

**DOCKET NO. D-1983-009-4**

**DELAWARE RIVER BASIN COMMISSION**

**Occidental Chemical Corporation  
Industrial Wastewater Treatment Plant  
Delaware City, New Castle County, Delaware**

**PROCEEDINGS**

This docket is issued in response to an application submitted to the Delaware River Basin Commission (DRBC or Commission) on June 7, 2019 (Application), for renewal of the docket holder's existing industrial wastewater treatment plant (IWTP) and its discharge. The discharge is permitted by the Delaware Department of Natural Resources & Environmental Control (DNREC) in National or State Pollutant Discharge Elimination System (NPDES) Permit No. DE0050911. The application was reviewed for approval under Section 3.8 of the *Delaware River Basin Compact*. The New Castle County Planning Board has been notified of pending action. A public hearing on this project was held by the DRBC on May 12, 2021.

**A. DESCRIPTION**

**1. Purpose.** The purpose of this docket is to renew approval of the docket holder's existing 0.3 million gallons per day (mgd) IWTP and its discharge related to the remediation of groundwater regulated by EPA Region 3 under the Resource Conservation and Recovery Act (RCRA). The Site EPA ID is DED003913266. The remediation is being performed in accordance with the June 25, 2012 Administrative Order on Consent (Consent Order) between EPA and Occidental Chemical Corporation (OxyChem) for the Site's Corrective Measures Implementation (CMI).

**2. Location.** The docket holder's IWTP is located south of the confluence of Red Lion Creek and the Delaware River at River Road in Delaware City, New Castle County, Delaware. The IWTP will continue to discharge to the Delaware River in Water Quality Zone 5 at River Mile 62.7

Specific location information has been withheld for security reasons.

**3. Area Served.** The docket holder's IWTP will continue to serve as a groundwater and stormwater treatment system in New Castle County, Delaware. For the purpose of defining the Area Served, Section B (Type of Discharge) and D (Service Area) of the docket holder's Application are incorporated herein by reference, to the extent consistent with all other conditions contained in the DECISION Section of this docket.

4. **Design Criteria.** The docket holder's 0.3 mgd IWTP utilizes an activated carbon treatment process with filtration and pH adjustment to treat on-site groundwater and stormwater contaminated with mercury and organic compounds from previous on-site manufacturing operations. Treated effluent is discharged into the Delaware River via a diffuser.

5. **Facilities.** For the purpose of remediation, the IWTP facilities consist of groundwater pumping from three locations on-site and treatment. The pumping consists of a groundwater collection trench sump and a groundwater pumping well, EW-03, in AOC 5 Process Area and a groundwater pumping well, EW-01 Columbia Well, in Waste Lake#1. The treatment consists of two systems: the Groundwater Treatment System (GWTS) and the Supplemental Treatment System (STS). The groundwater is split 25 gpm to the GWTS and 100 gpm to the STS.

Groundwater from the collection trench and EW-03 can be pH adjusted if necessary, through the diffusion of gaseous carbon in the collection trench sump before it is pumped to a process tank in the treatment building. Groundwater sourced from Waste Lake #1 EW-01 Columbia Well is separately filtered before being combined with the collection trench and the EW-03 groundwater in the process tank. The combined sources of groundwater are then carbon treated before discharge via Outfall No. 001. Approximately 0.025 mgd of leachate from the brine landfill, variable flow of backwash and washdown water, and variable flow of stormwater from on-site storage areas are sent to a surge receiver, then carbon treated before combining with the treated groundwater effluent sources; water is ultimately discharged from a Batch Tank System before discharging from Outfall No. 001.

Treated groundwater and stormwater is discharged to the Delaware River via a 140-foot-long diffuser approximately 2900 feet from the shoreline.

Waste sludge will continue to be hauled off-site for disposal.

Several of the project facilities are located in the 100-year floodplain. The Commission's *Flood Plain Regulations (FPR)* have requirements for treatment facilities in the flood plain; however, the *FPR* only apply in the non-tidal portion of the Delaware River Basin. Since the project WWTP is located in the tidal portion of the basin, the *FPR* do not apply to the project WWTP.

6. **Water withdrawals.** The docket holder withdraws water from within groundwater containment systems including encompassing slurry wall barriers for purposes of remediation required by the EPA Consent Order. Dewatering of the containment systems is conducted using a collection trench and wells at a rate of approximately 0.18 mgd.

7. **NPDES Permit / DRBC Effluent Requirements.** NPDES Permit No. DE0050911 issued by the DNREC includes final effluent limitations for the project discharge to surface waters classified by the DNREC as Delaware River Zone 5. EFFLUENT TABLES C-1 & C-2 included in Section C. DECISION of this docket, contain effluent requirements for DRBC parameters that must be met as a condition of this approval. Effluent requirements for Outfall No. 001 are based on a discharge rate of 0.3 mgd.

## **B. FINDINGS**

The docket holder submitted an application to renew approval of their existing 0.30 mgd WWTP and its discharge.

### **1. Total Dissolved Solids**

Zone 5 stream quality objectives do not explicitly include Total Dissolved Solids (TDS) even though Zone 5 is an interstate water. While the DRBC's basin-wide TDS requirements are generally not applied in Zone 5, the Commission reserves the right, in accordance with the *WQR* and the Rules of Practice and Procedure, to apply the basin-wide TDS requirements in Zone 5 when and where it determines that the requirements are necessary to protect water uses in Zone 5.

### **2. Other**

There are no water intakes of record for public water supply located downstream of the docket holder's IWTP.

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-1983-009-4 below; Docket No. D-1983-009-3 is terminated and replaced by Docket No. D-1983-009-4. The project and appurtenant facilities as described in Section A 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**

<b>OUTFALL 001 (Discharging to Water Quality Zone 5 of Delaware River)</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	As required by NPDES Permit
BOD <sub>5</sub> (at 20° C)	9.0 mg/l (Daily Maximum) 15 lbs/day	As required by NPDES Permit
Enterococcus	104 colonies per 100 mL	As required by NPDES Permit
Total Chromium	0.15 mg/l	As required by NPDES Permit
Dissolved Mercury	0.005 mg/l	As required by NPDES Permit
Dissolved Copper	0.5 mg/l	As required by NPDES Permit
Dissolved Lead	0.15 mg/l	As required by NPDES Permit
PCBs*	Monitor & Report	As required by NPDES Permit
Acute Whole Effluent Toxicity (WET) Test <i>Americamysis bahia</i>	Monitor & Report	As required by NPDES Permit

\* See DECISION Condition C.2

The following monitoring requirements and average monthly effluent limits are for DRBC parameters not listed in the NPDES Permit.

**EFFLUENT TABLE C-2: DRBC Parameters Not Included in NPDES Permit**

<b>OUTFALL 001 (Discharging to Water Quality Zone 5 of Delaware River)</b>		
<b>PARAMETER</b>	<b>LIMIT</b>	<b>MONITORING</b>
Total Dissolved Solids*	Monitor & Report*	Quarterly

\* See DECISION Condition C.6

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 NPDES Permit.

**Other Conditions**

3. Nothing in this docket constitutes a defense to any penalty action for past conduct of the docket holder or ongoing activity not authorized by this approval. In particular, renewal of this docket does not resolve violations – whether in the past or continuing – of provisions of the Delaware River Basin Compact (“Compact”) or any rule, regulation, order or approval duly issued by the Commission or the Executive Director pursuant to the Compact. The Commission reserves its right to take appropriate enforcement action against the docket holder, including but not limited to recovery of financial penalties consistent with Section 14.17 of the Compact, for any and all such prior or continuing violations.

4. The discharge of wastewater shall not increase the ambient temperatures of the receiving waters by more than 4°F from September to May and 1.5°F from June to August, nor shall such discharge result in a stream temperature exceeding 86°F.

5. 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*.

6. The docket holder may request of the Executive Director in writing the substitution of specific conductance for TDS. The request should include information that supports the effluent specific correlation between TDS and specific conductance. Upon review, the Executive Director may modify the docket to allow the substitution of specific conductance for TDS monitoring.

7. 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.

**8.** 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 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.

**9.** 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.

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

**11.** The facility shall be operated at all times to comply with the requirements of the Commission's WQR.

**12.** 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.

**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 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.

**15.** 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).

**16.** 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, in order to ensure proper control, use and management of the water resources of the Basin.

**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.** 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).

**19.** 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).

**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: June 9, 2021**

**EXPIRATION DATE: June 30, 2026**