

DOCKET NO. D-2012-017 CP-2

DELAWARE RIVER BASIN COMMISSION

**Philadelphia Gas Works
Surface Water Withdrawal
City of Philadelphia, Philadelphia County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an application submitted to the Delaware River Basin Commission (DRBC or Commission) on September 15, 2021 for renewal of an allocation of surface water and review of a surface water withdrawal project.

The Application was reviewed for continuation of this project in the Comprehensive Plan and for approval under Section 3.8 of the *Delaware River Basin Compact*. The Philadelphia City Planning Commission has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on May 11, 2022.

A. DESCRIPTION

- Purpose.** The purpose of this docket is to renew the approval of an existing surface water withdrawal of up to 229.648 million gallons per month from an existing intake on the Delaware River. Water is used in the facility's fire suppression system, which includes heat exchangers for the river water pump emergency generators as well as a facility-wide water piping system that supplies stationary fire suppression equipment and requires occasional winterization.
- Location.** The docket holder's facility is located between East Venango Street and Castor Avenue approximately ¼ mile from the Delaware River in the City of Philadelphia, Philadelphia County, Pennsylvania. The project intake is located in the tidal portion of the Delaware River (Water Quality Zone 3), approximately 4,500 feet downstream of the confluence of Frankford Creek at River Mile 103.6 (Delaware River).

Specific location information has been withheld for security reasons.

- Area Served.** The project withdrawals will continue to serve only the PGW Richmond Plant. For the purpose of defining Area Served, the Application is incorporated herein by reference consistent with conditions contained in the DECISION section of this docket.

4. **Design Criteria.** The Philadelphia Gas Works is a local distribution company that provides natural gas to customers in the City of Philadelphia. Natural gas is supplied to the plant from two interstate pipelines. The facility is a peak shaving facility. Natural gas is liquefied and placed into storage in one of two LNG storage tanks. The LNG remains in storage until city gas demands exceed the normal contract natural gas quantities or if the pipeline capacity is limited due to high demand. When this occurs, LNG is pumped from storage, vaporized, odorized and then pushed into the city's gas distribution system.

The PGW Richmond Plant facility contains two systems (one active and one decommissioned) that produce liquefied natural gas. The Expander Plant, currently in operation, does not require river water for cooling purposes. The Cascade Refrigerant System, currently decommissioned, contains compressors and heat exchanger units that previously required river water for cooling purposes. Though the bulk of PGW Richmond Plant's cooling water needs have been eliminated with the decommissioning of the Cascade Refrigerant System, water is still continuously circulated within the facility's river water piping system to maintain pressure in the fire suppression system. Water is also used for routine testing of three natural gas fired emergency backup generators. These generators, used for emergency operation of river water pumps, are tested for approximately 90 minutes per engine on a biweekly basis. During winter months when freezing conditions are a concern, additional water is circulated through the plant's piping system for winterization purposes. Water after use is discharged back to the Delaware River either to Outfall 004, or as spill back to the facility's river water wet well. The water used to test the fire suppression emergency equipment is discharged to the ground surface adjacent to the equipment and infiltrated.

Surface water is withdrawn from the Delaware River through a 6.1 foot by 6 foot reinforced concrete chamber with a 5.3 foot by 5 foot rectangular bar screen at the interface with the river. A 48-inch diameter reinforced concrete subaqueous pipe flume conveys the water approximately 1,100 feet to a 24-foot deep wet well located on the southwest corner of the PGW Richmond plant site. Water is taken through revolving screens to remove debris down to 3/8 inch. The wet well contains six pumps with a combined capacity of 24,900 gpm (35.86 mgd) that withdraw water from the wet well to provide water to the plant. Under normal operating conditions, only one pump is operated at a time. The individual pump capacities range from 300 gpm to 6,000 gpm.

Prior to November 2011, the docket holder maintained its river water system pressure using only its high-capacity pumps. In 2011, the docket holder installed a smaller capacity jockey pump that can maintain sufficient water pressure at lower pumping rates. The docket holder reports the present average and maximum daily water use at the plant is 1.170 million gallons per day (mgd) and 8.640 mgd respectively. Over the previous 10-year reporting period, a peak monthly use of 218.073 mgm was recorded. The docket holder has projected no increase in the future water demands and requested to retain the approved existing allocation of 229.648 mgm and increase the maximum pumping rate from 5,145 gpm to 6,000 gpm to account for the use of the largest capacity pump.

5. **Facilities.** The existing project intake has the following characteristics:

INTAKE NO.	WITHDRAWAL WATER BODY	PUMP CAPACITY	7Q10 FLOW AT INTAKE (CFS)	YEAR CONSTRUCTED
Delaware River Intake	Delaware River	24,900 gpm(1)	2,934	1969

(1) Combined capacity of six existing pumps. Only one pump is operated under normal operations.

The surface water withdrawal is metered.

The surface water is not treated prior to use.

Potable Water is supplied by the City of Philadelphia.

6. **Other.** Water after use is returned as spillback to the wet well or to Outfall No. 4 to the Delaware River. A small portion of water used to test the emergency equipment is discharged directly to the ground surface adjacent to the equipment. The discharge was approved by DRBC Docket No. D-1976-055 CP-4 on December 11, 2019. The discharge is regulated by PADEP under NPDES Permit No. PA0012882.

7. **Relationship to the Comprehensive Plan.** The project was previously included in the Comprehensive Plan by the Commission in Docket No. D-2012-017 CP-1 approved on September 12, 2012. Issuance of this docket will continue the withdrawal project in the Comprehensive Plan.

B. FINDINGS

1. Drought Management and Contingency Plans (DMCPs) for Water Withdrawal greater than 1 mgd

Section 2.3.5.1 C. of the Commission's *Rules of Practice and Procedure (RPP)*, requires industrial and commercial water withdrawals in excess of one million gallons per day to develop a contingency plan including emergency conservation measures to be instituted in the event of a Commission declared drought or other water shortage. Resolution No. 83-14 amended the Commission's *Water Code* (Section 2.1.4) to include the conservation goal of a 15 percent

reduction in depletive use during drought conditions. The docket holder submitted a revised DMCP as part of the docket renewal. The water supply project is primarily for use in the fire suppression system and routine emergency equipment testing. These processes are necessary and cannot be completely terminated for safety reasons during drought periods. The DMCP indicates that during drought periods, the docket holder will utilize the small capacity Jockey Pump to the maximum extent. The docket holder will also keep spare parts available to expedite repairs or replacement of the Jockey Pump. Scheduled testing of the fire suppression equipment will be curtailed or delayed to extent possible for continued compliance with facility operation requirements enforced by the Pennsylvania Public Utility Commission and United States Department of Transportation Pipeline and Hazardous Materials Safety Administration. The docket holder shall implement the DMCP upon direction by the Executive Director. (see Condition C.4.).

2. Surface Water Charges / Entitlement

On July 15, 1976, DRBC issued Certificate of Entitlement No. 236 to the docket holder. The Certificate entitled the docket holder to use, withdraw or divert up to 1,055.930 mgm non-consumptive use and up to 21.550 mgm consumptive use without charge from the Delaware River in the City of Philadelphia, Philadelphia County, Pennsylvania. The docket holder shall pay for surface water use in excess of the consumptive use and non-consumptive use listed in Entitlement No. 236 in accordance with the provisions of 18 CFR Part 420 as described in Condition C.3. in the DECISION section.

3. Other Findings

The rates and allocations provided by this docket are for use under normal operating conditions. During an actual fire emergency, the docket holder may use any and all of its pumps at a combined total capacity of 24,900 gpm.

The project is designed to conform to the requirements of the *Water Code (WC)* and *Water Quality Regulations (WQR)* of the DRBC.

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.

C. DECISION

Effective on the approval date for Docket No. D-2012-017 CP-2 below, the project described in Docket No. D-2012-017 CP-1 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-2012-017 CP-2; Docket No. D-2012-017 CP-1 is terminated and replaced by Docket No. D-2012-017 CP-2; and the project and the appurtenant facilities described in in Section A.4. (Design Criteria) and A.5. (Facilities) shall be continued in the Comprehensive Plan. The project and appurtenant facilities as described in Section A.4.

(Design Criteria) and A.5. (Facilities) are approved subject to the following conditions, pursuant to Section 3.8 of the *Compact*:

Monitoring and Reporting

1. The docket holder shall continue to report to the PADEP all surface and groundwater sources described in this docket in accordance with the Pennsylvania Regulations (Title 25 - Environmental Protection, [25 PA. CODE CH. 110], Water Resources Planning).

2. The project withdrawals shall be metered by means of an automatic continuous recording device, flow meter, or other method, and shall be measured to within 5 percent of actual flow. An exception to the 5 percent performance standard, but no greater than 10 percent, may be granted for surface water withdrawals by the designated agency (PADEP) if maintenance of the 5 percent performance is not technically feasible or economically practicable. Meters or other methods of measurement shall be subject to approval and inspection by the PADEP as to the type, method, installation, maintenance, calibration, reading and accuracy. A record of daily withdrawals shall be maintained, and monthly totals shall be reported to the PADEP annually and shall be available at any time to the Commission if requested by the Executive Director.

3. The docket holder shall pay for surface water use in excess of the amount listed in Certificate of Entitlement No. 236 in accordance with *Administrative Manual – Part III Basin Regulations – Water Supply Charges 18 CFR Part 420*.

4. The docket holder shall implement the DMCP upon direction by the Executive Director.

Other Conditions

5. No withdrawal shall be pumped above the maximum rate and monthly allocation as indicated below:

INTAKE ID	MAXIMUM RATE (GPM)*	MONTHLY ALLOCATION (MGM)
Delaware River	6,000 gpm	229.648

* Based on a 24-Hour Average

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 surface water intake and operational records shall be available at all times for inspection by the DRBC.

8. The surface water intake shall be operated at all times to comply with the requirements of the *WC* and *WQR* of the DRBC.

9. No water service connections shall be made to newly constructed premises with plumbing fixtures and fittings that do not comply with water conservation performance standards contained in Resolution No. 88-2 (Revision 2).

10. The docket holder shall implement to the satisfaction of the PADEP, a drought or other water supply emergency plan.

11. No new water service connections shall be made to premises connected to sewerage systems which are not in compliance with all applicable effluent limits contained in State permits and the *Water Quality Regulations* of the Commission.

12. 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.

13. The docket holder is permitted to provide the water approved in this docket to the areas included in Section A.3. Area Served of this docket. Any expansion beyond those included in Section A.3. Area Served is subject to DRBC review and approval in accordance with Section 3.8 of the *Compact*.

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 issuance of this docket approval shall not create any private or proprietary rights in the water of the Basin, and the Commission reserves the rights to amend, alter or rescind any actions taken hereunder to ensure the proper control, use and management of the water resources of the Basin.

18. If the monitoring required herein or any other relevant data or information demonstrates that the operation of this project is interfering with or otherwise impairing existing uses of ground or surface water, or if the docket holder receives a complaint from an existing ground or surface water user within the zone of influence of the withdrawal alleging such interference or impairment, the permit holder shall immediately notify the Executive Director, and unless excused by the Executive Director, shall investigate the demonstrated or alleged impacts. For purposes of this condition, notification shall mean either (a) electronic transmittal of written notice to the Executive Director via email (using addresses posted on the DRBC website); or (b) written notice to the Executive Director and a telephone call to the Project Review Section at 609-883-9500, ext. 216. (Oral notification must always be accompanied by immediate written notification directed to the Executive Director.) In addition, the docket holder shall provide written notice to all potentially affected water users of the docket holder's responsibilities under this condition. **Any well or surface water supply that is impaired as a result of the docket holder's project withdrawal shall be repaired, replaced or mitigated at the docket holder's expense.** The scope of the options to consider for repair, replacement and/or mitigation shall not be limited solely to those that are owned, operated, or controlled by the project sponsor. An investigation report and/or mitigation plan prepared and certified by a licensed professional engineer and/or a licensed professional geologist shall be submitted to the Executive Director as soon as practicable following notice of the demonstrated or alleged impairment consistent with this paragraph. The Executive Director shall make the final determination regarding the scope and sufficiency of the investigation and the extent of any mitigation measures that may be required. Where ground and surface waters are rendered unavailable, unusable, or unsuitable for the pre-existing use, the Executive Director may direct the docket holder to take interim actions to mitigate such impacts, pending completion of the investigative report and any long-term repair, replacement or mitigation.

19. 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.

20. For the duration of any drought emergency declared by either Pennsylvania or the Commission, water service or use by the docket holder pursuant to this approval shall be subject to the prohibition of those nonessential uses specified by the Governor of Pennsylvania, the Pennsylvania Emergency Management Council, PADEP, or the Commonwealth Drought Coordinator to the extent that they may be applicable, and to any other emergency resolutions or orders adopted hereafter by the Commission.

21. 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: June 8, 2032

DRAFT