

DOCKET NO. D-2019-003-1

DELAWARE RIVER BASIN COMMISSION

**Wheelabrator Falls
Waste-to-Electric Generation Facility Consumptive Use
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 29, 2019 for approval of an existing waste-to-energy electric generation facility and its associated consumptive use. The application was submitted as required by Resolution No. 2018-5 clarifying and restating the Commission's consumptive water use replacement policy, adopted by the Commission on June 13, 2018.

The Application was reviewed for approval under Section 3.8 of the *Delaware River Basin Compact*. The Bucks County Planning Commission has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on August 10, 2022.

A. DESCRIPTION

1. Purpose. The purpose of this docket is to approve the existing 53-megawatt waste-to-energy facility and a consumptive use of up to 27.90 million gallons per month of water purchased from the Township of Falls Authority for industrial cooling and processes. The consumptive use allocation of 27.90 mgm will expire following installation and operation of equipment needed to complete a cooling tower water conservation project and evaluation of the effectiveness of the technology. It is projected that the water conservation project will provide a 90 percent reduction in water use and result in a consumptive use of 6.30 mgm.

2. Location. The waste-to-energy facility is located on New Ford Mill Road adjacent to the former US Steel Complex in Falls Township, Bucks County, Pennsylvania. Water for the project is municipal water purchased from the Township of Falls Authority through an interconnection with the Morrisville Municipal Authority (MMA). The MMA obtains its water from an intake located in the Delaware River Water Quality Zone 1E in the Borough of Morrisville, Bucks County, Pennsylvania. The Delaware River near the project site and at the intake location is designated by the Pennsylvania Department of Environmental Protection (PADEP) as supporting warm water fishes, migratory fishes (WWF, MF).

Specific location information has been withheld for security reasons.

3. **Area Served.** Water supplied by the Township of Falls Authority will continue to be used for industrial cooling and processes at the Wheelabrator Falls waste-to-energy facility as shown on a figure entitled “Site Location Map, Wheelabrator Falls, Inc.” submitted with the application.

4. **Design criteria.** Wheelabrator Falls is a waste-to-energy facility located on approximately 75-acre parcel containing an office building, production facility and recycling center. The facility began operations in 1994 and generally operates 24 hours per day. The facility converts up to 1,600 tons of solid waste per day into electric power utilizing mass burn technology. Solid waste is delivered to the plant via truck and stored in the receiving pit. Cranes then deposit the municipal solid waste into the refuse feed hoppers where reciprocating grates move the refuse through the furnace where combustion of the material occurs. Air from the reception area is drawn in above and below the grates to ensure complete combustion and maintain negative air pressure over the reception area to eliminate odors and prevent the escape of dust. A waterwall boiler above the grate area produces superheated steam which is used to drive a turbine generator that produces up to 53 megawatts of electricity for use in the local electric grid.

Currently, the average and maximum daily water demands of the facility are 0.701 million gallons per day (mgd) and 0.903 mgd, respectively. The majority of water is used for cooling purposes. The remainder of the water is used for general plant operations consisting of boiler and auxiliaries’ makeup water, ash conditioning, flue gas cleaning and sanitary purposes. The facility’s fire system also relies on purchased municipal water. The plant is considered a zero discharge facility as all water is consumed as a result of evaporation and drift losses from the cooling towers and flue gas cleaning system. Additionally, water from cooling tower blowdown is transferred to a reclaimed water system and used for ash conditioning. All domestic wastewater is stored on site in septic holding tanks and removed by a sewage disposal company. Currently approximately 1,000 gpd of domestic wastewater is produced at the facility with the potential to generate up to 2,160 gpd.

A cooling tower water conservation project is scheduled to be completed in second quarter of 2023. Specially designed ductwork will be installed over the exiting cooling towers to capture evaporating water. The system will condense and recover 90 percent of the evaporating water for reuse in the cooling system. Following the installation of the cooling tower water capture and reuse equipment it is projected that the peak daily water use at the facility will reduce from a maximum of 0.903 mgd (27.90 mgm) to a maximum of 0.203 mgd (6.30 mgm).

5. **Facilities.** The waste-to-energy plant includes waste material handling processing equipment, two mass burn boilers, water demineralizing equipment, a flue gas cleaning system including a spray dryer absorber and fabric filters, a steam powered turbine generator and a cooling tower. Also present is a concrete chimney, ash conditioning and loadout area, and warehouse area.

All water including potable water is purchased from the Township of Falls Authority and is metered.

Water used in the boilers is demineralized prior to use.

Waste from Fly ash and bottom ash is disposed of off-site.

6. **Other.** The facility is considered a zero discharge facility. All water is consumed in the cooling and industrial processes at the facility. Domestic wastewater is stored onsite in tanks and periodically removed by a sewage disposal company. The docket holder does make periodic discharges (one to five times per year) of up to 18,000 gallons per event from the testing and maintenance of the facility's fire suppression system. The volume of discharge is less than the Commission's regulatory review threshold and does not require approval by the Commission.

B. FINDINGS

The docket holder submitted an Application to approve the existing Wheelabrator Falls waste-to-energy facility and its consumptive water use of greater than 100,000 gpd. The application was submitted as required by Resolution No. 2018-5 clarifying and restating the Commission's consumptive water use replacement policy, adopted by the Commission on June 13, 2018.

1. Water Supply

Water used at the project is purchased from the Township of Falls Authority. The Township of Falls Authority obtains water through six interconnections including an interconnection with MMA which is used primarily to supply the docket holders' facility. The Township of Falls Authority is permitted by the PADEP (Water Allocation Permit No. WA09-962A) to purchase up to 900,000 gallons per day, based on a 30-day average, from the Morrisville Municipal Authority. MMA obtains its water supply from a surface water intake on the Delaware River. The MMA surface water withdrawal was approved by DRBC Docket No. D-74-72 CP on April 23, 1975.

2. Consumptive Use.

The consumptive use of the project is virtually 100 percent of the total water use. The water used for domestic/potable purposes at the facility is non-consumptive, but the volume in relation to the overall project demand is negligible. The DRBC definition of consumptive use is defined in Article 5.5.1.D of the *Administrative Manual – Part III – Basin Regulations – Water Supply Charges*.

Within 10 days of completion of the installation and operation of the cooling tower water saving equipment, the docket holder shall notify the Commission that the cooling tower water conservation project is complete. Upon notification, the docket holder will begin a 12-month monitoring period to evaluate the effectiveness of the water saving technology and to refine the actual consumptive use of the facility with the technology deployed. Once the evaluation period is complete, the temporary consumptive use allocation of 27.90 mgm will expire and the 6.30 mgm consumptive use allocation, or another volume based on the results of the evaluation and with approval from the Executive Director, will become effective.

3. Consumptive Use Replacement Plan

Resolution No. 2018-5 requires that certain electric generating or cogenerating facilities develop or acquire sources of replacement water for use during critical hydrologic conditions as a condition of approval. The Project is subject to the consumptive use requirement as it a generating facility designed to consumptively use in excess of 100,000 gallons per day of water during any 30-day period and the primary source of water is surface water located upstream of River Mile 38.

The following provision from Resolution No. 2018-5 is included as Condition C.10. in Section C. DECISION:

“For the duration of a critical hydrologic condition as announced by the Commission, on a daily basis the docket holder shall cause to be released from a replacement water source approved by the Commission an amount of water equal to the amount consumptively used by the docketed facility, multiplied by the applicable relative effect factor, if assigned. For the duration of such critical hydrologic condition, the docket holder shall operate its facility only at a level commensurate with the amount of replacement water it is capable of causing to be released.”

Within 3 months of the completion of the 12-month monitoring period to evaluate the effectiveness of the water saving technology, the docket holder shall submit a Consumptive Use Replacement Plan in accordance with Resolution No. 2018-5 to the Commission and receive written approval from the DRBC Executive Director (see Section C. DECISION Condition C.6.).

4. Surface Water Charges

Currently, surface water charges are being remitted to the Commission by the Township of Falls Authority on behalf of the docket holder. Should the Township of Falls Authority cease to make payments on behalf of the docket holder in the future, the docket holder shall pay for surface water use in accordance with the provisions of Resolution No. 74-6, as amended as described in Condition C.5. in the DECISION section.

5. Other Findings

The project is designed to conform to the requirements of the *Water Code* and *Water Quality Regulations* 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-2019-003-1 below, 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. Within 60 days, the docket holder shall provide written confirmation to the Commission that it has registered and reported with 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 water usage 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. 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 the daily water usage shall be maintained, and monthly totals shall be available at any time to the Commission if requested by the Executive Director.

3. Within 10 days of completion of the installation and operation of the cooling tower water saving equipment, the docket holder shall notify the Commission that the water conservation project is complete.

4. Section 2.3.10 of the Commission's Rules of Practice and Procedure (18 C.F.R. 401.41), limiting the Commission's approval to three years in the absence of an expenditure of substantial funds by the project sponsor in reliance on the approval, is hereby waived for good cause shown in accordance with Section 2.9.3 (18 C.F.R. 401.123) of the same regulations. This approval shall expire on the expiration date set forth below unless prior thereto the docket holder has applied to the Commission to renew or extend this approval.

5. Currently, surface water charges are being remitted to the Commission by the Township of Falls Authority on behalf of the docket holder. Should the Township of Falls Authority cease to make payments on behalf of the docket holder in the future, the docket holder shall pay for surface water use in accordance with *Administrative Manual – Part III Basin Regulations – Water Supply Charges 18 CFR Part 420*.

6. Within 3 months of the completion of the 12-month monitoring period to evaluate the effectiveness of the water saving technology, the docket holder shall submit a Consumptive Use Replacement Plan to the Commission for approval by the Commission's Executive Director.

7. The docket holder owes a remaining balance of \$2,926.70 for this docket review. The balance shall be paid within sixty (60) days of issuance of this docket or fees may be assessed in accordance with the Commission's Penalty Matrix. This fee is based on the projected consumptive use allocation of 6.30 mgm. If the actual requested consumptive use allocation is greater than this amount, the docket holder is responsible for remitting the additional application fee within sixty (60) days of the completion of the 12-month evaluation period.

Other Conditions

8. From September 8, 2022 until the completion of the cooling tower water conservation project and 12-month monitoring period to evaluate the effectiveness of the water saving technology, the consumptive may not exceed 27.90 mgm. Upon completion of the water conservation project, the consumptive use may not exceed 6.3 million gallons, or another volume based on the results of the evaluation and with approval from the Executive Director will become effective.

9. 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.

10. For the duration of a critical hydrologic condition as announced by the Commission, on a daily basis the docket holder shall cause to be released from a replacement water source approved by the Commission an amount of water equal to the amount consumptively used by the docketed facility, multiplied by the applicable relative effect factor, if assigned. For the duration of such critical hydrologic condition, the docket holder shall operate its facility only at a level commensurate with the amount of replacement water it is capable of causing to be released.

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

12. The facility shall be operated at all times to comply with the requirements of the *Water Code* and *Water Quality Regulations* of the DRBC.

13. 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.

14. 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*.

15. 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).

16. 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 401.35).

17. 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 401.35).

18. 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.

19. 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.

20. 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.

21. 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.

22. 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: September 8, 2022

EXPIRATION DATE: September 8, 2032