



State of New Jersey

PHIL MURPHY
Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Mail Code – 401-02B
Water Pollution Management Element
Bureau of Surface Water Permitting
P.O. Box 420 – 401 E State St
Trenton, NJ 08625-0420
Phone: (609) 292-4860 / Fax: (609) 984-7938

CATHERINE McCABE
Commissioner

SHEILA OLIVER
Lt. Governor

**Via Email Only
July 11, 2018**

Nancy Malool
Long Hill Township Administrator
915 Valley Road
Gillette, NJ 07933

Re: Final Surface Water Renewal Permit Action
Category: A - Sanitary Wastewater
NJPDES Permit No. NJ0024465
Long Hill Township STP
Long Hill Township, Morris County

Dear Ms. Malool:

Enclosed is a **final** New Jersey Pollutant Discharge Elimination System (NJPDES) permit action identified above which has been issued in accordance with N.J.A.C. 7:14A. This permit action authorizes discharge activity applicable to the discharge category identified above. This final permit action authorizes the permittee to discharge a NJPDES permitted flow of 1.25 MGD to the Passaic River, classified as FW2-NT waters.

The thirty (30) day public comment period began on June 2, 2018 when the public notice was published in the *Daily Record*. Notice of the draft permit action also appeared in the *DEP Bulletin* on June 6, 2018. No written comments were received on the draft action during the comment period, and no provisions of the draft permit have been changed in the final permit. Therefore, the right by you, or any third party, to contest the permit conditions in an adjudicatory hearing has been waived pursuant to N.J.A.C. 7:14A-15.13.

Any requests for an adjudicatory hearing shall be submitted in writing by certified mail, or by other means which provide verification of the date of delivery to the Department, within 30 days of receipt of this Surface Water Renewal Permit Action in accordance with N.J.A.C. 7:14A-17.2. You may also request a stay of any contested permit condition, which must be justified as per N.J.A.C. 7:14A-17.6 *et seq.* The adjudicatory hearing request must be accompanied by a completed Adjudicatory Hearing Request Form; the stay request must be accompanied by a completed Stay Request Form. Copies of these forms can be downloaded from the Department's website at <http://www.nj.gov/dep/dwq>.

As per N.J.A.C. 7:14A-4.2(e)3, any person planning to continue discharging after the expiration date of an existing NJPDES permit shall file an application for renewal at least 180 calendar days prior to the expiration of the existing permit.

All monitoring shall be conducted in accordance with 1) the Department's "Field Sampling Procedures Manual" applicable at the time of sampling (N.J.A.C. 7:14A-6.5(b)4), and/or 2) the method approved by the Department in Part IV of the permit. The Field Sampling Procedures Manual is available at <http://www.nj.gov/dep/srp/guidance/fspm/>.

Please note that semi-annual Waste Characterization Requirements (WCR) sampling for the purposes of the current permit shall be conducted between August 1, 2018 and January 31, 2019 in accordance with the schedule as established in the Department's on-line portal (<http://www.nj.gov/dep/online/>). Any new semi-annual WCR sampling for the purposes of this renewal permit shall be conducted between April 1, 2019 and September 30, 2019 (and subsequent semi-annual monitoring periods thereafter according to the same schedule).

For your convenience, a schedule of submittal requirements has been included with this permit package.

If you have questions or comments regarding the final action, please contact Josie Horowitz at (609) 292-4860.

Sincerely,

A handwritten signature in black ink that reads "Susan Rosenwinkel". The signature is written in a cursive style.

Susan Rosenwinkel
Acting Bureau Chief
Bureau of Surface Water Permitting

Enclosures

c: Permit Distribution List

Masterfile #: 3470; PI #: 46757

FACILITY SUBMITTALS

1. GDR - General Discharge Requirements

Task Description	Actual Due Date
Submit a Complete Permit Renewal Application	04/03/2023

2. A - Sanitary Wastewater

Task Description	Actual Due Date
Submit an Acute Whole Effluent Toxicity Test Report	01/26/2019
Submit a chronic whole effluent toxicity test report	01/26/2019
Submit a Beneficial Reuse Annual Report	02/01/2019
Compliance Schedule Progress Report	04/01/2019
Submit an Acute Whole Effluent Toxicity Test Report	04/26/2019
Submit a chronic whole effluent toxicity test report	04/26/2019
Submit an Acute Whole Effluent Toxicity Test Report	07/26/2019
Submit a chronic whole effluent toxicity test report	07/26/2019
Annual Pretreatment Program Report	08/01/2019
Compliance Schedule Progress Report	10/01/2019
Submit an Acute Whole Effluent Toxicity Test Report	10/26/2019
Submit a chronic whole effluent toxicity test report	10/26/2019
Submit an Acute Whole Effluent Toxicity Test Report	01/26/2020
Submit a chronic whole effluent toxicity test report	01/26/2020
Submit a Beneficial Reuse Annual Report	02/01/2020
Compliance Schedule Progress Report	04/01/2020
Conduct Local Limits Evaluation	04/01/2020
Submit an Acute Whole Effluent Toxicity Test Report	04/26/2020
Submit a chronic whole effluent toxicity test report	04/26/2020
Submit an Acute Whole Effluent Toxicity Test Report	07/26/2020
Submit a chronic whole effluent toxicity test report	07/26/2020
Annual Pretreatment Program Report	08/01/2020
Compliance Schedule Progress Report	10/01/2020
Submit an Acute Whole Effluent Toxicity Test Report	10/26/2020
Submit a chronic whole effluent toxicity test report	10/26/2020
Submit an Acute Whole Effluent Toxicity Test Report	01/26/2021
Submit a chronic whole effluent toxicity test report	01/26/2021
Submit a Beneficial Reuse Annual Report	02/01/2021
Compliance Schedule Progress Report	04/01/2021
Submit an Acute Whole Effluent Toxicity Test Report	04/26/2021
Submit a chronic whole effluent toxicity test report	04/26/2021
Submit an Acute Whole Effluent Toxicity Test Report	07/26/2021
Submit a chronic whole effluent toxicity test report	07/26/2021
Annual Pretreatment Program Report	08/01/2021
Submit an Acute Whole Effluent Toxicity Test Report	10/26/2021
Submit a chronic whole effluent toxicity test report	10/26/2021

Task Description	Actual Due Date
Submit an Acute Whole Effluent Toxicity Test Report	01/26/2022
Submit a chronic whole effluent toxicity test report	01/26/2022
Submit a Beneficial Reuse Annual Report	02/01/2022
Submit an Acute Whole Effluent Toxicity Test Report	04/26/2022
Submit a chronic whole effluent toxicity test report	04/26/2022
Submit an Acute Whole Effluent Toxicity Test Report	07/26/2022
Submit a chronic whole effluent toxicity test report	07/26/2022
Annual Pretreatment Program Report	08/01/2022
Submit an Acute Whole Effluent Toxicity Test Report	10/26/2022
Submit a chronic whole effluent toxicity test report	10/26/2022
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Submit a Beneficial Reuse Annual Report	02/01/2023
Submit an Acute Whole Effluent Toxicity Test Report	04/26/2023
Submit a chronic whole effluent toxicity test report	04/26/2023
Submit an Acute Whole Effluent Toxicity Test Report	07/26/2023
Submit a chronic whole effluent toxicity test report	07/26/2023
Annual Pretreatment Program Report	08/01/2023

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List of Acronyms

ACR	Acute to Chronic Ratio
AML	Average Monthly Limitation
BMP	Best Management Practices
BPJ	Best Professional Judgement
CAP	Capacity Assurance Program
CFR	Code of Federal Regulations
CV	Coefficient of Variation
CWEA/CWA	Clean Water Enforcement Act/Clean Water Act
Department	New Jersey Department of Environmental Protection
DGW	Discharge to Groundwater
DMR	Discharge Monitoring Report
DRBC	Delaware River Basin Commission
DSN	Discharge Serial Number
DSW	Discharge to Surface Water
EDP/M	Effective Date of the Permit/Permit Modification
EEQ	Existing Effluent Quality
ELG	Effluent Limitation Guideline
g/d or g/day	Grams per Day
IEC	Interstate Environmental Commission
IPP	Industrial Pretreatment Program
kg/d or kg/day	Kilograms per Day
LTA	Long Term Average
MA1CD10 or 1Q10	Minimum average one day flow with a statistical recurrence interval of ten years
MA7CD10 or 7Q10	Minimum average seven consecutive day flow with a statistical recurrence interval of ten years
MA30CD5 or 30Q5	Minimum average 30 consecutive day flow with a statistical recurrence interval of five years
mg/L	Milligrams per Liter
MDL	Maximum Daily Limitation
MGD	Million Gallons per Day
MRF	Monitoring Report Form
NPDES/NJPDES	National/New Jersey Pollutant Discharge Elimination System
NJR	New Jersey Register
PCB	Polychlorinated Biphenyls
PMP	Pollutant Minimization Plan
POTW	Publicly Owned Treatment Works
RPMF	Reasonable Potential Multiplying Factor
RTR	Residuals Transfer Report
RQL	Recommended Quantification Levels
RWBR	Reclaimed Water for Beneficial Reuse
SIC	Standard Industrial Classification Code
SIU	Significant Indirect User
SQAR	Sludge Quality Assurance Regulations
SWQS	Surface Water Quality Standards
TMDL	Total Maximum Daily Load
TR	Total Recoverable
TRIR	Toxicity Reduction Implementation Requirements
USEPA TSD	USEPA Technical Support Document for Water Quality Based Toxics Control (EPA/505/2-90-001, March 1991)
ug/L	Micrograms per Liter
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UV	Ultraviolet
WCR	Wastewater Characterization Report
WER	Water Effects Ratio
WLA	Wasteload Allocation
WWTP	Wastewater Treatment Plant
WQBEL	Water Quality Based Effluent Limitation



NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM

The New Jersey Department of Environmental Protection hereby grants you a NJPDES permit for the facility/activity named in this document. This permit is the regulatory mechanism used by the Department to help ensure your discharge will not harm the environment. By complying with the terms and conditions specified, you are assuming an important role in protecting New Jersey's valuable water resources. Your acceptance of this permit is an agreement to conform with all of its provisions when constructing, installing, modifying, or operating any facility for the collection, treatment, or discharge of pollutants to waters of the state. If you have any questions about this document, please feel free to contact the Department representative listed in the permit cover letter. Your cooperation in helping us protect and safeguard our state's environment is appreciated.

Permit Number: NJ0024465

Final: Surface Water Renewal Permit Action

Permittee:

Long Hill Township
915 Valley Road
Gillette, NJ 07933

Co-Permittee:

Property Owner:

Long Hill Township
915 Valley Road
Gillette, NJ 07933

Location Of Activity:

Long Hill Township STP
Warren Ave-South of Valley Road
1223 Valley Road
Long Hill Twp, Morris County

Authorization(s) Covered Under This Approval	Issuance Date	Effective Date	Expiration Date
A - Sanitary Wastewater - Renewal	07/11/2018	10/01/2018	09/30/2023

**By Authority of:
Commissioner's Office**

**DEP AUTHORIZATION
Susan Rosenwinkel, Acting Bureau Chief
Bureau of Surface Water Permitting
Division of Water Quality**

(Terms, conditions and provisions attached hereto)

PART I GENERAL REQUIREMENTS: NJPDES

A. General Requirements of all NJPDES Permits

1. Requirements Incorporated by Reference

- a. The permittee shall comply with all conditions set forth in this permit and with all the applicable requirements incorporated into this permit by reference. The permittee is required to comply with the regulations, including those cited in paragraphs b. through e. following, which are in effect as of the effective date of the final permit.
- b. General Conditions
 - Penalties for Violations N.J.A.C. 7:14A-8.1 et seq.
 - Incorporation by Reference N.J.A.C. 7:14A-2.3
 - Toxic Pollutants N.J.A.C. 7:14A-6.2(a)4i
 - Duty to Comply N.J.A.C. 7:14A-6.2(a)1 & 4
 - Duty to Mitigate N.J.A.C. 7:14A-6.2(a)5 & 11
 - Inspection and Entry N.J.A.C. 7:14A-2.11(e)
 - Enforcement Action N.J.A.C. 7:14A-2.9
 - Duty to Reapply N.J.A.C. 7:14A-4.2(e)3
 - Signatory Requirements for Applications and Reports N.J.A.C. 7:14A-4.9
 - Effect of Permit/Other Laws N.J.A.C. 7:14A-6.2(a)6 & 7 & 2.9(c)
 - Severability N.J.A.C. 7:14A-2.2
 - Administrative Continuation of Permits N.J.A.C. 7:14A-2.8
 - Permit Actions N.J.A.C. 7:14A-2.7(c)
 - Reopener Clause N.J.A.C. 7:14A-6.2(a)10
 - Permit Duration and Renewal N.J.A.C. 7:14A-2.7(a) & (b)
 - Consolidation of Permit Process N.J.A.C. 7:14A-15.5
 - Confidentiality N.J.A.C. 7:14A-18.2 & 2.11(g)
 - Fee Schedule N.J.A.C. 7:14A-3.1
 - Treatment Works Approval N.J.A.C. 7:14A-22 & 23
- c. Operation And Maintenance
 - Need to Halt or Reduce not a Defense N.J.A.C. 7:14A-2.9(b)
 - Proper Operation and Maintenance N.J.A.C. 7:14A-6.12
- d. Monitoring And Records
 - Monitoring N.J.A.C. 7:14A-6.5
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 - Signatory Requirements for Monitoring Reports N.J.A.C. 7:14A-6.9
- e. Reporting Requirements
 - Planned Changes N.J.A.C. 7:14A-6.7
 - Reporting of Monitoring Results N.J.A.C. 7:14A-6.8
 - Noncompliance Reporting
 - N.J.A.C. 7:14A-6.10 & 6.8(h)
 - Hotline/Two Hour & Twenty-four Hour Reporting N.J.A.C. 7:14A-6.10(c) & (d)
 - Written Reporting N.J.A.C. 7:14A-6.10(e) & (f) & 6.8(h)
 - Duty to Provide Information N.J.A.C. 7:14A-2.11, 6.2(a)14 & 18.1
 - Schedules of Compliance N.J.A.C. 7:14A-6.4
 - Transfer N.J.A.C. 7:14A-6.2(a)8 & 16.2

PART II

GENERAL REQUIREMENTS: DISCHARGE CATEGORIES

A. Additional Requirements Incorporated By Reference

1. Requirements for Discharges to Surface Waters

- a. In addition to conditions in Part I of this permit, the conditions in this section are applicable to activities at the permitted location and are incorporated by reference. The permittee is required to comply with the regulations which are in effect as of the effective date of the final permit.
 - i. Surface Water Quality Standards N.J.A.C. 7:9B-1
 - ii. Water Quality Management Planning Regulations N.J.A.C. 7:15

B. General Conditions

1. Scope

- a. The issuance of this permit shall not be considered as a waiver of any applicable federal, state, and local rules, regulations and ordinances.

2. Permit Renewal Requirement

- a. Permit conditions remain in effect and enforceable until and unless the permit is modified, renewed or revoked by the Department.
- b. Submit a complete permit renewal application: 180 days before the Expiration Date.

3. Notification of Non-Compliance

- a. The permittee shall notify the Department of all non-compliance when required in accordance with N.J.A.C. 7:14A-6.10 by contacting the DEP HOTLINE at 1-877-WARNDEP (1-877-927-6337).
- b. The permittee shall submit a written report as required by N.J.A.C. 7:14A-6.10 within five days.

4. Notification of Changes

- a. The permittee shall give written notification to the Department of any planned physical or operational alterations or additions to the permitted facility when the alteration is expected to result in a significant change in the permittee's discharge and/or residuals use or disposal practices including the cessation of discharge in accordance with N.J.A.C. 7:14A-6.7.
- b. Prior to any change in ownership, the current permittee shall comply with the requirements of N.J.A.C. 7:14A-16.2, pertaining to the notification of change in ownership.

5. Access to Information

- a. The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to enter upon a person's premises, for purposes of inspection, and to access / copy any records that must be kept under the conditions of this permit.

6. Standard Reporting Requirements – Monitoring Report Forms (MRFs)

- a. MRFs shall be electronically submitted to the Department's MRF Submission Service.
- b. MRF data submission shall be in accordance with the guidelines and provisions outlined in the Department's Electronic Data Interchange (EDI) agreement with the permittee.
- c. MRFs shall be submitted at the frequencies identified in Part III of this permit.
- d. All MRFs shall be certified by the highest ranking official having day-to-day managerial and operational responsibilities for the discharging facility.
- e. The highest ranking official may delegate responsibility to certify the MRFs in his or her absence. Authorizations for other individuals to certify shall be made in accordance with N.J.A.C. 7:14A-4.9(b).
- f. Monitoring results shall be submitted in accordance with the current NJPDES MRF Reference Manual and any updates thereof.
- g. If monitoring for a parameter is not required in a monitoring period, the permittee must report "CODE=N" for that parameter.
- h. If, for a monitored location, there are no discharge events during an entire monitoring period, the permittee must notify the Department when submitting the monitoring results by checking the "No Discharge this monitoring period" box on the paper or electronic version of the monitoring report submittal form.

7. Standard Reporting Requirements - Electronic Submission of NJPDES Information

- a. Effective December 21, 2020, the below identified documents and reports shall be electronically submitted to the NJDEP via the Department's designated Electronic Submission Service.
 - i. Non-compliance reports required by N.J.A.C. 7:14A-6.10 and 40 CFR 122.41(1)(6) and (7) related to sanitary sewer overflows or bypass events.

8. Operator Certification

- a. Pursuant to N.J.A.C. 7:10A-1.1 et seq. every wastewater system not exempt pursuant to N.J.A.C. 7:10A-1.1(b) requires a licensed operator. The operator of a system shall meet the Department's requirements pursuant to N.J.A.C. 7:10A-1.1 and any amendments. The name of the proposed operator, where required shall be submitted to the Department at the address below, in order that his/her qualifications may be determined prior to initiating operation of the treatment works.
 - i. Notifications shall be submitted to:
NJDEP
Bureau of Licensing & Registration
Mail Code 401-04E
PO Box 420
Trenton, New Jersey 08625 - 0420
(609) 984-6507
- b. The permittee shall notify the Department of any changes in licensed operator within two weeks of the change.

9. Operation Restrictions

- a. The operation of a waste treatment or disposal facility shall at no time create: (a) a discharge, except as authorized by the Department in the manner and location specified in Part III of this permit; (b) any discharge to the waters of the state or any standing or ponded condition for water or waste, except as specifically authorized by a valid NJPDES permit.

PART III LIMITS AND MONITORING REQUIREMENTS

MONITORED LOCATION: 001A Sanitary Outfall **RECEIVING STREAM:** Passaic River **STREAM CLASSIFICATION:** FW2-NT(C2) **DISCHARGE CATEGORY(IES):** A - Sanitary Wastewater

Location Description

The influent monitoring location shall be before any treatment, other than degritting, and before the addition of any internal waste streams. The effluent monitoring location shall be after the last treatment step at the effluent weir and prior to discharge. DSN 001A discharges into the Passaic River via an outfall pipe at 40° 39' 49.3" N latitude and 74° 29' 24.8" W longitude which is classified as FW2-NT(C2).

Contributing Waste Types

Sanitary

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

The Initial phase is effective from the EDP to EDP + 36 months. The final phase becomes effective at EDP + 37 months.

Table III - A - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: 1-"Initial" **PHASE Start Date:** 10/01/2018 **PHASE End Date:** 09/30/2021

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	MGD	*****	REPORT 12 Month Rolling Av	*****	MGD	Continuous	Metered
	January thru December	QL	***		***	***	***			
CAP Threshold	Calculated Adjust.	*****	*****	*****	*****	REPORT 12 Month Rolling Av	*****	PERCENT	1/Month	Calculated
	January thru December	AL	***		***	***	95			
pH	Raw Sew/influent	*****	*****	*****	REPORT Instant Minimum	*****	REPORT Instant Maximum	SU	2/Day	Grab
	January thru December	QL	***		***	***	***			
pH	Effluent Gross Value	*****	*****	*****	6.0 Instant Minimum	*****	9.0 Instant Maximum	SU	2/Day	Grab
	January thru December	QL	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

The Initial phase is effective from the EDP to EDP + 36 months. The final phase becomes effective at EDP + 37 months.

Table III - A - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: 1-"Initial" **PHASE Start Date:** 10/01/2018 **PHASE End Date:** 09/30/2021

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Solids, Total Suspended January thru December	Raw Sew/influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
Solids, Total Suspended January thru December	Effluent Gross Value	100 Monthly Average	150 Weekly Average	KG/DAY	*****	30 Monthly Average	45 Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
Solids, Total Suspended January thru December	Percent Removal	*****	*****	*****	85 Monthly Av Minimum	*****	*****	PERCENT	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
Oil and Grease January thru December	Effluent Gross Value	*****	*****	*****	*****	10 Monthly Average	15 Instant Maximum	MG/L	1/Month	Grab
	QL	***	***		***	***	***			
Nitrogen, Ammonia Total (as N) May thru October	Effluent Gross Value	6.8 Monthly Average	10.2 Weekly Average	KG/DAY	*****	2.0 Monthly Average	3.0 Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
Nitrogen, Ammonia Total (as N) November thru April	Effluent Gross Value	116 Monthly Average	REPORT Daily Maximum	KG/DAY	*****	34.2 Monthly Average	REPORT Daily Maximum	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
Nitrogen, Nitrate Total (as N) January thru December	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	KG/DAY	*****	REPORT Monthly Average	REPORT Daily Maximum	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

The Initial phase is effective from the EDP to EDP + 36 months. The final phase becomes effective at EDP + 37 months.

Table III - A - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: 1-"Initial" **PHASE Start Date:** 10/01/2018 **PHASE End Date:** 09/30/2021

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
E. Coli	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Geo Avg	REPORT Instant Maximum	#/100ML	4/Month	Grab
	January thru December	QL	***		***	***	***			
Coliform, Fecal General	Effluent Gross Value	*****	*****	*****	*****	200 Monthly Average	400 Weekly Average	#/100ML	4/Month	Grab
	January thru December	QL	***		***	***	***			
BOD, Carbonaceous 5 Day, 20oC	Raw Sew/influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/Week	24 Hour Composite
	January thru December	QL	***		***	***	***			
BOD, Carbonaceous 5 Day, 20oC	Effluent Gross Value	27 Monthly Average	41 Weekly Average	KG/DAY	*****	8.0 Monthly Average	12 Weekly Average	MG/L	1/Week	24 Hour Composite
	January thru December	QL	***		***	***	***			
BOD, Carbonaceous 5 Day, 20oC	Percent Removal	*****	*****	*****	85 Monthly Av Minimum	*****	*****	PERCENT	1/Week	24 Hour Composite
	January thru December	QL	***		***	***	***			
LC50 Stat 48hr Acu Ceriodaphnia	Effluent Gross Value	*****	*****	*****	50 Report Per Minimum	*****	*****	%EFFL	1/Quarter	Composite
	January thru December	QL	***		***	***	***			
IC25 Statre 7day Chr Ceriodaphnia	Effluent Gross Value	*****	*****	*****	REPORT Report Per Minimum	*****	*****	%EFFL	1/Quarter	Composite
	January thru December	QL	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

The Initial phase is effective from the EDP to EDP + 36 months. The final phase becomes effective at EDP + 37 months.

Table III - A - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: 1-"Initial" **PHASE Start Date:** 10/01/2018 **PHASE End Date:** 09/30/2021

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Temperature, oC January thru December	Raw Sew/influent	*****	*****	*****	REPORT Instant Minimum	REPORT Monthly Average	REPORT Instant Maximum	DEG.C	2/Day	Grab
	QL	***	***		***	***	***			
Temperature, oC January thru December	Effluent Gross Value	*****	*****	*****	REPORT Instant Minimum	REPORT Monthly Average	REPORT Instant Maximum	DEG.C	2/Day	Grab
	QL	***	***		***	***	***			
Oxygen, Dissolved (DO) January thru December	Effluent Gross Value	*****	*****	*****	*****	REPORT Daily Avg Minimum	6.0 Weekly Av Minimum	MG/L	1/Week	Grab
	QL	***	***		***	***	***			
Phosphorus, Total (as P) May thru October	Effluent Gross Value	REPORT Monthly Average	REPORT Weekly Average	KG/DAY	*****	4.4 Monthly Average	REPORT Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
Phosphorus, Total (as P) November thru April	Effluent Gross Value	REPORT Monthly Average	REPORT Weekly Average	KG/DAY	*****	3.7 Monthly Average	REPORT Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
Copper, Total Recoverable January thru December	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	GR/DAY	*****	REPORT Monthly Average	REPORT Daily Maximum	UG/L	1/Quarter	24 Hour Composite
	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

The Initial phase is effective from the EDP to EDP + 36 months. The final phase becomes effective at EDP + 37 months.

Table III - A - 2: Surface Water DMR Limits and Monitoring Requirements

PHASE:2-"Final" PHASE Start Date: 10/01/2021 PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	MGD	*****	REPORT 12 Month Rolling Av	*****	MGD	Continuous	Metered
	QL	***	***		***	***	***			
CAP Threshold	Calculated Adjust.	*****	*****	*****	*****	REPORT 12 Month Rolling Av	*****	PERCENT	1/Month	Calculated
	AL	***	***		***	95	***			
pH	Raw Sew/influent	*****	*****	*****	REPORT Instant Minimum	*****	REPORT Instant Maximum	SU	2/Day	Grab
	QL	***	***		***	***	***			
pH	Effluent Gross Value	*****	*****	*****	6.0 Instant Minimum	*****	9.0 Instant Maximum	SU	2/Day	Grab
	QL	***	***		***	***	***			
Solids, Total Suspended	Raw Sew/influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
Solids, Total Suspended	Effluent Gross Value	100 Monthly Average	150 Weekly Average	KG/DAY	*****	30 Monthly Average	45 Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
Solids, Total Suspended	Percent Removal	*****	*****	*****	85 Monthly Av Minimum	*****	*****	PERCENT	1/Week	24 Hour Composite
	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

The Initial phase is effective from the EDP to EDP + 36 months. The final phase becomes effective at EDP + 37 months.

Table III - A - 2: Surface Water DMR Limits and Monitoring Requirements

PHASE:2-"Final" PHASE Start Date: 10/01/2021 PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Oil and Grease January thru December	Effluent Gross Value	*****	*****	*****	*****	10 Monthly Average	15 Instant Maximum	MG/L	1/Month	Grab
	QL	***	***		***	***	***			
Nitrogen, Ammonia Total (as N) May thru October	Effluent Gross Value	6.8 Monthly Average	10.2 Weekly Average	KG/DAY	*****	2.0 Monthly Average	3.0 Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
Nitrogen, Ammonia Total (as N) November thru April	Effluent Gross Value	116 Monthly Average	REPORT Daily Maximum	KG/DAY	*****	34.2 Monthly Average	REPORT Daily Maximum	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
Nitrogen, Nitrate Total (as N) January thru December	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	KG/DAY	*****	REPORT Monthly Average	REPORT Daily Maximum	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
E. Coli January thru December	Effluent Gross Value	*****	*****	*****	*****	126 Monthly Geo Avg	REPORT Instant Maximum	#/100ML	4/Month	Grab
	QL	***	***		***	***	***			
BOD, Carbonaceous 5 Day, 20oC January thru December	Raw Sew/influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
BOD, Carbonaceous 5 Day, 20oC January thru December	Effluent Gross Value	27 Monthly Average	41 Weekly Average	KG/DAY	*****	8.0 Monthly Average	12 Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

The Initial phase is effective from the EDP to EDP + 36 months. The final phase becomes effective at EDP + 37 months.

Table III - A - 2: Surface Water DMR Limits and Monitoring Requirements

PHASE:2-"Final"

PHASE Start Date: 10/01/2021

PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
BOD, Carbonaceous 5 Day, 20oC January thru December	Percent Removal	*****	*****	*****	85 Monthly Av Minimum	*****	*****	PERCENT	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
IC25 Statre 7day Chr Ceriodaphnia January thru December	Effluent Gross Value	*****	*****	*****	15 Report Per Minimum	*****	*****	%EFFL	1/Quarter	Composite
	QL	***	***		***	***	***			
Temperature, oC January thru December	Raw Sew/influent	*****	*****	*****	REPORT Instant Minimum	REPORT Monthly Average	REPORT Instant Maximum	DEG.C	2/Day	Grab
	QL	***	***		***	***	***			
Temperature, oC January thru December	Effluent Gross Value	*****	*****	*****	REPORT Instant Minimum	REPORT Monthly Average	REPORT Instant Maximum	DEG.C	2/Day	Grab
	QL	***	***		***	***	***			
Oxygen, Dissolved (DO) January thru December	Effluent Gross Value	*****	*****	*****	*****	REPORT Daily Avg Minimum	6.0 Weekly Av Minimum	MG/L	1/Week	Grab
	QL	***	***		***	***	***			
Phosphorus, Total (as P) May thru October	Effluent Gross Value	REPORT Monthly Average	REPORT Weekly Average	KG/DAY	*****	0.76 Monthly Average	REPORT Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			
Phosphorus, Total (as P) November thru April	Effluent Gross Value	REPORT Monthly Average	REPORT Weekly Average	KG/DAY	*****	0.76 Monthly Average	REPORT Weekly Average	MG/L	1/Week	24 Hour Composite
	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

The Initial phase is effective from the EDP to EDP + 36 months. The final phase becomes effective at EDP + 37 months.

Table III - A - 2: Surface Water DMR Limits and Monitoring Requirements

PHASE:2-"Final" PHASE Start Date: 10/01/2021 PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Copper, Total Recoverable January thru December	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	GR/DAY	*****	REPORT Monthly Average	REPORT Daily Maximum	UG/L	1/Quarter	24 Hour Composite
	QL	***	***		***	***	***			

Surface Water WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP).

Comments:

Semi-annual (WCR sampling for the purposes of the current permit shall be conducted between 8/1/18 and 1/31/19 in accordance with the schedule in the Department’s on-line portal (<http://www.nj.gov/dep/online/>). Any new semi-annual WCR sampling under this permit shall be conducted from 4/1/19 to 9/30/19 (and subsequent periods after)

Table III - A - 3: Surface Water WCR - Semi Annual Limits and Monitoring Requirements

PHASE:Final PHASE Start Date: 10/01/2018 PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Arsenic, Total Recoverable (as As)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Selenium, Total Recoverable	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Thallium, Total Recoverable	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Barium, Total Recoverable (as Ba)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December

Surface Water WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP).

Comments:

Semi-annual (WCR sampling for the purposes of the current permit shall be conducted between 8/1/18 and 1/31/19 in accordance with the schedule in the Department's on-line portal (<http://www.nj.gov/dep/online/>). Any new semi-annual WCR sampling under this permit shall be conducted from 4/1/19 to 9/30/19 (and subsequent periods after)

Table III - A - 3: Surface Water WCR - Semi Annual Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date: 10/01/2018

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Chromium, Total (as Cr)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Nickel, Total Recoverable	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Silver, Total Recoverable	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Zinc, Total Recoverable	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Cadmium, Total Recoverable	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Lead, Total Recoverable	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Antimony, Total Recoverable	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Mercury Total Recoverable	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Acenaphthylene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Acenaphthene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Anthracene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Benzo(b)fluoranthene (3,4-benzo)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Benzo(k)fluoranthene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Benzo(a)pyrene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Bis(2-chloroethyl) ether	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December

Surface Water WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP).

Comments:

Semi-annual (WCR sampling for the purposes of the current permit shall be conducted between 8/1/18 and 1/31/19 in accordance with the schedule in the Department's on-line portal (<http://www.nj.gov/dep/online/>). Any new semi-annual WCR sampling under this permit shall be conducted from 4/1/19 to 9/30/19 (and subsequent periods after)

Table III - A - 3: Surface Water WCR - Semi Annual Limits and Monitoring Requirements**PHASE:** Final**PHASE Start Date:** 10/01/2018**PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Bis(2-chloroethoxy) methane	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Bis (2-chloroisopropyl) ether	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Butyl benzyl phthalate	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Chrysene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Diethyl phthalate	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Dimethyl phthalate	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
1,2-Diphenylhydrazine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Fluoranthene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Fluorene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Hexachlorocyclopentadiene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Hexachloroethane	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Indeno(1,2,3-cd)pyrene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Isophorone	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
N-nitrosodi-n-propylamine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
N-nitrosodiphenylamine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December

Surface Water WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP).

Comments:

Semi-annual (WCR sampling for the purposes of the current permit shall be conducted between 8/1/18 and 1/31/19 in accordance with the schedule in the Department's on-line portal (<http://www.nj.gov/dep/online/>). Any new semi-annual WCR sampling under this permit shall be conducted from 4/1/19 to 9/30/19 (and subsequent periods after)

Table III - A - 3: Surface Water WCR - Semi Annual Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date: 10/01/2018

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
N-nitrosodimethyl-amine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Nitrobenzene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Phenanthrene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Pyrene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Benzo(ghi)perylene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Benzo(a)anthracene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
1,2-Dichlorobenzene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,2,4-Trichloro-benzene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Dibenzo(a,h)anthracene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
1,3-Dichlorobenzene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,4-Dichlorobenzene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
2-Chloronaphthalene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Di-n-octyl Phthalate	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2,4-Dinitrotoluene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2,6-Dinitrotoluene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December

Surface Water WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP).

Comments:

Semi-annual (WCR sampling for the purposes of the current permit shall be conducted between 8/1/18 and 1/31/19 in accordance with the schedule in the Department's on-line portal (<http://www.nj.gov/dep/online/>). Any new semi-annual WCR sampling under this permit shall be conducted from 4/1/19 to 9/30/19 (and subsequent periods after)

Table III - A - 3: Surface Water WCR - Semi Annual Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date: 10/01/2018

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
3,3'-Dichloro-benzidine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
4-Bromophenyl phenyl ether	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Naphthalene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Bis(2-ethylhexyl) phthalate	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Di-n-butyl phthalate	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Benzidine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Malathion	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Demeton	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Hexachlorobenzene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Hexachlorobutadiene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Mirex	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
1,3-Dichloropropene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,2,4,5-Tetrachloro-benzene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
N-nitrosodiethyl-amine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
N-nitrosopyrrolidine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December

Surface Water WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP).

Comments:

Semi-annual (WCR sampling for the purposes of the current permit shall be conducted between 8/1/18 and 1/31/19 in accordance with the schedule in the Department's on-line portal (<http://www.nj.gov/dep/online/>). Any new semi-annual WCR sampling under this permit shall be conducted from 4/1/19 to 9/30/19 (and subsequent periods after)

Table III - A - 3: Surface Water WCR - Semi Annual Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date: 10/01/2018

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Carbon Tetrachloride	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,2-Dichloroethane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Bromoform	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Chloroform	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Toluene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Benzene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Acrolein	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Acrylonitrile	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Chlorobenzene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Chlorodibromomethane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Ethylbenzene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Methyl Bromide	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Methyl Chloride	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Methylene Chloride	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Tetrachloroethylene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December

Surface Water WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP).

Comments:

Semi-annual (WCR sampling for the purposes of the current permit shall be conducted between 8/1/18 and 1/31/19 in accordance with the schedule in the Department's on-line portal (<http://www.nj.gov/dep/online/>). Any new semi-annual WCR sampling under this permit shall be conducted from 4/1/19 to 9/30/19 (and subsequent periods after)

Table III - A - 3: Surface Water WCR - Semi Annual Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date: 10/01/2018

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Trichlorofluoro-methane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,1-Dichloroethane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,1-Dichloroethylene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,1,1-Trichloro-ethane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,1,2-Trichloro-ethane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,1,2,2-Tetrachloro-ethane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,2-Dichloropropane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
1,2-trans-Dichloro-ethylene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
2-Chloroethyl Vinyl Ether (Mixed)	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Bromodichloromethane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Vinyl Chloride	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Trichloroethylene	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Methoxychlor	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
N-Nitrosodi-n-butylamine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Chloroethane	Effluent Gross Value	REPORT	UG/L	Grab	January thru December

Surface Water WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP).

Comments:

Semi-annual (WCR sampling for the purposes of the current permit shall be conducted between 8/1/18 and 1/31/19 in accordance with the schedule in the Department's on-line portal (<http://www.nj.gov/dep/online/>). Any new semi-annual WCR sampling under this permit shall be conducted from 4/1/19 to 9/30/19 (and subsequent periods after)

Table III - A - 3: Surface Water WCR - Semi Annual Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date: 10/01/2018

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Cyanide, free	Effluent Gross Value	REPORT	UG/L	Grab	January thru December
Asbestos (Fibrous)	Effluent Gross Value	REPORT	FIBERS/L	24 Hour Composite	January thru December
Parachloro-m-cresol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Parathion	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2,4,5-Trichloro-phenol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Delta BHC, Total (ug/l)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Endosulfan Sulfate	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Beta Endosulfan	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Alpha Endosulfan	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Endrin Aldehyde	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1016 (Arochlor 1016)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2,3,7,8-Tetrachloro-dibenzo-p-dioxin	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
4,4'-DDT(p,p'-DDT)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
4,4'-DDD(p,p'-DDD)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
4,4'-DDE(p,p'-DDE)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December

Surface Water WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP).

Comments:

Semi-annual (WCR sampling for the purposes of the current permit shall be conducted between 8/1/18 and 1/31/19 in accordance with the schedule in the Department's on-line portal (<http://www.nj.gov/dep/online/>). Any new semi-annual WCR sampling under this permit shall be conducted from 4/1/19 to 9/30/19 (and subsequent periods after)

Table III - A - 3: Surface Water WCR - Semi Annual Limits and Monitoring Requirements**PHASE:** Final**PHASE Start Date:** 10/01/2018**PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Aldrin	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Alpha BHC	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Beta BHC	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Gamma BHC (lindane),	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Chlordane	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Dieldrin	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Endosulfans, Total (alpha and beta)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Endrin	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Toxaphene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Heptachlor	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Heptachlor Epoxide	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1221 (Arochlor 1221)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1232 (Arochlor 1232)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1242 (Arochlor 1242)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1248 (Arochlor 1248)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December

Surface Water WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP).

Comments:

Semi-annual (WCR sampling for the purposes of the current permit shall be conducted between 8/1/18 and 1/31/19 in accordance with the schedule in the Department's on-line portal (<http://www.nj.gov/dep/online/>). Any new semi-annual WCR sampling under this permit shall be conducted from 4/1/19 to 9/30/19 (and subsequent periods after)

Table III - A - 3: Surface Water WCR - Semi Annual Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date: 10/01/2018

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
PCB-1254 (Arochlor 1254)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
PCB-1260 (Arochlor 1260)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Polychlorinated Biphenyls (PCBs)	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Chlorpyrifos	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2-Chlorophenol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2-Nitrophenol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2,4-Dichlorophenol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2,4-Dimethylphenol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2,4-Dinitrophenol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2,4,6-Trichloro- phenol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
4-Chlorophenyl phenyl ether	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
4-Nitrophenol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
4,6-Dinitro-o-cresol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Phenol Single Compound	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Pentachlorophenol	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December

Surface Water WCR - Semi Annual Reporting Requirements:

Submit a Semi-Annual WCR: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP).

Comments:

Semi-annual (WCR sampling for the purposes of the current permit shall be conducted between 8/1/18 and 1/31/19 in accordance with the schedule in the Department's on-line portal (<http://www.nj.gov/dep/online/>). Any new semi-annual WCR sampling under this permit shall be conducted from 4/1/19 to 9/30/19 (and subsequent periods after)

Table III - A - 3: Surface Water WCR - Semi Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 10/01/2018 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Pentachlorobenzene	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Guthion	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December

PART IV

SPECIFIC REQUIREMENTS: NARRATIVE

Sanitary Wastewater

A. MONITORING REQUIREMENTS

1. Standard Monitoring Requirements

- a. Each analysis required by this permit shall be performed by a New Jersey Certified Laboratory that is certified to perform that analysis.
- b. The Permittee shall perform all water/wastewater analyses in accordance with the analytical test procedures specified in 40 CFR 136, unless other test procedures have been approved by the Department in writing or as otherwise specified in the permit.
- c. When more than one test procedure is approved for the analysis of a pollutant or pollutant parameter, the test procedure must be sufficiently sensitive as defined at 40 CFR 136, 40 CFR 122.21(e)(3), and 40 CFR 122.44(i)(1)(iv).
- d. All sampling shall be conducted in accordance with the Department's Field Sampling Procedures Manual, or an alternate method approved by the Department in writing.
- e. All monitoring shall be conducted as specified in Part III.
- f. All sample frequencies expressed in Part III are minimum requirements. Any additional samples taken consistent with the monitoring and reporting requirements contained herein shall be reported on the Monitoring Report Forms.
- g. Annual and semi-annual wastewater testing shall be conducted in a different quarter of each year so that tests are conducted in each of the four permit quarters of the permit cycle. Testing may be conducted during any month of the permit quarters.
- h. Monitoring for Wastewater Characterization Report parameters shall be conducted concurrently with the Whole Effluent Toxicity (WET) monitoring, when feasible.
- i. Any influent and effluent sampling for toxic pollutant analyses shall be collected concurrently.
- j. Flow shall be measured using a meter.

B. RECORDKEEPING

1. Standard Recordkeeping Requirements

- a. The permittee shall retain records of all monitoring information, including 1) all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation (if applicable), 2) copies of all reports required by this NJPDES permit and 3) all data used to complete the application for a NJPDES permit, for a period of at least 5 years from the date of the sample, measurement, report, application or record.

Sanitary Wastewater

- b. Records of monitoring information shall include 1) the date, locations, and time of sampling or measurements, 2) the individual(s) who performed the sampling or measurements, 3) the date(s) the analyses were performed, 4) the individual(s) who performed the analyses, 5) the analytical techniques or methods used, and 6) the results of such analyses.

C. REPORTING

1. Standard Reporting Requirements

- a. Please see Standard Reporting Requirements at Part II, Section B.6.

D. SUBMITTALS

1. Standard Submittal Requirements

- a. The permittee shall amend the Operation & Maintenance Manual whenever there is a change in the treatment works design, construction, operations or maintenance which substantially changes the treatment works operations and maintenance procedures.

2. Compliance Schedule Progress Reports

- a. In accordance with N.J.A.C. 7:14A-6.4(a), a schedule of compliance has been included for E. Coli, Chronic Wet, and Phosphorus including interim deadlines for annual progress reports that outline the progress towards compliance with the conditions of the permit.
 - i. Submit a Compliance Schedule Progress Report: within 6 months from the effective date of the permit (EDP). (phosphorus only)
 - ii. Submit a Compliance Schedule Progress Report: within 12 months from the effective date of the permit (EDP).
 - iii. Submit a Compliance Schedule Progress Report: within 18 months from the effective date of the permit (EDP). (phosphorus only)
 - iv. Submit a Compliance Schedule Progress Report: within 24 months from the effective date of the permit (EDP).
 - v. Submit a Compliance Schedule Progress Report: within 30 months from the effective date of the permit (EDP). (phosphorus only)
- b. The compliance schedule progress report(s) shall be submitted to the following Departmental entities:
 - i. NJDEP: Division of Water Quality
Mail Code - 401-02B
Bureau of Surface Water Permitting
P.O. Box 420
Trenton, New Jersey 08625-0420
 - ii. NJDEP: Northern Bureau of Water Compliance and Enforcement
7 Ridgedale Avenue
Cedar Knolls, New Jersey 07927-1112

E. FACILITY MANAGEMENT

1. Discharge Requirements

- a. The permittee shall discharge at the location(s) specified in PART III of this permit.
- b. The permittee shall not discharge foam or cause foaming of the receiving water that 1) forms objectionable deposits on the receiving water, 2) forms floating masses producing a nuisance, or 3) interferes with a designated use of the waterbody.
- c. The permittee's discharge shall not produce objectionable color or odor in the receiving stream.
- d. The discharge shall not exhibit a visible sheen.
- e. For the calculation of the parameter "CAP Threshold" in Part III of the permit, the permittee shall use the permitted flow of 1.25 MGD and the 12-month rolling average flow calculated for the parameter of "Flow, In Conduit or Thru Treatment Plant" in the calculation of the percentage of the permitted flow for the month. This percentage shall be reported as the CAP Threshold percentage.
 - i. For more information concerning the CAP, please contact the Bureau of Environmental, Engineering and Permitting at (609) 984-4429.

2. Toxicity Testing Requirements - Acute Whole Effluent Toxicity

- a. The permittee shall conduct toxicity tests on its wastewater discharge in accordance with the provisions in this section. Such testing will determine if appropriately selected effluent concentrations adversely affect the test species.
- b. Acute toxicity tests shall be conducted using the test species and method identified in Part III of this permit.
- c. Any test that does not meet the specifications of N.J.A.C. 7:18, laboratory certification regulations, must be repeated within 30 days of the completion of the initial test. The repeat test shall not replace subsequent testing required in Part III.
- d. The permittee shall collect and analyze the concentration of ammonia-N in the effluent on the day a sample is collected for WET testing. This result is to be reported on the Biomonitoring Report Form.
- e. The permittee shall resubmit an Acute Methodology Questionnaire within 60 days of any change in laboratory.
- f. Submit an acute whole effluent toxicity test report: within twenty-five days after the end of every quarterly monitoring period beginning from the effective date of the permit (EDP). The permittee shall submit toxicity test results on appropriate forms.
- g. Test reports shall be submitted to:
 - i. New Jersey Department of Environmental Protection
Mail Code 401-02B
Division of Water Quality
Bureau of Surface Water Permitting
401 East State Street
P.O. Box 420
Trenton, New Jersey 08625-0420

3. Toxicity Testing Requirements - Chronic Whole Effluent Toxicity

- a. The permittee shall conduct toxicity tests on its wastewater discharge in accordance with the provisions in this section. Such testing will determine if appropriately selected effluent concentrations adversely affect the test species.
- b. Chronic toxicity tests shall be conducted using the test species and method identified in Part III of this permit.
- c. Any test that does not meet the specifications contained in the Department's "Chronic Toxicity Testing Specifications for Use in the NJPDES Program" document must be repeated within 30 days of the completion of the initial test. The repeat test shall not replace subsequent testing required in Part III.
- d. The permittee shall collect and analyze the concentration of ammonia-N in the effluent on the day a sample is collected for WET testing. This result is to be reported on the Biomonitoring Report Form.
- e. IC25 - Inhibition Concentration - Concentration of effluent which has an inhibitory effect on 25% of the test organisms for the monitored effect, as compared to the control (expressed as percent effluent).
- f. Test results shall be expressed as the IC25 for each test endpoint. Where a chronic toxicity testing endpoint yields IC25's from more than one test endpoint, the most sensitive endpoint will be used to evaluate effluent toxicity.
- g. When reporting to the Delaware River Basin Commission (DRBC), sample results shall be expressed as No Observed Effect Concentration (NOEC).
- h. The permittee shall resubmit a Chronic Methodology Questionnaire within 60 days of any change in laboratory.
- i. Submit a chronic whole effluent toxicity test report: within twenty-five days after the end of every quarterly monitoring period beginning from the effective date of the permit (EDP). The permittee shall submit toxicity test results on appropriate forms.
- j. Test reports shall be submitted to:
 - i. New Jersey Department of Environmental Protection
Mail Code 401-02B
Division of Water Quality
Bureau of Surface Water Permitting
401 East State Street
P.O. Box 420
Trenton, New Jersey 08625-0420
 - ii. Delaware River Basin Commission (DRBC)
P. O. Box 7360
West Trenton, New Jersey 08628

4. Applicability of Discharge Limitations and Effective Dates

- a. Surface Water Discharge Monitoring Report (DMR) Form Requirements

- i. This permit includes multiple phases for DSN001A.
The initial phase limitation and monitoring conditions are effective from the effective date of the permit (EDP) until EDP + 36 months. Final limitation and monitoring conditions become effective on EDP + 37 months.
- b. Wastewater Characterization Report (WCR) Form Requirements
 - i. The final effluent monitoring conditions contained in PART III for DSN001A apply for the full term of this permit action.

5. Operation, Maintenance and Emergency conditions

- a. The permittee shall operate and maintain treatment works and facilities which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit as specified in the Operation & Maintenance Manual.
- b. The permittee shall develop emergency procedures to ensure effective operation of the treatment works under emergency conditions in accordance with N.J.A.C. 7:14A-6.12(d).

6. Introduction to RWBR Requirements

- a. The following RWBR sections contain the conditions for the permittee to beneficially reuse treated effluent or Reclaimed Water for Beneficial Reuse (RWBR), provided the effluent is in compliance with the criteria specified for the particular use specified below.
- b. There are two levels of RWBR uses. Public Access and Restricted Access.

7. RWBR Requirements for Public Access

- a. The Public Access reuse types authorized by this permit are those approved in Appendix A. Other Public Access reuse types may be added by minor modification of this permit.
- b. The hydraulic loading rate for land application of RWBR shall not exceed 2 inches per week.
- c. Any water diverted for RWBR shall be monitored and comply with the high level treatment requirements listed below and the operational requirements in the approved Operations Protocol. If any of these requirements are not achieved, the effluent shall not be diverted for RWBR.
 - i. Total Suspended Solids (TSS): Instantaneous maximum of 5.0 mg/L prior to disinfection.
 - ii. Nitrogen, Total (NO₃ + NH₃): Daily maximum of 10.0 mg/L. This requirement only applies when RWBR is land applied.
 - iii. Fecal Coliform: 7-day median maximum of 2.2 colonies per 100 mL and an instantaneous maximum of 14 colonies per 100 mL.
 - iv. Ultraviolet Disinfection: If the permittee disinfects utilizing UV disinfection, a minimum design UV dose of 100 mJ/cm² under maximum daily flow must be used. All aspects of the UV system must meet the requirements of the May 2003 (or most recent) National Water Research Institute's Ultraviolet Disinfection Guidelines for Drinking Water and Water Reuse, second edition.
 - v. Turbidity for UV systems: Instantaneous maximum of 2.0 NTU.
- d. Monitoring of the diverted public access RWBR shall be conducted in the following manner:

- i. Sampling for TSS shall be immediately prior to disinfection. Monitoring for TSS shall be a grab sample once per week.
 - ii. Sampling for Turbidity in systems shall be sampled immediately prior to disinfection. The permittee shall establish a correlation between Turbidity and TSS in their effluent as detailed in the Reuse Technical Manual. A statistically significant correlation between Turbidity and TSS shall be established prior to commencement of the RWBR program and shall be incorporated into the Operations Protocol and updated annually. The initial correlation should be done as part of a daily monitoring program for at least 30 days. To ensure continuous compliance with the 5.0 mg/L TSS level, Turbidity must be monitored continuously and achieve the level established in the Operations Protocol.
 - iii. For UV systems, UV lamp intensity, UV transmittance and UV flow rate shall be monitored continuously after full disinfection treatment.
 - iv. Monitoring for Fecal Coliform shall be a grab sample, taken in accordance with Part III, at least a minimum of once per week taken immediately after disinfection. Fecal coliform shall be monitored immediately after disinfection.
 - v. Monitoring for Total Nitrogen (NO₃ + NH₃) shall be a composite sample, taken in accordance with Part III, at least once per week taken prior to RWBR diversion. Total Nitrogen (NO₃ + NH₃) shall be monitored after the appropriate disinfection treatment is achieved.
- e. All monitoring results of the RWBR shall be reported each month on Wastewater Characterization Reports (WCR). Unless noted otherwise, the highest of all measured values for diverted RWBR shall be reported.
- i. If ultraviolet disinfection is used, the lowest sampling results obtained during the reporting month shall be reported for lamp intensity and UV transmittance.

8. RWBR Requirements for Restricted Access--Land Application and Non Edible Crops

- a. The Restricted Access--Land Application and Non Edible Crops reuse types authorized by this permit are those approved in Appendix A. Other Restricted Access--Land Application and Non Edible Crops reuse types may be added by minor modification of this permit.
- b. The hydraulic loading rate for land application of RWBR shall not exceed 2 inches per week.
- c. Any water diverted for RWBR shall be monitored and comply with the high level treatment requirements listed below and the operational requirements in the approved Operations Protocol. If any of these requirements are not achieved, the effluent shall not be diverted for RWBR.
- d. Nitrogen, Total (NO₃ + NH₃): Daily maximum of 10 mg/L. Frequency of sampling for Total Nitrogen shall be in accordance with Part III of this permit. The sample shall be collected as a composite sample taken prior to diversion for RWBR. Nitrogen, Total (NO₃ + NH₃) shall be monitored after the appropriate disinfection treatment time is achieved. This requirement only applies when RWBR is land applied, however, this requirement does not apply to spray irrigation within a fenced perimeter or otherwise restricted area.
- e. E. Coli : 126 colonies per 100 mL as a geometric mean. Frequency of sampling for E. Coli shall be in accordance with Part III of this permit. The sample shall be collected as a grab sample taken immediately after disinfection.

- f. Ultraviolet Disinfection: For UV disinfection, a minimum design UV dose of 75 mJ/cm² under maximum daily flow must be used. This dose must also be based on continuous monitoring of UV lamp intensity, UV transmittance and UV flow rate. All aspects of the UV system must meet the requirements of the May 2003 (or most recent) National Water Research Institute's Ultraviolet Disinfection Guidelines for Drinking Water and Water Reuse, second edition. UV lamp intensity, UV transmittance and UV flow rate shall be monitored continuously after full disinfection treatment.
- g. All monitoring results of the RWBR shall be reported each month on Wastewater Characterization Reports (WCR). Unless noted otherwise, the highest of all measured values for diverted RWBR shall be reported.

9. RWBR Requirements for Restricted Access--Construction and Maintenance Operations

- a. The Restricted Access--Construction and Maintenance Operations reuse types authorized by this permit are those approved in Appendix A. Other Restricted Access--Construction and Maintenance Operations reuse types may be added by minor modification of this permit.
- b. E. Coli: 126 colonies per 100 mL as a geometric mean. Frequency of sampling for E. Coli shall be in accordance with Part III of this permit. The sample shall be collected as a grab sample taken immediately after disinfection. This requirement does not apply to sanitary sewer jetting.

10. RWBR Requirements for Restricted Access--Industrial Systems

- a. The Restricted Access--Industrial Systems reuse types authorized by this permit are those approved in Appendix A. Other Restricted Access--Industrial Systems reuse types may be added by minor modification of this permit.

11. RWBR Submittal Requirements

- a. For Public Access RWBR, the permittee shall submit and receive approval of an Operations Protocol or modify the existing Operations Protocol as detailed in the most recent version of the Department's "Technical Manual for Reclaimed Water for Beneficial Reuse" (Reuse Technical Manual) prior to the commencement of this/these type/s of RWBR activity. A copy of the approved Operations Protocol shall be maintained onsite. Specific requirements for the Operations Protocol are identified in the Reuse Technical Manual.
- b. For all types of Restricted Access RWBR, the permittee shall submit and receive approval of a Standard Operations Procedure or modify an existing Standard Operations Procedure as detailed in the most recent version of the Department's "Technical Manual for Reclaimed Water for Beneficial Reuse" (Reuse Technical Manual) prior to the commencement of this/these type/s of RWBR activity. A copy of the approved Standard Operations Procedure shall be maintained onsite. Specific requirements for the Standard Operations Procedure are identified in the Reuse Technical Manual. This requirement does not apply to sanitary sewer jetting and STP washdown water.
- c. The permittee shall submit a copy of the Reuse Supplier and User Agreement with each request for authorization to distribute RWBR in which the user is a different entity than the supplier. Specific requirements for the Reuse Supplier and User Agreement are identified in the Reuse Technical Manual.

- d. For Public Access RWBR on Edible Crops, the permittee shall submit an annual inventory of edible crop irrigation with the Beneficial Reuse Annual Report. Specific requirements for the annual inventory are identified in the Reuse Technical Manual.
- e. Submit a Beneficial Reuse Annual Report: by February 1 of each year beginning from the next year from effective date of the permit (EDP). The permittee shall compile the total volume of RWBR distributed to each type of authorized RWBR activity for the previous calendar year. Specific requirements for the Annual Reuse Report are identified in the Reuse Technical Manual.
- f. The permittee shall submit and receive approval of an Engineering Report in support of RWBR authorization requests for new or expanded RWBR projects as detailed in the most recent version of the Department's "Technical Manual for Reclaimed Water for Beneficial Reuse" (Reuse Technical Manual) prior to the commencement of this/these type/s of RWBR activity. A copy of the approved Engineering Report shall be maintained onsite. Specific requirements for the Engineering Report are identified in the Reuse Technical Manual.
- g. All submittals shall be mailed or delivered to: New Jersey Department of Environmental Protection, Division of Water Quality, Mail Code 401-02B, Bureau of Surface Water Permitting , P.O. Box 420, Trenton, New Jersey 08625-0420.

12. RWBR Operational Requirements

- a. Effluent that does not meet the requirements for RWBR established in Part III, Part IV and the operational requirements specified in the facility's approved Operations Protocol or Standard Operations Procedure, as applicable, shall not be diverted for RWBR.
- b. The land application of RWBR shall not produce surface runoff or ponding.
- c. All setback distances shall be consistent with the distances outlined in the Reuse Technical Manual.
- d. Land application sites shall not be frozen or saturated when applying RWBR.
- e. A daily log noting the volume of RWBR distributed to each approved application site shall be maintained on-site by the permittee and made available to the Department upon request. The volume of RWBR to be distributed shall be determined through the use of a totalizing flow meter, or other means of accurate flow measurement.
- f. Any vehicle used to transport and/or distribute RWBR shall be appropriately marked. The vehicle shall not be used to transport water or other fluid that does not meet all limitations and requirements as specified in this permit for water diverted for RWBR, unless the tank has been emptied and adequately cleaned prior to the addition of the RWBR.
- g. The permittee shall post Access Control and Advisory Signs in accordance with the requirements of the Reuse Technical Manual.
- h. There shall be no cross-connections to potable water systems.
- i. All RWBR piping, pipelines, valves, and outlets shall be appropriately color coded, tagged or labeled to warn the public and employees that the water is not intended for drinking. Worker contact with RWBR shall be minimized.
- j. The issuance of this permit for the use of RWBR shall not be considered as a waiver of any applicable federal, state or local rule, regulation or ordinance.

F. INDUSTRIAL PRETREATMENT PROGRAM REQUIREMENTS

1. Requirement to Identify and Locate Industrial Users

- a. The Permittee shall identify all indirect users which meet the significant indirect user definition in N.J.A.C. 7:14A-1.2 or have reasonable potential to:
 - i. interfere with attainment of the effluent limitations contained in the permittee's NJPDES permit
 - ii. pass through the treatment works and impair the water quality of the receiving stream; or
 - iii. affect sludge quality so as to interfere with the use or management of the municipal sludge

2. Notification Requirements

- a. The permittee shall provide adequate notice to the NJDEP, Division of Water Quality, Bureau of Pretreatment and Residuals, of the name, address, telephone number and facility contact of all:
 - i. new SIUs at the time the proposed user applies to the permittee for connection to the permittee's system,
 - ii. any substantial change or proposed change in the volume or character of pollutants being introduced into the POTW by existing SIUs, or
 - iii. any substantial change or proposed change in the volume or character of pollutants being introduced into the POTW by a user that causes the user to become an SIU.
- b. For purposes of this subsection, adequate notice shall include information on the quality and quantity of effluent introduced into the POTW and any anticipated impact of such change on the quantity or quality of effluent to be discharged from the POTW.

3. Requirement to Develop Local Limits

- a. If necessary, the permittee shall perform a headworks analysis in order to develop local limits or demonstrate that local limits are not necessary. The headworks analysis and, if necessary, development of local limits shall:
 - i. be conducted in accordance with the Local Limits Development Guidance (July 2004, USEPA Office of Wastewater Management), including all supplements and amendments thereto, including: identifying the sources and pollutants which should be limited in order to address environmental protection criteria of paragraph ii.; characterizing industrial discharges; reviewing applicable environmental protection criteria and pollutant effects data; monitoring of IU discharges, POTW collection system and treatment plant; and calculating local limits for the identified pollutants of concern;
 - ii. ensure compliance with the following minimum environmental protection criteria: the numerical effluent limitations in the Part III; The local agency's process inhibition and upset criteria; the local agency's worker health and safety protection criteria; the sludge quality criteria for a chosen method(s) of sludge management; and the limitations in the local agency's Air Pollution Control permit, where applicable.
- b. The permittee shall conduct a Local Limits Evaluation: within 18 months from the effective date of this document.

4. Submittal Requirements

- a. The permittee shall submit updates to its Local Sewer Use Ordinance within 30 days of modification.
- b. The permittee shall prepare a Pretreatment Program Report which consists of a listing of all indirect users which meet the significant indirect user definition in N.J.A.C. 7:14A-1.2. The permittee may also include potential significant indirect users or if the permittee cannot make determination if an indirect user is a significant indirect user. The report shall include the name, address, and type of business for each facility. The report shall be on the form provided by the Department. The form is available on the Department's web site at <http://www.nj.gov/dep/dwq/pdf/non-dla-pt-annual-report-form.pdf>
- c. Submit the Annual Pretreatment Program Report: by August 1 of each year beginning from the next year from effective date of the permit (EDP).
- d. The reports shall be submitted to: NJDEP, Mail Code - 401-02B, Bureau of Pretreatment and Residuals, 401 East State Street, P. O. Box 420, Trenton, NJ. 08625-0420

G. CONDITIONS FOR MODIFICATION

1. Notification requirements

- a. The permittee may request a minor modification for a reduction in monitoring frequency for a non-limited parameter when four consecutive test results of "not detected" have occurred using a sufficiently sensitive quantification level as defined at 40 CFR 136, 40 CFR 122.21(e)(3), and 40 CFR 122.44(i)(1)(iv).

2. Causes for modification

- a. The Department may modify or revoke and reissue any permit to incorporate 1) any applicable effluent standard or any effluent limitation, including any effluent standards or effluent limitations to control the discharge of toxic pollutants or pollutant parameters such as acute or chronic whole effluent toxicity and chemical specific toxic parameters, 2) toxicity reduction requirements, or 3) the implementation of a TMDL or watershed management plan adopted in accordance with N.J.A.C. 7:15-7.
- b. The permittee may request a minor modification to eliminate the monitoring requirements associated with a discharge authorized by this permit when the discharge ceases due to changes at the facility.
- c. The Department may issue a minor modification further deferring the effective date of the acute and/or chronic whole effluent toxicity limitation if a facility is implementing the Toxicity Reduction Implementation Requirements (TRIR) in Part IV of this permit.

LONG HILL TOWNSHIP OF STP, Passaic Twp

Permit No.NJ0024465
DSW100001 Surface Water Renewal Permit Action

Masterfile #: 3470

PI #: 46757

RWBR Approval Status List

The permittee is only authorized to utilize RWBR for the specific category, type and location that has been approved in the table below.

RWBR Category	Specific RWBR Type	Location	Status
PA	Spray Irrigation (Golf Course)	None	Not Approved
PA	Spray Irrigation (Athletic Fields, Playgrounds)	None	Not Approved
PA	Spray Irrigation (Residential Lawns)	None	Not Approved
PA	Vehicle Washing	None	Not Approved
PA	Hydroseeding/Fertilizing	None	Not Approved
PA	Decorative Fountains	None	Not Approved
PA	Toilet Flushing	None	Not Approved
RA-LA	Sod Irrigation	None	Not Approved
RA-LA	Spray Irrigation within a fenced perimeter or otherwise restricted area	None	Not Approved
RA-LA	Spray Irrigation within a fenced perimeter or otherwise restricted area (Without NH3 + NO3)	None	Not Approved
RA-LA	Spray Irrigation (not fenced or restricted area)	None	Not Approved
RA-CM	Street Sweeping	Long Hill Twp.	Approved
RA-CM	Dust Control	None	Not Approved
RA-CM	Fire Protection	None	Not Approved
RA-CM	Vehicle Washing (at STP or DPW)	None	Not Approved
RA-CM	Composting	None	Not Approved
RA-IS	Sanitary Sewer Jetting	Long Hill Twp.	Approved
RA-IS	Non-Contact Cooling Water	None	Not Approved
RA-IS	Boiler Makeup Water	None	Not Approved
RA-IS	Road Milling	None	Not Approved
RA-IS	Hydrostatic Testing	None	Not Approved
RA-IS	Parts Washing	None	Not Approved
RA-IS	STP Washdown	Long Hill Twp.	Approved

Categories:

PA Public Access
RA-LA Restricted Access-Land Application and Non-Edible Crops
RA-CM Restricted Access--Construction and Maintenance Operations
RA-IS Restricted Access--Industrial Systems

Abbreviations:

NH3 - Ammonia
NO3 - Nitrate
STP - Sewage Treatment Plant
DPW - Dept. of Public Works

Annual Reuse Report

Any facility that has received an RWBR authorization is required to submit an Annual Reuse Report. The following information, at a minimum, shall be included in the report, due on February 1st of each year.

- (1) The total wastewater reused (R) by the facility in the previous calendar year. If no wastewater was reused in the previous calendar year, report R as zero and skip to (6) below;
R = _____ gallons
- (2) The total wastewater discharged (D) by the facility in the previous calendar year;
D = _____ gallons
- (3) The percent of wastewater reused (%R) by the facility in the previous calendar year, calculated as follows:

$$\%R = R/(R+D), \text{ expressed as a percent;}$$
%R = _____ percent
- (4) The total wastewater that was reused for **each reuse type** in the previous calendar year. This information should be provided in the chart format utilized in the RWBR Usage Table below;

RWBR Usage Table

RWBR Category	Specific RWBR Type	Location	Flow (gallons)

Attach additional pages as necessary.

- (5) An update to the correlation between Total Suspended Solids and Turbidity, if necessary;
Correlation = _____
- (6) Submit a completed copy of this form to:

For paper copies:
Mail Code 401 – 02B
Division of Water Quality
Bureau of Surface Water Permitting
P.O. Box 420
Trenton, NJ 08625-0420

For electronic copies:
ramanathan.asokan@dep.state.nj.us

Annual Reuse Report - SAMPLE

Any facility that has received an RWBR authorization is required to submit an Annual Reuse Report. The following information, at a minimum, shall be included in the report, due on February 1st of each year.

- (1) The total wastewater reused (R) by the facility in the previous calendar year. If no wastewater was reused in the previous calendar year, report R as zero and skip to (6) below;
R = _____ gallons
- (2) The total wastewater discharged (D) by the facility in the previous calendar year;
D = _____ gallons
- (3) The percent of wastewater reused (%R) by the facility in the previous calendar year, calculated as follows:

$$\%R = R/(R+D), \text{ expressed as a percent;}$$
%R = _____ percent
- (4) The total wastewater that was reused for **each reuse type** in the previous calendar year. This information should be provided in the chart format utilized in the RWBR Usage Table below;

RWBR Usage Table

RWBR Category	Specific RWBR Type	Location	Flow (gallons)
	<i>For Example:</i>		
<i>RA-CM</i>	<i>Street Sweeping</i>	<i>Local Township</i>	<i>42,000</i>
<i>RA-IS</i>	<i>Sanitary Sewer Jetting</i>	<i>Facility Sewer Service Area</i>	<i>15,000</i>
<i>RA-IS</i>	<i>STP Washdown</i>	<i>Sewage Treatment Plant</i>	<i>43,000</i>
		<i>Grand Total (R)</i>	<i>100,000</i>

Attach additional pages as necessary.

- (5) An update to the correlation between Total Suspended Solids and Turbidity, if necessary;
Correlation = _____
- (6) Submit a completed copy of this form to:
 - For paper copies:
 - Mail Code 401 – 02B
 - Division of Water Quality
 - Bureau of Surface Water Permitting
 - P.O. Box 420
 - Trenton, NJ 08625-0420
 - For electronic copies:
 - ramanathan.asokan@dep.state.nj.us

APPENDIX B:

**CHRONIC TOXICITY TESTING SPECIFICATIONS
FOR USE IN THE NJPDES PERMIT PROGRAM**

Version 3.0

May 2017

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Notice: Mention of trade names or commercial products do not constitute endorsement or recommendation for use.

I. AUTHORITY AND PURPOSE

These methods specifications for the conduct of whole effluent chronic toxicity testing are established under the authority of the NJPDES permitting program, N.J.A.C. 7:14A-6.5(a)2 and 40 CFR 136, for discharges to waters of the State. The methods referenced herein are included by reference in 40 CFR 136, Table 1.A. and, therefore, constitute approved methods for chronic toxicity testing. The information contained herein serves to clarify testing requirements and outline and implement the interlaboratory Standard Reference Toxicant Program until specific chronic requirements are incorporated into the laboratory certification regulations under N.J.A.C. 7:18. As such these methods are intended to be used to determine compliance with discharge permits issued under the authority of the NJPDES permit program. Tests are to be conducted in accordance with the general conditions and method specifications (test organism specific) contained in this document. All other conditions and specifications can be found in 40 CFR 136 and USEPA methodologies.

Until a subchapter on chronic toxicity testing within the regulations governing the certification of laboratories and environmental measurements (N.J.A.C. 7:18) becomes effective, tests shall be conducted in conformance with the methodologies as designated herein and contained in 40 CFR 136. The laboratory performing the testing shall possess certification for the applicable chronic methodologies incorporated by reference through the laboratory certification program established under N.J.A.C. 7:18, as required by N.J.A.C. 7:9B-1.5(c)5.

These methods are incorporated into discharge permits as enforceable permit conditions. Each discharge permit will specify in Parts III&IV of the permit, the test species specific methods from this document that will be required under the terms of the discharge permit. Although the test species specific methods for each permit are determined on a case-by-case basis, the purpose of this methods document is to assure consistency among dischargers and to provide certified laboratories with information on the universe of tests to be utilized so that they can make the necessary preparations, including completing the required Standard Reference Toxicant testing. Please note that these methodologies are required for compliance testing only. Facilities and/or laboratories conducting testing under the requirements of a Toxicity Identification Evaluation or for informational purposes are not bound by these methods.

This document constitutes the fifth version of the NJDEP's interim chronic methodologies. This version contains no significant changes to the test methods themselves.

II. GENERAL CONDITIONS

A. LABORATORY SAFETY, GLASSWARE, ETC.

All safety procedures, glassware cleaning procedures, etc., shall be in conformance with 40 CFR 136 and USEPA's "Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms," "Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms" and N.J.A.C. 7:18.

B. TEST CONCENTRATIONS / REPLICATES

All testing is to be performed with a minimum of five effluent concentrations plus a dilution water control. A second reference water control is optional when a dilution water other than culture water is used. The use of both a 0.5 or 0.75 dilution factor is acceptable for the selection of test concentrations. The Department recommends the use of the 5 standard dilutions plus a dilution water control to cover the entire range of effluent test concentrations e.g. 0%, 6.25%, 12.5%, 25%, 50%, 100%.

The number of replicates used in the test must, at a minimum, satisfy the specifications of the applicable methods contained herein. Increased data sensitivity can be obtained by increasing the number of replicates equally among test concentrations and thus an increased number of replicates is acceptable. Further, the use of nonparametric statistical analysis requires a minimum of four replicates per test concentration. If the data for any particular test is not conducive to parametric analyses and if less than four replicates were included, the test may not be considered acceptable for compliance purposes.

The use of single concentration tests consisting of the permit limitation as a concentration and a control is not permitted for compliance purposes, but may be used by a permittee in the conduct of a Toxicity Investigation Evaluation (TIE) or for information gathering purposes. Such a test would be considered a "pass" if there was no significant difference in test results, using hypothesis testing methods.

C. DILUTION WATER

1. Marine and Estuarine Waters

A high quality natural water, such as the Manasquan River Inlet is strongly recommended as the dilution water source for chronic toxicity testing with marine and estuarine organisms. The use of the receiving water as the dilution water source is not required. Saline waters prepared with hypersaline brine and deionized water may also be used as dilution water. Hypersaline brines shall be prepared from a high quality natural seawater and shall not exceed a concentration of 100 ppt. The type of dilution water for a permittee may not be changed without the prior approval of the Department.

The standard test salinity shall be 25 ppt. Since most effluents are freshwater based, in most cases it will be necessary to adjust the salinity of the test concentrations to the standard test salinity.

2. Fresh Waters

A high quality natural water, such as Round Valley Reservoir (if access is allowed) or Lake Hopatcong, is recommended as the dilution water source for chronic toxicity testing with freshwater organisms. It is not required to perform the toxicity testing with the receiving water as dilution water. Tests performed with reconstituted water or up to 20% Diluted Mineral Water (DMW) as dilution water is acceptable. For testing with *Ceriodaphnia dubia*, the addition of 5 µg/l selenium (2 µg/l selenium with natural water) and 1 µg/l vitamin B12 is recommended (Keating and Dagbusan, 1984; Keating, 1985 and 1988). The source of a dilution water for a permittee may not be changed without the prior approval of the Department through the completion of a

Whole Effluent toxicity testing methodology questionnaire. Reconstituted water and DMW should be prepared with Millipore Super Q^R or equivalent, meet the requirements of N.J.A.C. 7:18-6 and should be aerated a minimum of 24 hrs prior to use, but not supersaturated.

D. EFFLUENT SAMPLE COLLECTION

Effluent samples shall be representative of the discharge being regulated. For each discharge serial number (DSN), the effluent sampling location shall be the same as that specified in the NJPDES permit for other sampling parameters unless an alternate sampling point is specified in the NJPDES discharge permit. For continuous discharges, effluent sampling shall consist of 24 hour composite samples consisting either of equal volumes taken once every hour or of a flow-proportionate composite sample, unless otherwise approved by the Department. Unless otherwise specified, three samples shall be collected as specified above, preferably one every other day. The first sample should be used for test initiation and the first renewal. The second sample for the next two renewals. The third sample should be used for the final three renewals. For the *Selenastrum* test, a single sample shall be collected not more than 24 hours prior to test initiation. In no case, shall more than 36 hours' elapse between collection and first use of the sample. It is acceptable to collect samples more frequently for chronic WET testing and if samples are collected daily for acute toxicity testing conducted concurrently, available samples may be used to renew the test solutions as appropriate.

For all other types of discharges, effluent sampling shall be conducted according to specifications contained within the discharge permit, methodology questionnaire, or as otherwise specified by the Department. The use of grab samples or other special sampling procedures may be approved by the Department based on time of occurrence and duration of intermittent discharge events.

If a municipal discharger has concerns that the concentrations of ammonia and/or chlorine in an effluent are adequate to cause violations of the permit limit for chronic toxicity testing, the permittee should conduct analyses, as specified in USEPA's toxicity investigation methods documents, to illustrate the relationship between chronic effluent toxicity and chlorine and/or ammonia as applicable. This data may then be submitted to the Department as justification for a request to use modified test procedures, which account for ammonia and/or chlorine toxicity, in future chronic toxicity tests. The Department may, where adequate justification exists, permit the adjustment of these pollutants in the effluent sample if discharge limits for these pollutants are contained in the NJPDES permit and those permit limitations are adequate for the protection of water quality. Any proposed modified test procedures to adjust effluent chlorine and/or ammonia shall be approved by the Department prior to use of those test procedures for any compliance testing.

Except for filtration through a 2 mm or larger screen or an adjustment to the standard test salinity, no other adjustments to the effluent sample shall be made without prior written approval by the Department. When a laboratory adjusts a freshwater effluent salinity and the pH of the test concentration changes more than 0.5 pH units from the initial pH, the laboratory shall readjust the pH of the test concentration to within 0.5 pH units of the original test concentration. Aeration of samples prior to test start shall be minimized where possible and samples shall not be aerated where adequate saturation exists to maintain dissolved oxygen.

E. PHYSICAL CHEMICAL MEASUREMENTS

At a minimum, the physical chemical measurements shall be as follows unless more stringent criteria is required by the method:

- pH and dissolved oxygen shall be measured at the beginning and end of each 24 hour exposure period, in at least one chamber, of each test concentration and the control. In order to ensure that measurements for these parameters are representative of the test concentrations during the test, measurements for these parameters should be taken in an additional replicate chamber for such concentrations which contains no test organisms, but is subject to the same test conditions.

- Temperature shall either be monitored continuously, measured daily in at least two locations in the environmental control system, or measured at the beginning and end of each 24 hr exposure period in at least one replicate for each treatment.
- Salinity shall be measured in all salt water tests at the beginning and end of each 24 hour exposure period, in at least one replicate for each treatment.
- For all freshwater tests, alkalinity, hardness and conductivity shall be measured in each new sample (100% effluent) and control.
- When natural salt water is used; nitrite, nitrate, and ammonia shall be measured in the control before each renewal in the mysid test only.
- For samples of discharges where concentrations of ammonia and/or chlorine are known or are suspected to be sufficient to cause toxicity, it is recommended that the concentrations of these pollutants be determined and submitted with the standardized report form. The laboratory is advised to consult with the permittee to determine if these parameters should be measured in the effluent. Where such measurements are deemed appropriate, measurements shall be conducted at the beginning of each 24 hour exposure period. Also, since a rise in the test pH can affect the toxicity of ammonia in the effluent, analysis of ammonia during the test may be appropriate if a rise in pH is accompanied by a significant increase in mortality.

F. STATISTICS

Special attention should be given to the omission and inclusion of a given replicate in the analysis of mysid fecundity data (USEPA 1994, p. 275) and *Ceriodaphnia* reproduction data (USEPA 1994, page 174).

Determination of acceptability criteria and average individual dry weight for the growth endpoints must follow the specifications in the applicable documents (e.g., p.84 for saltwater methods document.)

Use of nonparametric statistical analyses requires a minimum of four replicates per test concentration. If the data for any particular test are not conducive to parametric analyses and if less than four replicates were included, the test may not be acceptable to the Department.

For point estimate techniques, statistical analysis must follow the protocol contained in the approved testing method. The linear interpolation estimate IC_p values and not the bootstrap mean IC_p, shall be reported for permit compliance purposes. The IC_p value reported on the Discharge Monitoring Report shall be rounded off as specified in the Department's "NJPDES Monitoring Report Form Reference Manual", updated December 2007, and available on the web at http://www.state.nj.us/dep/dwq/pdf/MRF_Manual.pdf for further information.

If the result reported by the IC_p method is greater than 100% effluent, the test result is reported as ">100%"

If separate IC₂₅'s can be calculated from multiple test endpoints, for example a reproductive and/or growth endpoint and a survival endpoint, the lowest IC₂₅ value expressed in units of "% effluent" will be used to determine permit compliance and should, therefore, be reported as the IC₂₅ value for the test. If the IC₂₅ value for growth and/or reproduction is not lower than that for survival, the IC₂₅ value reported for the test shall be as survival. For saltwater tests, where additional controls are used in a test (i.e. brine and/or artificial sea salt control), a T-test shall be used to determine if there is a significant difference between the original test control and the additional controls. If there is a significant difference between any of the controls, the test may be deemed unacceptable and if so, will not be used for permit compliance.

III. TEST ACCEPTABILITY CRITERIA

Any test that does not meet the test acceptability criteria of the chronic toxicity method will not be used by the Department for any purpose and must be repeated as soon as practicable, with freshly collected samples.

1. Tests must be performed by a laboratory approved for the conduct of chronic toxicity tests and certified for chronic toxicity testing under N.J.A.C. 7:18.
2. Test results may be rejected due to inappropriate sampling, including the use of less than three effluent samples in a test and/or use of procedures not specified in a permit or methodology questionnaire, use of frozen samples, not refrigerating samples upon collection, or unapproved pretreatment of an effluent sample.
3. Controls shall meet, at a minimum, the applicable performance criteria specified in the Table 2.0 and in the individual method specifications contained herein.
4. Acceptable and applicable Standard Reference Toxicant Data must be available for the test.
5. No unapproved deviations from the applicable test methodology may be present.
6. When using hypothesis testing techniques, a deviation from the dose response as explained in the statistical portion of this document shall not be present in the data.
7. If more stringent criteria are required within the chronic toxicity test method or rule, the more stringent criteria must be met.

Table 2.0:

CONTROL PERFORMANCE

TEST ORGANISM	MINIMUM SURVIVAL	MINIMUM WEIGHT GAIN	MINIMUM FECUNDITY/ REPRODUCTION
<i>Pimephales promelas</i>	80%	0.25 mg avg	N/A
<i>Ceriodaphnia dubia</i>	80%	N/A	Average of ≥ 15 young per surviving female
<i>Selenastrum capricornutum</i>	Density $\geq 2 \times 10^5$ cells/ml	N/A	Variability in controls not to exceed 20%.
<i>Cyprinodon variegatus</i>	80%	0.60 mg (unpreserved) avg 0.50 mg (preserved) avg	N/A
<i>Menidia beryllina</i>	80%	0.50 mg (unpreserved) avg 0.43 mg (preserved) avg	N/A
<i>Mysidopsis bahia</i>	80%	0.20 mg per mysid avg	egg production by 50% of control females if fecundity is used as an endpoint.

THE DETERMINATION OF A TEST AS UNACCEPTABLE DOES NOT RELIEVE THE FACILITY FROM MONITORING FOR THAT MONITORING PERIOD

IV. STANDARD REFERENCE TOXICANT TESTING

All chronic testing shall be accompanied by testing with a Standard Reference Toxicant (SRT) as a part of each laboratory's internal quality control program. Such a testing program must be consistent with the quality assurance/quality control protocols described in the USEPA chronic testing manuals. Laboratories may utilize the reference toxicant of their choice and toxicants such as cadmium chloride, potassium chloride, sodium dodecyl sulfate and copper sulfate are all acceptable. However, Potassium chloride has been chosen by several laboratories and is recommended by the Department. The concentration of the reference toxicant shall be verified by chemical analysis in the low and high test concentrations once each year or every 12 tests, whichever is less. It is not necessary to run SRT tests, for all species using the same SRT.

A. INITIAL STANDARD REFERENCE TOXICANT (SRT) TESTING REQUIREMENTS

At a minimum, this testing shall include an initial series of at least five SRT tests for each test species method. Acceptable SRT testing for chronic toxicity shall be performed utilizing the short term chronic toxicity test methods as specified herein. Reference toxicant tests utilizing acute toxicity testing methods, or any method other than those contained in this document are not acceptable. The laboratory should forward results of the initial SRT testing, including control charts, the name of the reference toxicant utilized, the supplier and appropriate chemical analysis of the toxicant to the Department's laboratory certification program prior to obtaining certification for chronic toxicity testing. Certification for the applicable chronic toxicity method must be obtained prior to the conduct of any chronic toxicity testing for compliance purposes.

B. SUBSEQUENT SRT TESTING REQUIREMENTS

After receiving the initial approval from the Department to conduct chronic toxicity tests for compliance purposes, subsequent SRT testing shall be conducted as follows:

1. Where organisms used in testing are cultured at the testing laboratory, SRT testing must be conducted at least once per month for each species/method.
2. Where the laboratory purchases organisms for the conduct of chronic toxicity testing for the test organism in question, the testing laboratory must conduct a concurrent SRT per lot of organisms, unless the supplier provides at least the most recent five monthly SRT's using the same toxicant and control conditions. SRT data provided by the supplier for each lot of organisms purchased is acceptable as long as the SRT test result falls within the control limits of the control chart established by the supplier for that organism. The laboratory using purchased organisms is responsible for the results of any compliance tests they perform.
3. A testing laboratory purchasing organisms from a supplier laboratory must still perform SRT testing on a monthly basis at a minimum, for each species they test with, in order to adequately document their own interlaboratory precision.
4. If a testing laboratory purchasing organisms elects not to use the SRT data from a "supplier laboratory" or such data is unavailable or where organisms are purchased from another organism supplier, the testing laboratory must conduct SRT testing on each lot of organisms purchased.
5. If a testing laboratory conducts testing for a species/method less frequently than monthly, then an SRT shall be run concurrent with the toxicity test.

NOTE: Based on these requirements, SRT data are considered applicable to a compliance test when the SRT test results are acceptable and the SRT test is conducted within 30 days of the compliance test, for the test species and SRT in question. Therefore, it is not necessary for an approved laboratory to run an SRT test every month if the laboratory is not conducting compliance tests for a particular species.

C. CHANGING OF AN ESTABLISHED REFERENCE TOXICANT

The SRT used for any species by a laboratory may be changed at any time provided that the following conditions have been satisfied:

1. A series of at least three reference toxicant tests are conducted with the new reference toxicant and the results of those tests are identified as satisfactory, in writing, by the Department.
2. Laboratories must continue using the already approved SRT in their ongoing QA/QC program, until such time as the letter referenced above, is received by the laboratory.

D. CONTROL CHARTS

Control charts shall be established from SRT test results in accordance with the procedures outlined in the USEPA methods documents. Control charts shall be constructed using IC25's using the following methods:

1. The upper and lower control limits shall be calculated by determining +/- two standard deviations above and below the mean.
2. SRT test results which exhibit an IC25 that is greater than the highest concentration tested or less than the lowest concentration tested (i.e. a definitive endpoint cannot be determined), shall not be used to establish control charts.
3. SRT tests which do not meet the acceptability criteria for a specific species shall not be used to establish control charts.
4. All values used in the control charts should be as nominal concentrations. However, the control charts shall be accompanied by a chart tabulating the test results as measured concentrations.
5. An outlier (i.e. values which fall outside the upper and lower control limits) should be included on the control chart unless it is determined that the outlier was caused by factors not directly related to the test organisms (e.g., test concentration preparation) as the source of variability would not be directly applicable to effluent tests. In such case, the result and explanation shall be reported to the Department within 30 days of the completion of the SRT test.

The control chart established for the initial series of SRT data submitted will be used by the laboratory and the Department to determine outliers from SRT test results reported in the "NJPDES Biomonitoring Report Form - Chronic Toxicity Test" submitted by the permittees for the test species. These initial control limits will remain unchanged until twenty SRT tests have been completed by the laboratory.

The following procedures shall be used for continually updating control charts after twenty acceptable SRT tests have been completed:

1. Once a laboratory has completed twenty acceptable SRT tests for a test species, the upper and lower control limits shall be recalculated with those twenty values.
2. For each successive SRT test conducted after these first twenty tests, a moving average shall be calculated and the control limits reevaluated using the last twenty consecutive test results.
3. The upper and lower control limits shall be reported on the "NJPDES Biomonitoring Report Form - Chronic Toxicity Tests" along with the SRT test result.

E. UNACCEPTABLE SRT TEST RESULTS

If a laboratory produces any SRT test results which are outside the established upper and lower control limits for a test species at a frequency greater than one test in any twenty tests, the laboratory shall investigate sources of variability, take corrective actions to reduce identified sources of variability, and perform an additional SRT during the same month. The Department may not accept or may require repeat testing for any toxicity testing that may have been affected by such an occurrence.

If a laboratory produces two consecutive SRT test results or three out of any twenty test results which are outside the established upper and lower limits for a specific test species, the laboratory shall cease to conduct chronic toxicity tests for compliance purposes for that test species until the reason(s) for the outliers have been resolved. Approval to resume testing may be contingent upon the laboratory producing SRT test results within the established upper and lower control limits for that test species in two consecutive SRT tests. If one or both of those test results again fall outside the established control levels, the laboratory is unapproved for that test species until five consecutive test results within the established upper and lower control limits are submitted and approved by the Department.

F. ANNUAL SUBMITTALS

The Department may request, at any time, any information which is essential in the evaluation of SRT results and/or compliance data.

V. TEST CANCELLATION / RESCHEDULING EVENTS

A lab may become aware of QA problems during or immediately following a test that will prevent data from being submitted or a lab may be unable to complete a tests due to sample collection or shipping problems. If for any reason a chronic toxicity test is initiated and then prematurely ended by the laboratory the laboratory shall submit the form entitled "Chronic Whole Effluent Toxicity Testing Test Cancellation / Rescheduling Event Form" contained herein. This form shall be used to detail the reason for prematurely ending the test. This completed form and any applicable raw data sheets shall be submitted to the biomonitoring program at the address below within 30 days of the cessation of the test.

Tests are considered to be initiated once test organisms have been added to all test chambers.

Submission of this form does not relieve the facility from monitoring for that monitoring period.

VI. REPORTING

The report form entitled "NJPDES Biomonitoring Report Form - Chronic Toxicity Tests" should be used to report the results of all NJPDES chronic compliance biomonitoring tests. Laboratory facsimiles are acceptable but must contain all information included on any recent revisions of the form by the Department. Statistical printouts and raw data sheets (including chain of custody documents) for all endpoints analyzed shall be included with the report submitted to the Department. All chronic toxicity test report forms shall be submitted to the following address:

New Jersey Department of Environmental Protection
Water Pollution Management Element
Bureau of Surface Water Permitting
Division of Water Quality
Biomonitoring Program
Mail Code – 401-02B
PO Box 420
Trenton, NJ
08625-0420

In addition, the results of all chronic toxicity tests conducted must be reported on the DMR form under the appropriate parameter code in the monitoring period in which the test was conducted.

VII. METHOD SPECIFICATIONS

The following method specifications shall be followed as specified in the NJPDES permit. Any changes to these methods will not be considered acceptable unless they are approved in writing by the Department, prior to their use.

- A. Fathead Minnow (*Pimephales promelas*), Larval Survival and Growth Test, method 1000.0
- B. *Ceriodaphnia dubia*, Survival and Reproduction Test, method 1002.0
- C. Algal, (*Selenastrum capricornutum*), Growth Test, method 1003.0
- D. Sheepshead Minnow (*Cyprinodon variegatus*), Larval Survival and Growth Test, method 1005.0
- E. Inland Silverside (*Menidia beryllina*), Larval Survival and Growth Test, method 1006.0
- F. *Mysidopsis bahia*, Survival, Growth, and Fecundity Test, method 1007.0

VIII. REFERENCES

1. NJPDES Monitoring Report Form Reference Manual October 2007
http://www.state.nj.us/dep/dwq/pdf/MRF_Manual.pdf
2. USEPA. 2002. Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms. EPA-821-R-02-014. October 2002. Third Edition.
3. USEPA. 2002. Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. EPA-821-R-02-013. October 2002. Fourth Edition.

New Jersey Department of Environmental Protection
Water Pollution Management Element
Bureau of Surface Water Permitting
Division of Water Quality
Biomonitoring Program
Mail Code - 401-02B
PO Box 420
Trenton, NJ 08625-0420

**CHRONIC WHOLE EFFLUENT TOXICITY TESTING
TEST CANCELLATION / RESCHEDULING EVENT FORM**

**THIS FORM IS TO BE COMPLETED AND SUBMITTED TO THE DEPARTMENT DIRECTLY BY THE
LABORATORY CONDUCTING CHRONIC TOXICITY TESTS WHENEVER A CHRONIC TOXICITY TEST
IS PREMATURELY ENDED FOR ANY REASON**

NJPDES No.: _____

FACILITY NAME: _____

LOCATION: _____

CONTACT: _____ PHONE: _____

CANCELLATION EVENT:

LABORATORY NAME / NUMBER: _____

CONTACT: _____

TEST START DATE: ____/____/____

TEST END DATE: ____/____/____

REASON FOR CANCELLATION: _____

When is retest scheduled to be performed?

EFFLUENT SAMPLING:

SAMPLING POINT / DESCRIPTION OF SAMPLING SITE: _____

SAMPLING INITIATED: DATE: ____/____/____ TIME: _____

SAMPLING ENDED: DATE: ____/____/____ TIME: _____

NUMBER OF EFFLUENT SAMPLES COLLECTED: _____

SAMPLE TYPE (GRAB/COMPOSITE): _____

RECEIVED IN LAB BY/FROM: _____

METHOD OF SHIPMENT: _____

(ALL APPLICABLE RAW DATA SHEETS MUST BE ATTACHED)

c: Permittees authorized agent.