DOCKET NO. D-2010-036 CP-3

DELAWARE RIVER BASIN COMMISSION

Exelon Generation Company, LLC
Fairless Hills Generating Station
Non-Contact Cooling Water Discharge
Falls Township, Bucks County, Pennsylvania

PROCEEDINGS

This docket is issued in response to an application submitted to the Delaware River Basin Commission (DRBC or Commission) on March 12, 2019 (Application), for renewal of an existing non-contact cooling water (NCCW) and process water discharge from the docket holder’s Fairless Hills Generating Station (FHGS). National Pollutant Discharge Elimination System (NPDES) Permit No. PA0057088 for this discharge was issued by the Pennsylvania Department of Environmental Protection (PADEP) on March 24, 2015.

The application was reviewed for continuation of the project in the Comprehensive Plan and approval under Section 3.8 of the Delaware River Basin Compact. The Bucks County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on February 12, 2020.

A. DESCRIPTION

1. **Purpose.** The purpose of this docket is to renew the approval of an existing annual average discharge of 42.6 million gallons per day (mgd) of NCCW and process water from the docket holder’s FHGS.

2. **Location.** The docket holder’s FHGS is located on the US Steel complex in Falls Township, Bucks County, Pennsylvania. The FHGS will continue to discharge NCCW and process water directly to Water Quality Zone 2 of the Delaware River at River Mile 126.9.

The outfall is located in the Delaware River Watershed as follows:

<table>
<thead>
<tr>
<th>OUTFALL NO.</th>
<th>LATITUDE (N)</th>
<th>LONGITUDE (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>40° 8’ 12”</td>
<td>74° 44’ 59”</td>
</tr>
</tbody>
</table>
3. **Area Served.** The docket holder’s FHGS generates NCCW and process water, which is comingled with stormwater from the FHGS site and two adjacent properties prior to discharge via existing Outfall No. 001. Power produced at the facility serves the Pennsylvania-Jersey-Maryland (PJM) Grid.

For the purpose of defining the Area Served, Section B (Type of Discharge) and D (Service Area) of the docket holder’s Application are incorporated herein by reference, to the extent consistent with all other conditions contained in the DECISION Section of this docket.

4. **Design Criteria.** The facility discharges an annual average of 42.6 mgd of NCCW and process water, along with stormwater, from existing Outfall No. 001. The maximum monthly discharge rate from Outfall No. 001 is 76.32 mgd. The process water is power plant condenser cooling water. The design power plant condenser cooling flow rate is 73.15 mgd. The only treatment of the NCCW and process water prior to discharge is the use of 3 chemical additives to control scaling and microbial fouling within the cooling system.

5. **Facilities.** The existing FHGS consists of 2 steam turbines (Turbine Generators A & B) that generate power for the PJM grid. NCCW and power plant condenser cooling water is generated by FHGS power production operations,

The FHGS also generates approximately 1.7 mgd of condensate, blowdown, and sanitary wastewater which is conveyed to the US Steel WWTP, located adjacent to the FHGS, for treatment prior to discharge to the Delaware River. The US Steel WWTP and its discharge was most recently approved by the Commission on March 16, 2016 via Docket No. D-1978-068-4.

6. **Water withdrawals.** Potable and process cooling water are obtained from US Steel. The surface water withdrawal from the Delaware River for US Steel’s supply is described in detail in Docket No. D-2009-006-1 and the subsidiary water allocation for the docket holder is described in Docket No. D-1996-063 CP-2, both approved December 8, 2010.

7. **NPDES Permit / DRBC Effluent Requirements.** NPDES Permit No. PA0057088 was issued by PADEP on March 24, 2015 and includes final effluent limitations for the project discharge to surface waters classified by PADEP as supporting warm water fishes (WWF). EFFLUENT TABLE C-1 included in the DECISION section of this docket, contains effluent requirements for DRBC parameters that must be met as a condition of this approval (See DECISION Condition C.1.). Effluent requirements for Outfall No. 001 are based on an average annual flow of 42.6 mgd.

8. **Relationship to the Comprehensive Plan.** The FHGS discharge was included in the Comprehensive Plan via Docket No. D-2010-036 CP-1, which was approved on December 8, 2010. Issuance of this docket will renew and continue the discharge in the Comprehensive Plan.
B. FINDINGS

The docket holder submitted an application to renew approval of an existing discharge of 42.6 million gallons per day (mgd) of NCCW and process water from their FHGS.

1. Heat Dissipation Area

   Section 4.30.6.C. of the Commission’s Water Quality Regulations (WQR) require that except within assigned heat dissipation areas (HDAs), discharges to Water Quality Zone 2 shall not result in an induced temperature increase of 5°F (2.8°C) above the average 24-hour temperature gradient displayed during the 1961-1966 period, or a maximum of 86°F (30.0°C), whichever is less. Section 4.30.6.F.3. of the Commission’s WQR allows for heat dissipation areas up to 3,500 feet in length, two-thirds the surface width, and a maximum cross section up to one-quarter of the cross-sectional area of the stream in Zone 2.

   Docket No. D-2010-036 CP-2, approved on March 11, 2015, approved an HDA of a 1,000 feet both upstream and downstream (2,000 feet total) and 600 feet laterally away from Outfall No. 1. The HDA was assigned based on the results of a CORMIX modeling study utilizing a maximum discharge rate of 76.32 mgd and a maximum temperature delta (Outfall No. 001 effluent temperature minus surface water intake temperature) of 19.4 °F. This docket continues the approval of this HDA and limits the temperature delta to 19.4 °F and a maximum temperature of 110 °F (See DECISION Conditions C.1 and C.3.).

2. Other

   There nearest downstream surface water intake of record for public water supply is 7 miles downstream of the docket holder’s discharge and is operated by Aqua Pennsylvania.

   The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

   The effluent limits in the NPDES Permit are in compliance with Commission effluent quality requirements, where applicable.

   The project is designed to produce a discharge meeting the effluent requirements as set forth in the Commission’s WQR.

C. DECISION

   Effective on the approval date for Docket No. D-2010-036 CP-3 below, the project described in Docket No. D-2010-036 CP-2 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-2010-036 CP-3; Docket No. D-2010-036 CP-2 is terminated and replaced by Docket No. D-2010-036 CP-3; and the project and the appurtenant facilities
Monitoring and Reporting

1. The docket holder shall comply with the requirements contained in the EFFLUENT TABLES below. The docket holder shall submit the required monitoring results electronically to the DRBC Project Review Section via email aemr@drbc.gov on the Annual Effluent Monitoring Report Form located at this web address: https://www.nj.gov/drbc/programs/project/docket-app-info.html#3. The monitoring results shall be submitted annually, absent any observed limit violations, by January 31. If a DRBC effluent limit is violated, the docket holder shall submit the result(s) to the DRBC within 30 days of the violation(s) and provide a written explanation that states the action(s) the docket holder has taken to correct the violation(s) and protect against any future violations. The following average monthly effluent limits are among those listed in the NPDES Permit and meet or are more stringent than the effluent requirements of the DRBC.

**EFFLUENT TABLE C-1: DRBC Parameters Included in NPDES Permit**

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>LIMIT</th>
<th>MONITORING</th>
</tr>
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<tbody>
<tr>
<td>pH (Standard Units)</td>
<td>6 to 9 at all times</td>
<td>As required by NPDES Permit</td>
</tr>
<tr>
<td>Effluent Temperature</td>
<td>110°F (Instantaneous Maximum)</td>
<td>As required by NPDES Permit</td>
</tr>
<tr>
<td>Temperature Delta (Effluent Temperature minus Intake Temperature)</td>
<td>19.4°F (Instantaneous Maximum)</td>
<td>As required by NPDES Permit</td>
</tr>
<tr>
<td>Total Dissolved Solids*</td>
<td>1,000 mg/l</td>
<td>As required by NPDES Permit</td>
</tr>
<tr>
<td>PCBs</td>
<td>Monitor and Report</td>
<td>As required by NPDES Permit</td>
</tr>
</tbody>
</table>

* See DECISION Condition C.5.

2. The docket holder shall continue to submit Polychlorinated Biphenyl (PCB) monitoring data and PMP Annual Reports to the Commission’s Science & Water Quality Management Branch as required in the existing NPDES Permit.

Other Conditions

3. The discharge of wastewater shall not increase the ambient temperatures of the receiving waters by more than 5°F above the average 24-hour temperature gradient displayed during the 1961-1966 period, nor shall such discharge result in stream temperatures exceeding 86°F, except within an assigned heat dissipation area consisting of a 1,000 feet both upstream and downstream (2,000 feet total) and 600 feet laterally away from Outfall No. 001.

4. Except as otherwise authorized by this docket, if the docket holder seeks relief from any limitation based upon a DRBC water quality standard or minimum treatment requirement, the
docket holder shall apply for approval from the Executive Director or for a docket revision in accordance with Section 3.8 of the Compact and the Rules of Practice and Procedure.

5. The docket holder may request of the Executive Director in writing the substitution of specific conductance for TDS. The request should include information that supports the effluent specific correlation between TDS and specific conductance. Upon review, the Executive Director may modify the docket to allow the substitution of specific conductance for TDS monitoring.

6. The docket holder is responsible for timely submittal to the DRBC of a docket renewal application on the appropriate application form including the appropriate docket application filing fee (see 18 CFR 401.43) at least 6 months in advance of the docket expiration date set forth below. The docket holder will be subject to late filed renewal surcharges in the event of untimely submittal of its renewal application, whether or not DRBC issues a reminder notice in advance of the deadline or the docket holder receives such notice. In the event that a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below, the terms and conditions of the current docket will remain fully effective and enforceable against the docket holder pending the grant or denial of the application for docket approval.

7. The docket holder is permitted to treat and discharge wastewater as set forth in the Area Served Section of this docket, which incorporates by reference Sections B (Type of Discharge) and D (Service Area) of the docket holder’s Application to the extent consistent with all other conditions of this DECISION Section.

8. The facility and operational records shall be available at all times for inspection by the DRBC.

9. The facility shall be operated at all times to comply with the requirements of the Commission’s WQR.

10. If at any time the receiving treatment plant proves unable to produce an effluent that is consistent with the requirements of this docket approval, no further connections shall be permitted until the deficiency is remedied.

11. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

12. The docket holder shall discharge wastewater in such a manner as to avoid injury or damage to fish or wildlife and shall avoid any injury to public or private property.

13. The issuance of this docket approval shall not create any private or proprietary rights in the waters of the Basin, and the Commission reserves the right to amend, suspend or rescind the docket for cause, in order to ensure proper control, use and management of the water resources of the Basin.
14. The docket holder shall be subject to applicable DRBC regulatory program fees, in accordance with duly adopted DRBC resolutions and/or regulations (see 18 CFR 401.43).

15. This approval is transferable by request to the DRBC Executive Director provided that the project purpose and area served approved by the Commission in this docket will not be materially altered because of the change in project ownership. The request shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 CFR 401.43).

16. The docket holder shall request a name change of the entity to which this approval is issued if the name of the entity to which this approval is issued changes its name. The request for name change shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 CFR 401.43).

17. The Executive Director may modify or suspend this approval or any condition thereof, or require mitigating measures pending additional review, if in the Executive Director's judgment such modification or suspension is required to protect the water resources of the Basin.

18. Any person who objects to a docket decision by the Commission may request a hearing in accordance with Article 6 of the Rules of Practice and Procedure. In accordance with Section 15.1(p) of the Delaware River Basin Compact, cases and controversies arising under the Compact are reviewable in the United States district courts.

BY THE COMMISSION

APPROVAL DATE:

EXPIRATION DATE: March 31, 2025