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DOCKET NO. D-1976-017-4

DELAWARE RIVER BASIN COMMISSION

**Southeastern Pennsylvania
Ground Water Protected Area**

**Glenn Springs Holdings, Inc.
Industrial Wastewater Treatment Plant Discharge and Groundwater Withdrawal
Lower Pottsgrove Township, Montgomery County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) on July 20, 2018 (Application) for renewal of a groundwater treatment plant (GWTP) and its related discharge and the renewal of an allocation of groundwater and review of a groundwater water withdrawal project. The project discharge was most recently approved by the Pennsylvania Department of Environmental Protection (PADEP) National Pollutant Discharge Elimination System (NPDES) Permit No. PA0010944 on March 2, 2015, effective on April 1, 2015.

The Application was reviewed for approval under Section 3.8 and for a withdrawal permit under Section 10.3 *Delaware River Basin Compact*. The Montgomery County 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

- 1. Purpose.** The purpose of this project is to approve a groundwater withdrawal associated with the remediation of groundwater contaminated with volatile organic compounds (VOCs) with a decrease in allocation from 15.5 million gallons per month (mgm) to 9.22 mgm from existing Wells RW A, RW B, RW C, RW 4, RW 5, RW 6, RW 8, RW 8A, RW 9, RW 9A, RW 10A and new Well RW D. New Well RW D will replace Well RW 8A. The approval will also renew the discharge of the remediated groundwater and its associated treatment.
- 2. Location.** The groundwater remediation project is located at the former Occidental Chemical Corporation facility in Lower Pottsgrove Township, Montgomery County, Pennsylvania. The groundwater recovery wells are completed in the Brunswick Formation in the

Schuylkill River Watershed in the Southeastern Pennsylvania Ground Water Protected Area. The Schuylkill River near the project site is designated by the PADEP as supporting Warm Water Fishes (WWF).

Treated groundwater will continue to be discharged to the Schuylkill River at River Mile 92.47 – 50.9 (Delaware River – Schuylkill River) via Outfall No. 005 located, in an area that is conditionally designated as “Modified Recreational” in the Comprehensive Plan as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
005	40° 13' 29"	75° 36' 28"

The project also contains three other outfalls (Outfall Nos. 003, 004 and 006), which only discharge stormwater from various parts of the site. Stormwater also mixes with treated groundwater prior to discharge through Outfall No. 5. With the exception of a minimal amount of stormwater that collects on the containment pads surrounding the groundwater treatment system components, stormwater is no longer treated prior to its discharge at the site. Also, Internal Monitoring Points 103 (Firewater Reservoir overflow) and 303 (oil water separator) included in the previous docket approval have been eliminated with the demolition of the firewater reservoirs and oil/water separator.

3. Area Served. The existing project withdrawals will be used only for the purpose of groundwater remediation at the at the former Occidental Chemical Corporation manufacturing facility as delineated on various figures included in the application. The groundwater treatment system will continue to only serve the docket holder’s groundwater remediation project. For the purpose of defining Area Served, the Application is incorporated herein by reference consistent with conditions contained in Section C.1.

4. Design criteria. The docket holder’s groundwater treatment facility processes up to 0.5 mgd of groundwater containing VOCs by a combination of equalization, sand filtration, carbon adsorption and air stripping facilities prior to discharging to the Schuylkill River through a stormwater sewer that served the former industrial site.

The project wastewater treatment system was designed to produce an effluent quality that complies with docket and NPDES permit requirements. Groundwater extraction and treatment will continue until applicable groundwater quality criteria are attained.

The average and maximum demand is 0.200 million gallons per day (mgd) and 0.500 mgd, respectively. The projected average and maximum demand is estimated to be 0.175 mgd and 0.500 mgd, respectively over the next 10 years. The allocation of 9.22 mgm should be sufficient to meet the future demands of the docket holder’s system.

5. Facilities. The project groundwater extraction treatment facilities consist of two influent well water holding tanks, four sand filters, two liquid-phase carbon adsorption units, two vapor-phase carbon adsorption units, an air-stripping unit and a liquid-phase carbon polishing unit. Treated groundwater will continue to be discharged to the Schuylkill River through existing Outfall No. 005.

The existing project recovery wells have the following characteristics:

WELL NO.	DEPTH (FEET)	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY (GPM)	YEAR DRILLED
RW A	105	19' / 6"	16	1983/1998
RW B	130	19' / 6"	25	1983/1998
RW C	160	19' / 6"	45	1983/1998
RW 4	258	50' / 10"	90	1945/1998
RW 5	240	36' / 10"	100	1945/1998
RW 6	440	200' 8"	120	1945/1998
RW 8	313	135' / 8"	85	1945/1998
RW 8A	106	42' / 8"	13	1945/1998
RW 9	285	156' / 8"	30	1945/1998
RW 9A	144	43' / 8"	30	1945/1998
RW 10A	433	225' / 8"	85	1945/1998
RW D	110	20' / 6"	10	2018

All existing wells are metered, Well RW D will be metered once it gets put into operation.

The groundwater treatment system and project recovery wells are outside of the 100-year floodplain.

The docket holder is presently not interconnected with any other distribution system.

6. NPDES Permit / DRBC Docket. NPDES Permit No. PA0010944 was approved by the PADEP on March 2, 2015, and includes final effluent limitations for the groundwater remediation system discharge of 0.50 mgd to surface waters classified by the PADEP as Warm Water Fishes (WWF) and Migratory Fishes (MF). 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.

B. FINDINGS

1. Ground Water Protected Area

The project is located within the Southeastern Pennsylvania Ground Water Protected Area delineated by the DRBC pursuant to *Compact* Section 10.2. Tests conducted by the docket holder indicate the operation of this project will not create a local water shortage.

Review and analysis of the application pursuant to Section 6.D. of the *GWPAR* result in the following:

1. The withdrawal is consistent with the Commission's Comprehensive Plan and the policies and purposes of these regulations.
2. Opportunities to satisfy water requirements on a timely basis from existing available supplies and facilities have been explored and are being utilized.
3. The withdrawal, in conjunction with other withdrawals in the applicable ground water basin, should not exceed withdrawal limits of the ground water basin, aquifer or aquifer system.
4. The withdrawal should not significantly impair or reduce the flow of perennial streams in the area.
5. Existing ground and surface water withdrawals should not be adversely impacted, or will be otherwise assured of adequate supplies in accordance with the requirements of Section 10 of the *GWPAR*. There have been no reported complaints of well interference since the 1997 approval of this renewal project. No adverse impact is anticipated due to continued operation of this project.
6. The withdrawal should not cause substantial, permanent adverse impact to the overlying environment.
7. The docket holder adopted and will implement conservation and management programs as required by Section 7 of the *GWPAR*. *The project withdrawals have decreased from a daily average of 0.413 mg in 2006 to 0.226 mg in 2012. The EPA requires a minimum pumping rate of 0.144 mgd to maintain hydraulic control of the groundwater plume. In the event of emergency situations, the docket holder could, with the approval of the EPA, reduce the withdrawal rate to this minimal amount. Also, as stated above, all water withdrawn is returned to the Schuylkill River with virtually no depletive loss.*

The docket holder's groundwater remediation project is located in the Schuylkill-Sprogels Run subbasin, where total net annual groundwater withdrawal (535 mgy) is less than the withdrawal limit set in Section 6.I of the *GWPAR* (1,455 mgy). The docket holder's allocation of 9.22 mgm equates to an annual allocation of 110.64 million gallons and is already accounted for in the total subbasin withdrawals. Therefore, the continued withdrawals from the groundwater remediation project, in conjunction with other withdrawals in the subbasin, are in accordance with the requirements of Section 6.I of the *GWPAR*.

The former industrial wastewater and cooling water discharge approvals were issued by the Commission to Firestone Tire and Rubber (Firestone) via Docket Nos. D-1971-157 and D-1976-017 on September 26, 1973 and September 30, 1976, respectively. Firestone was also issued DRBC Certificate of Entitlement No. 280 on July 15, 1976 for its Schuylkill River surface water withdrawal. On April 14, 1981, Docket No. D-1976-017 was transferred from Firestone to

Hooker Chemical and Plastics Corporation (Hooker). The docket was later transferred from Hooker to Occidental Chemical Corporation (Occidental) on February 24, 1984. Docket D-1976-017-2 was issued to Glenn Springs Holdings, an affiliate of Occidental on December 12, 2006. By this time, the industrial operations had ceased and this docket approved the withdrawals, treatment and discharges related to the continuing groundwater remediation activities. Because the discharges approved in the previous dockets issued for the project were no longer active, Docket D-1976-017-2 terminated all previous docket approvals. Additionally, although the Certificate of Entitlement Issued to Firestone was no longer valid upon the transfer of ownership to Hooker, Docket D-1976-017-2 formally terminated Certificate of Entitlement No. 280. This docket (D-1976-017-3) continued the approval of the groundwater withdrawals, treatment and discharges related to the ongoing groundwater remediation activities at the site.

In 1988, the project site was placed on the National Priorities List, a federal register of polluted places, due to the amount of trichloroethylene and related VOC's in the soil and groundwater. OxyChem, under EPA oversight, performed remedial action at the site and completed construction in 2008. Groundwater continues to be pumped, treated and discharged to remove VOC's from the groundwater and maintain hydraulic control of the impacted groundwater. An Explanation of Significant Differences that changed the groundwater performance standard, added two contaminants to the groundwater contaminant of concern list, and describes the site institutional controls was issued in 2013.

The DRBC estimates that the project withdrawals, used for the purpose of groundwater remediation, result in negligible consumptive 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*.

At the project site, the Schuylkill River has an estimated seven-day low flow with a recurrence interval of ten years of 181.6 mgd (281 cfs). The flow was calculated using U.S. Geological Survey, 2012, The StreamStats Program for Pennsylvania, online at <http://water.usgs.gov/osw/streamstats/pennsylvania.html>. The ratio of this low flow to the average design wastewater discharge from the 0.5 mgd plant is 363 to 1.

The nearest surface water intake of record for public water supply is located approximately 5 river miles on the Schuylkill River and is operated by Pennsylvania American Water Company (PAWC).

The withdrawal project is located in the Southeastern Pennsylvania Ground Water Protected Area where drought emergency plans are required. Commission staff recommend approval of the project without a drought emergency plan. The EPA requires a minimum pumping rate of 0.144 mgd to maintain hydraulic control of the groundwater plume. In the event of emergency situations, the docket holder could, with the approval of the EPA, reduce the withdrawal rate to this minimal amount. Also, as stated above, all water withdrawn is returned to the Schuylkill River with virtually no depletive loss.

This project consists of an existing withdrawal of groundwater from Recovery Wells RW A, RW B, RW C, RW 4, RW 5, RW 6, RW 8, RW 8A, RW 9, RW 9A and 10A and a proposed

new withdrawal from recovery well RW D, and up to three new soil vapor extraction wells without an increase in the total system allocation. The docket holder has requested allocations for the wells based on existing water use or pump capacity. These rates are provided in Condition C.1. As the existing water withdrawals have already been realized by the local hydrologic system, there should be no significant impacts from continued withdrawals from the existing system wells.

The 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 *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-1976-017-4 below, Docket No. D-1976-017-3 is terminated and replaced by Docket No. D-1976-017-4. 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 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 biweekly 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

2. During any month, the combined withdrawal from all well sources shall not exceed 9.22 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)
RW A	16	0.714
RW B	25	0.672
RW C	45	0.672

WELL NO.	MAXIMUM RATE (GPM)	MONTHLY ALLOCATION (MGM)
RW 4	90	2.58
RW 5	100	0.001
RW 6	120	0.001
RW 8	85	0.899
RW 8A	13	0.580
RW 9	30	0.899
RW 9A	30	1.340
RW 10A	85	3.794
RW D	10	0.446

3. 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.

4. 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).

5. 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).

6. The docket holder is permitted to treat and discharge wastewaters 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.

7. The docket holder is prohibited from treating/pre-treating any hydraulic fracturing wastewater from sources in or out of the Basin at this time. Should the docket holder wish to treat/pre-treat hydraulic fracturing wastewater in the future, the docket holder will need to first apply to the Commission to renew this docket and be issued a revised docket allowing such

treatment and an expanded service area. Failure to obtain this approval prior to treatment/pre-treatment will result in action by the Commission.

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

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

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

11. Each new water service connection shall include a water meter in accordance with the DRBC's Resolution No. 87-7 (Revised).

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. 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.

15. 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.

16. 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*.

17. 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).

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 in order to insure 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. 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