those terms described in paragraphs 6 – 9 and Exhibit A hereof, this ACO shall be null and void, and neither Permittee nor the Department shall have further obligations hereunder. In such event, Permittee shall have no obligation to Terminate Operations, and may withdraw, modify or reverse any submission made or action taken in preparation for Termination, including but not limited to all submissions and actions described in this ACO. In the event that the NJPDES permit contains conditions which require closed-cycle cooling prior to January 1, 2020 or which are otherwise inconsistent with this ACO, Permittee may comment thereon, request an adjudicatory hearing and/or pursue any and all other remedies available.

PROGRESS REPORTS

13. Permittee shall submit to the Department progress reports commencing one year from the effective date of the permit and annually thereafter. Each progress report shall outline progress toward Termination.

PENALTIES

14. Permittee shall pay stipulated penalties as set forth below to the Department for failure to comply with paragraphs 4 and 13 hereof, upon assessment by the Department.

a. For all violations of the provisions set forth in paragraph 4:

<u>Days Past Compliance Date</u>	<u>Stipulated Penalties</u>
1 st through 7 th calendar day of failure to comply with the schedule	\$2000 per calendar day
8 th through 14 th day	\$3000 per calendar day
15 th day and beyond	\$5000 per calendar day

b. For all violations of the provisions set forth in paragraph 13:

<u>Days Past Compliance Date</u>	<u>Stipulated Penalties</u>
Each calendar day that Permittee fails to submit report	\$500 per calendar day

15. All stipulated penalties shall be due and payable twenty-one (21) calendar days following Permittee's receipt of a written demand from the Department. Payment of stipulated penalties shall be made by cashier's or certified check payable to "Treasurer, State of New Jersey" and shall be submitted to the following address with the appropriate portion of the penalty invoice:

Division of Revenue
New Jersey Department of Treasury
P.O. Box 417
Trenton, New Jersey 08625-0417

16. Permittee reserves its right to defend any claim of violations or any failure to pay stipulated penalties for violations of paragraph 4 hereof based upon force majeure provisions of this ACO. There is no force majeure defense for failure to submit progress reports under paragraph 13 hereof.

17. If Permittee fails to pay stipulated penalties pursuant to paragraph 14 and 22, and even if Permittee raises the defenses set forth in paragraph 16, the Department may institute civil proceedings to collect stipulated penalties and/or assess the maximum civil

administrative penalties allowable under the WPCA and implementing regulations for the violations of this ACO or take any other appropriate enforcement action.

18. The payment of stipulated penalties does not alter Permittee's responsibility to complete any and all requirements of this ACO.

FORCE MAJEURE

19. If any event occurs which Permittee believes will or may cause delay in the achievement of the Implementation Schedule provisions of this ACO, Permittee shall notify the Department in writing within seven (7) calendar days of becoming aware of the delay or anticipated delay as appropriate, referencing this paragraph and describing the anticipated length of the delay, the precise cause or causes of the delay, any measures taken or to be taken to minimize the delay and the time required to take any such measures to minimize the delay. Permittee shall take all necessary action to prevent or minimize any such delay.

20. The Department shall extend the deadline for Permittee's performance under the Implementation Schedule of this ACO, for a period no longer than the delay resulting from such circumstances, if the Department finds that:

- a. Permittee has complied with the notice requirements of paragraph 19 of this ACO; and
- b. any delay or anticipated delay has been or will be caused by fire, flood, riot, strike or other circumstances beyond the control of Permittee; and
- c. that Permittee has taken all necessary actions to prevent or minimize the delay.

21. If the Department determines that either Permittee has not complied with the notice requirements of the preceding paragraph or that the event causing the delay is not

beyond the control of Permittee, or that Permittee has not taken all necessary actions to prevent or minimize the delay, then the Department shall deny Permittee's force majeure request thereby subjecting Permittee to stipulated penalties. The burden of proving that any delay is caused by circumstances beyond the control of Permittee and the length of any such delay attributable to those circumstances shall rest with Permittee. Increases in the costs of complying with the requirements of this ACO shall not be a basis for an extension of time. Delay of a preliminary requirement shall not automatically justify or excuse delay in the attainment of subsequent requirements. A contractor's breach shall not automatically constitute force majeure.

22. In the event Permittee fails to Terminate Operations on or before December 31, 2019, Permittee shall pay daily stipulated penalties of \$100,000 per day or an amount equal to 200 percent of Permittee's daily profit from operation after December 31, 2019, whichever amount is greater. There shall be no force majeure or other defense to the stipulated penalties provided for in this paragraph.

GENERAL PROVISIONS

23. This ACO does not constitute a modification of the NJPDES permit for the Station which may only be done in accordance with N.J.S.A. 58:10A-7, and N.J.A.C. 7:14A-16. Pursuant to N.J.S.A. 58:10A-10a and the terms of this ACO, Permittee is responsible for meeting the Implementation Schedule and all other requirements set forth in this ACO. All other conditions and requirements of the NJPDES Permit remain in full force and effect and are subject to the penalties prescribed in the WPCA and its implementing regulations.

24. Permittee shall submit two copies of all documents, except for any penalty payments, required by this ACO by certified mail, return receipt requested or by hand delivery with an acknowledgment of receipt form for the Department's signature to:

NJDEP Bureau of Surface Water Permitting
Water Resources Management
P.O. Box 420
Mailcode 401-02B
Trenton, New Jersey 08625

Penalty payments shall be made in the manner indicated in paragraph 15 above.

25. Nothing in this ACO shall preclude the Department from taking enforcement action against the Permittee for violations of its NJPDES permit or for other violations of law.

26. This ACO shall be binding on Permittee, its successors, assignees, agents, any trustee in bankruptcy or receiver appointed pursuant to a proceeding in law or equity.

27. This ACO shall not relieve Permittee from obtaining and complying with all applicable federal, state, and local permits as well as all applicable statutes and regulations while carrying out the obligations imposed by this ACO.

28. The obligations and penalties of this ACO are imposed pursuant to the police powers of the State of New Jersey for the enforcement of the law and the protection of the public health, safety and welfare and are not intended to constitute debts which may be limited or discharged in a bankruptcy proceeding.

29. Nothing in this ACO is intended to abridge the Department's statutory and regulatory right to enter and inspect the Station, and Permittee shall allow the Department and its authorized representatives access to the Station at all times for the purpose of monitoring compliance with this ACO as required by law.

30. The Department reserves the right under applicable statutory law to require Permittee to take additional action should the Department determine that such actions are necessary to protect human health or the environment. Nothing in this ACO shall constitute a waiver of any statutory right of the Department to require such additional measures should the

Department determine that such measures are necessary. However, nothing in this ACO creates authority within the Department to regulate in the field of radiological health and safety to the extent such regulation may be preempted, and Permittee has not, and is not, waiving any right to challenge Department action that intrudes upon that preempted field.

31. The Permittee shall not construe any unwritten advice, guidance, suggestions, or comments by the Department or by any person acting on behalf of the Department as relieving of its obligations under its permit, this ACO, and/or the WPCA.

32. This ACO shall be governed and interpreted under the laws of the State of New Jersey.

33. The Permittee agrees not to contest the authority or jurisdiction of the Department to issue this ACO and agrees not to contest the terms of this ACO except that Permittee may contest the Department's interpretation or application of the ACO's terms in any action brought by the Department to enforce the ACO's provisions.

34. The parties hereby consent to and agree that this ACO is fully enforceable as a final administrative order in the New Jersey Superior Court upon the filing of a summary action for compliance pursuant to the WPCA.

35. The Permittee shall give written notice of this ACO to any successor in interest prior to transfer of ownership of the Station, and shall simultaneously verify to the Department that such notice has been given. Additionally, the parties agree that any contract, lease, deed or any other agreement that Permittee enters into to convey the property/facility that is the subject matter of this ACO shall include a provision which states that the successor, assignee, tenant or purchaser has agreed to assume the obligations imposed by this ACO.

36. If any provision of this ACO or the application thereof to any person or circumstance shall to any extent be invalid or unenforceable, the remainder of this ACO or the

application of such provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby and each provision of this ACO shall be valid and enforced to the fullest extent permitted by law, except as provided in paragraph 12 above.

37. No modification or waiver of this ACO shall be valid except by written amendment duly executed by Exelon and the Department and/or by the Department's modification in writing pursuant to the force majeure provisions herein above.

38. This ACO shall become effective upon the signature of all parties.

DATE:

12/9/2010

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:

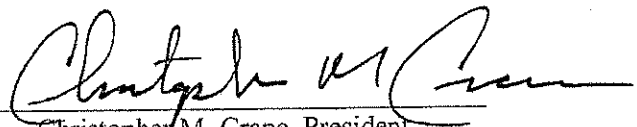

Bob Martin, Commissioner

DATE:

12-9-2010

EXELON GENERATION COMPANY, LLC

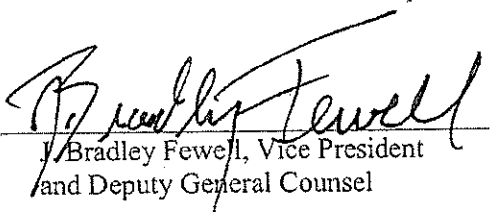
BY:


Christopher M. Crane, President

DATE:

12-9-2010

BY:


Bradley Fewell, Vice President
and Deputy General Counsel