



State of New Jersey

CHRIS CHRISTIE
Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Mail Code – 401-02B
Water Pollution Management Element
Bureau of Surface Water Permitting
P.O. Box 420 – 401 E State St
Trenton, NJ 08625-0420
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BOB MARTIN
Commissioner

KIM GUADAGNO
Lt. Governor

May 28, 2013

To: Distribution List

Re: Draft NJPDES Surface Water Master General Permit Renewal Statewide
Category: CG - General Non-Contact Cooling Water
NJPDES Permit No. NJ0070203
NJPDES MASTER GENERAL PERMIT

Dear Permittee:

Enclosed is a **draft** New Jersey Pollutant Discharge Elimination System (NJPDES) Discharge to Surface Water (DSW) Non-Contact Cooling Water (NCCW) Master General Permit which has been issued in accordance with N.J.A.C. 7:14A-1 et seq., the NJPDES Regulations. This master general permit serves to renew the existing Non-Contact Cooling Water General Permit which expired on October 31, 2011. However, provided that the current applicant(s) have filed a timely request for authorization, the conditions of the expired general NCCW permit are continued in force until the effective date of authorization under a general permit renewal, in accordance with N.J.A.C. 7:14A-2.8(a).

Notice of this draft permit action will appear in the following newspapers to represent all New Jersey counties as well as in the April 17, 2013 *DEP Bulletin*. The *DEP Bulletin* is available on the internet at <http://www.state.nj.us/dep/bulletin>. In accordance with N.J.A.C. 7:14A-15.10(c)1i, the public comment period will close thirty days after its appearance in the newspaper.

Newspaper	County
<i>Asbury Park Press</i>	Monmouth and Ocean
<i>The Press of Atlantic City</i>	Atlantic and Cape May
<i>Courier Post Newspaper</i>	Camden, Gloucester and Burlington
<i>Daily Journal</i>	Cumberland
<i>Star Ledger</i>	Bergen, Essex, Hudson, Hunterdon, Middlesex, Morris, Passaic, Somerset, Sussex, Union and Warren
<i>Trenton Times</i>	Mercer
<i>Today's Sunbeam</i>	Salem

As detailed in the *DEP Bulletin* and the aforementioned newspapers, comments must be submitted in writing to Pilar Patterson, Chief, Bureau of Surface Water Permitting, Division of Water Quality, Mail Code: 401-02B, P.O. Box 420, Trenton, NJ 08625 by the close of the public comment period. All persons, including the applicant, who believe that any condition of this draft document is inappropriate or that the Department's tentative decision to issue this draft document is inappropriate, must raise all

reasonable arguments and factual grounds supporting their position, including all supporting materials, during the public comment period.

The Department will respond to all significant and timely comments upon issuance of the final document. The permittee and each person who has submitted written comments will receive notice of the Department's final decision to issue, revoke, or redraft the document.

A copy of this document is available in the Division of Water Quality website at http://www.nj.gov/dep/dwq/gp_CG.htm.

New applicants must REQUEST AUTHORIZATION to be covered under the general permit by submitting an application form and a CG – Certification form that can be obtained from NJDEP's Division of Water Quality web site. A guidance checklist for filing a request for authorization application for this general permit is also available. The checklist and the application form are available at <http://www.state.nj.us/dep/dwq/forms.htm>.

The Department has included a list of facilities currently authorized under the existing NCCW general permit as well as some facilities that it proposes to cover with the issuance of this renewal general NCCW permit. The Department intends to issue individual authorizations for all facilities listed below, upon finalization of this master general NCCW permit.

<i>No.</i>	<i>NJPDES No. NJG0</i>	<i>Facility Name</i>	<i>Township</i>	<i>County</i>
1	000329	Newark Refrigerated Warehouse Corporation	Newark	Essex
2	001651	Givaudan Flavors Corporation	East Hanover	Morris
3	002011	Sika Corporation	Lyndhurst	Bergen
4	002291	Schering Corporation	Union Township	Union
5	003077	Christ Church	Rockaway	Morris
6	004880	General Mills/Progressive Foods	Vineland	Cumberland
7	027618	Bristol Myers-Squibb Co.	Lawrenceville	Mercer
8	029947	Solar Products	Pompton Lakes	Passaic
9	030457	Passaic Rubber Co.	Wayne	Passaic
10	031216	Menu Foods	Pennsauken	Camden
11	033146	Custom Chemicals	Elmwood Park	Hunterdon
12	034118	United States Gypsum Corporation	Woodbridge	Middlesex
13	034185	Hoffman-La Roche	Nutley	Bergen
14	034835	Ferro Corporation	South Plainfield	Middlesex
15	035238	Colgate	Morristown	Morris
16	068802	Ronald Mark Associates	Hillside Township	Union
17	073741	Honeyware, Inc.	Kearny	Hudson
18	088404	PDQ Plastics	Bayonne	Hudson
19	108367	U.S. Postal Service	Kearny	Hudson
20	109223	Hall Manufacturing Corporation	Ringwood	Passaic
21	113433	Sanofi-Aventis US	Bridgewater Twsp.	Somerset
22	128562	Church & Dwight Co.	Lakewood	Ocean
23	134902	Kappus Plastic Co.	Hampton Boro.	Hunterdon
24	142743	Seoul Trading USA	Englewood	Bergen
25	169897	Taylor's Farms NJ Inc. (formerly Univeg)	Swedesboro	Gloucester
26	169943	NJ1 Data Center	Piscataway	Middlesex
27	169994	ConvaTec Inc	Skillman	Somerset
28	177491	Cervalis, LLC (50 Madison Road)	Totowa	Passaic

29	177539	Credit Suisse (201 Main Avenue)	City of Clifton	Passaic
30	179744	High Performance Research	Plainsboro	Middlesex
31	182176	Capital Health, Inc.	Hopewell Twsp.	Mercer
32	205290	J P Morgan Chase Bank	Morristown	Morris

If you have questions or comments regarding the draft action, please contact Ben Manhas via email at ben.manhas@dep.state.nj.us or via telephone at (609) 292-4860.

Sincerely,



Daveki Key Moore, Supervising Environmental Specialist
Bureau of Surface Water Permitting

Enclosures

c: Permit Distribution List

Masterfile #: 39609; PI #: 50577

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

PUBLIC NOTICE

Notice: ISSUANCE OF DRAFT GENERAL PERMIT TO DISCHARGE THERMALLY IMPACTED WATER

Notice is hereby given that the New Jersey Department of Environmental Protection (NJDEP) proposes to renew the New Jersey Pollutant Discharge Elimination System (NJPDES) Discharge to Surface Water (DSW) Non-Contact Cooling Water (NCCW) Master General Permit NJ0070203 in accordance with N.J.A.C. 7:14A-1 et seq., and by authority of the Water Pollution Control Act at N.J.S.A. 58:10A-1 et seq.

This General Permit is issued in order to authorize the discharge of thermally impacted water into surface waters of the State or via separate storm sewers, except those waters classified as FW-1, category one (C1) waters or within the Pinelands. This permit proposes to authorize discharges of non-contact cooling water, non-contact cooling water commingled with stormwater, cooling tower blowdown, boiler blowdown, air conditioning condensate or any other thermally impaired non-contact cooling water at temperatures not exceeding 86° F (30°C), to State surface waters of the State. The NJDEP has determined that these types of point sources require the same effluent limitations or operating conditions, require the same or similar monitoring conditions, and are more appropriately controlled under a general permit authorization than under individual permit authorizations.

Discharges of contact cooling and non-contact cooling water with certain biocides such as chlorine or corrosion inhibitors such as Copper, Chromium and Zinc are not covered by this General Permit. These facilities must apply for an individual permit covered by discharge category "B" – Industrial/Commercial Surface Water Discharge.

Discharges of non-contact cooling water which use ground water or surface water as their water source must analyze this water to show that no contamination, other than those pollutants regulated by this permit exists in their cooling water. For potentially contaminated water sources, an analysis to determine if the discharge will cause an excursion above a water quality standard will be performed by the Department to determine if the pollutant must be regulated. If the analysis indicates that more stringent regulation is warranted, the discharger will not be deemed qualified for this general permit and an individual permit would have to be issued by the Department.

A draft NJPDES permit renewal has been prepared for this facility based on the administrative record filed at the NJDEP, 401 East State Street, Trenton, New Jersey 08625. Copies of the draft document are available in the Division of Water Quality website at http://www.nj.gov/dep/dwq/gp_CG.htm or are obtainable, for a nominal charge, and the administrative record is available for inspection by appointment only, Monday through Friday. If you are interested in scheduling an appointment or requesting specific information regarding the draft document, contact Ben Manhas of the Bureau of Surface Water Permitting at (609) 292-4860.

Official comments must be submitted in writing to Mail Code 401 – 02B, Bureau of Surface Water Permitting, P.O. Box 420, Trenton, NJ 08625 by the close of the public comment period, which closes thirty calendar days after publication of this notice in the newspaper. All persons, including the applicant, who believe that any condition of this draft document is inappropriate or that the Department's decision to issue this draft document is inappropriate, must raise all reasonable arguments and factual grounds supporting their position, including all supporting materials, during the public comment period. NJDEP will consider and respond to all significant and timely submitted comments. The applicant, and each person who submitted written comments, will receive notice of NJDEP's final decision to issue, deny or redraft the document.

Because any permittee eligible for this general permit has the option of requesting an individual NJPDES permit and since new applicants must request authorization to be regulated under the general permit, an individual

authorization under the master NCCW permit cannot be adjudicated. Individual NJPDES permits are subject to the adjudication proceedings pursuant to N.J.A.C. 7:14A-17 et seq.

For a list of facilities currently authorized under the existing NCCW general permit as well as facilities proposed to be covered by the issuance of this general permit, please see the cover letter or the fact sheet of this permit.



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: NJ0070203

Draft: Surface Water Master General Permit Renewal

Permittee:

NJPDES Master General Permit Program Interest
 Category CG
 Per Individual Notice of Authorization
 Division of Water Quality
 Mail Code 401-02B
 P.O. Box 420, 401 East State Street
 Trenton, NJ 08625-0420

Co-Permittee:

Property Owner:

NJPDES Master General Permit Program Interest
 Category CG
 Per Individual Notice of Authorization
 Division of Water Quality
 Mail Code 401-02B
 P.O. Box 420, 401 East State Street
 Trenton, NJ 08625-0420

Location Of Activity:

NJPDES Master General Permit Program Interest
 Category CG
 Per Individual Notice of Authorization
 Division of Water Quality
 Mail Code 401-02B
 P.O. Box 420, 401 East State Street
 Trenton, NJ 08625-0420

Authorization(s) Covered Under This Approval	Issuance Date	Effective Date	Expiration Date
CG -Gen Non-Contact Cooling Water			

**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

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

FACT SHEET

Masterfile #: 39609

PI #: 50577

This fact sheet sets forth the principle facts and the significant factual, legal, and policy considerations examined during preparation of the draft master general permit. This action has been prepared in accordance with the New Jersey Water Pollution Control Act and its implementing regulations at N.J.A.C. 7:14A-1 et seq. - The New Jersey Pollutant Discharge Elimination System (NJPDES).

**PERMIT ACTION: Discharge to Surface Water Permit Renewal Action
Master General Permit for the use of Non-Contact Cooling Water**

1 Description of Master General Non Contact Cooling Water (NCCW) Permit:

In accordance with N.J.A.C. 7:14A-6.13(c), the New Jersey Department of Environmental Protection (NJDEP) is renewing the Master General Non-Contact Cooling Water Permit. Non-contact cooling water is water that is used to cool down various types of industrial and manufacturing equipment without directly coming into contact with facility processes. Facilities that qualify to be covered by this permit are those that discharge non-contact cooling water, non-contact cooling water that commingles with stormwater, cooling tower blowdown, boiler blowdown or bleedoff, and/or air conditioning condensate water at temperatures not exceeding 86°F to State surface waters. The boiler water discharge (i.e., blowdown and boiler bleed-off) is a new category that the Department is proposing to include in this renewal permit. The Department evaluated available effluent characterization data from this category of discharges, that had been issued individual permit authorizations, and has determined that no additional requirements were required under their individual permits. The effluent data for these facilities meet the eligibility criteria proposed under this general permit. Therefore, the Department has decided to include boiler blowdown and boiler bleedoff in this permit. As a result, by not compromising the protection of the surface water in any way, the Department can issue permits for these discharges in an expeditious manner through general permit authorizations.

This general permit excludes those facilities that discharge to receiving waterbodies classified as FW1 (category one) or located within the Pinelands District. The discharges of contact cooling water and non-contact cooling water with corrosion inhibitors (such as Copper, Chromium and Zinc) or certain biocides are not covered by this General Permit. These facilities must apply for an individual permit covered by discharge category "B" – Industrial/Commercial Surface Water Discharge. The effluent quality of the discharges containing these corrosion inhibitors or biocides varies greatly. Therefore, those discharges were not included in this permit, as the general permit would have become too complex, thereby defeating the purpose of facilitating the issuance of expedited permit authorizations.

Discharges of non-contact cooling water which use ground water or surface water as their water source must analyze the source water for priority pollutants to show that no contamination, other than those pollutants regulated by this permit exists in their cooling water. For water sources with detected levels of pollutants, an analysis of the data will be performed by the Department to determine if the pollutant will cause an excursion above the water quality standard. If the analysis indicates that regulation is warranted, the discharger will be deemed not qualified for this general permit and an individual permit would have to be issued by the Department.

Pursuant to N.J.A.C. 7:14A-6.13(b)4 of the NJPDES Regulations, the NJDEP has determined that the non-contact cooling water permit category requires the same effluent limitations or operating conditions, requires the same or similar monitoring conditions, and is easily controlled under a general permit. Issuance of this general permit serves to

simplify and streamline the NJPDES permitting process for these similar types of discharges. Applicants must request authorization to be covered under the general permit by submitting appropriate NJPDES application forms.

Any individual authorization issued under the NCCW permit is given two NJPDES numbers. The NJPDES number on the individual authorization page will be specific to the individual facility whereas the NJPDES number NJ0070203 of the master general permit is designated for the master NCCW permit.

2 Name and Address of the Applicant:

Indicated on individual authorizations.

3 Name and Address of the Facility/Site:

Indicated on individual authorizations.

4 Discharge Location Information and Receiving Waterbody Classification:

The receiving waterbody classification and outfall name for each discharge is indicated on the individual authorization page for each facility. A copy of the appropriate section of a USGS quadrangle map indicating the location of the facility and discharge point(s) is also included in each individual authorization.

Receiving waterbody classifications are obtained from N.J.A.C. 7:9B-1.1 *et seq.*, the New Jersey Surface Water Quality Standards (NJSWQS). In accordance with the NJSWQS, saline waters are considered to be those waters classified as SE1, SE2, SE3, or SC and fresh waters are considered to be those waters classified as FW1 or FW2 waters. For waters with two classifications (e.g. FW2-NT/SE1), the waterbody is defined as saline if the result of the salinity measurement exceeds 3.5 parts per thousand at mean high tide or as fresh if the salinity is less than or equal to 3.5 parts per thousand, in accordance with N.J.A.C. 7:9B-1.4. With respect to the Delaware River, where the classifications are specified as zones, the Delaware Memorial Bridge is the approximate location of the interface between fresh and saline waters; therefore, discharges north of the Delaware Memorial Bridge will be considered to be discharging to fresh waters and discharges south of the Delaware Memorial Bridge will be considered to be discharging to saline waters.

5 Type and Quantity of the Wastes or Pollutants:

The Permit Summary Table near the end of this fact sheet contains a summary of the quantity and quality of pollutants treated and discharged from the facilities covered under this NCCW permit. Effluent data was obtained from the Monitoring Report Forms for the time period specified in the table for all facilities covered under the existing NCCW permit.

Data Analyzed for the General NCCW Permit – Non-contact cooling water only:

Discharge Monitoring Report data (September 2006 till January 2012) from the 20 facilities discharging only NCCW was reviewed and is summarized in the permit summary table of this fact sheet.

Data Analyzed for the General NCCW Permit – Non-contact cooling water commingled with stormwater:

Among the facilities that were discharging non-contact cooling water commingled with stormwater (13 facilities) during the September 2006 till January 2012 period, Discharge Monitoring Report (DMR) data collected for these facilities is also summarized in the permit summary table of this fact sheet.

Facilities that wish to be covered by this general permit using a corrosion inhibitor or biocide to prevent fouling of their cooling system may be eligible for this permit. However, Material Safety Handling Data Sheets (MSDS) as well as dosing frequency and amounts must be provided to the Department so that an evaluation can be made whether the facility can be regulated by this permit can be made. The discharges of contact cooling water, and non-contact cooling

water with certain biocides such as chlorine or corrosion inhibitors such as copper, chromium and zinc are not covered by this general permit. These facilities must apply for an individual permit covered by discharge category “B” (Industrial/Commercial Surface Water Discharge).

6 Description of Facilities Covered by this Master NCCW General Permit:

The existing NCCW permit expired on October 31, 2011. Therefore, provided that these applicants had filed a timely request for authorization, the conditions of the expired general NCCW permit are continued in force until the effective date of authorization under a general permit renewal, in accordance with N.J.A.C. 7:14A-2.8(a). This permit will allow facilities to discharge non-contact cooling water, non-contact cooling water commingled with stormwater, cooling tower blowdown, boiler blowdown or bleedoff, air conditioning condensate or any other non-contact thermally impaired water not exceeding 86 degrees Fahrenheit. The Department intends to issue individual authorizations for all facilities listed below, upon finalization of this master general NCCW permit.

Applicants for the general NCCW permit are as follows:
 Table I

<i>No.</i>	<i>NJPDES #</i>	<i>Facility</i>	<i>Township</i>	<i>County</i>	<i>Includes Stormwater</i>
1	000329	Newark Refrigerated Warehouse Corp.	Newark	Essex	N
2	001651	Givaudan Flavors Corporation	East Hanover	Morris	N
3	002011	Sika Corporation	Lyndhurst	Bergen	Y
4	002291	Schering Corporation *	Union Township	Union	Y
5	003077	Christ Church	Rockaway	Morris	N
6	004880	General Mills/Progressive Foods	Vineland	Cumberland	N
7	027618	Bristol Myers-Squibb Co.	Lawrenceville	Mercer	Y
8	029947	Solar Products	Pompton Lakes	Passaic	N
9	030457	Passaic Rubber Co.	Wayne	Passaic	N
10	031216	Menu Foods	Pennsauken	Camden	Y
11	033146	Custom Chemicals	Elmwood Park	Hunterdon	Y
12	034118	United States Gypsum Corporation	Woodbridge	Middlesex	Y
13	034185	Hoffman-La Roche	Nutley	Bergen	Y
14	034835	Ferro Corporation	South Plainfield	Middlesex	Y
15	035238	Colgate	Morristown	Morris	Y
16	068802	Ronald Mark Associates	Hillside Twsp.	Union	N
17	073741	Honeyware, Inc.	Kearny	Hudson	N
18	088404	PDQ Plastics	Bayonne	Hudson	Y
19	108367	U.S. Postal Service	Kearny	Hudson	N
20	109223	Hall Manufacturing Corporation	Ringwood	Passaic	N
21	113433	Sanofi-Aventis US	Bridgewater Twsp.	Somerset	Y
22	128562	Church & Dwight Co.	Lakewood	Ocean	N
23	134902	Kappus Plastic Co.	Hampton Boro	Hunterdon	N
24	142743	Seoul Trading USA	Englewood	Bergen	N
25	169897	Taylor Farms NJ Inc. (formerly Univeg)	Sweedsboro	Gloucester	N
26	169943	NJ1 Data Center	Piscataway	Middlesex	Y
27	169994	ConvaTec Inc	Skillman	Somerset	Y
28	177491	Cervalis, LLC (50 Madison Rd)	Totowa	Passaic	N
29	177539	Credit Suisse (201 Main Avenue)	City of Trenton	Passaic	N
30	179744	High Performance Research	Plainsboro	Middlesex	N
31	182176	Capital Health, Inc.	Hopewell Twsp.	Mercer	N
32	205920	J P Morgan Chase Bank	Morristown	Morris	N

* Facility w/commingled boiler blowdown.

An applicant that does not appear on the above list must REQUEST AUTHORIZATION to be covered under the general permit by obtaining forms from NJDEP's web site at <http://www.state.nj.us/dep/dwq>. A guidance checklist for filing a request for authorization application for this general permit is also available. Upon receipt of an individual request for authorization under this general permit, the permittee will be required to discharge in compliance with limitations, conditions and/or monitoring requirements for parameters authorized under this general permit in accordance with Federal and State Regulations and in a manner that will not cause violation of State Surface Water Quality Standards, N.J.A.C. 7:9B-1.1 et seq. In accordance with N.J.A.C. 7:14A-22.1 et seq., a complete application may be required for a Treatment Works Approval (TWA) for any existing or proposed treatment units.

All facilities considered eligible under this master general permit are considered minor facilities by the Department in accordance with the United States Environmental Protection Agency (EPA) rating criteria.

There are two effluent limitation tables in Part III (Table 1A and Table 1B) contained in this general permit for NCCW applicants that discharge into eligible waters classified as FW2-NT, FW2-TM, FW2-TP, SE or SC.

- Table 1A – This table applies to all applicants that discharge non-contact cooling water, cooling tower blowdown, boiler blowdown, and/or air conditioning condensate to surface waters of the State.
- Table 1B – This table applies to all applicants that discharge non-contact cooling water, cooling tower blowdown, boiler blowdown, and/or air conditioning condensate **which is commingled with stormwater** to surface waters of the State.

7 Designation of Outfalls:

The table(s) and effluent limits, which are appropriate to the site-specific conditions of the discharge activity, will be specified for each individual authorization in Part III. More than one table may be appropriate for a particular facility provided different discharge activities are proposed. In the event that more than one table is applied in the individual authorization, the outfalls will be assigned a different number (i.e. 001A and 002A). This will enable both the Department and the permittee to differentiate between the different activities as well as the different permit requirements and corresponding monitoring report information.

8 History of NCCW Permit:

The first master NCCW permit was issued on August 30, 1985. This NCCW permit was tracked as “Category CG” in the Department’s database. The permit served to expedite the issuance of individual NJPDES permits and was limited to facilities that discharged only non-contact cooling water from cooling tower blowdown and air conditioning condensate.

The general permit was renewed on June 15, 1994 and again on May 30, 2000. The May 2000 master NCCW permit contained several differences from the June 15, 1994 master permit. Some of the requirements included in that permit were as follows:

- Inclusion of monitoring for chlorine produced oxidants for facilities that utilized potable water supplied by a water purveyor.
- Inclusion of monitoring for acute and chronic whole effluent toxicity testing.
- Inclusion of a reduced monitoring frequency for facilities with a minimum of three consecutive years of consistent compliance data for all regulated parameters.

The 2006 master NCCW renewal permit incorporated the following changes:

- Allowed for facilities that have commingled (NCCW combined with stormwater) water to discharge in accordance with the requirements of the NCCW general permit.
- Required all facilities, at a minimum, to conduct one chronic whole effluent toxicity test.
- Inclusion of Toxicity Investigation requirements, if applicable chronic toxicity threshold is exceeded.

This master NCCW renewal permit incorporates the following changes:

- Allows discharge boiler water such as boiler blowdown and boiler bleedoff to discharge in accordance with the requirements incorporated in this permit.
- Utilizing the consistent compliance history of all permitted NCCW dischargers, modified the monitoring and reporting requirements for the existing NCCW facilities and also made them applicable to new discharges.
- Allows a provision to utilize non-contact cooling water for restricted access - reclaimed water for beneficial reuse (RWBR).

9 Background to the Selection of Regulated Parameters for all Tables:

Data (September 2006 – January 2012) gathered from the existing NCCW general permit facilities have been tabulated below.

Parameter	NCCW Avg./ Max.	data points	NCCW & Stormwater Avg./ Max.	data points
Flow, In Conduit or Thru Treatment Plant, MGD	0.105 / 14.5	443	0.06 / 3.18	447
Chlorine Produced Oxidants, mg/L	0.16 / 1.18	61	0.220 / 2.0	72
Oxygen Demand, Chem. (High Level) (COD), mg/L	15.58 / 210 *	279	23.7 / 370 **	173
Petroleum Hydrocarbons, mg/L	3.9 / 12.8	140	4.25 / 10	206
pH (Min/Max), standard units	5.78 / 8.9	242	6.1 / 9.58	277
Solids, Total Suspended, mg/L	5.55 / 215 ***	235	6.37 / 71	250
Temperature, °C	19.18 / 33.5	447	18.29 / 35.8	432
Carbon, Tot Organic (TOC), mg/L	23.2 / 23.2	1	8.15 / 24.3	59
IC25 Statre 7day Chronic Ceriodaphnia	6.8% - >100%	17	27.6% - >100%	10
IC25 Statre 7day Chronic Mysid Bahia	>100%	1	>100%	1

* facility had initial start-up compliance problems. However, most recent data (since Feb. 2007) has shown consistence compliance.
 ** discharge value was not consistent with other values taken from the same facility over a 5 year period (outlier value).
 *** facility had initial start-up compliance problems. However, most recent data (since Jan. 2007) has shown consistence compliance.

Although the limitations and monitoring conditions for CPO have been listed in this general permit, the requirement to include the parameter in the individual authorization will depend on the source water used for cooling, as well as data that was gathered in the previous permit authorization.

Based on the analysis of the data collected during the last permit cycle, as a minimum requirement, all applicants are required to conduct a minimum of one chronic whole effluent toxicity test. The Department will also continue to allow applicants to demonstrate that any interference resulting from the source of cooling water to make Total Organic Carbon a more appropriate parameter to regulate than the default parameter of Chemical Oxygen Demand.

Each permittee's monitoring requirements and effluent limitations for CPO as well as COD or TOC will be specified in the permittee's effluent limitations table of their individual permit authorization.

The Department has retained effluent limitations and/or monitoring requirements for flow, pH, Total Suspended Solids, Oil and Grease and Temperature in the master NCCW permit renewal. The majority of these parameters are generally regulated in all NJPDES/DSW permits throughout the State of New Jersey for all types of wastewater discharges.

Due to the fact that all discharge outfall(s) regulated by this general permit prohibit the discharge of a sanitary waste stream, the parameters Fecal Coliform, E. Coli or Enterococci are not regulated in this permit. For this reason, there is also no need to monitor this parameter if the discharge will be used for restricted access Reclaimed Water for Beneficial Reuse (RWBR).

10 Description of Limitations and Conditions for all Tables:

A. Basis for Effluent Limitations and Permit Conditions - General

The effluent limitations and permit conditions in this permit have been developed to ensure compliance with the following:

1. NJPDES Regulations (N.J.A.C. 7:14A),
2. New Jersey Surface Water Quality Standards (N.J.A.C. 7:9B),
3. Water Quality Regulations of the Delaware River Basin Commission (N.J.A.C. 7:9B-1.5(b)1),
4. Wastewater Discharge Requirements (N.J.A.C. 7:9-5.1 *et seq.*),
5. Existing permit limitations in accordance with N.J.A.C. 7:14A-13.19 and 40 CFR 122.44 (antibacksliding requirements),
6. Permit limitations in accordance with N.J.A.C. 7:9B-1.5(d) (antidegradation requirements),
7. Statewide Water Quality Management Planning Rules (N.J.A.C. 7:15).

Technology based limitations are authorized by Section 301 of the Clean Water Act, 40 CFR 122, N.J.S.A. 58:10A-4, and N.J.A.C. 7:14A-13.2(a)1.ii., 13.3(b), and 13.4. BPJ determinations are authorized by Section 402 (a)(1) of the Clean Water Act.

In accordance with N.J.A.C. 7:14A-13.5, Water Quality Based Effluent Limitations (WQBELs) are imposed when it has been determined that the discharge of a pollutant causes an excursion of criteria specified in the New Jersey Surface Water Quality Standards (NJSWQS), N.J.A.C. 7:9B-1.1 *et seq.*, and the Federal Water Quality Standards, 40 CFR Part 131. WQBELs are authorized by Section 301 of the Clean Water Act, 40 CFR 122, N.J.S.A. 58:10A-4, and N.J.A.C. 7:14A-13.2 and 13.3. The policies used to develop WQBELs are contained in the State and Federal Standards. Specific procedures, methodologies, and equations are contained in the current USEPA "Technical Support Document for Water Quality-based Toxics Control" (TSD) (EPA- 505/2-90-001) and are referenced in N.J.A.C. 7:14A-13.5 and 13.6.

Expression of all effluent limitations is in accordance with N.J.A.C. 7:14A-13.14 and 13.15. The monitoring and reporting requirements for new dischargers are consistent and similar to the existing NCCW facilities. Whole effluent toxicity limitations are expressed as a minimum as a percent.

This permit action does not authorize any increase in the concentration or loading of pollutants above those levels authorized under the existing permit. All permit limitations and conditions in this permit action are equal to or more stringent than those contained in the existing permit action for facilities currently covered by the general NCCW permit. As a result, this permit action satisfies the federal and state anti-degradation regulations at 40 CFR 131.12 and N.J.A.C. 7:9B-1.5(d), and no further anti-degradation analysis is necessary.

B. Basis for Effluent Limitations and Permit Conditions - Specific

Dilution Credit

The Department has not considered site-specific dilution effects in the application of any effluent limits in this master NCCW permit for new discharges. Consideration of site-specific dilution effects for each individual discharger is not feasible for a master general permit where effluent limits and conditions need to be streamlined. In addition, the majority of NCCW discharges are routed to the receiving waterbody via storm sewers where the Department does not typically allow for dilution credit.

Basis for Requirements (for Individual Parameters) Included in Part III Tables 1A and 1B

Flow

This permit does not include a numerical limitation for flow. Monitoring conditions are applied pursuant to N.J.A.C. 7:14A-13.13. Monitoring for this parameter shall be quarterly.

Temperature, pH, Total Suspended Solids, Petroleum Hydrocarbons, Chemical Oxygen Demand

The limitations for Temperature, pH, TSS, PHC and COD are consistent with the December 8, 1978 "Permit Development Guidance for Cooling Water - Surface Water Runoff" from John S. Frisco, Chief - Toxic and Inorganic Waste Section, USEPA, Region II and the September 5, 1991 "EPA Region II Revised Guidance for cooling Water and Stormwater Runoff" from John S. Kushwara, Acting Chief, Water Permits and Compliance Branch, USEPA, Region II.

Monitoring for these parameters is consistent with the previous permit for existing dischargers with consistent compliance.

Total Organic Carbon

The limitation and conditions for Total Organic Carbon (TOC) are carried forward from the previous permit for the renewal and will be imposed on those new applicants that demonstrate to the satisfaction of the Department that any interference (i.e. high salts) resulting from the source of the non-contact cooling water may cause the facility to violate the Chemical Oxygen Demand limitation. The limitation and conditions for TOC are consistent with the anti-backsliding provision of N.J.A.C. 7:14A-13.19 and 40 CFR 122.44, which mandate that the limits be carried forward from the previous permit unless more stringent limits are necessary. The limitations and conditions are consistent with the December 8, 1978 "Permit Development Guidance for Cooling Water - Surface Water Runoff" from John S. Frisco, Chief - Toxic and Inorganic Waste Section, USEPA, Region II and the September 5, 1991 "EPA Region II Revised Guidance for Cooling Water and Stormwater Runoff" from John S. Kushwara, Acting Chief, Water Permits and Compliance Branch, USEPA, Region II. The permittee's individual permit authorization will reflect if this parameter will be regulated.

Monitoring for this parameter shall be twice per year.

Chlorine Produced Oxidants

Chlorine has been proven to be toxic to aquatic biota. Applicants using Chlorine as a biocide do not qualify for this general permit, although low levels of Chlorine are commonly found in public water supplies. Water companies use chlorine to control bacterial growth in the water supply as well as in the distribution pipes. For this reason, monitoring and limitations were required under the previous permit. A review of the DMR database has indicated that CPO levels exist above the proposed discharge limit of 0.10 mg/l for several dischargers. Therefore, the existing limitation of 0.1 mg/l is retained from the existing master general NCCW permit for the renewal consistent with the anti-backsliding

provision of N.J.A.C. 7:14A-13.19 and 40 CFR 122.44. This general permit also retains coverage of facilities that discharge NCCW commingled with stormwater. CPO data will continue to be regulated for these facilities if the cooling water is provided by a public water supply company. The permittee's individual authorization under this general permit will reflect if this parameter will be regulated.

Monitoring for this parameter shall be twice per year.

Whole Effluent Toxicity

The amended Federal Clean Water Act mandates that the States include WQBELs in NPDES permits to insure that SWQS are met. These limitations are necessary in order to prevent instream violations of the numeric and narrative water quality criteria and to protect the aquatic biota. USEPA's NPDES regulations at 40 CFR 122.44 (d)(1) state that a determination must be made whether or not a discharge can cause an instream excursion of a narrative or numerical criteria. Accordingly, N.J.A.C. 7:14A-13.16(a)1 states that each surface water discharge permit shall include conditions to satisfy the requirements of the Federal Clean Water Act, which may include those necessary to control the discharge of toxic pollutants, including whole effluent toxicity.

Based on the USEPA's 1991 study on NCCW in Massachusetts and New Hampshire and the Department's June 1993 "Summary Report on Acute Toxicity Testing Performed on Non-Contact Cooling Water Discharges", the Department determined that it was necessary to further evaluate the toxicity of non-contact cooling water discharges in the state of New Jersey. Therefore, monitoring for toxicity (one acute and one chronic toxicity test) was included in the general NCCW permit that was issued on May 30, 2000 which expired on June 30, 2005.

Subsequently, an analysis of the toxicity tests data was performed by the Department to assess the toxicity and to determine if toxicity limitations are necessary in the 2000 non-contact cooling water general permit, in order to protect water quality and the aquatic biota. The Department had concluded that most facilities did not exhibit acute toxic levels and all effluent data collected during the last permit cycle has been greater than the acute whole effluent toxicity threshold value of $LC50 \geq 50\%$. However, there were a few facilities that showed chronic toxicity. These facilities did not evaluate what was causing the toxic results.

Rather than imposing chronic whole effluent toxicity requirements on all NCCW dischargers annually or more frequently during the term of the permit, in the 2006 general permit, the Department imposed monitoring (one chronic toxicity test) to be performed by all facilities regulated by the general permit. A chronic toxicity threshold of $IC25 \geq 61\%$ (the WQBEL based on a dilution factor of 1, an MA1CD10 and MA7CD10 value of $0.0 \text{ ft}^3/\text{s}$ and an ACR of 10) was used as a gage to evaluate toxicity. If the test results showed that the discharge was below the proposed toxicity threshold mentioned above, a Toxicity Investigation (TI) was to be conducted and submitted to the Department. If the test results showed that the discharge was above the proposed toxicity threshold mentioned above, the permittee had fulfilled the WET requirements.

The WET data resulted in 9 facilities exhibiting levels of toxicity below the threshold value. Of these facilities 4 of them re-tested and showed compliance with the toxicity threshold level. The remaining 5 facilities are currently under the Toxicity Investigation stage. Based on the above toxicity results, a conclusion regarding toxicity can not be made at this time. For this reason, the Department continues the toxicity test requirement for all dischargers to determine if there is an inherent toxicity problem consistent with N.J.A.C. 7:14A-6.2(a)12.

Species selection is based on N.J.A.C. 7:9B-1.5(f) and the Department's "Chronic Toxicity Testing Specifications for Use in the NJPDES Permit Program. In accordance with those regulations, freshwater dischargers will utilize the *Ceriodaphnia dubia*, when performing the chronic toxicity test. *Mysidopsis bahia*, the mysid, will be used for the chronic toxicity testing of saline water discharges. The species selection will be included in Part III of the individual authorization.

Effluent samples for the conduct of toxicity testing are to be collected at the effluent discharge pipe, consistent with the collection location for other parameters. Monitoring for this parameter shall be once per permit cycle and is consistent with the previous permit for existing dischargers.

The Toxicity Investigation (TI) requirements are included in accordance with N.J.A.C. 7:14A-13.17(a), 7:14A-6.2(a)5 and recommendations in Section 5.8 of the TSD. The requirements are necessary to ensure compliance with the applicable toxicity threshold. As included in section B of the TI requirements, the initial step of the TI is to identify the reason for the noncompliance and implement the necessary corrective measures to assure compliance with the chronic toxicity threshold.

The Department's "Chronic Toxicity Testing Specifications for Use in the NJPDES Permit Program, Version 2.1, May 1997" document, is included as Part V of this permit, in accordance with N.J.A.C 7:14A-6.8.

Stormwater Conditions (Conditions applicable to Table B)

In accordance with N.J.A.C.7:14A-6.13(c), facilities discharging non-contact cooling water that commingles with stormwater are qualified to be covered by this permit.

In case the permittee eliminates the non-contact cooling water discharge, permit coverage may still be required for the remaining stormwater discharge(s) associated with industrial activities at the facility in accordance with N.J.A.C. 7:14A-24.2. In that case, the remaining discharge(s) will no longer be authorized by this general permit and a separate permit coverage for the regulated stormwater discharge(s) must be obtained by submitting a permit application in accordance with N.J.A.C. 7:14A-24.7.

This permit includes the monitoring requirements for commingled discharges of stormwater and NCCW.

C. Reporting Requirements:

All data requested to be submitted by this permit shall be reported on the Discharge Monitoring Reports (DMRs) as appropriate and submitted to the Department as required by N.J.A.C. 7:14A-6.8(a).

D. General conditions:

In accordance with N.J.A.C. 7:14A-2.3 and 6.1(b), specific rules from the New Jersey Administrative Code have been incorporated either expressly or by reference in Part I and Part II.

E. Outfall Tag:

Pursuant to N.J.A.C. 7:14A-6.2(a)9, the permittee shall ensure that a tag is present to mark the location of the outfall pipe on or before the start of discharge.

F. Operator Classification Number:

The operator classification requirement is no longer included in the individual authorizations. To obtain or determine the appropriate licensed operator classification for the treatment works utilized in each individual authorization, the permittee shall contact the Bureau of Construction and Connection at (609) 984-4429.

G. Flow Related Conditions:

NCCW dischargers as well as NCCW commingled with stormwater dischargers, such as those regulated under this permit are not included in the applicable Water Quality Management Plan and/or Wastewater Management Plan for each individual request for authorization.

H. Best Management Practices Plan:

The implementation of a Best Management Practices (BMP) Plan is required in accordance with N.J.A.C. 7:14A-6.2(b)1 to control or abate the discharge of toxic pollutants and hazardous substances from ancillary activities. The permittee is required to develop and implement a BMP Plan based on the reasonable potential of contact between stormwater runoff and the facility's operations. The BMP Plan is intended to ensure that proper stormwater operations, maintenance procedures, and good housekeeping practices are implemented so that the permittee is in compliance with its commingled cooling water and stormwater outfall permit limitations. Specific information on this Plan is provided in Part IV.

I. Toxic Pollutant Reopener Clause:

Pursuant to N.J.A.C. 7:14A-6.2(a)(10)iii, the Department may modify or revoke and reissue any permit to incorporate limitations or requirements to control the discharge of toxic pollutants, including whole effluent, chronic and acute toxicity requirements, chemical specific limitations or toxicity reduction requirements, as applicable.

J. Biocides or Other Cooling Water Additives:

The use of certain biocides or metallic cooling water additives is prohibited under this general permit. The permittees have informed the Department that they did not use any corrosion inhibitors, biocides, or any other cooling water additives unacceptable to the Department in their non-contact cooling water at the time of permit issuance. If the permittee decides to change and/or begin using any of the agents in the future, the permittee must notify the Department at least 180 days prior to use so that the Department can evaluate the corresponding MSDS sheets for the potential to assess the permittee's continued eligibility for coverage under this general permit.

11 Description of Procedures for Reaching a Final Decision on the Draft Action:

Please refer to the procedures described in the public notice that is part of the draft permit. In addition to the DEP Bulletin, the public notice for this permit action is published in the following newspapers which represent the counties indicated:

Newspaper	County
Asbury Park Press	Monmouth and Ocean
The Press of Atlantic City	Atlantic and Cape May
Courier Post Newspaper	Camden, Gloucester and Burlington
Daily Journal	Cumberland
Star Ledger	Bergen, Essex, Hudson, Hunterdon, Middlesex, Morris, Passaic, Somerset, Sussex, Union and Warren
Trenton Times	Mercer
Today's Sunbeam	Salem

12 Contact Information

If you have any questions regarding this permit action, please contact Ben Manhas, Bureau of Surface Water Permitting at (609) 292-4860.

Permit Summary Table

Unless otherwise noted all effluent limitations are expressed as maximums. Dashes (--) indicate there is no effluent data, no limitations, or no monitoring for this parameter depending on the column in which it appears.

PARAMETER	UNITS	AVERAGING PERIOD	WASTEWATER DATA	WASTEWATER DATA	EXISTING LIMITS	EXISTING LIMITS	EFFLUENT LIMITATIONS	EFFLUENT LIMITATIONS
			(NCCW only)	(NCCW & stormwater)	(for NCCW only dischargers)	(for NCCW & stormwater dischargers)	for NCCW only dischargers	for commingled NCCW & storm water dischargers
			09/06 – 01/12	09/06 – 01/12				
Flow	MGD	Monthly Avg. Daily Max.	0.105 14.5	0.06 3.18	MR MR	MR MR	MR MR	MR MR
Total Suspended Solids (TSS)	mg/L	Monthly Avg. Daily Max.	5.55 215	6.37 71	MR 20	MR 50	MR 20	MR 50
Petroleum Hydrocarbons	mg/L	Monthly Avg. Daily Max.	3.9 12.8	4.25 10	MR 10	MR 15	MR 10	MR 15
Chemical Oxygen Demand	mg/L	Monthly Avg. Daily Max.	15.58 210	23.7 370	MR 50	MR 100	MR 50	MR 100
Total Organic Carbon	mg/L	Monthly Avg. Daily Max.	23.2 23.2	8.15 24.3	MR 20	MR 20	MR 20	MR 20
pH Range	S.U.	Daily Min. Daily Max.	5.78 8.9	6.1 9.58	6.0 9.0	6.0 9.0	6.0 9.0	6.0 9.0
Temperature	Deg C	Monthly Avg. Daily Max.	19.18 33.5	18.29 35.8	MR 30	MR 30	MR 30	MR 30
Chlorine Produced Oxidants	mg/L	Monthly Avg. Daily Max.	0.16 1.18	0.22 2.0	MR 0.1	MR 0.1	MR 0.1	MR 0.1
Chronic Toxicity, IC25	%	Minimum	6.8 - 100		≥ 61 *	≥ 61 *	≥ 61 *	≥ 61 *

Footnotes and Abbreviations:

MR Monitor and report only

* IC25 ≥ 61% for Chronic Whole Effluent Toxicity is a threshold value. Effluent data may exceed the threshold value but not be below the value. Data that is below the threshold value will trigger the Toxicity Investigation Requirements.

Contents of the Administrative Record

The following items are used to establish the basis of the Draft Permit:

1. 33 U.S.C. 1251 et seq., Federal Water Pollution Control Act. [C]
2. 40 CFR Part 131, Federal Water Quality Standards. [A] [C]
3. 40 CFR Part 122, National Pollutant Discharge Elimination System. [C]
4. N.J.S.A. 58:10A-1 et seq., New Jersey Water Pollution Control Act. [A] [B]
5. N.J.A.C. 7:14A-1 et seq., New Jersey Pollutant Discharge Elimination System Regulations. [A] [B]
6. N.J.A.C. 7:9B-1 et seq., New Jersey Surface Water Quality Standards. [A] [B]
7. N.J.A.C. 7:15, Statewide Water Quality Management Planning Rules. [A] [B]
8. N.J.A.C. 7:14C, Sludge Quality Assurance Regulations. [B]
9. "Field Sampling Procedures Manual", published by the NJDEP. [A]
10. "Discharge Monitoring Report (DMR) Instructional Manual", published by the NJDEP. [A]
11. "EPA Technical Support Document for Water Quality-based Toxics Control", EPA/505/2-90-001, March 1991. [A]
12. New Jersey's 2010 Integrated Water Quality Monitoring and Assessment Report (integrated report). [A] [B]
13. Delaware River Basin Commission: Administrative Manual – Part III Water Quality Regulations.
14. Existing NJPDES/DSW Permit NJ0070203, issued May 30, 2000 and effective July 1, 2000. [A]
15. USEPA Region 1, Environmental Services Division, Toxicity of non-contact cooling water dischargers in Massachusetts and New Hampshire, November 1991. [C]
16. Summary Report on Acute Toxicity Testing Performed on Non-Contact Cooling Water Discharges, June 1993 [B]
17. USEPA Region II Memorandum, Permit Development Guidance: Cooling Water – Surface Water Runoff, December 8, 1978 (John S. Frisco, Chief, Toxic and Inorganic Waste Section, USEPA, Region II)
18. USEPA Region II Memorandum, EPA Region II Revised Guidance for Cooling Water and Storm Water Runoff, September 5, 1991 (John S. Kushwara, Acting Chief, Water Permits and Compliance Branch, USEPA, Region II)
19. Draft "Technical Manual for Reclaimed Water for Beneficial Reuse", published by NJDEP, October 2002. [A] [B]

Footnotes:

- [A] Denotes items that may be found in the NJPDES/DSW Administrative Record Library located in the NJDEP Central File Room, 401 East State Street, Trenton, New Jersey.
- [B] Denotes items that may be found on the New Jersey Department of Environmental Protection (NJDEP) website located at "<http://www.state.nj.us/dep/>".
- [C] Denotes items that may be found on the United States Environmental Protection Agency (USEPA) website at "<http://www.epa.gov/>".

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 <u>et seq.</u> |
| 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 | N.J.A.C. 7:14A-6.10 & 6.8(h) |
| Hotline/Two Hour & Twenty-four Hour Reporting | N.J.A.C. 7:14A-6.10(c) & (d) |
| Written Reporting | N.J.A.C. 7:14A-6.10(e) & (f) & 6.8(h) |
| Duty to Provide Information | N.J.A.C. 7:14A-2.11, 6.2(a)14 & 18.1 |
| Schedules of Compliance | N.J.A.C. 7:14A-6.4 |
| Transfer | N.J.A.C. 7:14A-6.2(a)8 & 16.2 |

PART II

GENERAL REQUIREMENTS: DISCHARGE CATEGORIES

A. Additional Requirements Incorporated By Reference

1. Requirements for Discharges to Surface Waters

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

B. General Conditions

1. Scope

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

2. Permit Renewal Requirement

- a. Permit conditions remain in effect and enforceable until and unless the permit is modified, renewed or revoked by the Department.
- b. Submit a complete permit renewal application: 180 days before the 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 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
Examination and Licensing Unit
Mail Code 401-04E
P.O. Box 420
Trenton, New Jersey 08625
(609) 777-1012.
 - ii. 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.

8. Intermittent Discharges (If applicable)

- a. The permittee is required to provide representative sampling of any regulated intermittent activity pursuant to N.J.A.C. 7:14A-6.5(a). Therefore, although a discharge may occur on an intermittent basis, it does not exempt the permittee from complying with the requirements of the permit. For example, if the permittee has a monthly monitoring and reporting requirement and the discharge occurs three separate times during the month, the permittee should sample during at least one of the discharge events occurring during the monitoring period. The permittee should report "NODI" on the DMR (or other required form) only if there are no discharge events during the entire reporting period.

9. Applicability of Numerical Limitations

- a. If only one analysis for a given parameter is made during any sampling period specified in this permit, the result of such analysis shall be construed as the average value of the parameter, as well as the maximum, for said sampling period. The permittee may take samples and have analysis made by a New Jersey Certified laboratory on additional occasions to those specified in this permit. If so, the average and the maximum values of all analytical results taken during the sampling period shall be reported as the applicable average and maximum values. However, for pH, minimum and maximum values are reported rather than average values.

10. Schedule of Maintenance

- a. Any maintenance of facilities, which might necessitate unavoidable interruption of operation and degradation of effluent quality, shall be scheduled during non-critical water quality periods and carried out in a manner approved by the Department.

PART III LIMITS AND MONITORING REQUIREMENTS

MONITORED LOCATION:

NCCW Table A

RECEIVING STREAM:

As Per Authorization

STREAM CLASSIFICATION:

DISCHARGE CATEGORY(IES):

CG - Gen Non-Contact Cooling Water

Location Description

Samples taken in compliance with the specified monitoring requirements shall be taken at the discharge identified on the authorization page.

Surface Water DMR Reporting Requirements:

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

Comments:

For Dischargers of only NCCW

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

PHASE: Final

PHASE Start Date:

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	GPD	*****	*****	*****	*****	1/Quarter	Representative
	January thru December	QL	***		***	***	***			
pH	Effluent Gross Value	*****	*****	*****	6.0 Daily Minimum	*****	9.0 Daily Maximum	SU	2/Year	Grab
	January thru December	QL	***		***	***	***			
Solids, Total Suspended	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	20 Daily Maximum	MG/L	2/Year	Grab
	January thru December	QL	***		***	***	***			
IC25 Statre 7day Chr Ceriodaphnia	Effluent Gross Value	*****	*****	*****	REPORT Report Per Minimum	*****	*****	%EFFL	1/5 Years	Composite
	January thru December	QL	***		***	***	***			
IC25 Statre 7day Chr Mysid Bahia	Effluent Gross Value	*****	*****	*****	REPORT Report Per Minimum	*****	*****	%EFFL	1/5 Years	Composite
	January thru December	QL	***		***	***	***			

Surface Water DMR Reporting Requirements:

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

Comments:

For Dischargers of only NCCW

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

PHASE:Final

PHASE Start Date:

PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Chlorine Produced Oxidants	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	0.1 Daily Maximum	MG/L	2/Year	Grab
	MDL	***	***		***	***	***			
Temperature, oC	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	30 Daily Maximum	DEG.C	1/Quarter	Grab
	QL	***	***		***	***	***			
Oxygen Demand,Chem. (High Level) (COD)	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	50 Daily Maximum	MG/L	2/Year	Grab
	QL	***	***		***	***	***			
Petroleum Hydrocarbons	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	10 Daily Maximum	MG/L	1/Year	Grab
	QL	***	***		***	***	***			
Carbon, Tot Organic (TOC)	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	20 Daily Maximum	MG/L	2/Year	Grab
	QL	***	***		***	***	***			

MONITORED LOCATION:
NCSW Table B

RECEIVING STREAM:
As Per Authorization

STREAM CLASSIFICATION:

DISCHARGE CATEGORY(IES):
CG - Gen Non-Contact Cooling Water

Location Description

Samples taken in compliance with the specified monitoring requirements shall be taken at the discharge identified on the authorization page.

Surface Water DMR Reporting Requirements:

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

Comments:

For Dischargers of NCCW commingled with stormwater

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

PHASE: Final

PHASE Start Date:

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	GPD	*****	*****	*****	*****	1/Quarter	Representative
	January thru December	QL	***		***	***	***			
pH	Effluent Gross Value	*****	*****	*****	6.0 Daily Minimum	*****	9.0 Daily Maximum	SU	1/Quarter	Grab
	January thru December	QL	***		***	***	***			
Solids, Total Suspended	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	50 Daily Maximum	MG/L	1/Quarter	Grab
	January thru December	QL	***		***	***	***			
IC25 Statre 7day Chr Ceriodaphnia	Effluent Gross Value	*****	*****	*****	REPORT Report Per Minimum	*****	*****	%EFFL	1/5 Years	Composite
	January thru December	QL	***		***	***	***			
IC25 Statre 7day Chr Mysid Bahia	Effluent Gross Value	*****	*****	*****	REPORT Report Per Minimum	*****	*****	%EFFL	1/5 Years	Composite
	January thru December	QL	***		***	***	***			

Surface Water DMR Reporting Requirements:

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

Comments:

For Dischargers of NCCW commingled with stormwater

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

PHASE: Final

PHASE Start Date:

PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Chlorine Produced Oxidants	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	0.1 Daily Maximum	MG/L	2/Year	Grab
	MDL	***	***		***	***	***			
Temperature, oC	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	30 Daily Maximum	DEG.C	1/Quarter	Grab
	QL	***	***		***	***	***			
Oxygen Demand, Chem. (High Level) (COD)	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	100 Daily Maximum	MG/L	1/Quarter	Grab
	QL	***	***		***	***	***			
Petroleum Hydrocarbons	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	15 Daily Maximum	MG/L	2/Year	Grab
	QL	***	***		***	***	***			
Carbon, Tot Organic (TOC)	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	20 Daily Maximum	MG/L	1/Quarter	Grab
	QL	***	***		***	***	***			

PART IV

SPECIFIC REQUIREMENTS: NARRATIVE

Gen Non-Contact Cooling Water

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. 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.
- d. All monitoring shall be conducted as specified in Part III.
- e. 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.
- f. 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.

2. Standard Recordkeeping Requirements

- a. The permittee shall retain records of all monitoring information, including:
 - i. all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation (if applicable),
 - ii. copies of all reports required by this NJPDES permit,
 - iii. all data used to complete the application for a NJPDES permit, and
- b. Records of monitoring information shall include:
 - i. the date, locations, and time of sampling or measurements
 - ii. the individual(s) who performed the sampling or measurements
 - iii. the date(s) the analyses were performed
 - iv. the individual(s) who performed the analyses
 - v. the analytical techniques or methods used, and
 - vi. the results of such analyses

B. 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
 - i. forms objectionable deposits on the receiving water
 - ii. forms floating masses producing a nuisance
 - iii. 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

2. Biocide Reopener Clause

- a. The use of certain biocides or metallic cooling water additives is prohibited under this general permit. The permittees have informed the Department that they did not use any corrosion inhibitors, biocides, or any other cooling water additives unacceptable to the Department in their non-contact cooling water at the time of permit issuance. If the permittee decides to change and/or begin using any biocide or water additive in the future, the permittee must notify the Department at least 180 days prior to use so that the Department can evaluate the corresponding MSDS sheets for the potential to assess the permittee's continued eligibility for coverage under this general permit.

3. Stormwater Only Discharges

- a. If the permittee eliminates its non-contact cooling water discharge component for commingled discharges, permit coverage may still be required for any remaining stormwater discharge(s) associated with industrial activities at the facility in accordance with N.J.A.C. 7:14A-24.2. The permittee must contact the Bureau of Non-Point Pollution Control at (609) 633-7021 to obtain the necessary application forms to regulate the remaining stormwater discharges associated with industrial activity prior to requesting revocation of this permit.

4. Best Management Practices Plan

- a. In order to prevent, or minimize the potential for the release of toxic substances and other pollutants from ancillary activities to the waters of the State through plant runoff, spillage or leaks, sludge or waste disposal or drainage from raw material storage, the permittee shall develop and implement a Best Management Practices (BMP) Plan.
- b. These conditions apply to all permittees who use, manufacture, store, handle, or discharge any pollutant listed as toxic under Section 307 (a)(1) of the Clean Water Act and who have ancillary manufacturing operations which could result in significant amounts of these pollutants reaching waters of the State. These operations include material handling areas; plant site runoff; in-plant transfer, process and material handling areas; loading and unloading operations, and sludge and waste disposal areas
- c. The BMP Plan shall include such things as:
 - i. Routine Inspections

- ii. Preventive Maintenance
- iii. Good Housekeeping
- iv. Materials Compatibility
- d. The facility must incorporate in the BMP Plan any appropriate procedures for adequately controlling spills and leaks of hazardous substances, as necessary
- e. Specific information concerning the development of the BMP Plan with respect to stormwater management is available in the U.S. Environmental Protection Agency's publication entitled, "Stormwater Management For Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices", EPA 832-R-92-006, September 1992.

5. Monitoring and Reporting

- a. The permittee shall report monitoring results on the Discharge Monitoring Report (DMR) forms or other monitoring report forms required by the permit to the Department at the intervals specified in the permit. Monitoring results shall be summarized and reported on the appropriate form following the completed reporting period. If a discharge does not occur during a particular reporting period, a check mark shall be placed in the "No Discharge this monitoring period" box on the paper or electronic version of the monitoring report submittal form. Unless otherwise specified or directed, signed copies of these forms shall be submitted postmarked no later than the 25th day of the calendar month following the completed reporting period to the following address:
 - i. New Jersey Department of Environmental Protection
 Mail Code 401-02B
 Bureau of Permit Management
 P.O. Box 420
 Trenton, New Jersey 08625-0420
- b. If requested by the Water Compliance and Enforcement Bureau, please send the information requested to the following address
 - i. NJDEP: Northern Bureau of Water Compliance and Enforcement
 7 Ridgedale Avenue
 Cedar Knolls, New Jersey 07927-1112
 - ii. NJDEP: Central Bureau of Water Compliance and Enforcement
 Mail Code 44-03
 P.O. Box 420
 Trenton, New Jersey 08625-0420
 - iii. NJDEP: Southern Bureau of Water Compliance and Enforcement
 One Port Center
 2 Riverside Drive, Suite 201
 Camden, New Jersey 08102
- c. In addition to the monitoring and reporting requirements in Part I, a duplicate signed copy of all other monitoring reports required from the permittee including the DMRs shall be submitted to the DRBC (only for dischargers to the Delaware River Basin) at the following address:
 - i. Delaware River Basin Commission
 P.O. Box 7360
 West Trenton, New Jersey 08628
 Attn: Executive Director

- d. For submittal of paper monitoring report forms:
 - i. All monitoring reports shall be signed by the highest ranking official having day to day managerial and operational responsibilities for the discharging facility in accordance with N.J.A.C. 7:14A-6.9.
 - ii. The highest ranking official may delegate responsibility to sign in accordance with N.J.A.C. 7:14A-6.9(c).

6. Third Party Storm Sewers

- a. If the permittee proposes to discharge or discharges through an off-site public or private storm drainage system, this NCCW permit renewal to discharge does not exempt, nor shall be construed to exempt, the permittee from compliance with rules, regulations, policies, and/or laws lodged in any agency or subdivision of the state having legal jurisdiction over the storm sewer system proposed for use as a wastewater conveyance.

7. Applicability of Discharge Limitations and Effective Dates

- a. The effluent limitations and monitoring conditions contained in Part III of this permit are applicable for the full term of this permit.

8. 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 effluent limitations specified in Part III of this permit.

9. 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.
- 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. 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.

10. 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.

11. 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.

12. RWBR Submittal Requirements

- a. For all types of RWBR, the permittee shall submit and receive approval of an Operations Protocol or modify the existing Operations Protocol as detailed in the most recent version of the Department's "Technical Manual for Reclaimed Water for Beneficial Reuse" (Reuse Technical Manual) prior to the commencement of 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. 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.
- d. All submittals shall be mailed or delivered to: New Jersey Department of Environmental Protection, Mail Code 401-02B, Division of Water Quality, Bureau of Surface Water Permitting, P.O. Box 420, Trenton, New Jersey 08625-0420.

13. 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.

C. WHOLE EFFLUENT TOXICITY REQUIREMENTS

1. Chronic Toxicity Testing Requirements

- a. The permittee shall conduct chronic toxicity test(s) on its wastewater discharge in accordance with the provisions in this section. Such testing will determine if appropriately selected effluent concentrations adversely affect the survival, growth and/or reproduction of the test species.
 - i. Chronic toxicity test(s) shall be conducted in accordance with the Department's "Chronic Toxicity Testing Specifications For Use In The NJPDES Permit Program". Any test that does not meet the specifications must be repeated within 30 days of the completion of the initial test.
 - ii. Chronic toxicity test(s) results shall be expressed as the IC25 for each test endpoint. Where a chronic toxicity testing methodology yields IC25s from more than one test endpoint, the most sensitive endpoint will be used to determine permit compliance. When reporting to the Delaware River Basin Commission (DRBC), sample results shall be expressed as No Observed Effect Concentration (NOEC).
 - iii. The test species to be used for the chronic toxicity test is as follows: For discharges to a freshwater receiving water body, the Ceriodaphnia dubia, 3 brood survival and reproduction test 40 CFR 136.3 method 1002.0 shall be utilized. For discharges to a saline receiving water body (having a salinity of greater than 3.5 ppt.), the Mysidopsis bahia, 7 day survival, growth, and fecundity test 40 CFR 136.3 method 1007.0 shall be utilized.

2. Monitoring Requirements

- a. The permittee shall perform an initial chronic toxicity test within three (3) months of the effective date of the permit authorization.
- b. If the results of the toxicity test indicate noncompliance with the Chronic Toxicity threshold (an IC25 value less than 61%), the permittee shall perform an evaluation of their practice at the site under Toxicity Investigation (TI) Requirements/Part IV General Non-Contact Cooling Water, Section D2 below as to the reason for the exceedance.
- c. The permittee shall implement the necessary measures to rectify the noncompliance and then redo the toxicity test within one (1) year of the chronic toxicity noncompliance.
- d. If the result of the chronic toxicity test is still not in compliance with the threshold mentioned above, the permittee shall notify the Bureau of Surface Water Permitting of the noncompliance and prepare a Toxicity Investigation Report containing the following items in accordance with the schedule under Part IV C.3.vi.:
 - i. results of the initial toxicity test;
 - ii. the Preliminary Toxicity Evaluation (PTE) followed by the permittee; as identified in Part IV Item D.1. below;
 - iii. the corrective measures taken by the permittee;
 - iv. the results of the final toxicity test(s).
- e. If the results of the chronic toxicity test are in compliance with the threshold mentioned above, the permittee has fulfilled the WET requirements and shall continue to discharge in accordance with the permit authorization.

3. Reporting Requirements

- a. For new authorizations:
 - i. Submit a Chronic Methodology Questionnaire: due within 60 days from the effective date of the permit authorization (EDPA).
- b. For renewal authorization:
 - i. The permittee shall resubmit a Chronic Methodology Questionnaire within 60 days of any change in laboratory.
- c. Chronic toxicity test results shall be reported on the "NJPDES Biomonitoring Report Form - Chronic Toxicity Tests", copies of which are provided to certified laboratories. Copies of the report form may also be obtained by contacting the address below
- d. TWO COPIES of the completed report form shall be submitted within 60 days of test completion to:
 - i. New Jersey Department of Environmental Protection
Mail Code 401 - 02B
Bureau of Surface Water Permitting
P.O. Box 420
Trenton, New Jersey 08625-0420
Attention: Biomonitoring Program
- e. If a facility is located in the Delaware River Basin, a copy of the completed report form shall be submitted to the DRBC at the address cited in Part IV, General Non-Contact Cooling Water, Section B.4.c.i. of the permit.
- f. If applicable, the permittee shall submit a Toxicity Investigation Report as identified in Part IV C.2.d above within EDPA + 18 months

D. Toxicity Investigation (TI) Requirements

1. Preliminary Toxicity Evaluation (PTE)

- a. The permittee shall initiate a toxicity investigation if the toxicity test demonstrates that the effluent does not comply with the chronic threshold of IC25 greater than or equal to 61%.
- b. Within 30 days after the noncompliance with the chronic toxicity threshold, stated in D.1.a. above, the permittee shall initiate a PTE as to the reason for the noncompliance. The PTE shall be completed within 2 months of the noncompliance and shall include but not be limited to:
 - i. An evaluation of the use of biocides;
 - ii. An evaluation of the use of additives;
 - iii. A check for cross connections of the discharge prior to sampling;
 - iv. For Table A or B discharges, check if stormwater is included in the discharge;
 - v. A dilution evaluation, if necessary;
 - vi. An evaluation of incidental facility procedures such as floor washing and chemical spills.

2. Preliminary Corrective Measures (PCM)

- a. Within 3 months of the noncompliance of the threshold stated in Part IV, General Non-Contact Cooling Water, Section C.2.b above, the permittee shall outline a PCM that will bring the discharge into compliance with the chronic toxicity threshold.
- b. Within 6 months of the noncompliance of the threshold, the permittee shall implement the PCM to bring the discharge into compliance with the threshold level stated in Part IV, General Non-Contact Cooling Water, Section C.2.b above.

3. Compliance Monitoring (CM)

- a. Within 12 months of the noncompliance of the threshold, the permittee shall resample for chronic toxicity for compliance with the threshold levels referenced in Part IV, General Non-Contact Cooling Water, Section C.2.b above.
- b. If the results of the compliance monitoring does not comply with the threshold value for chronic toxicity, the permittee shall meet the requirements set forth in Part IV, General Non-Contact Cooling Water, Section C.2.b above.
- c. If the results of the chronic toxicity tests are in compliance with the thresholds mentioned in Part IV, General Non-Contact Cooling Water, Section C.2.b above, the permittee has fulfilled the WET requirements and shall continue to discharge in accordance with the permit authorization.

NJPDES MASTER GENERAL PERMIT PROGRAM INTEREST, Trenton

Permit No.NJ0070203
DSW110001 Surface Water Master General Permit Renewal

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^R or equivalent, meet the requirements of N.J.A.C. 7:18-6 and should be aerated a minimum of 24 hrs prior to use, but not supersaturated.

D. EFFLUENT SAMPLE COLLECTION

Effluent samples shall be representative of the discharge being regulated. For each discharge serial number (DSN), the effluent sampling location shall be the same as that specified in the NJPDES permit for other sampling parameters unless an alternate sampling point is specified in the NJPDES discharge permit. For 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_p) 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_p values and not the bootstrap mean IC_p, shall be reported for permit compliance purposes. The IC_p value reported on the Discharge Monitoring Report shall be rounded off as specified in the Department's "Discharge Monitoring Report (DMR) Instruction Manual, December 1993." IC₂₅ 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_p 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_p 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/IC₂₅'s can be calculated from multiple test endpoints, for example a reproductive endpoint and a growth endpoint, the lowest NOEC/IC₂₅ value expressed in units of "% effluent" will be used to determine permit compliance and should, therefore, be reported as the NOEC/IC₂₅ value for the test. If the NOEC value for growth and/or reproduction is not lower than that for survival, the NOEC/IC₂₅ value reported for the test shall be as survival. For saltwater tests, where additional controls are used in a test (i.e. brine and/or artificial sea salt control), a T-test shall be used to determine if there is a significant difference between the original test control and the additional controls. If there is a significant difference between any of the controls, the test may be deemed unacceptable and if so, will not be used for permit compliance.

III. TEST ACCEPTABILITY CRITERIA

Any test that does not meet 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 ≥ 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	≥ 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:

Bureau of Surface Water Permitting
New Jersey Department of Environmental Protection
Division of Water Quality
Mail Code 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
Mail Code 401-02B
PO Box 420
TRENTON, NEW JERSEY 08625-0029
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 #: 39609

PI #: 50577

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
RA-LA	Spray Irrigation within a fenced perimeter or otherwise restricted area (Without NH3 + NO3)	As specified in O. P.	Approved (w/O. P. submittal)
RA-CM	Dust Control	As specified in O. P.	Approved (w/O. P. submittal)
RA-CM	Fire Protection	As specified in O. P.	Approved (w/O. P. submittal)
RA-CM	Composting	As specified in O. P.	Approved (w/O. P. submittal)
RA-IS	Non-Contact Cooling Water	As specified in O. P.	Approved (w/O. P. submittal)
RA-IS	Boiler Makeup Water	As specified in O. P.	Approved (w/O. P. submittal)
RA-IS	Hydrostatic Testing	As specified in O. P.	Approved (w/O. P. submittal)
RA-IS	Parts Washing	As specified in O. P.	Approved (w/O. P. submittal)

Categories:

- 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:

- O. P. - Operations Protocol
- NH3 - Ammonia
- NO3 - Nitrate

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

Annual Reuse Report - SAMPLE

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

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

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

RWBR Usage Table

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

Attach additional pages as necessary.

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