DOCKET NO. D-2005-001-6

DELAWARE RIVER BASIN COMMISSION

Hydro Extrusion USA, LLC
Industrial Wastewater Treatment Plant and Non-Contact Cooling Water Discharge
Cressona Borough, Schuylkill County, Pennsylvania

PROCEEDINGS

This docket is issued in response to an application submitted to the Delaware River Basin Commission (DRBC or Commission) on date (Application), for renewal of the docket holder's existing industrial wastewater treatment plant (IWTP) and its discharge. The Pennsylvania Department of Environmental Protection issued National Pollutant Discharge Elimination System (NPDES) Permit No. PA0012726 for this discharge.

The application was reviewed for approval under Section 3.8 of the *Delaware River Basin Compact*. The Schuylkill County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on August 9, 2023.

A. DESCRIPTION

1. Purpose. The purpose of this docket is to renew the approval of the docket holder's existing 0.10 million gallons per day (mgd) IWTP and its discharge of treated industrial process wastewater and non-contact cooling water (NCCW). This docket continues the total dissolved solids (TDS) determination of 2,000 mg/l (daily maximum) from the IWTP effluent.

2. Location. The docket holder's IWTP is located at Pottsville Street in Cressona Borough, Schuylkill County, Pennsylvania. The IWTP will continue to discharge treated process wastewater, blowdown, and NCCW to West Branch Schuylkill River at River Mile 92.5 – 115.0 – 0.5 (Delaware River – Schuylkill River – West Branch Schuylkill River).

The location of the IWTP outfall in the Schuylkill River Watershed is as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
002	40° 37' 52"	76° 11' 7"
010	40° 37' 53"	76° 11' 4"
007	40° 37' 58"	76° 11' 00"
008	40° 37' 59"	76° 11' 00"
009	40° 38' 00"	76° 10' 56"

3. **Area Served**. The docket holder's IWTP will continue to serve the Hydro Extrusions aluminum forming, and extrusion facility located in Cressona Borough, Schuylkill County, Pennsylvania. 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 facility generates industrial process wastewater and NCCW from manufactured aluminum production. The WWTP is designed for an annual average flow of 0.10 mgd, and a hydraulic design capacity of 0.20 mgd.

5. **Facilities**. Product quenching is the largest source of wastewater. Most of the wastewater sources at the project site are subject to the aluminum forming, extrusion subcategory, effluent limitation guidelines established at 40 CFR 467, Subpart C, including caustic die cleaning, hydraulic extrusion press leakage, press heat treatment contact cooling water and direct chill casting contact cooling water. Hot water from quenching operations is cooled in evaporative cooling towers and reused. There are three major cooling towers: Extrusion Cooling Tower, Old Ingot Cooling Tower, and New Ingot Cooling Tower. The Extrusion and New Ingot cooling towers require higher quality quench water than the Old Ingot cooling tower. Approximate blowdown rates for each system are 20,000 to 40,000 gallons per day.

In addition to the dissolved minerals originally in the makeup water and in the water treatment chemicals introduced into the cooling water, the blowdown contains oil and grease picked up during quenching. Since ingot casting employs mineral oil and castor oil for lubrication, the oil and grease content for that blowdown is higher than that from the Extrusion cooling tower. Moreover, the oil and grease is highly emulsified and cannot be removed without chemical aids. Besides quenching, considerable amounts of oil and grease are introduced into the wastewater from floor drains in the production areas. Oil leakage from mechanical equipment, such as the extrusion presses, is the primary source of the oil and grease in the wastewater treatment plant influent. Other sources of wastewater include small amounts of acids and bases generated at the metallurgical laboratory, used aqueous parts washer solvent, and used soluble oil coolant generated from general machining of ferrous and nonferrous materials.

Wastewater generated by the production process is treated in an equalization tank to emulsify and breakdown oils and grease and to promote coagulation. After equalization, the wastewater is pumped through a flash mix tank and the pH is raised and flocculation promoted, allowing dissolved solids to precipitate. After flash mixing, an anionic polymer is added to further promote flocculation. Wastewater then flows by gravity to a dissolved air filtration unit to remove most solids. Next, the wastewater is conveyed to a clarifier where floating solids are skimmed from the top while sludge settles to the bottom. Clarified wastewater is then further processed through two sand filters followed by carbon filtration and then released to the West Branch Schuylkill River. Sludge processing includes a holding tank where liquids are decanted. Decanted liquids are then returned to the influent pumping station for reprocessing.

The project facilities are not located in the 100-year floodplain.

Wasted sludge will continue to be hauled off-site for disposal in accordance with the NPDES Permit No. PA0012726.

6. Water Withdrawals. The potable water supply in the project's service area is provided by the Schuylkill Haven Borough, which owns and operates a surface water intake located on Lower Tumbling Run and 3 groundwater wells. The water withdrawals are described in detail in Docket Nos. D-1989-096 CP-1 and D-1989-096 CP (REVISED), which were approved on May 23, 1990, and December 11, 1991, respectively.

7. NPDES Permit / DRBC Effluent Requirements. NPDES Permit No. PA0012726 issued by the PADEP includes final effluent limitations for the project discharge to surface waters classified by the PADEP as supporting migratory fishes and cold-water fishes (CWF, MF). EFFLUENT TABLES C-1 & C-2 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. 002 are based on a discharge rate of 0.10 mgd.

B. FINDINGS

The docket holder applied to renew approval of their existing 0.10 mgd WWTP, its discharge, and continue its TDS variance of 2,000 mg/l.

1. Total Suspended Solids

Section 3.10.4.D.1.a. of the DRBC Water Quality Regulations (*WQR*) include a basin-wide effluent limit for TSS of 30 mg/l as a 30-day average and 45-mg/l as a 7-day average. Section 3.10.4 D. 1. a. 2) allows for IWTPs discharging TSS concentrations greater than the 30 mg/l (30-day avg) and 45 mg/l (7-day avg) to discharge up to 100 mg/l if the IWTP also meets 85% removal rate.

This docket continues an average monthly limit of 50 mg/l for the IWTP effluent at IMP No. 010 and the requirement for a minimum removal of 85% of TSS.

2. Total Dissolved Solids

Commission staff calculate that a discharge flow of 0.20 mgd from the IWTP (Monitoring Point No. 010) and a maximum daily concentration of 2,000 mg/l of TDS at Q7-10 conditions results in an in-stream TDS concentration of 479 mg/l. 479 mg/l is 112% of the background TDS concentration for the West Branch Schuylkill River. Under a maximum daily TDS concentration of 2,000 mg/l and IWTP design flow of 0.20 mgd, both the 500 mg/l in-stream EPA drinking water standard and 133% of background for the protection of aquatic life are satisfied. The maximum TDS load is maintained from the previous DRBC approval.

Commission staff calculates that a maximum daily discharge flow of 0.20 mgd from the IWTP (Monitoring Point No. 010) and a maximum daily concentration of 2,000 mg/l.

At the hydraulic design rate of 0.2 mgd, the equivalent concentration for a load of 3,336 lbs/day is 2,000 mg/l. Based on a review of IWTP effluent data for the past 4 years provided by the docket holder, the maximum monthly TDS concentration was 914.5 mg/l and the average daily maximum flow rate was 0.129 mgd.

3. Other

At the docket holder's IWTP discharge, the West Branch Schuylkill River has an estimated seven-day low flow with a recurrence interval of ten years ($Q_{7\text{-}10}$) of 7.3 mgd (11.3 cfs). The ratio of this low flow to the hydraulic design wastewater discharge rate from the 0.20 mgd IWTP is 37 to 1.

The nearest surface water intake of record for public water supply is located on the Schuylkill River approximately 65 River Miles downstream of the docket holder's IWTP and is operated by the City of Pottstown.

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-2005-001-6 below, D-2005-001-5 is terminated and replaced by Docket No. D-2005-001-6 and 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** 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

INTERNAL MONITORING POINT (IMP) NO. 010 (IWTP – Treated Process, Blowdown, and NCCW)		
PARAMETER	**LIMIT**	**MONITORING**
pH (Standard Units)	6 to 9 at all times	As required by NPDES Permit
Total Suspended Solids	50 mg/l (85% Minimum Removal)	As required by NPDES Permit
BOD_5 (at 20° C)	Monitor & Report See EFFLUENT TABLE C-3	As required by NPDES Permit
Fecal Coliform	Monitor & Report See EFFLUENT TABLE C-3	As required by NPDES Permit
Total Dissolved Solids*	2,000 mg/l (daily maximum)*	As required by NPDES Permit

* See DECISION Condition C.4

EFFLUENT TABLE C-2 DRBC Parameters Included in NPDES Permit

OUTFALL NO. 002 (IWTP Effluent, NCCW & Stormwater to West Schuylkill Branch River)		
PARAMETER	**LIMIT**	**MONITORING**
Total Suspended Solids	Monitor & Report	As required by NPDES Permit

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

EFFLUENT TABLE C-3: DRBC Parameters Not Included in NPDES Permit

INTERNAL MONITORING POINT (IMP) NO. 010 (IWTP – Treated Process, Blowdown, and NCCW)		
PARAMETER	**LIMIT**	**MONITORING**
$CBOD_5$ (at 20° C)	Monitor & Report	Monthly
Fecal Coliform	Monitor & Report	Monthly
$CBOD_5$ (at 20° C) Influent	Monitor & Report	Monthly

Other Conditions

2. 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.

3. 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*.

4. 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.

5. Section 2.3.10 of the Commission's *Rules of Practice and Procedure (RPP)* (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.

6. 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.

7. 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.

8. 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.

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

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

11. 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.

12. 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.

13. 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.

14. 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).

15. 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.

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 C.F.R. 401.43).

17. 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).

18. 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).

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. 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: **September 7, 2023**

EXPIRATION DATE: **September 7, 2028**