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DOCKET NO. D-2003-015 CP-3

DELAWARE RIVER BASIN COMMISSION

Discharge to a Tributary of Special Protection Waters

**Borough of Slatington
Wastewater Treatment Plant
Slatington Borough, Lehigh County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by ARRO Consulting, Inc. on behalf of the Borough of Slatington (Slatington Borough or docket holder) on March 29, 2018 (Application), for renewal of the docket holder's existing wastewater treatment plant (WWTP) and its discharge. National Pollutant Discharge Elimination System (NPDES) Permit No. PA0020176 for this facility was issued by the Pennsylvania Department of Environmental Protection (PADEP) on March 9, 2009.

The Application was reviewed for continuation of the project in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact*. The Lehigh Valley Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on August 15, 2018.

A. DESCRIPTION

- 1. Purpose.** The purpose of this docket is to renew approval of the docket holder's existing 1.5 million gallons per day (mgd) WWTP its discharge, and to approve a modification to the WWTP. The modification consists of converting an existing anaerobic digester unit into an aerobic digester unit and appurtenant improvements.
- 2. Location.** The WWTP will continue to discharge treated effluent to the Lehigh River at River Mile 183.7 – 33.7 (Delaware River – Lehigh River) via Outfall No. 001, within the drainage area to the Lower Delaware Special Protection Waters (SPW), in Slatington Borough, Lehigh County, Pennsylvania, as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
001	40° 45' 29"	75° 36' 16"

3. Area Served. The docket holder's WWTP will continue to serve Slatington Borough and Lehigh and Washington Townships, located in Lehigh County, Pennsylvania, and Walnutport Borough in Northampton County, Pennsylvania. 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. Physical Features.

a. Design Criteria. The docket holder's existing 1.5 mgd WWTP utilizes a trickling filter treatment process and chlorine disinfection. There is no proposed change in the docket holder's WWTP design flow or capacity.

b. Facilities. The existing WWTP facilities consist of a bar screen, an automated helisieve screen, a parshall flume, two primary clarifiers, two trickling filters, two final clarifiers, two anaerobic sludge digesters (currently used as sludge holding tanks), eight sludge drying reed beds, two chlorine contact tanks, and sulfur dioxide de-chlorination.

The proposed modification consists of converting one of the two existing anaerobic sludge digesters into an aerobic digester with the installation of blowers to the existing digester facility, and appurtenant improvements. As part of the project, the remaining anaerobic sludge digester will be taken offline and abandoned in place for potential future use as another aerobic digester.

The docket holder's wastewater treatment facility discharges to waters classified as SPW and is required to have available standby power. The existing WWTP has a generator installed capable of providing standby power.

The docket holder's wastewater treatment facility is not staffed 24 hours per day, and shall have a remote alarm system that continuously monitors plant operations in accordance with the Commission's SPW requirements. The existing WWTP has a remote alarm system installed that continuously monitors plant operations.

The docket holder' has prepared and implemented an emergency management plan (EMP) for the existing WWTP in accordance with Commission SPW requirements.

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

Wasted sludge will continue to be hauled off-site by a licensed hauler for disposal at a state approved facility.

c. **Water withdrawals.** The potable water supply in the project service area is supplied by the Borough of Slatington's groundwater and spring water withdrawal. The docket holder's water withdrawal is described in detail in Docket No. D-1990-097 CP, which was approved on October 23, 1991.

d. **Effluent Requirements.** EFFLUENT TABLES A-1 and A-2 below contain effluent requirements for DRBC parameters that must be met as a condition of this approval (See DECISION Condition C.II.c.). NPDES Permit No. PA0020176 was issued by the PADEP on March 9, 2009 (effective April 1, 2009), administratively continued since March 31, 2014, and includes final effluent limitations for the project discharge of 1.5 mgd to surface waters classified by the PADEP as supporting trout stocking (TSF) 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.

EFFLUENT TABLE A-1: DRBC Parameters Included in NPDES Permit

OUTFALL 001 (Lehigh River)		
PARAMETER	LIMIT	MONITORING
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
CBOD ₅ (at 20° C)	25 mg/l	As required by NPDES Permit
Fecal Coliform (5-1 to 9-30)	200 colonies per 100 ml as a geo. avg.	As required by NPDES Permit
(10-1 to 4-30)	2000 colonies per 100 ml as a geo. avg.	

The requirements in EFFLUENT TABLE A-2 are not listed in the NPDES Permit, but are Commission basin-wide or SPW specific parameters that must be met as a condition of this docket approval.

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

OUTFALL 001 (Lehigh River)		
PARAMETER	LIMIT	MONITORING
Total Dissolved Solids*	1,000 mg/l *	Quarterly
CBOD ₅ (at 20° C) Influent	Monitor & Report	Monthly, paired with CBOD ₅ effluent monitoring sample
CBOD ₅ (at 20° C)	Minimum 85% Removal	Monthly, paired with CBOD ₅ effluent monitoring sample
Ammonia Nitrogen**	Monitor & Report**	Monthly
Dissolved Oxygen	Monitor & Report	Monthly
Nitrate as N	Monitor & Report	Monthly
Total Nitrogen	Monitor & Report	Monthly
Phosphorus	Monitor & Report	Monthly

* See DECISION Condition C.II.v.

** See B. FINDINGS Section and DECISION Condition C.II.z.

e. **Relationship to the Comprehensive Plan.** The existing WWTP was included into the Comprehensive Plan upon the approval of Docket No. D-1994-045 CP on September 28, 1994, at a discharge rate of 0.995 mgd. The WWTP was expanded to a flow of 1.5 mgd and continued in the Comprehensive Plan via the approval of Docket No. D-2003-015 CP on April 1, 2004. The WWTP and its approval was renewed via Docket No. D-2003-015 CP-2 on March 12, 2014. The WWTP was transferred from the Slatington Borough Authority to the Borough of Slatington on October 7, 2015. Issuance of this docket will continue its approval in the Comprehensive Plan (See DECISION Condition C.I.c.).

B. **FINDINGS**

The docket holder submitted an Application to renew the approval of the docket holder's existing 1.5 mgd WWTP, and to approve a proposed WWTP modification to convert an existing anaerobic digester to an aerobic digester.

On July 16, 2008, the DRBC approved amendments to its *Water Quality Regulations (WQR)* that provide increased protection for waters that the Commission classifies as SPW. The portion of the Delaware River and its tributaries within the boundary of the Lower Delaware River Management Plan Area was approved for SPW designation.

The docket holder's WWTP discharges to the drainage area to the Lower Delaware River SPW. The docket holder's WWTP discharge is required to comply with the SPW requirements, as outlined in Article 3.10.3A.2. of the *WQR*.

According to Article 3.10.3A.2. of the *WQR*, when existing WWTPs located in SPW areas propose "*Substantial Alterations or Additions*" or are an "*Expanding Wastewater Treatment Plant*" (as defined in the DRBC *WQR Section 3.10.3A.2.a.*), they are required to perform: a Natural Treatment Alternatives (NTA) analysis and demonstrate that the project will cause no measurable change (NMC) to Existing Water Quality (EWQ).

The Commission's *WQR* defines "*Substantial Alterations or Additions*" as:

"those additions and alterations resulting in: (a) a complete upgrade or modernization of an existing wastewater treatment plant, including substantial replacement or rehabilitation of the existing wastewater treatment process or major physical structures such as headworks, settling tanks, and biological/chemical treatment and filtration tanks, whether conducted as a single phase or a multiphased project or related projects; or (b) a new load or increased flow or loading from an existing facility that was not included in a NPDES permit or docket effective on the date of SPW designation. Among other projects, modifications made solely to address wet weather flows; and alterations that are limited to changes in the method of disinfection and/or the addition of treatment works for nutrient removal are not deemed to be "Substantial Alterations or Additions."

The modification to the existing Slatington Borough WWTP does not constitute as a "*Substantial Alteration or Addition*" under Section 3.10.3 A.2.a.16) of the Commission's *WQR*,

and the facility is not an “*Expanding Wastewater Treatment Plant*”. The docket holder is not requesting a new load or increased flow or loading from an existing facility that was not included in a NPDES permit or docket effective on the date of SPW designation. The proposed sludge tank conversion is not a complete upgrade or substantial replacement or rehabilitation of the existing wastewater treatment process.

Since the project modification is not considered a “*Substantial Alteration or Addition*” and the project is not an “*Expanding Wastewater Treatment Plant*”, the NTA analysis and NMC to EWQ demonstration is not required at this time.

Section 4.30.5.D.1 of the Commission’s *WQR* includes a basin-wide effluent limit for Ammonia as Nitrogen of 20 mg/l as a 30-day average. The docket holder’s current treatment process has demonstrated an inability to meet the Commission’s basin-wide limit; therefore, the Commission staff have determined that the docket holder will monitor and report Ammonia-Nitrogen monthly effluent concentrations and the docket holder will be required to perform concurrent planning for treatment process modifications to satisfy the Commission’s effluent limit. The docket holder will be required to meet the Commission’s 20 mg/l Ammonia-Nitrogen effluent limit upon the next docket renewal issuance. The docket holder shall provide the Commission with a progress report on the docket holder’s planning for proposed modifications to provide adequate Ammonia-Nitrogen treatment at the WWTP. The progress report detailing the planning and proposed modifications at the facility is required to be submitted to the Commission by September 30, 2020 (See DECISION Condition C.II.z).

If the future treatment process modification results in a proposed project that is determined by the Commission staff as meeting the *WQR*’s definition of “*Substantial Alteration or Addition*”, the docket holder may also be required to meet additional effluent limitations for Nitrate as N, Total Nitrogen, and Total Phosphorus parameters as determined by Commission staff.

Article 3.10.3A.2.e.1). and 2). of the Commission’s *WQR* states that projects subject to review under Section 3.8 of the Compact that are located in the drainage area of SPW must submit for approval a Non-Point Source Pollution Control Plan (NPSPCP) 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 SPW. The service area of the docket holder is located in the drainage area to the SPW. Since this project does entail additional construction and expansion of facilities, the NPSPCP requirement is applicable at this time. Accordingly, DECISION Condition C.II.n. has been included in this docket.

Slatington Borough is regulated by the PADEP as a Stormwater Phase II municipality and is permitted by PADEP as such. Slatington Borough adopted and implemented a stormwater ordinance in accordance with the PADEP requirements. The PADEP Stormwater Phase II requirements satisfy the NPSPCP requirements of the Commission.

Near the docket holder’s WWTP discharge, the Lehigh River has an estimated seven-day low flow with a recurrence interval of ten years (Q_{7-10}) of 137 mgd (213 cfs). The ratio of this low flow to the hydraulic design wastewater discharge from the 1.5 mgd WWTP is 80 to 1.

The nearest surface water intake of record for public water supply is located on Lehigh River approximately 9 River Miles downstream of the docket holder's WWTP, and is operated by Northampton Borough Municipal Authority.

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 are in compliance with Commission effluent quality requirements, where applicable.

With the exception of Ammonia Nitrogen, the project is designed to produce a discharge meeting the effluent requirements as set forth in the Commission's *Water Quality Regulations (WQR)*.

C. DECISION

- I. Effective on the approval date for Docket No. D-2003-015 CP-3 below:
 - a. The project described in Docket No. D-2003-015 CP-2 is removed from the Comprehensive Plan to the extent that they are not included in Docket No. D-2003-015 CP-3; and
 - b. Docket No. D-2003-015 CP-2 is terminated and replaced by Docket No. D-2003-015 CP-3; and
 - c. The project and the appurtenant facilities described in Section A "Physical Features" of this docket shall be continued in the Comprehensive Plan.
- II. The project and appurtenant facilities as described in Section A "Physical Features" of this docket are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:
 - a. The facility and operational records shall be available at all times for inspection by the DRBC.
 - b. The facility shall be operated at all times to comply with the requirements of the Commission's *WQR* and Flood Plain Regulations (*FPR*).
 - c. The docket holder shall comply with the requirements contained in the EFFLUENT TABLES in Section A.4.d. of this docket. The docket holder shall submit the required monitoring results electronically to the DRBC Project Review Section via email aemr@drbc.state.nj.us on the **Annual Effluent Monitoring Report Form** located at this web address: <http://www.state.nj.us/drbc/programs/project/pr/info.html>. 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.

d. 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*.

e. 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.

f. 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.

g. Sound practices of excavation, backfill and reseedling shall be followed to minimize erosion and deposition of sediment in streams.

h. Within 10 days of the date that construction of the project has started, the docket holder shall notify the DRBC of the starting date and scheduled completion date. Within 30 days of the date of project completion, the docket holder shall notify the DRBC of the project completion date.

i. Within 30 days of completion of construction of the approved project, the docket holder is to submit to the attention of the Project Review Section of DRBC a Construction Completion Statement (“Statement”) signed by the docket holder’s professional engineer for the project. The Statement must (1) either confirm that construction has been completed in a manner consistent with any and all DRBC-approved plans or explain how the as-built project deviates from such plans; and (2) indicate the date on which the project was (or is to be) placed in operation.

j. The WWTP modifications shall be completed prior to the date of docket expiration (September 13, 2023) or the docket holder shall demonstrate to the Executive Director that it has expended substantial funds (in relation to the cost of the project) in reliance upon this docket approval. If the modifications have not been completed prior to docket expiration and the docket holder does not submit a cost analysis demonstrating substantial funds have been expended, Commission approval of the modifications to the existing WWTP shall expire. If the docket expires under this condition, the docket holder shall file a new application with the Commission and receive Commission approval prior to initiating construction of any modifications.

k. 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.

l. 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.

m. 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).

n. 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.

o. Prior to allowing connections from any new service areas or any new developments, the docket holder shall either submit and have approved by the Executive Director of the DRBC a NPSPCP in accordance with Section 3.10.3.A.2.e, or receive written confirmation from the Executive Director of the DRBC that the new service area is in compliance with a DRBC-approved NPSPCP.

p. 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.

q. 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).

r. 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).

s. 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).

t. 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.

u. 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.

v. 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.

w. 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.

x. 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.

y. Prior to the docket holder initiating any substantial alterations or additions to the existing WWTP as defined in Section 3.10.3A2.a.16) of the Commission's *WQR*, an application must be submitted and approved by the Commission. Such an application shall be submitted prior to final design to ensure that the Commission can provide the docket holder with draft effluent limitations for SPW specific parameters as guidance for design as to not require duplication of work or cause a substantial expenditure of public funds without Commission approval. The docket holder is encouraged to contact the Commission staff during the planning stages to identify the potential effluent limitations required to meet the no measurable change parameters under SPW.

z. The docket holder shall submit a progress report to the Commission detailing its planning for proposed modifications to the facility to meet the Commission's 20 mg/l effluent limit for Ammonia-Nitrogen by September 30, 2020.

BY THE COMMISSION

APPROVAL DATE:

EXPIRATION DATE: September 30, 2023

DRAFT