

**DOCKET NO. D-1989-002-5**

**DELAWARE RIVER BASIN COMMISSION**

**Rohm and Haas Chemicals, LLC  
Industrial Wastewater Treatment Plant  
Bristol 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 April 2, 2024 (Application), for renewal of the docket holder's existing industrial wastewater treatment plant (IWTP) and its discharge. The Pennsylvania Department of Environmental Protection (PADEP) issued National Pollutant Discharge Elimination System (NPDES) Permit No. PA0012769 for this discharge.

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. A public hearing on this project was held by the DRBC on November 6, 2024.

**A. DESCRIPTION**

- Purpose.** The purpose of this docket is to renew approval of the docket holder's existing 3.7 million gallons per day (mgd) IWTP and the facility discharges of treated industrial wastewater effluent and non-contact cooling water (NCCW). This docket also renews approval of the periodic removal of water from Lake Idaline and its discharge to Otter Creek to manage lake water levels.
- Location.** The docket holder's Bristol Manufacturing Area facility and its IWTP is located near River Road and State Road in Bristol Township, Bucks County, Pennsylvania. The IWTP will continue to discharge treated effluent to Hog Run Creek, which is a tidal tributary to Delaware River Water Quality Zone 2 at River Mile 117.2 – 0.3 (Delaware River – Hog Run Creek) via Outfall No. 009. The facility will also continue to discharge stormwater, steam condensate and NCCW to Otter Creek, which is a tidal tributary to Delaware River Water Quality Zone 2 at River Mile 118.87 – 0.4 (Delaware River – Otter Creek) and River Mile 118.8 – 0.6 (Delaware River – Otter Creek) via Outfalls Nos. 003 and 008, respectively.

The locations of the IWTP outfalls in the Delaware River Watershed are as follows:

| <b>OUTFALL NO.</b> | <b>LATITUDE (N)</b> | <b>LONGITUDE (W)</b> |
|--------------------|---------------------|----------------------|
| 003                | 40° 05' 42"         | 74° 51' 56"          |
| 008                | 40° 05' 44"         | 74° 52' 10"          |
| 009                | 40° 05' 06"         | 74° 53' 04"          |

3. **Area Served.** The docket holder's IWTP will continue to serve the Bristol Complex manufacturing facility, located in Bristol Township, Bucks County, Pennsylvania. The facility operates a plant that manufactures a variety of finished materials for the docket holder's Architectural and Functional Coatings businesses. The IWTP will also continue to accept and treat up to 0.05 mgd of in-basin wastewater and 0.05 mgd of out-of-basin wastewater from other organic chemical, plastic, and/or synthetic fiber facilities at the IWTP. NCCW is generated by Arkema, Inc., an on-site industry. For the purpose of defining the Area Served, the Type of Discharge and the Service Area sections from the docket holder's Application are incorporated herein by reference, to the extent consistent with all other conditions contained in Section C. DECISION of this docket.

4. **Design Criteria.** The docket holder's 3.7 mgd IWTP treats industrial process wastewater generated from the Bristol Complex manufacturing operations utilizing chemical and biological treatment processes. Effluent limits in the NPDES permit for the IWTP discharge (Outfall No. 009) are based on a discharge rate of 1.716 mgd. Effluent limits in the NPDES permit for Outfall Nos. 003 and 008 are based on discharge rates of 0.515 mgd and 0.529 mgd, respectively.

5. **Facilities.** The IWTP facilities consist of headworks and tailworks operations. The headworks consist of a splitter box, three (3) equalization tanks, an emergency spill tank, a skimmer tank (not currently in service), a chemical building, and associated pumps. The tailworks and biological treatment facilities consist of two (2) combined circular aeration tanks/clarifier units, a splitter box, an aerobic digester, a sludge thickener unit (not currently in service), a blower building, a central building, a soda ash silo, a ferric ion storage tank, a final filtration system that includes five (5) Dynasand continuous backwashing sand filter assemblies (not currently in service), a parshall flume, and associated pumps.

Wasted sludge will continue to be hauled off-site for disposal in accordance with the NPDES Permit No. PA0012769.

6. **Water Withdrawals.** The potable and process water supply in the project service area is provided by a surface water withdrawal operated by Aqua Pennsylvania, as described in detail in DRBC Docket No. D-1989-097 CP-1, approved on April 25, 1990.

7. **NPDES Permit / DRBC Effluent Requirements.** NPDES Permit No. PA0012769 issued by the PADEP includes final effluent limitations for the project discharge to surface waters classified by the PADEP as supporting warm water fishes and migratory fishes (WWF/MF). EFFLUENT TABLES C-1, C-2, and C-3 included in Section C. DECISION condition C.1. of this docket, contain effluent requirements for DRBC parameters that must be met as a condition of this approval. Effluent requirements for Outfall No. 009 (IWTP discharge) are based on a discharge rate of 1.716 mgd. Effluent requirements for Outfall Nos. 003 and 008 are based on discharge rates of 0.515 mgd and 0.529 mgd, respectively.

## **B. FINDINGS**

The docket holder applied to renew approval of their existing 3.7 mgd IWTP and its discharge, along with the discharge of NCCW and steam condensate.

### **1. Lake Idaline Withdrawal and Discharge**

The docket holder formerly withdrew process and cooling water from a surface water intake on Lake Idaline, which was at one time connected to the tidal Delaware River, and which now is a freshwater impoundment. In 2012 the docket holder ceased making withdrawals from Lake Idaline for use as process or NCCW for its facility, and therefore the docket holder is no longer permitted to withdraw water from Lake Idaline for process or cooling uses. DRBC docket (D-1989-002-3) approved the docket holder to pump water from Lake Idaline and discharge to Otter Creek via Outfall No. 003 for the purpose of managing the water levels in Lake Idaline from stormwater runoff. The docket holder requested in the Application to discontinue discharge of Lake Idaline water from Outfall No. 003, and to re-open the formerly plugged Outfall No. 001 for discharge of Lake Idaline water to Otter Creek. DECISION Condition C.3. approves the docket holder to continue to pump water from Lake Idaline and discharge to Otter Creek via Outfall No. 001 for the purpose of managing the water levels in Lake Idaline. Since Lake Idaline is owned and maintained by the docket holder, the lake drawdown is not subject to Commission surface water charges.

### **2. Thermal Impacts**

The sources of NCCW on-site are the docket's holder's operations, which discharges to Otter Creek via Outfall No. 003, and Arkema, Inc., which withdraws groundwater for cooling purposes from an on-site well and discharges to Otter Creek via Outfall No. 008. Docket No. D-1989-002-2 required the docket holder to submit a modeling analysis for the NCCW discharges from Outfall Nos. 003 and 008 to determine the thermal impact of the NCCW discharges on the receiving water body. The results of the modeling analysis indicated that as long as Arkema continues to use groundwater and the NCCW does not exceed 91°F in temperature, the discharge to Otter Creek will meet DRBC Zone 2 in-stream temperatures standards. Docket No. D-1989-002-4 included an effluent temperature limitation for Outfall Nos. 003 and 008 of 91°F, which is continued in this docket (See EFFLUENT TABLES C-1 and C-2 in DECISION section).

### 3. CBOD<sub>20</sub> Wasteload Allocation & Monitoring

The Commission's WQR provide for the allocation of the stream assimilative capacity where waste discharges would otherwise result in exceeding such capacity. It was determined in the 1960's that discharges to the Delaware Estuary be limited to a total of 322,000 lbs/day of carbonaceous biochemical (first stage) oxygen demand (CBOD<sub>20</sub>). In accordance with the WQR, the assimilative capacity of each Delaware Estuary zone minus a reserve was originally allocated in 1968 among the individual dischargers based upon the concept of uniform reduction of raw waste in a zone (Zones 2, 3, 4 and 5). The totals and percent reduction for each zone are given in Table 1 of the Commission's *Status of CBOD<sub>20</sub> Wasteload Allocations* (Revised October 1, 2000). The docket holder's IWTP discharge is located in Water Quality Zone 2 at River Mile 117.2 – 0.3 (Delaware River – Hog Run Creek). Zone 2 is allocated at 18,600 lbs/day of CBOD<sub>20</sub> and has a total reduction requirement of 88.5%.

The Commission approved a CBOD<sub>20</sub> allocation for the docket holder's facility of 386 lbs/day on December 8, 2011, and which is continued in this docket (D-1989-002-5). Compliance with the CBOD<sub>20</sub> allocation of 386 lbs/day can be demonstrated by meeting the BOD<sub>5</sub> effluent load limit of 343 lbs/day contained in EFFLUENT TABLE C-3 in the DECISION section of this docket. Compliance with the 88.5% CBOD<sub>20</sub> Zone 2 reduction requirement can be demonstrated by meeting 88.5% BOD<sub>5</sub> removal, included in EFFLUENT TABLE C-3 of this docket.

### 4. Out-of-Basin Wastewaters

The docket holder is approved to accept up to 50,000 gpd of out-of-basin wastewaters imported from other organic chemical, plastic, and/or synthetic fiber facilities including, but not limited to, the docket holder's other facilities. The imported wastewater characteristics are similar to the process waste currently treated at the facility IWTP. In accordance with Section 2.30 of the Commission's *Water Code*, no credit is given toward meeting wastewater treatment requirements for wastewater imported into the basin, and therefore 100% of the BOD<sub>5</sub> load attributable to out-of-basin wastes is required to be removed. The docket holder is permitted to demonstrate compliance with this requirement by achieving an equivalent increase above the Zone 2 88.5 % percent removal of BOD<sub>5</sub> required for in-basin wastewaters. The docket holder shall calculate the total BOD<sub>5</sub> removal across the IWTP and the weighted average BOD<sub>5</sub> removal requirement based on the waste source (88.5% for in-basin and 100% for out-of-basin). The docket holder shall maintain records demonstrating compliance with this requirement and submit a summary annually detailing the calculations (See DECISION Condition C.4.).

### 5. Other

At the docket holder's IWTP discharge for Outfall Nos. 003 and 008, Otter Creek is tidal stream and has an estimated seven-day low flow with a recurrence interval of ten years (Q<sub>7-10</sub>) of 0.12 mgd (0.19 cfs). The ratio of this low flow to the average design combined discharge from Outfall Nos. 003 and 008 is 0.12 to 1. At the discharge location for Outfall No. 009, Hog Run is a tidal stream whose estimated seven-day low flow with a recurrence interval of ten years (Q<sub>7-10</sub>) is less than 0.1 cubic feet per second (cfs) and therefore is classified by the Commission as an intermittent stream.

The nearest surface water intakes of record for public water supply are located on the Delaware River approximately 7 river miles below and 2 river miles above the project discharges. Those intakes are owned and operated by the City of Philadelphia Water Department and the Burlington City Water Department, respectively.

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 conform with Commission effluent quality requirements, where applicable.

The project is designed to produce a discharge that meets the effluent requirements as set forth in the Commission's *Water Quality Regulations (WQR)*.

### C. DECISION

Effective on the approval date for Docket No. D-1989-002-5 below, the project described in Docket No. D-1989-002-4 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-1989-002-5; Docket No. D-1989-002-4 is terminated and replaced by Docket No. D-1989-002-5; and the project and the appurtenant facilities described in Section A "DESCRIPTION" of this docket are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

#### **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](mailto: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 for Outfall No. 003**

| <b>OUTFALL No. 003 (Otter Creek)</b> |                     |                             |
|--------------------------------------|---------------------|-----------------------------|
| <b>PARAMETER</b>                     | <b>LIMIT</b>        | <b>MONITORING</b>           |
| pH (Standard Units)                  | 6 to 9 at all times | As required by NPDES Permit |
| Temperature                          | 91°F (Maximum)      | As required by NPDES Permit |

**EFFLUENT TABLE C-2: DRBC Parameters Included in NPDES Permit for Outfall No. 008**

| <b>Outfall No. 008 (Otter Creek)</b> |                                                   |                             |
|--------------------------------------|---------------------------------------------------|-----------------------------|
| <b>Parameter</b>                     | <b>Limit</b>                                      | <b>MONITORING</b>           |
| pH (Standard Units)                  | 6 to 9 at all times                               | As required by NPDES Permit |
| Total Suspended Solids               | 30 mg/l Monthly Average<br>45 mg/l Weekly Average | As required by NPDES Permit |
| Total Dissolved Solids*              | 1,000 mg/l*                                       | As required by NPDES Permit |
| Temperature                          | 91°F (Maximum)                                    | As required by NPDES Permit |

\* See Condition C.7. below

**EFFLUENT TABLE C-3: DRBC Parameters Included in NPDES Permit for Outfall No. 009**

| <b>OUTFALL 009 (Hog Run Creek)</b> |                                                   |                             |
|------------------------------------|---------------------------------------------------|-----------------------------|
| <b>Parameter</b>                   | <b>Limit</b>                                      | <b>MONITORING</b>           |
| pH (Standard Units)                | 6 to 9 at all times                               | As required by NPDES Permit |
| BOD (5-Day at 20° C)               | 24 mg/l<br>343 lbs/day<br>88.5% minimum removal   | As required by NPDES Permit |
| BOD (5-Day at 20° C)               | Influent monitoring                               | As required by NPDES Permit |
| Total Suspended Solids             | 30 mg/l Monthly Average<br>45 mg/l Weekly Average | As required by NPDES Permit |
| Ammonia Nitrogen                   | 35 mg/l                                           | As required by NPDES Permit |
| Total Dissolved Solids*            | 1,000 mg/l                                        | As required by NPDES Permit |
| PCBs                               | Monitor & Report                                  | As required by NPDES Permit |
| Acute & Chronic Toxicity           | Monitor & Report                                  | As required by NPDES Permit |

\* See Condition C.7. below

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/proposed NPDES.

### **Other Conditions**

3. The docket holder is permitted to pump water from Lake Idaline and discharge to Otter Creek via Outfall No. 001 for the purpose of managing the water levels in Lake Idaline.

4. The docket holder is required to remove 100% of the BOD<sub>5</sub> load attributable to out-of-basin wastes received and treated at the IWTP. The docket holder is permitted to demonstrate compliance with this requirement by calculating the total BOD<sub>5</sub> removal across the IWTP and the weighted average BOD<sub>5</sub> removal requirement based on the waste source (88.5% for in-basin and 100% for out-of-basin). The docket holder shall maintain records demonstrating compliance with this requirement and submit a summary annually detailing the calculations.
5. 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.
6. 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*.
7. The docket holder may request permission from the Executive Director to perform specific conductance monitoring in lieu of TDS monitoring. The request shall be made in writing and shall include information that supports the effluent specific correlation between TDS and specific conductance. Upon review, the Executive Director may modify the docket to allow specific conductance monitoring in lieu of TDS monitoring.
8. 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.
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 C.F.R. 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 DRBC issues a reminder notice in advance of the deadline or the docket holder receives such notice. If 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 pending the grant or denial of the application for docket approval.
10. 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 the Type of Discharge and Service Area sections of the docket holder's Application to the extent consistent with all other conditions of this section. Any expansion beyond that included in Section A.3. Area Served is subject to DRBC review and approval in accordance with Section 3.8 of the Compact.

11. In accordance with the Commission's regulations at 18 C.F.R. Part 440, the docket holder is prohibited from discharging wastewater from high volume hydraulic fracturing ("HVHF") or HVHF-related activities to waters or land within the Basin. The docket holder is further prohibited from discharging hydraulic fracturing wastewater, whether treated or untreated, from sources within or outside the Basin, without obtaining the Commission's prior review and express approval in the form of a revised docket. Violation of this or any condition of this docket approval may result in enforcement, including the risk of financial penalties, pursuant to Section 14.17 of the Delaware River Basin Compact and Section 2.7.8 (18 CFR 401.98) of the Commission's Rules of Practice and Procedure.
12. The facility and operational records shall be available at all times for inspection by the DRBC.
13. The facility shall be operated at all times to comply with the requirements of the Commission's *WQR*.
14. 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.
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 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.
17. No sewer 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).
18. 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, to ensure proper control, use and management of the water resources of the Basin.
19. The docket holder shall be subject to applicable DRBC regulatory program fees, in accordance with duly adopted DRBC resolutions and/or regulations (see 18 C.F.R. 401.43).
20. 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 C.F.R. 401.43).
21. 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 C.F.R. 401.43).



**22.** 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.

**23.** 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 (RPP)*. 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: December 5, 2024**

**EXPIRATION DATE: September 30, 2029**