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DOCKET NO. D-1965-122-2

DELAWARE RIVER BASIN COMMISSION

Special Protection Waters

**GEO Specialty Chemicals, Inc.
Groundwater Withdrawal
South Whitehall Township, Lehigh County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) on July 3, 2017 for the renewal of an allocation of groundwater and groundwater water withdrawal project (Application). The groundwater withdrawal project was approved by the Commission in Docket No. D-65-122 on October 7, 1965.

The Application was reviewed for approval under Section 3.8 of the *Delaware River Basin Compact*. The Lehigh Valley Planning Commission has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on February 13, 2019.

A. DESCRIPTION

- Purpose.** The purpose of this docket is to renew the approval to continue to withdraw up to 139.5 mgm (4.5 million gallons per day) of groundwater from eight (8) wells (wells Nos. 1, 2, 4, 5, 6, 8, 9, and 10) for non-contact cooling, industrial processes and potable use at the docket holder's existing chemical manufacturing facility.
- Location.** Seven of the project wells are completed in the Epler Formation and one (1) well is completed in the Ontelaunee Formation near its contact with the Epler Formation in the Lower Jordan Creek Watershed in South Whitehall Township, Lehigh County, Pennsylvania. Jordan Creek is designated by the Pennsylvania Department of Environmental Protection (PADEP) as TSF, MF.

Specific location information has been withheld for security reasons.

- Area Served.** The groundwater withdrawals serve the docket holder's chemical manufacturing facility located in South Whitehall Township, Lehigh County, Pennsylvania. For

the purpose of defining Area Served, the Application is incorporated herein by reference consistent with conditions contained in Section C. DECISION.

4. Design criteria. The facility requires water for non-contact cooling, industrial processes and potable water supply. Water is supplied by a well field consisting of 8 existing wells, two of which are currently inactive. The average and peak daily system demands are reported to be approximately 3.91 million gallons per day (mgd) and 5.95 mgd, respectively. About 60 percent of the total water demand is used for non-contact cooling and the remainder of the water is used for industrial processes. Potable water demand for the 53 employees is negligible. The docket holder does not expect any increases in water demand during the next 10 years and requested an allocation of 139.5 mgm to meet its monthly demands.

Currently 0.576 mgd of groundwater from three wells owned by Whitehall Township Authority is conveyed to the docket holder’s facility for treatment at the docket holder’s industrial wastewater treatment plant. A portion of this water is also used for industrial processes. The wells are part of an ongoing pump and treat groundwater remediation program.

5. Facilities. The existing project wells have the following characteristics:

WELL NO.	DEPTH (FEET BELOW GROUND SURFACE)	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY (GPM)	YEAR DRILLED
1B	164	123' / 6"	450	Prior to 1950
2B	168	139' / 12"	No pump	Prior to 1950
4	155	121' / 12"	450	Prior to 1950
5	145	124' / 12"	450	Prior to 1950
6	145	124' / 12"	450	Prior to 1950
8	145	133' / 12"	450	Prior to 1950
9	165	110' / 12"	450	Prior to 1950
10	170	118' / 12"	770	Prior to 1950

Combined withdrawals from the project wells are metered with two electronic, totalizing flow meters.

Process wastewater conveyed to the treatment plant is metered with an electronic flow meter and chart recorder.

Combined wastewater and NCCW discharge is measured daily using a parshall flume prior to discharge to Jordan Creek via Outfall No. 001.

Water for use in the facilities potable water supply system is chlorinated prior to distribution.

Water for industrial cooling and processes is not treated prior to use.

Seven of the eight existing project wells are located in the flood hazard area. Five of these wells are located within the floodway and one well is located on the boundary between the floodway and flood fringe.

6. **Other.** Industrial wastewater is treated at the docket holder's industrial wastewater treatment plant and discharged along with the non-contact cooling water to Jordan Creek. The IWTP was most recently approved by DRBC Docket No. D-89-1 on June 27, 1990. The Pennsylvania Department of Environmental Protection (PADEP) issued its most recent NPDES Permit No. PA0070505 on April 11, 2018 for this treatment facility. The treatment facility has adequate capacity to continue to receive wastewater from the existing project.

B. **FINDINGS**

1. **Special Protection Waters**

In 1992, the DRBC adopted Special Protection Waters requirements, as part of the DRBC *Water Quality Regulations* (WQR), designed to protect existing high water quality in applicable areas of the Delaware River Basin. One hundred twenty miles of the Delaware River from Hancock, New York downstream to the Delaware Water Gap were classified by the DRBC as SPW. This stretch includes the sections of the river federally designated as "Wild and Scenic" in 1978 -- the Upper Delaware Scenic and Recreational River and the Delaware Water Gap National Recreation Area -- as well as an eight-mile reach between Milrift and Milford, Pennsylvania which is not federally designated. The SPW regulations apply to this 120-mile stretch of the river and its drainage area.

On July 16, 2008, the DRBC approved amendments to its *Water Quality Regulations* that provide increased protection for waters that the Commission classifies as Special Protection Waters. The portion of the Delaware River and its tributaries within the boundary of the Lower Delaware River Management Plan Area was approved for Special Protection Waters designation and clarity on definitions and terms were updated for the entire program.

Article 3.10.3A.2.e.1). and 2). of the *Water Quality Regulations, Administrative Manual - Part III*, states that projects subject to review under Section 3.8 of the Compact that are located in the drainage area of Special Protection Waters must submit for approval a Non-Point Source Pollution Control Plan that controls the new or increased non-point source loads generated within the portion of the docket holder's service area which is also located within the drainage area of Special Protection Waters. The wells providing water supply to the facility are located within in the drainage area to the Special Protection Waters. South Whitehall Township has adopted and is implementing the Bushkill Creek, Catasauqua Creek, Coplay Creek, Fry's Run, Hokendauqua Creek, Jordan Creek, Martins/Jacoby Creeks, Monocacy Creek, Nancy Run, Saucon Creek, Trout/Bertsch Creeks, Delaware River Subbasins and Lehigh River Subbasins Watershed Act 167

Stormwater Management Plan Water Quality Update, dated April 2006 (“Global Act 167 Stormwater Management Plan Water Quality Update”). Compliance with the Global Act 167 Stormwater Management Plan Water Quality Update satisfies the Non-Point Source Pollution Control Plan requirements of the Commission. Accordingly, Condition C.15. has been included in Section C. DECISION.

2. Flood Plain Regulations

Seven of the eight project wells are located in the flood hazard area. Five of these wells are located within the floodway and one well is located on the boundary between the floodway and flood fringe. The wells are protected by well houses with concrete foundations elevated several feet above the ground surface. All wells are prior non-conforming structures according to the *DRBC Administrative Manual-Part III Basin Regulation-Flood Plain Regulations* adopted November 10, 1976 by the Commission. As such, these structures may not be expanded, except that they may be modified, altered or repaired to incorporate flood proofing measures provided such measures do not raise the level of the 100-year flood and if destroyed or damaged by any means, including a flood, to the extent of 50 percent or more of its market value at that time, may not be restored, repaired, reconstructed or improved except in conformity with the provisions of these regulations as described in Condition C.8. in Section C. DECISION.

3. Drought Management and Contingency Plan

Section 2.3.5.1 C. of the Commission's *Rules of Practice and Procedure (RPP)*, requires that applications for new industrial and commercial water withdrawals in excess of an average of one million gallons per day include 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 drought contingency plan indicating that a 15 percent reduction of water withdrawals and thereby depletive use could be achieved by systematically limiting well pump operation times. The docket holder shall implement the DMCP upon direction by the Executive Director. (see Condition C.20.).

4. Other Findings

This project consists of an existing groundwater withdrawal from a well field of eight bedrock wells, two of which are currently inactive. The docket holder plans to make repairs to one of the wells (Well 6), but the future plans for Well 2b is unknown at this time. The individual well allocations provided in this docket are based on the installed pumping capacity of the wells. The previous pumping capacity of Well 2b is unknown. Commission staff recommend that, if repaired, the maximum pump capacity installed in Well 2B be limited to 450 gpm, which is the installed pumping capacity of all but one of the other wells. These rates are provided in Condition C.3. in Section C. Decision.

Groundwater withdrawals have been occurring at the project site for decades. Available withdrawal data from 1990 to the present shows the total combined withdrawals from the docket holder's wells ranged from approximately 67 mgm to 147 mgm. More recently, monthly withdrawals ranged from about 100 mgm to 130 mgm. The docket holder requested a groundwater allocation of 139.5 mgm; however, the current combined pumping capacity of the 6-active wells is 134.8 mgm (3,020 gpm).

Based on metered well withdrawals and Outfall No. 001 daily flume measurements, the project withdrawals, used for the purpose of industrial cooling and processes, result in a consumptive use of approximately 2 percent of the total water use. 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*.

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-1965-122-2 below, Docket No. D-65-122 is terminated and replaced by Docket No. D-1965-122-2. The project and appurtenant facilities as described in 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. 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.

Other Conditions

3. During any month, the combined withdrawal from all well sources shall not exceed 139.5 million gallons. No well shall be pumped above the maximum rate and monthly allocation as indicated below:

WELL NO.	MAXIMUM RATE (GPM)	MONTHLY ALLOCATION (MGM)
1B	450	20.088
2B	450	20.088
4	450	20.088
5	450	20.088
6	450	20.088
8	450	20.088
9	450	20.088
10	770	34.372

4. 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.

5. 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).

6. 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).

7. 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*.

8. Five of the project well houses are located within the floodway. These are prior non-conforming structures according to the *DRBC Administrative Manual-Part III Basin Regulation-Flood Plain Regulations* adopted November 10, 1976 by the Commission. As such, these structures may not be expanded, except that they may be modified, altered or repaired to incorporate flood proofing measures provided such measures do not raise the level of the 100-year flood and if destroyed or damaged by any means, including a flood, to the extent of 50 percent or more of its market value at that time, may not be restored, repaired, reconstructed or improved except in conformity with the provisions of these regulations.

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

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

11. The wells shall be equipped, where possible, with readily accessible capped ports and minimum ½ inch inner diameter drop pipes as repairs or modifications are made at each existing well so that water levels may be measured under all conditions.

12. 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).

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

14. 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.

15. Compliance with the Global Act 167 Stormwater Management Plan Water Quality Update satisfies the Non-Point Source Pollution Control Plan requirements and meets the general requirements of Article 3.10.3.A.2.e.1 of the Commission's Water Quality Regulations for the Area Served as described in A.3 above.

16. 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).

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 in order to insure 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. The docket holder shall implement the DMCP upon direction by the Executive Director.

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:

EXPIRATION DATE: **March 13, 2029**

DRAFT