



## State of New Jersey

CHRIS CHRISTIE  
*Governor*

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Mail Code – 401-02B  
Division of Water Quality  
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

BOB MARTIN  
*Commissioner*

KIM GUADAGNO  
*Lt. Governor*

**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
7011 2970 0003 7284 3877**

**April 15, 2015**

James Schilling, Director  
Musconetcong Sewer Authority  
110 Continental Drive  
Budd Lake, NJ 07828

Re: Final Surface Water Revoke & Reissue Permit Action  
Category: A - Sanitary Wastewater  
NJPDES Permit No. NJ0027821  
Musconetcong Sewerage Authority  
Mount Olive Twp, Morris County

Dear Mr. Shilling:

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 revoke and reissue permit action authorizes the permittee to discharge a current NJPDES flow value of 4.31 million gallons per day (MGD) and a future NJPDES flow of 5.79 MGD of treated and disinfected domestic wastewater into the Musconetcong River, which is classified as FW2-TM waters of the state.

Comments were received on the draft permit issued on August 12, 2014. The thirty (30) day public comment period began on August 20, 2014 when the public notice was published in the *Daily Journal*. It ended on September 19, 2014. A summary of the significant and relevant comments received on the draft action during the public comment period, the Department's responses, and an explanation of any changes from the draft action have been included in the Response to Comments document attached hereto as per N.J.A.C. 7:14A-15.16.

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 Revoke & Reissue 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/>.

As a result of this permit action, your monitoring report forms (MRFs) have been changed and will be mailed to your current MRF recipient. Beginning the effective date of this permit action, please use the new forms. If these revised forms are not received within 2 weeks, please contact the Office of Permit Management at (609) 984-4428 for copies.

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

Questions or comments regarding the final action should be addressed to Robert Hall at (609) 292-4860.

Sincerely,

A handwritten signature in black ink, appearing to read "Pilar Patterson", enclosed in a rectangular box.

Pilar Patterson, Chief  
Bureau of Surface Water Permitting

Enclosures

cc: Permit Distribution List

Masterfile #: 3578; PI #: 46474

# FACILITY SUBMITTALS

## 1. GDR - General Discharge Requirements

Task Description	Actual Due Date
Submit a Complete Permit Renewal Application	01/02/2020

## 2. A - Sanitary Wastewater

Task Description	Actual Due Date
Annual Pretreatment Program Report	11/01/2015
Submit a chronic whole effluent toxicity test report	01/26/2016
Compliance Schedule Progress Report	07/01/2016
Submit a chronic whole effluent toxicity test report	07/26/2016
Annual Pretreatment Program Report	11/01/2016
Submit a chronic whole effluent toxicity test report	01/26/2017
Compliance Schedule Progress Report	07/01/2017
Submit a chronic whole effluent toxicity test report	07/26/2017
Annual Pretreatment Program Report	11/01/2017
Submit a chronic whole effluent toxicity test report	01/26/2018
Compliance Schedule Progress Report	07/01/2018
Submit a chronic whole effluent toxicity test report	07/26/2018
Annual Pretreatment Program Report	11/01/2018
Submit a chronic whole effluent toxicity test report	01/26/2019
Compliance Schedule Progress Report	07/01/2019
Submit a chronic whole effluent toxicity test report	07/26/2019
Annual Pretreatment Program Report	11/01/2019
Submit a chronic whole effluent toxicity test report	01/26/2020

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- 10. Appendix B: Approved RWBR Authorizations**

New Jersey Department of Environmental Protection  
Division of Water Quality  
Bureau of Surface Water Permitting

**RESPONSE TO COMMENTS**

Comments were received on the NJPDES draft Surface Water Revoke & Reissue Permit Action No. NJ0027821 issued on August 12, 2014. The thirty (30) day public comment period began on August 20, 2014 when the Public Notice was published in the *Daily Record*. It ended on September 19, 2014. The following person commented during the public comment period:

A. Patrick J. Dwyer, Esq., Nusbaum, Stein, Goldstein, Bronstein & Kron in a letter dated September 16, 2014.

A summary of the timely and significant comments received, the New Jersey Department of Environmental Protection's (Department) responses to these comments, and an explanation of any changes from the draft action have been included below:

1. COMMENT:

There is presently pending in the Office of Administrative Law the matter of Musconetcong Sewerage Authority v. New Jersey Department of Environmental Protection, Agency Ref. No. NJDES #NJ0027821-46474 (OAL Docket No. ELU 05549-2013N). This will confirm that the parties are actively seeking to resolve their dispute. The MSA reserves all rights with respect to the pending action.

RESPONSE:

The referenced matter has been resolved by issuance of a signed Stipulation of Settlement between the Musconetcong Sewerage Authority and the Department, which was executed on March 10, 2015. All disputed matters have been resolved and have been addressed in this final permit or will be addressed via an administrative modification to the final permit which will stay the final nitrate limitations. Because this comment is not relevant to the proposed draft permit, no change to the permit is necessary as a result of this comment.



# 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: NJ0027821**

**Final: Surface Water Revoke & Reissue Permit Action**

**Permittee:**

Musconetcong Sewer Authority  
110 Continental Drive  
Budd Lake, NJ 07828

**Co-Permittee:**

**Property Owner:**

Musconetcong Sewer Authority  
110 Continental Drive  
Budd Lake, NJ 07828

**Location Of Activity:**

Musconetcong Sewerage Authority  
110 Continental Drive  
Mount Olive, Morris County

Authorization(s) Covered Under This Approval	Issuance Date	Effective Date	Expiration Date
A - Sanitary Wastewater – Revoke/Reissue	04/15/2015	07/01/2015	06/30/2020

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

**DEP AUTHORIZATION  
Pilar Patterson, Chief  
Bureau of Surface Water Permitting  
Division of Water Quality**

(Terms, conditions and provisions attached hereto)

**Division of Water Quality**

## 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. 7:14-8.1 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
  - Recordkeeping N.J.A.C. 7:14A-6.6
  - 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
    - Hotline/Two Hour & Twenty-four Hour Reporting N.J.A.C. 7:14A-6.10 & 6.8(h)
    - Written Reporting N.J.A.C. 7:14A-6.10(c) & (d)
    - Duty to Provide Information N.J.A.C. 7:14A-6.10(e) & (f) & 6.8(h)
  - Schedules of Compliance N.J.A.C. 7:14A-2.11, 6.2(a)14 & 18.1
  - Transfer N.J.A.C. 7:14A-6.4
  - 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. 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 and Pesticide Operations  
Mailcode 401-04E  
P.O. Box 420  
Trenton, New Jersey 08625-420  
(609)984-6507.
- b. The permittee shall notify the Department of any changes in licensed operator within two weeks of the change.

## 7. 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:** Musconetcong River      **STREAM CLASSIFICATION:** FW2-TM(C2)      **DISCHARGE CATEGORY(IES):** A - Sanitary Wastewater

**Location Description**

Via a step aeration cascade unit and rip-rap, the permittee is authorized to discharge treated sanitary wastewater into the Musconetcong River, classified as FW2-TM (C2) waters, at a latitude of 40d, 54m, 49.7s and a longitude of 74d, 43m, 21s. Refer to Part IV Section A(1)l for effluent and influent monitoring location information.

**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).

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

**PHASE:** 1-"Initial"(4.31)      **PHASE Start Date:** 07/01/2015      **PHASE End Date:** 05/31/2020

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	*****	*****	*****	*****	Continuous	Metered
	QL	***	***		***	***	***			
BOD, 5-Day (20 oC)	Raw Sew/Influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	3/Month	24 Hour Composite
	QL	***	***		***	***	***			
BOD, 5-Day (20 oC)	Effluent Gross Value	131 Monthly Average	196 Weekly Average	KG/DAY	*****	8.0 Monthly Average	12 Weekly Average	MG/L	3/Month	24 Hour Composite
	QL	***	***		***	***	***			
BOD, 5-Day (20 oC)	Effluent Gross Value	326 Monthly Average	489 Weekly Average	KG/DAY	*****	20 Monthly Average	30 Weekly Average	MG/L	3/Month	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).

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

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Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
BOD, 5-Day (20 oC)	Percent Removal	*****	*****	*****	85 Monthly Av Minimum	*****	*****	PERCENT	3/Month	Calculated
	QL	***	***		***	***	***			
pH	Raw Sew/influent	*****	*****	*****	REPORT Instant Minimum	*****	REPORT Instant Maximum	SU	1/Day	Grab
	QL	***	***		***	***	***			
pH	Effluent Gross Value	*****	*****	*****	6.0 Instant Minimum	*****	9.0 Instant Maximum	SU	1/Day	Grab
	QL	***	***		***	***	***			
Solids, Total Suspended	Raw Sew/influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	3/Month	24 Hour Composite
	QL	***	***		***	***	***			
Solids, Total Suspended	Effluent Gross Value	489 Monthly Average	734 Weekly Average	KG/DAY	*****	30 Monthly Average	45 Weekly Average	MG/L	3/Month	24 Hour Composite
	QL	***	***		***	***	***			
Solids, Total Suspended	Percent Removal	*****	*****	*****	85 Monthly Minimum	*****	*****	PERCENT	3/Month	Calculated
	QL	***	***		***	***	***			
Oil and Grease	Effluent Gross Value	*****	*****	*****	*****	10 Monthly Average	15 Instant Maximum	MG/L	1/Month	Grab
	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).

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

**PHASE:**1-"Initial"(4.31)      **PHASE Start Date:** 07/01/2015      **PHASE End Date:** 05/31/2020

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Nitrogen, Ammonia Total (as N) May thru October	Effluent Gross Value	13.9 Monthly Average	27.2 Daily Maximum	KG/DAY	*****	0.85 Monthly Average	1.67 Daily Maximum	MG/L	3/Month	24 Hour Composite
	QL	***	***		***	***	***			
Nitrogen, Ammonia Total (as N) November thru April	Effluent Gross Value	39.2 Monthly Average	75.0 Daily Maximum	KG/DAY	*****	2.4 Monthly Average	4.6 Daily Maximum	MG/L	3/Month	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 Average	REPORT Instant Maximum	#/100ML	2/Month	Grab
	QL	***	***		***	***	***			
Solids, Total Dissolved (TDS) January thru December	Effluent Gross Value	REPORT Monthly Average	REPORT Weekly Average	KG/DAY	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/6 Months	24 Hour Composite
	QL	***	***		***	***	***			
IC25 Statre 7day Chr Ceriodaphnia January thru December	Effluent Gross Value	*****	*****	*****	37 Report Per Minimum	*****	*****	%EFFL	1/6 Months	Composite
	QL	***	***		***	***	***			
Temperature, oC January thru December	Raw Sew/influent	*****	*****	*****	REPORT Instant Minimum	REPORT Monthly Average	REPORT Instant Maximum	DEG.C	1/Day	Grab
	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).

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

PHASE:1-"Initial"(4.31) PHASE Start Date: 07/01/2015 PHASE End Date: 05/31/2020

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Temperature, oC January thru December	Effluent Gross Value	*****	*****	*****	REPORT Instant Minimum	REPORT Monthly Average	REPORT Instant Maximum	DEG.C	1/Day	Grab
	QL	***	***		***	***	***			
Oxygen, Dissolved (DO) January thru December	Effluent Gross Value	*****	*****	*****	7.0 Daily Minimum	REPORT Weekly Av Minimum	*****	MG/L	3/Month	Grab
	QL	***	***		***	***	***			
Phosphorus, Total (as P) January thru December	Effluent Gross Value	REPORT Monthly Average	REPORT Weekly Average	KG/DAY	*****	0.9 Monthly Average	REPORT Weekly Average	MG/L	3/Month	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/Month	24 Hour Composite
	RQL	163.1	163.1		***	10	10			

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

PHASE:2- "Interim" (4.31) PHASE Start Date: 06/01/2020 PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Flow, In Conduit or Thru Treatment Plant January thru December	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	MGD	*****	*****	*****	*****	Continuous	Metered
	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).

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

**PHASE:2- "Interim" (4.31) PHASE Start Date: 06/01/2020 PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
BOD, 5-Day (20 oC) January thru December	Raw Sew/influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	3/Month	24 Hour Composite
	QL	***	***		***	***	***			
BOD, 5-Day (20 oC) May thru October	Effluent Gross Value	131 Monthly Average	196 Weekly Average	KG/DAY	*****	8.0 Monthly Average	12 Weekly Average	MG/L	3/Month	24 Hour Composite
	QL	***	***		***	***	***			
BOD, 5-Day (20 oC) November thru April	Effluent Gross Value	326 Monthly Average	489 Weekly Average	KG/DAY	*****	20 Monthly Average	30 Weekly Average	MG/L	3/Month	24 Hour Composite
	QL	***	***		***	***	***			
BOD, 5-Day (20 oC) January thru December	Percent Removal	*****	*****	*****	85 Monthly Av Minimum	*****	*****	PERCENT	3/Month	Calculated
	QL	***	***		***	***	***			
pH January thru December	Raw Sew/influent	*****	*****	*****	REPORT Instant Minimum	*****	REPORT Instant Maximum	SU	1/Day	Grab
	QL	***	***		***	***	***			
pH January thru December	Effluent Gross Value	*****	*****	*****	6.0 Instant Minimum	*****	9.0 Instant Maximum	SU	1/Day	Grab
	QL	***	***		***	***	***			
Solids, Total Suspended January thru December	Raw Sew/influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	3/Month	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).

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

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	January thru December	QL	***		***	***	***			
Solids, Total Suspended	Percent Removal	*****	*****	*****	85 Monthly Minimum	*****	*****	PERCENT	3/Month	Calculated
	January thru December	QL	***		***	***	***			
Oil and Grease	Effluent Gross Value	*****	*****	*****	*****	10 Monthly Average	15 Instant Maximum	MG/L	1/Month	Grab
	January thru December	QL	***		***	***	***			
Nitrogen, Ammonia Total (as N)	Effluent Gross Value	13.9 Monthly Average	27.2 Daily Maximum	KG/DAY	*****	0.85 Monthly Average	1.67 Daily Maximum	MG/L	3/Month	24 Hour Composite
	May thru October	QL	***		***	***	***			
Nitrogen, Ammonia Total (as N)	Effluent Gross Value	39.2 Monthly Average	75.0 Daily Maximum	KG/DAY	*****	2.4 Monthly Average	4.6 Daily Maximum	MG/L	3/Month	24 Hour Composite
	November thru April	QL	***		***	***	***			
Nitrogen, Nitrate Total (as N)	Effluent Gross Value	258 Monthly Average	396 Daily Maximum	KG/DAY	*****	15.8 Monthly Average	24.3 Daily Maximum	MG/L	1/Week	24 Hour Composite
	January thru December	QL	***		***	***	***			
E. Coli	Effluent Gross Value	*****	*****	*****	*****	126 Monthly Average	REPORT Instant Maximum	#/100ML	2/Month	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).

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Solids, Total Dissolved (TDS)	Effluent Gross Value	REPORT Monthly Average	REPORT Weekly Average	KG/DAY	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	1/6 Months	24 Hour Composite
	QL	***	***		***	***	***			
IC25 Statre 7day Chr Ceriodaphnia	Effluent Gross Value	*****	*****	*****	37 Report Per Minimum	*****	*****	%EFFL	1/6 Months	Composite
	QL	***	***		***	***	***			
Temperature, oC	Raw Sew/influent	*****	*****	*****	REPORT Instant Minimum	REPORT Monthly Average	REPORT Instant Maximum	DEG.C	1/Day	Grab
	QL	***	***		***	***	***			
Temperature, oC	Effluent Gross Value	*****	*****	*****	REPORT Instant Minimum	REPORT Monthly Average	REPORT Instant Maximum	DEG.C	1/Day	Grab
	QL	***	***		***	***	***			
Oxygen, Dissolved (DO)	Effluent Gross Value	*****	*****	*****	7.0 Daily Minimum	REPORT Weekly Av Minimum	*****	MG/L	3/Month	Grab
	QL	***	***		***	***	***			
Phosphorus, Total (as P)	Effluent Gross Value	REPORT Monthly Average	REPORT Weekly Average	KG/DAY	*****	0.9 Monthly Average	REPORT Weekly Average	MG/L	3/Month	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).

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

**PHASE:2- "Interim" (4.31) PHASE Start Date: 06/01/2020 PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Copper, Total Recoverable	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	GR/DAY	*****	REPORT Monthly Average	REPORT Daily Maximum	UG/L	1/Month	24 Hour Composite
	January thru December	RQL	163.1		163.1	***	10			

**Table III - A - 3: Surface Water DMR Limits and Monitoring Requirements**

**PHASE:3-"Final"(5.79) PHASE Start Date: INACTIVE 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	*****	*****	*****	*****	Continuous	Metered
	January thru December	QL	***		***	***	***			
BOD, 5-Day (20 oC)	Raw Sew/influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	2/Week	24 Hour Composite
	January thru December	QL	***		***	***	***			
BOD, 5-Day (20 oC)	Effluent Gross Value	175 Monthly Average	263 Weekly Average	KG/DAY	*****	8.0 Monthly Average	12 Weekly Average	MG/L	2/Week	24 Hour Composite
	May thru October	QL	***		***	***	***			
BOD, 5-Day (20 oC)	Effluent Gross Value	438 Monthly Average	657 Weekly Average	KG/DAY	*****	20 Monthly Average	30 Weekly Average	MG/L	2/Week	24 Hour Composite
	November thru April	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).

**Table III - A - 3: Surface Water DMR Limits and Monitoring Requirements**

PHASE:3-"Final"(5.79) PHASE Start Date: INACTIVE PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
BOD, 5-Day (20 oC)	Percent Removal	*****	*****	*****	85 Monthly Av Minimum	*****	*****	PERCENT	2/Week	Calculated
	January thru December	QL	***		***	***	***			
pH	Raw Sew/influent	*****	*****	*****	REPORT Instant Minimum	*****	REPORT Instant Maximum	SU	3/Day	Grab
	January thru December	QL	***		***	***	***			
pH	Effluent Gross Value	*****	*****	*****	6.0 Instant Minimum	*****	9.0 Instant Maximum	SU	3/Day	Grab
	January thru December	QL	***		***	***	***			
Solids, Total Suspended	Raw Sew/influent	*****	*****	*****	*****	REPORT Monthly Average	REPORT Weekly Average	MG/L	2/Week	24 Hour Composite
	January thru December	QL	***		***	***	***			
Solids, Total Suspended	Effluent Gross Value	657 Monthly Average	986 Weekly Average	KG/DAY	*****	30 Monthly Average	45 Weekly Average	MG/L	2/Week	24 Hour Composite
	January thru December	QL	***		***	***	***			
Solids, Total Suspended	Percent Removal	*****	*****	*****	85 Monthly Minimum	*****	*****	PERCENT	2/Week	Calculated
	January thru December	QL	***		***	***	***			
Oil and Grease	Effluent Gross Value	*****	*****	*****	*****	10 Monthly Average	15 Instant Maximum	MG/L	1/Month	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).

**Table III - A - 3: Surface Water DMR Limits and Monitoring Requirements**

PHASE:3-"Final"(5.79) PHASE Start Date: INACTIVE PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Nitrogen, Ammonia Total (as N) May thru October	Effluent Gross Value	15.34 Monthly Average	35.06 Daily Maximum	KG/DAY	*****	0.7 Monthly Average	1.6 Daily Maximum	MG/L	2/Week	24 Hour Composite
	QL	***	***		***	***	***			
Nitrogen, Ammonia Total (as N) November thru April	Effluent Gross Value	40.54 Monthly Average	89.85 Daily Maximum	KG/DAY	*****	1.85 Monthly Average	4.1 Daily Maximum	MG/L	2/Week	24 Hour Composite
	QL	***	***		***	***	***			
Nitrogen, Nitrate Total (as N) January thru December	Effluent Gross Value	314 Monthly Average	557 Daily Maximum	KG/DAY	*****	14.3 Monthly Average	25.4 Daily Maximum	MG/L	2/Week	24 Hour Composite
	QL	***	***		***	***	***			
E. Coli January thru December	Effluent Gross Value	*****	*****	*****	*****	126 Monthly Average	REPORT Instant Maximum	#/100ML	8/Month	Grab
	QL	***	***		***	***	***			
Solids, Total Dissolved (TDS) January thru December	Effluent Gross Value	12623 Monthly Average	18935 Weekly Average	KG/DAY	*****	576 Monthly Average	864 Weekly Average	MG/L	2/Week	24 Hour Composite
	QL	***	***		***	***	***			
IC25 Statre 7day Chr Ceriodaphnia January thru December	Effluent Gross Value	*****	*****	*****	41 Report Per Minimum	*****	*****	%EFFL	1/6 Months	Composite
	QL	***	***		***	***	***			
Temperature, oC January thru December	Raw Sew/influent	*****	*****	*****	REPORT Instant Minimum	REPORT Monthly Average	REPORT Instant Maximum	DEG.C	3/Day	Grab
	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).

**Table III - A - 3: Surface Water DMR Limits and Monitoring Requirements**

PHASE:3-"Final"(5.79) PHASE Start Date: INACTIVE PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Temperature, oC January thru December	Effluent Gross Value	*****	*****	*****	REPORT Instant Minimum	REPORT Monthly Average	REPORT Instant Maximum	DEG.C	3/Day	Grab
	QL	***	***		***	***	***			
Oxygen, Dissolved (DO) January thru December	Effluent Gross Value	*****	*****	*****	7.0 Daily Minimum	REPORT Weekly Av Minimum	*****	MG/L	2/Week	Grab
	QL	***	***		***	***	***			
Phosphorus, Total (as P) January thru December	Effluent Gross Value	REPORT Monthly Average	REPORT Weekly Average	KG/DAY	*****	0.9 Monthly Average	REPORT Weekly Average	MG/L	2/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/Month	24 Hour Composite
	RQL	163.1	163.1		***	10	10			

**Surface Water WCR - Annual Reporting Requirements:**

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

**Table III - A - 4: Surface Water WCR - Annual Limits and Monitoring Requirements**

PHASE:Final

PHASE Start Date: 07/01/2015

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Cyanide, Total (as CN)	Effluent Gross Value	REPORT RQL = 40	UG/L	Grab	January thru December
Arsenic, Total (as As)	Effluent Gross Value	REPORT RQL = 8	UG/L	24 Hour Composite	January thru December
Beryllium, Total (as Be)	Effluent Gross Value	REPORT RQL = 20	UG/L	24 Hour Composite	January thru December
Cadmium, Total (as Cd)	Effluent Gross Value	REPORT RQL = 4	UG/L	24 Hour Composite	January thru December
Chromium, Total (as Cr)	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
Lead, Total (as Pb)	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
Thallium, Total (as Tl)	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
Silver, Total (as Ag)	Effluent Gross Value	REPORT RQL = 2	UG/L	24 Hour Composite	January thru December
Antimony, Total (as Sb)	Effluent Gross Value	REPORT RQL = 20	UG/L	24 Hour Composite	January thru December
Selenium, Total (as Se)	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
Mercury, Total (as Hg)	Effluent Gross Value	REPORT RQL = 1	UG/L	24 Hour Composite	January thru December
Acenaphthylene	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
Acenaphthene	Effluent Gross Value	REPORT RQL = 9.5	UG/L	24 Hour Composite	January thru December
Anthracene	Effluent Gross Value	REPORT RQL = 10	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

**Surface Water WCR - Annual Reporting Requirements:**

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

**Table III - A - 4: Surface Water WCR - Annual Limits and Monitoring Requirements**

PHASE:Final

PHASE Start Date: 07/01/2015

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Benzo(k)fluoranthene	Effluent Gross Value	REPORT RQL = 20	UG/L	24 Hour Composite	January thru December
Benzo(a)pyrene	Effluent Gross Value	REPORT RQL = 20	UG/L	24 Hour Composite	January thru December
Bis(2-chloroethyl) ether	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
Bis(2-chloroethoxy) methane	Effluent Gross Value	REPORT RQL = 26.5	UG/L	24 Hour Composite	January thru December
Bis (2-chloroiso- propyl) ether	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
Butyl benzyl phthalate	Effluent Gross Value	REPORT RQL = 20	UG/L	24 Hour Composite	January thru December
Chrysene	Effluent Gross Value	REPORT RQL = 20	UG/L	24 Hour Composite	January thru December
Diethyl phthalate	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
Dimethyl phthalate	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
1,2-Diphenyl- hydrazine	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
Fluoranthene	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
Fluorene	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
Hexachlorocyclo- pentadiene	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
Hexachloroethane	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
Indeno(1,2,3-cd)- pyrene	Effluent Gross Value	REPORT RQL = 20	UG/L	24 Hour Composite	January thru December

**Surface Water WCR - Annual Reporting Requirements:**

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

**Table III - A - 4: Surface Water WCR - Annual Limits and Monitoring Requirements**

PHASE:Final

PHASE Start Date: 07/01/2015

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Isophorone	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
N-nitrosodi-n-propylamine	Effluent Gross Value	REPORT RQL = 20	UG/L	24 Hour Composite	January thru December
N-nitrosodiphenyl-amine	Effluent Gross Value	REPORT RQL = 20	UG/L	24 Hour Composite	January thru December
N-nitrosodimethyl-amine	Effluent Gross Value	REPORT RQL = 20	UG/L	24 Hour Composite	January thru December
Nitrobenzene	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
Phenanthrene	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
Pyrene	Effluent Gross Value	REPORT RQL = 20	UG/L	24 Hour Composite	January thru December
Benzo(ghi)perylene	Effluent Gross Value	REPORT RQL = 20	UG/L	24 Hour Composite	January thru December
Benzo(a)anthracene	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
1,2-Dichlorobenzene	Effluent Gross Value	REPORT RQL = 9	UG/L	Grab	January thru December
1,2,4-Trichloro-benzene	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
Dibenzo(a,h)anthracene	Effluent Gross Value	REPORT RQL = 20	UG/L	24 Hour Composite	January thru December
1,3-Dichlorobenzene	Effluent Gross Value	REPORT RQL = 9	UG/L	Grab	January thru December
1,4-Dichlorobenzene	Effluent Gross Value	REPORT RQL = 20	UG/L	Grab	January thru December
2-Chloronaphthalene	Effluent Gross Value	REPORT RQL = 9.5	UG/L	24 Hour Composite	January thru December

**Surface Water WCR - Annual Reporting Requirements:**

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

**Table III - A - 4: Surface Water WCR - Annual Limits and Monitoring Requirements**

PHASE:Final

PHASE Start Date: 07/01/2015

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Di-n-octyl Phthalate	Effluent Gross Value	REPORT	UG/L	24 Hour Composite	January thru December
2,4-Dinitrotoluene	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
2,6-Dinitrotoluene	Effluent Gross Value	REPORT RQL = 9.5	UG/L	24 Hour Composite	January thru December
3,3'-Dichloro- benzidine	Effluent Gross Value	REPORT RQL = 60	UG/L	24 Hour Composite	January thru December
4-Bromophenyl phenyl ether	Effluent Gross Value	REPORT RQL = 9.5	UG/L	24 Hour Composite	January thru December
Naphthalene	Effluent Gross Value	REPORT RQL = 8	UG/L	24 Hour Composite	January thru December
Bis(2-ethylhexyl) phthalate	Effluent Gross Value	REPORT RQL = 30	UG/L	24 Hour Composite	January thru December
Di-n-butyl phthalate	Effluent Gross Value	REPORT RQL = 20	UG/L	24 Hour Composite	January thru December
Benzidine	Effluent Gross Value	REPORT RQL = 50	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 RQL = 10	UG/L	24 Hour Composite	January thru December
Hexachlorobutadiene	Effluent Gross Value	REPORT RQL = 10	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 RQL = 7	UG/L	Grab	January thru December



**Surface Water WCR - Annual Reporting Requirements:**

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

**Table III - A - 4: Surface Water WCR - Annual Limits and Monitoring Requirements**

PHASE:Final

PHASE Start Date: 07/01/2015

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
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
Carbon Tetrachloride	Effluent Gross Value	REPORT RQL = 6	UG/L	Grab	January thru December
1,2-Dichloroethane	Effluent Gross Value	REPORT RQL = 3	UG/L	Grab	January thru December
Bromoform	Effluent Gross Value	REPORT RQL = 8	UG/L	Grab	January thru December
Chloroform	Effluent Gross Value	REPORT RQL = 5	UG/L	Grab	January thru December
Toluene	Effluent Gross Value	REPORT RQL = 6	UG/L	Grab	January thru December
Benzene	Effluent Gross Value	REPORT RQL = 7	UG/L	Grab	January thru December
Acrolein	Effluent Gross Value	REPORT RQL = 50	UG/L	Grab	January thru December
Acrylonitrile	Effluent Gross Value	REPORT RQL = 50	UG/L	Grab	January thru December
Chlorobenzene	Effluent Gross Value	REPORT RQL = 6	UG/L	Grab	January thru December
Chlorodibromomethane	Effluent Gross Value	REPORT RQL = 6	UG/L	Grab	January thru December
Ethylbenzene	Effluent Gross Value	REPORT RQL = 6	UG/L	Grab	January thru December
Methyl Bromide	Effluent Gross Value	REPORT RQL = 9	UG/L	Grab	January thru December

**Surface Water WCR - Annual Reporting Requirements:**

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

**Table III - A - 4: Surface Water WCR - Annual Limits and Monitoring Requirements**

PHASE:Final

PHASE Start Date: 07/01/2015

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Methyl Chloride	Effluent Gross Value	REPORT RQL = 10	UG/L	Grab	January thru December
Methylene Chloride	Effluent Gross Value	REPORT RQL = 6	UG/L	Grab	January thru December
Tetrachloroethylene	Effluent Gross Value	REPORT RQL = 9	UG/L	Grab	January thru December
Trichlorofluoro- methane	Effluent Gross Value	REPORT RQL = 5	UG/L	Grab	January thru December
1,1-Dichloroethane	Effluent Gross Value	REPORT RQL = 23.5	UG/L	Grab	January thru December
1,1-Dichloroethylene	Effluent Gross Value	REPORT RQL = 6	UG/L	Grab	January thru December
1,1,1-Trichloro- ethane	Effluent Gross Value	REPORT RQL = 6	UG/L	Grab	January thru December
1,1,2-Trichloro- ethane	Effluent Gross Value	REPORT RQL = 6	UG/L	Grab	January thru December
1,1,2,2-Tetrachloro- ethane	Effluent Gross Value	REPORT RQL = 10	UG/L	Grab	January thru December
1,2-Dichloropropane	Effluent Gross Value	REPORT RQL = 5	UG/L	Grab	January thru December
1,2-trans-Dichloro- ethylene	Effluent Gross Value	REPORT RQL = 4	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 RQL = 5	UG/L	Grab	January thru December
Vinyl Chloride	Effluent Gross Value	REPORT RQL = 10	UG/L	Grab	January thru December
Trichloroethylene	Effluent Gross Value	REPORT RQL = 5	UG/L	Grab	January thru December

**Surface Water WCR - Annual Reporting Requirements:**

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

**Table III - A - 4: Surface Water WCR - Annual Limits and Monitoring Requirements**

PHASE:Final

PHASE Start Date: 07/01/2015

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
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
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
Phenols	Effluent Gross Value	REPORT	UG/L	Grab	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 RQL = 0.02	UG/L	24 Hour Composite	January thru December
Endosulfan Sulfate	Effluent Gross Value	REPORT RQL = 0.08	UG/L	24 Hour Composite	January thru December
Beta Endosulfan	Effluent Gross Value	REPORT RQL = 0.04	UG/L	24 Hour Composite	January thru December
Alpha Endosulfan	Effluent Gross Value	REPORT RQL = 0.02	UG/L	24 Hour Composite	January thru December
Endrin Aldehyde	Effluent Gross Value	REPORT RQL = 0.1	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 RQL = 0.06	UG/L	24 Hour Composite	January thru December

**Surface Water WCR - Annual Reporting Requirements:**

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

**Table III - A - 4: Surface Water WCR - Annual Limits and Monitoring Requirements**

PHASE:Final                      PHASE Start Date: 07/01/2015                      PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
4,4'-DDD(p,p'-DDD)	Effluent Gross Value	REPORT RQL = 0.04	UG/L	24 Hour Composite	January thru December
4,4'-DDE(p,p'-DDE)	Effluent Gross Value	REPORT RQL = 0.04	UG/L	24 Hour Composite	January thru December
Aldrin	Effluent Gross Value	REPORT RQL = 0.04	UG/L	24 Hour Composite	January thru December
Alpha BHC	Effluent Gross Value	REPORT RQL = 0.02	UG/L	24 Hour Composite	January thru December
Beta BHC	Effluent Gross Value	REPORT RQL = 0.04	UG/L	24 Hour Composite	January thru December
Gamma BHC (lindane),	Effluent Gross Value	REPORT RQL = 0.03	UG/L	24 Hour Composite	January thru December
Chlordane	Effluent Gross Value	REPORT RQL = 0.2	UG/L	24 Hour Composite	January thru December
Dieldrin	Effluent Gross Value	REPORT RQL = 0.03	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 RQL = 0.04	UG/L	24 Hour Composite	January thru December
Toxaphene	Effluent Gross Value	REPORT RQL = 1	UG/L	24 Hour Composite	January thru December
Heptachlor	Effluent Gross Value	REPORT RQL = 0.02	UG/L	24 Hour Composite	January thru December
Heptachlor Epoxide	Effluent Gross Value	REPORT RQL = 0.4	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

**Surface Water WCR - Annual Reporting Requirements:**

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

**Table III - A - 4: Surface Water WCR - Annual Limits and Monitoring Requirements**

PHASE:Final

PHASE Start Date: 07/01/2015

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
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
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 RQL = 20	UG/L	24 Hour Composite	January thru December
2-Nitrophenol	Effluent Gross Value	REPORT RQL = 18	UG/L	24 Hour Composite	January thru December
2,4-Dichlorophenol	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
2,4-Dimethylphenol	Effluent Gross Value	REPORT RQL = 13.5	UG/L	24 Hour Composite	January thru December
2,4-Dinitrophenol	Effluent Gross Value	REPORT RQL = 40	UG/L	24 Hour Composite	January thru December
2,4,6-Trichloro- phenol	Effluent Gross Value	REPORT RQL = 20	UG/L	24 Hour Composite	January thru December
4-Chlorophenyl phenyl ether	Effluent Gross Value	REPORT RQL = 21	UG/L	24 Hour Composite	January thru December
4-Nitrophenol	Effluent Gross Value	REPORT RQL = 12	UG/L	24 Hour Composite	January thru December
4,6-Dinitro-o-cresol	Effluent Gross Value	REPORT RQL = 60	UG/L	24 Hour Composite	January thru December

**Surface Water WCR - Annual Reporting Requirements:**

Submit an Annual WCR: within twenty-five days after the end of every 12 month monitoring period beginning from the effective date of the permit (EDP).

**Table III - A - 4: Surface Water WCR - Annual Limits and Monitoring Requirements**

PHASE:Final                      PHASE Start Date: 07/01/2015                      PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Phenol Single Compound	Effluent Gross Value	REPORT RQL = 10	UG/L	24 Hour Composite	January thru December
Pentachlorophenol	Effluent Gross Value	REPORT RQL = 30	UG/L	24 Hour Composite	January thru December
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

**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).

**Table III - A - 5: Surface Water WCR - Semi Annual Limits and Monitoring Requirements**

PHASE:Final                      PHASE Start Date: 07/01/2015                      PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Barium, Total Recoverable (as Ba)	Effluent Gross Value	REPORT RQL = 20	UG/L	24 Hour Composite	January thru December
Nickel, Total Recoverable	Effluent Gross Value	REPORT RQL = 10	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).

**Table III - A - 5: Surface Water WCR - Semi Annual Limits and Monitoring Requirements**

PHASE:Final

PHASE Start Date: 07/01/2015

PHASE End Date:

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Zinc, Total Recoverable	Effluent Gross Value	REPORT RQL = 30	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. The permittee shall utilize analytical methods that will ensure compliance with the Quantification Levels (QLs) listed in PART III. QLs include, but are not limited to, Recommended Quantification Levels (RQLs) and Method Detection Levels (MDLs). If the permittee and/or contract laboratory determines that the QLs achieved for any pollutant(s) generally will not be as sensitive as the QLs specified in PART III, the permittee must submit a justification of such to the Bureau of Surface Water Permitting. For limited parameters with no QL specified, the sample analysis shall use a detection level at least as sensitive as the effluent limit.
- 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 flow 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, 3) all data used to complete the application for a NJPDES permit, and 4) monitoring information required by the permit related to the permittee's residual use and/or disposal practices, for a period of at least 5 years, or longer as required by N.J.A.C. 7:14A-20, from the date of the sample, measurement, report, application or record.
- 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. The permittee shall submit all required monitoring results to the Department on the forms provided to them. The Monitoring Report Forms (MRFs) may be provided to the permittee in either a paper format or in an electronic file format. Unless otherwise noted, all requirements below pertain to both paper and electronic formats.
- b. Any MRFs in paper format shall be submitted to the following addresses:
  - i. NJDEP  
Mail Code - 401-02B  
Division of Water Quality  
Office of Permit Management  
P.O. Box 420  
Trenton, New Jersey 08625-0420
  - ii. Delaware River Basin Commission (DRBC)  
P. O. Box 7360  
West Trenton, New Jersey 08628
  - iii. (if requested by the Water Compliance and Enforcement Bureau)  
NJDEP: Northern Bureau of Water Compliance and Enforcement  
7 Ridgedale Avenue  
Cedar Knolls, New Jersey 07927-1112
- c. Any electronic data submission shall be in accordance with the guidelines and provisions outlined in the Department's Electronic Data Interchange (EDI) agreement with the permittee. Paper copies must be available for on-site inspection by DEP personnel or provided to the DEP upon written request.
- d. All monitoring report forms 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 monitoring report forms in his or her absence. Authorizations for other individuals to sign 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 Discharge Monitoring Report 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 there are no discharge events during an entire monitoring period, the permittee must notify the Department when submitting the monitoring results. This is accomplished by placing a check mark in the "No Discharge this monitoring period" box on the paper or electronic version of the monitoring report submittal form.

## **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 total nitrate for the flow of 4.31 MGD, 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 12 months from the effective date of the permit (EDP).
  - ii. Submit a Compliance Schedule Progress Report: within 24 months from the effective date of the permit (EDP).
  - iii. Submit a Compliance Schedule Progress Report: within 36 months from the effective date of the permit (EDP).
  - iv. Submit a Compliance Schedule Progress Report: within 48 months from the effective date of the permit (EDP).
- 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. When quantification levels (QL) and effluent limits are both specified for a given parameter in Part III, and the QL is less stringent than the effluent limit, effluent compliance will be determined by comparing the reported value against the QL.
- f. When an average of three (3) consecutive rolling monthly average values of the committed flow (actual flow and approved allocated flow) reaches or exceeds 80% of 5.79 MGD (the permitted capacity of the facility), the permittee shall:
  - i. Develop a Capacity Assurance Program (CAP) in accordance with N.J.A.C. 7:14A-22.16.
  - ii. For more information concerning the CAP, please contact the Bureau of Engineering and Construction Permitting North at (609) 292-6894.
  - iii. Contact the Division of Watershed Management to discuss whether an amendment to the Water Quality Management Plan (WQMP) or Wastewater Management Plan (WMP) will be necessary.

## **2. Delaware River Basin Commission (DRBC)**

- a. The permittee shall comply with the Delaware River Basin Commission (DRBC) "Water Quality Regulations." Compliance may be determined by the DRBC based on its own sampling events.

## **3. Applicability of Discharge Limitations and Effective Dates**

- a. Surface Water Discharge Monitoring Report (DMR) Form Requirements
  - i. This permit includes multiple phases for DSN 001A due to staged flows and a compliance schedule for nitrate.  
The Initial Phase (4.31 MGD) limitations and monitoring conditions are applicable from the effective date of the permit (EDP) up to and including EDP + 59 months. The Interim Phase (4.31 MGD) limitations and monitoring conditions are effective on EDP + 60 months. Final limitations and monitoring conditions apply when the facility reaches the flow of 5.79 MGD.
  - ii. Upon completion of the following tasks, the facility shall be allowed to operate under the 5.79 MGD limitations and monitoring conditions.
    - a) The facility has received Stage II and III treatment works approval from the Bureau of Finance and Construction Permits: Engineering Section North. Stage III approval is dependent upon submittal of a signed and sealed WQM-005 engineer's certification for the upgraded flow of 5.79 MGD to the Bureau of Finance and Construction Permits: Engineering Section North.
    - b) The Bureau of Surface Water Permitting has received a formal request from the permittee specifying the date for which the 5.79 MGD permit conditions should be effective. "Final" phase limitations and monitoring conditions will become effective on the date specified in the formal request.
    - c) Permittee shall submit a request to activate alternate phase effluent limits 30 calendar days prior to the commencement of discharge at the higher flow. The Department will activate the higher flow through an administrative modification to the permit.

- b. Wastewater Characterization Report (WCR) Form Requirements

- i. The final effluent monitoring conditions contained in PART III for DSN 001A apply for the full term of this permit action.

#### **4. 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).

#### **5. 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.

#### **6. RWBR Requirements for Public Access**

- a. The Public Access reuse types authorized by this permit are those approved in Appendix B. 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 (NO<sub>3</sub> + NH<sub>3</sub>): 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/cm<sup>2</sup> 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 (NO<sub>3</sub> + NH<sub>3</sub>) shall be a composite sample, taken in accordance with Part III, at least once per week taken prior to RWBR diversion. Total Nitrogen (NO<sub>3</sub> + NH<sub>3</sub>) 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.

#### **7. 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 B. 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 (NO<sub>3</sub> + NH<sub>3</sub>): Daily maximum of 10 mg/L. Frequency of sampling for Total Nitrogen shall be at a minimum monthly. The sample shall be collected as a composite sample taken prior to diversion for RWBR. Nitrogen, Total (NO<sub>3</sub> + NH<sub>3</sub>) 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. The effluent shall comply with the permit limitations for E. Coli as specified in the Effluent Limitations Tables at part III of the permit. The frequency for 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/cm<sup>2</sup> 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.

#### **8. 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 B. Other Restricted Access--Construction and Maintenance Operations reuse types may be added by minor modification of this permit.
- b. The effluent shall comply with the permit limitations for E. Coli as specified in the Effluent Limitations Tables at part III of the permit. The frequency for 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.

#### **9. RWBR Requirements for Restricted Access--Industrial Systems**

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

#### **10. RWBR Submittal Requirements**

- a. For all types of RWBR, with the exception of sanitary sewer jetting and STP washdown water, 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 any 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. 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.
- c. 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.
- d. Submit a Beneficial Reuse Annual Report: by February 1 of each year beginning from the 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.

- e. 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.
- f. All submittals shall be mailed or delivered to: New Jersey Department of Environmental Protection, Division of Water Quality, Bureau of Surface Water Permitting, Mailcode 401-02B, P.O. Box 420, Trenton, New Jersey 08625-0420.

#### **11. 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 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.

#### **12. 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. The permittee shall resubmit a Chronic Methodology Questionnaire within 60 days of any change in laboratory.
- h. Submit a chronic whole effluent toxicity test report: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP). The permittee shall submit toxicity test results on appropriate forms.
- i. Test reports shall be submitted to:
  - i. New Jersey Department of Environmental Protection  
401-02B  
Division of Water Quality  
Bureau of Surface Water Permitting  
401 East State Street  
P.O. Box 420  
Trenton, New Jersey 08625-0420

### **13. Toxicity Reduction Implementation Requirements (TRIR)**

- a. The permittee shall initiate a tiered toxicity investigation if two out of six consecutive WET tests demonstrate that the effluent does not comply or will not comply with the toxicity limit or action level specified in Part III of this permit.
  - i. If the exceedence of the toxicity limit or action level is directly caused by a documented facility upset, or other unusual event which has been identified and appropriately remedied by the permittee, the toxicity test data collected during the event may be eliminated when determining the need for initiating a TRIR upon written Department approval.
- b. The permittee shall begin toxicity characterization within 30 days of the end of the monitoring period when the second toxicity test exceeds the toxicity limits or action levels in Part III. The monitoring frequency for toxicity testing shall be increased to monthly. Up to 12 additional tests may be required.
  - i. The permittee may return to the toxicity testing frequency specified in Part III if four consecutive toxicity tests conducted during the Toxicity Characterization do not exceed the toxicity limit or action level.



- ii. If two out of any six consecutive, acceptable tests again exceed the toxicity limit or action level in Part III, the permittee shall repeat the Toxicity Reduction Implementation Requirements.
- c. The permittee shall initiate a preliminary toxicity identification (PTI) upon the third exceedence of the toxicity limit or action level specified in Part III during toxicity characterization.
  - i. The permittee may return to the monitoring frequency specified in PART III while conducting the PTI. If more frequent WET testing is performed during the PTI, the permittee shall submit all biomonitoring reports to the DEP and report the results for the most sensitive species on the DMR.
  - ii. As appropriate, the PTI shall include:
    - (1) treatment plant performance evaluation,
    - (2) pretreatment program information,
    - (3) evaluation of ammonia and chlorine produced oxidants levels and their effect on the toxicity of the discharge,
    - (4) evaluation of chemical use and processes at the facility, and
    - (5) an evaluation of incidental facility procedures such as floor washing, and chemical spill disposal which may contribute to effluent toxicity.
  - iii. If the permittee demonstrates that the cause of toxicity is the chlorine added for disinfection or the ammonia concentration in the effluent and the chlorine and/or ammonia concentrations are below the established water quality based effluent limitation for chlorine and/or ammonia, the permittee shall identify the procedures to be used in future toxicity tests to account for chlorine and/or ammonia toxicity in their preliminary toxicity identification report.
  - iv. The permittee shall submit a Preliminary Toxicity Identification Notification within 15 months of triggering TRIR. This notification shall include a determination that the permittee intends to demonstrate compliance OR plans to initiate a CTI.
- d. The permittee must demonstrate compliance with the WET limitation or action level in four consecutive WET tests to satisfy the requirements of the Toxicity Reduction Investigation Requirements. After successful completion, the permittee may return to the WET monitoring frequency specified in PART III.
- e. The permittee shall initiate a Comprehensive Toxicity Investigation (CTI) if the PTI does not identify the cause of toxicity and a demonstration of consistent compliance with the toxicity limit or action level in Part III can not be made.
  - i. The permittee shall develop a project study plan identifying the party or parties responsible for conducting the comprehensive evaluation, establish a schedule for completing the study, and a description of the technical approach to be utilized.
  - ii. If the permittee determines that the PTI has failed to demonstrate consistent compliance with the toxicity limit or action level in Part III, a Comprehensive Toxicity Investigation Workplan must be prepared and submitted within 90 days.
  - iii. The permittee shall summarize the data collected and the actions taken in CTI Quarterly Reports. The reports shall be submitted within 30 calendar days after the end of each quarter.
  - iv. The permittee shall submit a Final CTI Report 90 calendar days after the last quarterly report. The final CTI report shall include the corrective actions identified to reduce toxicity and a schedule for implementing these corrective actions.

- f. Upon receipt of written approval from the Department of the corrective action schedule, the permittee shall implement those corrective actions consistent with that schedule.
  - i. The permittee shall satisfy the requirements of the Toxicity Reduction Implementation Requirements and return to the original toxicity monitoring frequency after corrective actions are implemented and the permittee demonstrates consistent compliance with the toxicity limit or action level in Part III in four consecutive toxicity tests.
  - ii. If the implemented corrective measures do not result in consistent compliance with the toxicity limit or action level in Part III, the permittee shall submit a plan for resuming the CTI.
  - iii. Documents regarding Toxicity Investigations shall be sent to the following:  
New Jersey Department of Environmental Protection  
401-02B  
Division of Water Quality  
Bureau of Surface Water Permitting  
401 East State Street  
P.O. Box 420  
Trenton, New Jersey 08625-0420

## **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 to ensure compliance with the requirements in paragraph ii following, 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.

#### **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 Annual 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 report shall include the name, address, and type of business for each facility. The report shall be on the forms provided by the Department. The forms are available on the Department's web site at: <http://www.nj.gov/dep/dwq/bpr.htm>.
- c. If there are no Significant Indirect Users discharging into its treatment works, the Pretreatment Program Report may take the form of a letter noting such.
- d. Submit the Annual Pretreatment Program Report: by November 1 of each year beginning from the effective date of the permit (EDP).
- e. 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 the specified QL.

#### **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.

**3. Removal or Modification of Final WQBELs or Criteria End-of-Pipe Effluent Limitations for Chemical Specific Toxic Pollutants**

- a. The Department will consider proposing to remove or modify a toxic pollutant's newly imposed final effluent limitation from the permit if any or all of the information in item "b" below is submitted for Departmental review and consideration.
- b. Items that will be considered include, but are not limited to:
  - i. Submission of additional effluent data (minimum of 2.5 consecutive years of monthly data) using an approved quantification level equal to or better than the Department's Recommended Quantification Level (RQL).
  - ii. Acceptable site-specific ambient data (e.g. hardness, pollutant specific data) collected in accordance with a NJDEP approved work plan.
  - iii. Acceptable site-specific translator values developed in accordance with a NJDEP approved work plan.
  - iv. Acceptable site-specific criteria developed in accordance with a NJDEP approved work plan.
  - v. Updated 1Q10, 7Q10, 75th percentile, and/or other appropriate stream flow values where applicable.
  - vi. Updated regulatory mixing zone dilution factors where applicable.
- c. All studies require a NJDEP approved workplan that shall be submitted to the Department for approval on or before the effective date of the permit (EDP) + 6 months.
  - i. It is recommended that all ambient monitoring associated with the establishment of hardness values, pollutant concentrations, and site specific translator values be conducted under the confines of a single work plan.
- d. All final study reports and/or additional information shall be submitted to the Department on or before EDP + 36 months.
- e. The Department will review all submitted information and will either propose a permit action to remove/modify the final effluent limitation(s) or deny the modification request.

MUSCONETCONG SEWERAGE AUTHORITY, Mount Olive

Permit No. NJ0027821  
DSW140001 Surface Water Revoke & Reissue Permit Action

**APPENDIX A:**

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

**Version 2.1**

**May 1997**

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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 not sufficiently clarified in those methods documents and also serves to outline and implement the interlaboratory Standard Reference Toxicant Program until a formal laboratory certification program is established 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 test organism specific method specifications 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 be within the existing acute toxicity testing laboratory certification program established under N.J.A.C. 7:18, as required by N.J.A.C. 7:9B-1.5(c)5.

Testing shall be in conformance with the subchapter on chronic toxicity testing within the N.J.A.C. 7:18 when such regulations become effective. The laboratory performing the toxicity testing shall be within the chronic toxicity testing laboratory certification program to be established under that subchapter, when it becomes effective.

These methods are incorporated into discharge permits as enforceable permit conditions. Each discharge permit will specify in Part 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 second version of the NJDEP's interim chronic methodologies. This version contains no significant changes to the test methods themselves. However, in keeping with the Department's continued emphasis on good laboratory practices and quality control, the areas addressing the Standard Reference Toxicant Program, data analysis and data reporting, have been significantly revised.



## 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. If hypothesis testing will be used to determine the test endpoint, one effluent concentration shall be the chronic permit limitation, unless the existing data for the discharge indicate that the NOEC is expected to be significantly less than the permit limit. The use of the 0.5 dilution factor may require more than five dilutions to cover the entire range of effluent concentrations as well as the chronic permit limit, since the permit limit will often not be one of the nominal concentrations in a 0.5 dilution series. In such an instance, the 0.5 dilution series may be altered by including an additional test concentration equal to the permit limit in the dilution series, or by changing the concentration closest to the permit toxicity limit to be equal to that limit. The Department recommends the use of the 0.75 dilution factor using Table 1.0 to determine test concentrations. That table establishes test concentrations based on the chronic toxicity limitation.

For either the 0.5 or 0.75 dilution factor, there shall be at least one test concentration above the permit limitation and at least three test concentrations below the permit limit along with the dilution water control unless the permit limitation prohibits such (e.g., limitations greater than 75% effluent). An effort shall be made to bracket the anticipated test result.

To use Table 1.0, locate the permit limit in column 4. The dilution series becomes the row that corresponds to the permit limit in column 4. For example, a permit limit of 41 would require a dilution series of the dilution water control, 17%, 23%, 31%, 41% and 55% effluent.

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.

**Table 1.0: 0.75 DILUTION SERIES INDEXED BY PERMIT LIMIT**

			Permit Limit					Permit Limit			
Col #	1	2	3	4	5	Col #	1	2	3	4	5
	0.4	0.6	0.8	1	1.3		22	29	38	51	68
	0.8	1.1	1.5	2	2.7		22	29	39	52	69
	1.3	1.7	2.3	3	4		22	30	40	53	71
	1.7	2.3	3	4	5.3		23	30	41	54	72
	2.1	2.8	3.8	5	6.7		23	31	41	55	73
	2.5	3.4	4.5	6	8		24	32	42	56	75
	3	4	5	7	9		24	32	43	57	76
	3	5	6	8	11		24	33	44	58	77
	4	5	7	9	12		25	33	44	59	79
	4	6	8	10	13		25	34	45	60	80
	5	6	8	11	15		26	34	46	61	81
	5	7	9	12	16		26	35	47	62	83
	5	7	10	13	17		27	35	47	63	84
	6	8	11	14	19		27	36	48	64	85
	6	8	11	15	20		27	37	49	65	87
	7	9	12	16	21		28	37	50	66	88
	7	10	13	17	23		28	38	50	67	89
	8	10	14	18	24		29	38	51	68	91
	8	11	14	19	25		29	39	52	69	92
	8	11	15	20	27		30	39	53	70	93
	9	12	16	21	28		30	40	53	71	95
	9	12	17	22	29		30	41	54	72	96
	10	13	17	23	31		31	41	55	73	97
	10	14	18	24	32		31	42	56	74	99
	11	14	19	25	33		32	42	56	75	100
	11	15	20	26	35	24	32	43	57	76	
	11	15	20	27	36	24	32	43	58	77	
	12	16	21	28	37	25	33	44	59	78	
	12	16	22	29	39	25	33	44	59	79	
	13	17	23	30	40	25	34	45	60	80	
	13	17	23	31	41	26	34	46	61	81	
	14	18	24	32	43	26	35	46	62	82	
	14	19	25	33	44	26	35	47	62	83	
	14	19	26	34	45	27	35	47	63	84	
	15	20	26	35	47	27	36	48	64	85	
	15	20	27	36	48	27	36	48	65	86	
	16	21	28	37	49	28	37	49	65	87	
	16	21	29	38	51	28	37	50	66	88	
	16	22	29	39	52	28	38	50	67	89	
	17	23	30	40	53	28	38	51	68	90	
	17	23	31	41	55	29	38	51	68	91	
	18	24	32	42	56	29	39	52	69	92	
	18	24	32	43	57	29	39	52	70	93	
	19	25	33	44	59	30	40	53	71	94	
	19	25	34	45	60	30	40	53	71	95	
	19	26	35	46	61	30	41	54	72	96	
	20	26	35	47	63	31	41	55	73	97	
	20	27	36	48	64	31	41	55	74	98	
	21	28	37	49	65	31	42	56	74	99	
	21	28	38	50	67	32	42	56	75	100	

\* Select the dilution series by finding the row which contains the permit limit in column #4.  
NOTE: All values are in units of "% effluent" not toxic units.

## 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 a dilution water for a permittee may not be changed without the prior approval of the Department.

The standard test salinity shall be 25 ppt, except for *Champia parvula*, which shall be tested at 30 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 strongly 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 a 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. Reconstituted water and DMW should be prepared with Millipore Super Q<sup>R</sup> 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 industrial dischargers with a combined process/sanitary waste stream, effluent sampling shall be after chlorination, unless otherwise designated in the 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. At a minimum, three samples shall be collected as specified above, one every other day. The first sample shall be used for test initiation and the first renewal. The second sample for the next two renewals. The third sample shall be used for the final three renewals. For the *Champia* and *Selenastrum* tests, a single sample shall be collected not more than 24 hours prior to test initiation. No effluent sample shall be over 72 hours old at the time of its use to initiate or renew solutions in a test. 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 will be 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. 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:

- pH and dissolved oxygen shall be measured at the beginning and end of each 24 hour exposure period, in at least one chamber, of the high, medium and low test concentrations 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 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 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.
- 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**

The use of both hypothesis testing techniques and point estimate techniques are currently in use by the Department or by permittees for compliance purposes. The NJPDES permit should be checked to determine which type of analysis is required and appropriate for each specific facility. It is not acceptable to simply evaluate any data by "visual data review" unless in the analysis of survival data, no mortality occurred in the test. All data sets must be appropriately statistically evaluated.

For hypothesis testing techniques, statistical analysis shall follow the protocols in USEPA (1988, 1989) to evaluate adverse effects. A significance level of 0.05 shall be utilized to evaluate such effects. Use of a protocol not contained in these documents must be accompanied by a reference and explanation addressing its

applicability to the particular data set. Please note the following when evaluating data using hypothesis testing techniques.

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.**

Where hypothesis testing is used for compliance purposes, if the results of hypothesis testing indicate that a deviation from the dose response occurs such that two test concentrations are deemed statistically significant from the control but an intermediate test concentration is not, the test is deemed unacceptable and cannot be used for compliance testing purposes.

For point estimate techniques, statistical analysis should follow the protocol contained in "A Linear Interpolation Method for Sublethal Toxicity: The Inhibition Concentration (IC<sub>p</sub>) Approach (Version 2.0), July 1993, National Effluent Toxicity Assessment Center Technical Report 03-93." Copies of the program can be obtained by contacting the Department. The linear interpolation estimate IC<sub>p</sub> values and not the bootstrap mean IC<sub>p</sub>, shall be reported for permit compliance purposes. The IC<sub>p</sub> value reported on the Discharge Monitoring Report shall be rounded off as specified in the Department's "Discharge Monitoring Report (DMR) Instruction Manual, December 1993." IC<sub>25</sub> values shall be reported under the parameter code listed as "NOEC" on the DMR, until the DMR's are adjusted accordingly.

If the result reported by the IC<sub>p</sub> method is greater than the highest concentration tested, the test result is reported as "greater than C" where "C" is the highest tested concentration. If the IC<sub>p</sub> is lower than the lowest concentration tested, the test result is reported as "less than C" where "C" is the lowest tested concentration.

If separate NOEC's/IC<sub>25</sub>'s can be calculated from multiple test endpoints, for example a reproductive endpoint and a growth endpoint, the lowest NOEC/IC<sub>25</sub> value expressed in units of "% effluent" will be used to determine permit compliance and should, therefore, be reported as the NOEC/IC<sub>25</sub> value for the test. If the NOEC value for growth and/or reproduction is not lower than that for survival, the NOEC/IC<sub>25</sub> 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 these acceptability criteria will not be used by the Department for any purpose and must be repeated as soon as practicable, with a freshly collected sample.

1. Tests must be performed by a laboratory approved for the conduct of chronic toxicity tests and certified for acute 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 or unrefrigerated samples or unapproved pretreatment of an effluent sample.
3. Controls shall meet 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.

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 $\geq 15$ 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%	0.2 mg per mysid avg	egg production by 50% of control females if fecundity is used as an endpoint.
<i>Champia parvula</i>	100%	N/A	$\geq 10$ cystocarps per plant Plants in controls and lower test concentrations shall not fragment so that individual plants cannot be identified.

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 should 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 either address listed in the reporting requirements section herein. The initial series of a least five SRT tests for a specific test species method shall be completed and approved in writing by the Department 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 should be conducted once per month for each species/method.
2. Where the laboratory purchases organisms from a laboratory certified in New Jersey for the conduct of acute toxicity testing and approved for the conduct of chronic toxicity testing for the test organism in question (i.e. the "supplier laboratory"), SRT data provided by the "supplier laboratory" 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 laboratory" 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 quarterly 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. For industrial laboratories certified under N.J.A.C. 7:18 to conduct acute toxicity tests, only the SRT testing conditions specified in 2. through 4. above apply. Where that laboratory/facility cultures their own test organisms, the frequency of SRT testing required will be determined on a case by case basis, based on the frequency of testing for that facility.

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 ten tests, a report shall be forwarded to the Department at the address contained herein. This report shall include any identified problem which caused the values to fall outside the expected range and the corresponding actions that have been taken by the laboratory. 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 ten test results which are outside the established upper and lower limits for a specific test species, the laboratory shall be unapproved to conduct chronic toxicity tests for compliance purposes for that test species. Reapproval shall 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**

Control charts shall be forwarded to the Department on an annual basis, on the anniversary of approval for the test species.

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 or at the request of the permittee, 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 appropriate biomonitoring program at the address above 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 for all endpoints analyzed shall be included with the report submitted to the Department. Two copies of all chronic toxicity test report forms shall be submitted to the following address as applicable:

New Jersey Department of Environmental Protection  
Division of Water Quality  
Bureau of Surface Water Permitting  
Mailcode 401-02B  
PO Box 420  
Trenton, NJ 08625-0420

It is not necessary to attach a copy of a test report form to the Discharge Monitoring Report (DMR) form when submitting this form to the Department. However, the results of all chronic toxicity tests conducted for compliance purposes 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
- G. *Champia parvula*, Sexual Reproduction Test, method 1009.0

## VIII. REFERENCES

1. Keating, K. 1985. The influence of Vitamin B12 deficiency on the reproduction of Daphnia pulex Leydig (Cladocera). J. Crustacean Biology 5:130-136.
2. Keating, K. 1988. N.J.D.E.P. Project C29589, Fiscal 1988 Third Quarter Summary Report. Producing Nutritionally Competent Daphnids for Use in Bioassay. 44p.
3. Keating, K., and B. Dagbusan. 1984. Effect of selenium deficiency on cuticle integrity in Cladocera (Crustacea). Proc. Natl. Acad. Sci. USA 81:3433-3437.
4. NJDEP, 1993. Discharge Monitoring Report (DMR) Instruction Manual.
5. USEPA. 1994. Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms. EPA-600/4-91-003. July 1994. Second Edition.
6. USEPA. 1994. Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. EPA/600/4-91/002. July 1994. Third Edition.

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MAILCODE 401-02B  
PO Box 420  
TRENTON, NEW JERSEY 08625-0420  
BIOMONITORING PROGRAM

**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: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**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.

Masterfile #: 3578

PI #: 46474

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
<b>RA-LA</b>	<b>Spray Irrigation within a fenced perimeter or otherwise restricted area</b>	<b>None</b>	<b>Approved</b>
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
<b>RA-CM</b>	<b>Street Sweeping</b>	<b>MUA Sewer Service Area</b>	<b>Approved</b>
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
<b>RA-IS</b>	<b>Sanitary Sewer Jetting</b>	<b>MUA Sewer Service Area</b>	<b>Approved</b>
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
<b>RA-IS</b>	<b>STP Washdown</b>	<b>Name of MUA</b>	<b>Approved</b>

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:  
[ben.manhas@dep.state.nj.us](mailto:ben.manhas@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), 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:  
[ben.manhas@dep.state.nj.us](mailto:ben.manhas@dep.state.nj.us)