RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
235 Promenade Street, Providence, RI 02908-5767 TDD 401-222-4462

August 29, 2013

CERTIFIED MAIL

Dr. Wayne R. Munns, Jr., Acting Director
United States Environmental Protection Agency
Atlantic Ecology Division
27 Tarzwell Drive
Narragansett, RI 02882

RE: U.S. EPA Lab Atlantic Ecology Division Final Permit
RIPDES Application No. RI0000949

Dear Dr. Munns:

Enclosed is your final Rhode Island Pollutant Discharge Elimination System (RIPDES) Permit issued pursuant to the referenced application. State regulations, promulgated under Chapter 46-12 of the Rhode Island General Laws of 1956, as amended, require this permit to become effective on the date specified in the permit.

Also enclosed is information relative to hearing requests and stays of RIPDES Permits.

We appreciate your cooperation throughout the development of this permit. Should you have any questions concerning this permit, feel free to contact Aaron Mello of the State Permits Staff at (401) 222-4700, extension 7405.

Sincerely,

Joseph B. Haberek, P.E.
Principal Sanitary Engineer

JBH:am

Enclosures

cc: David Turin, EPA Region 1 (Electronic Copy)
Annie McFarland, DEM/OWR (Electronic Copy)
Eric Beck, P.E., DEM/OWR (Electronic Copy)
Daniel Adams, US EPA-AED (Electronic Copy)

RESPONSE TO COMMENTS

NO SIGNIFICANT COMMENTS WERE RECEIVED ON THE DRAFT PERMIT FOR THIS FACILITY; THEREFORE, NO RESPONSE WAS PREPARED.

HEARING REQUESTS

If you wish to contest any of the provisions of this permit, you may request a formal hearing within thirty (30) days of receipt of this letter. The request should be submitted to the Administrative Adjudication Division at the following address:

Bonnie Stewart, Clerk
Office of Administrative Adjudication
One Capitol Hill, Second Floor
Providence, RI 02903

Any request for a formal hearing must conform to the requirements of Rule 49 of the State Regulations.

STAYS OF RIPDES PERMITS

Should the Department receive and grant a request for a formal hearing, the contested conditions of the permit will not automatically be stayed. However, the permittee, in accordance with Rule 50, may request a temporary stay for the duration of adjudicatory hearing proceedings. Requests for stays of permit conditions should be submitted to the Office of Water Resources at the following address:

Angelo S. Liberti, P.E.
Chief of Surface Water Protection
Office of Water Resources
235 Promenade Street
Providence, Rhode Island 02908

All uncontested conditions of the permit will be effective and enforceable in accordance with the provisions of Rule 49.

AUTHORIZATION TO DISCHARGE UNDER THE
RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of Chapter 46-12 of the Rhode Island General Laws, as amended,

U.S. Environmental Protection Agency
Atlantic Ecology Division
27 Tarzwell Drive
Narragansett, RI

is authorized to discharge from a facility located at

U.S. Environmental Protection Agency
Atlantic Ecology Division
27 Tarzwell Drive
Narragansett, Rhode Island

to receiving waters named

Narragansett Bay – West Passage

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on October 1, 2013.

This permit and the authorization to discharge expire at midnight, five (5) years from the date of signature.

This permit supersedes the permit issued on May 18, 2005.

This permit consists of 8 pages in Part I including effluent limitations, monitoring requirements, etc. and 10 pages in Part II including General Conditions.

Signed this 3nd day of September 2013.

Angelo S. Liberti, P.E., Chief of Surface Water Protection
Office of Water Resources
Rhode Island Department of Environmental Management
Providence, Rhode Island

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 001A.Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations (lbs./day) Average Monthly	Discharge Limitations (lbs./day) Maximum Daily	Discharge Limitations (specify units) Average Monthly	Discharge Limitations (specify units) Average Weekly	Discharge Limitations (specify units) Maximum Daily	Monitoring Requirement Measurement Frequency	Monitoring Requirement Sample Type
Flow (MGD)	0.98 MGD					2/Quarter[2]	Estimate
BOD_5					9.2 mg/l	2/Quarter[2]	Composite[1]
Total Suspended Solids (TSS)					--- mg/l	2/Quarter[2]	Composite[1]
Fecal Coliform					-- MPN/100 ml	2/Quarter[2]	Grab
Dissolved Oxygen (DO)					(--- mg/l)	2/Quarter[2]	3 Grabs/discharge
Total Residual Chlorine (TRC)			0.434 mg/l		0.434 mg/l	1/Quarter[2]	3 Grabs/discharge[3]

--- Signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

[1]The composite sample shall consist of sample aliquots taken a minimum of every 15 minutes during discharge.

[2]Sampling shall be done twice per quarter, one sampling event must take place concurrently with filter disinfection/rinsing and one sampling event must take place concurrently with filter backwash (no disinfection occurring).

[3]Compliance with these limitations shall be determined by taking three grab samples per discharge day while a filter disinfection/rinsing event is taking place, equally spaced over the discharge period. The maximum daily and average monthly values are to be computed from the averaged grab sample results for each day. The following methods may be used to analyze the grab samples: (1) DPD spectrophotometric, EPA No. 330.5 or Standard Methods (18th Edition) No.4500-Cl G; (2) DPD Titrimetric, EPA No. 330.4 or Standard Methods (18th Edition) No. 4500-Cl F; (3) Amperometric Titration, EPA No. 330.1 or Standard Methods (18th Edition) No. 4500-Cl D or ASTM No. D1253-86(92);

Values in parenthesis () are to be reported as Minimum/Average/Maximum for the reporting period rather than the Average Monthly/Average Weekly/Maximum Daily.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Outfall 001 (final discharge point located outside the facility that includes the following: filtered seawater used in the wet labs, bypassed unfiltered seawater, and intermittent discharges of filter backwash and filter chlorination rinsate).

2. a. The pH of the effluent shall not be less than 6.5 nor greater than 8.5 standard units at anytime, unless these values are exceeded due to natural causes or as a result of the approved treatment processes.

   b. The discharge shall not cause visible discoloration of the receiving waters.

   c. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.

3. This permit only authorizes the discharge of boat bottom wash water from aluminum and fiberglass boats that do not have anti-fouling paint, provided that detergents are not used. Proper Best Management Practices (BMPs) must be used during the washing process to minimize exposure of the motors and their components to the wash water.

4. The permittee is not authorized to use any chemical additive(s)/cleaner(s) in the operation of the seawater filtration system, except the use of sodium hypochlorite during the disinfection process. The permittee shall obtain Department approval prior to using any additive(s)/cleaner(s).

5. The permittee shall assure the proper management of solid and hazardous waste in accordance with regulations promulgated under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1978 (40 U.S.C. 6901 et seq.), or amendments thereto.

6. This permit does not authorize discharges to the separate storm sewer system or to waters of the State from floor drains and trench drains located inside of the EPA building and/or laboratories.

7. The discharge shall not contain any waste flows from experimental test systems.

8. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

   a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

      (1) One hundred micrograms per liter (100 ug/l);

      (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitro-phenol; and one milligram per liter (1 mg/l) for antimony;

      (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or

      (4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.

   b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification

levels":

(1) Five hundred micrograms per liter (500 ug/l);

(2) One milligram per liter (1 mg/l) for antimony;

(3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or

(4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.

c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or by-product any toxic pollutant which was not reported in the permit application

9. This permit serves as the State's Water Quality Certificate for the discharges described herein.

B. DETECTION LIMITS

The permittee shall assure that all testing required by this permit, is performed in conformance with the method detection limits listed below. In accordance with 40 CFR Part 136, EPA approved analysis techniques, quality assurance procedures and quality control procedures shall be followed for all reports required to be submitted under the RIPDES program. These procedures are described in "Methods for the Determination of Metals in Environmental Samples" (EPA/600/4-91/010) and "Methods for Chemical Analysis of Water and Wastes" (EPA/600/4-79/020).

The report entitled "Methods for the Determination of Metals in Environmental Samples" includes a test which must be performed in order to determine if matrix interferences are present, and a series of tests to enable reporting of sample results when interferences are identified. Each step of the series of tests becomes increasingly complex, concluding with the complete Method of Standard Additions analysis. The analysis need not continue once a result which meets the applicable quality control requirements has been obtained. Documentation of all steps conducted to identify and account for matrix interferences shall be submitted along with the monitoring reports.

If, after conducting the complete Method of Standard Additions analysis, the laboratory is unable to determine a valid result, the laboratory shall report "could not be analyzed". Documentation supporting this claim shall be submitted along with the monitoring report. If valid analytical results are repeatedly unobtainable, DEM may require that the permittee determine a method detection limit (MDL) for their effluent or sludge as outlined in 40 CFR Part 136, Appendix B.

Therefore, all sample results shall be reported as: an actual value, "could not be analyzed", less than the reagent water MDL, or less than an effluent or sludge specific MDL. The effluent specific MDL must be calculated using the methods outlined in 40 CFR Part 136, Appendix B. Samples which have been diluted to ensure that the sample concentration will be within the linear dynamic range shall not be diluted to the extent that the analyte is not detected. If this should occur the analysis shall be repeated using a lower degree of dilution.

When calculating sample averages for reporting on discharge monitoring reports (DMRs):

1. "could not be analyzed" data shall be excluded, and shall not be considered as failure to comply with the permit sampling requirements;

2. results reported as less than the required MDL from this section shall be included as zeros.

LIST OF TOXIC POLLUTANTS

The following list of toxic pollutants has been designated pursuant to Section 307(a)(1) of the Clean Water Act. The Method Detection Limits (MDLs) represent the required Rhode Island MDLs.

Volatiles - EPA Method 624		MDL ug/l (ppb)
1V	acrolein	10.0
2V	acrylonitrile	5.0
3V	benzene	1.0
5V	bromoform	1.0
6V	carbon tetrachloride	1.0
7V	chlorobenzene	1.0
8V	chlorodibromomethane	1.0
9V	chloroethane	1.0
10V	2-chloroethylvinyl ether	5.0
11V	chloroform	1.0
12V	dichlorobromomethane	1.0
14V	1,1-dichloroethane	1.0
15V	1,2-dichloroethane	1.0
16V	1,1-dichloroethylene	1.0
17V	1,2-dichloropropane	1.0
18V	1,3-dichloropropylene	1.0
19V	ethylbenzene	1.0
20V	methyl bromide	1.0
21V	methyl chloride	1.0
22V	methylene chloride	1.0
23V	1,1,2,2-tetrachloroethane	1.0
24V	tetrachloroethylene	1.0
25V	toluene	1.0
26V	1,2-trans-dichloroethylene	1.0
27V	1,1,1-trichloroethane	1.0
28V	1,1,2-trichloroethane	1.0
29V	trichloroethylene	1.0
31V	vinyl chloride	1.0

Acid Compounds - EPA Method 625		MDL ug/l (ppb)
1A	2-chlorophenol	1.0
2A	2,4-dichlorophenol	1.0
3A	2,4-dimethylphenol	1.0
4A	4,6-dinitro-o-cresol	1.0
5A	2,4-dinitrophenol	2.0
6A	2-nitrophenol	1.0
7A	4-nitrophenol	1.0
8A	p-chloro-m-cresol	2.0
9A	pentachlorophenol	1.0
10A	phenol	1.0
11A	2,4,6-trichlorophenol	1.0

Pesticides - EPA Method 608		MDL ug/l (ppb)
1P	aldrin	0.059
2P	alpha-BHC	0.058
3P	beta-BHC	0.043
4P	gamma-BHC	0.048
5P	delta-BHC	0.034
6P	chlordane	0.211
7P	4,4 ' -DDT	0.251
8P	4,4 ' -DDE	0.049
9P	4,4 ' -DDD	0.139
10P	dieldrin	0.082
11P	alpha-endosulfan	0.031
12P	beta-endosulfan	0.036
13P	endosulfan sulfate	0.109
14P	endrin	0.050
15P	endrin aldehyde	0.062
16P	heptachlor	0.029
17P	heptachlor epoxide	0.040

Pesticides - EPA Method 608		MDL ug/l (ppb)
18P	PCB-1242	0.289
19P	PCB-1254	0.298
20P	PCB-1221	0.723
21P	PCB-1232	0.387
22P	PCB-1248	0.283
23P	PCB-1260	0.222
24P	PCB-1016	0.494
25P	toxaphene	1.670

Base/Neutral - EPA Method 625		MDL ug/l (ppb)
1B	acenaphthene *	1.0
2B	acenaphthylene *	1.0
3B	anthracene *	1.0
4B	benzidine	4.0
5B	benzo(a)anthracene *	0.013
6B	benzo(a)pyrene *	0.023
7B	3,4-benzofluoranthene *	0.018
8B	benzo(ghi)perylene *	2.0
9B	benzo(k)fluoranthene *	0.017
10B	bis(2-chloroethoxy)methane	2.0
11B	bis(2-chloroethyl)ether	1.0
12B	bis(2-chloroisopropyl)ether	1.0
13B	bis(2-ethylhexyl)phthalate	1.0
14B	4-bromophenyl phenyl ether	1.0
15B	butylbenzyl phthalate	1.0
16B	2-chloronaphthalene	1.0
17B	4-chlorophenyl phenyl ether	1.0
18B	chrysene *	0.15
19B	dibenzo (a,h) anthracene *	0.03
20B	1,2-dichlorobenzene	1.0
21B	1,3-dichlorobenzene	1.0
22B	1,4-dichlorobenzene	1.0
23B	3,3 ' -dichlorobenzidine	2.0
24B	diethyl phthalate	1.0
25B	dimethyl phthalate	1.0
26B	di-n-butyl phthalate	1.0
27B	2,4-dinitrotoluene	2.0
28B	2,6-dinitrotoluene	2.0
29B	di-n-octyl phthalate	1.0
30B	1,2-diphenylhydrazine (as azobenzene)	1.0
31B	fluoranthene *	1.0
32B	fluorene *	1.0
33B	hexachlorobenzene	1.0
34B	hexachlorobutadiene 1.0	
35B	hexachlorocyclopentadiene	2.0
36B	hexachloroethane	1.0
37B	indeno (1,2,3-cd) pyrene *	0.043
38B	isophorone	1.0
39B	naphthalene *	1.0
40B	nitrobenzene	1.0
41B	N-nitrosodimethylamine	1.0
42B	N-nitrosodi-n-propylamine	1.0
43B	N-nitrosodiphenylamine	1.0
44B	phenanthrene *	1.0
45B	pyrene *	1.0
46B	1,2,4-trichlorobenzene	1.0

OTHER TOXIC POLLUTANTS

	MDL ug/l (ppb)
BOD_5	4.0 mg/l
TSS	2.0 mg/l
Fecal Coliform	2.0 MPN/100 ml
TRC	5.0 mg/l
Antimony, Total	3.0
Arsenic, Total	1.0
Beryllium, Total	0.2
Cadmium, Total	0.1
Chromium, Total	1.0
Chromium, Hexavalent***	20.0
Copper, Total	1.0
Lead, Total	1.0
Mercury, Total	0.2
Nickel, Total	1.0
Selenium, Total	2.0
Silver, Total	0.5
Thallium, Total	1.0
Zinc, Total	5.0
Asbestos	**
Cyanide, Total	10.0
Phenols, Total***	50.0
TCDD	**
MTBE (Methyl Tert Butyl Ether)	1.0
Total Xylenes	0.5
Ethanol	2.0 mg/l

* Polynuclear Aromatic Hydrocarbons
** No Rhode Island Department of Environmental Management (RIDEM) MDL
*** Not a priority pollutant as designated in the 1997 Water Quality Regulations (Table 5)

NOTE:

The MDL for a given analyte may vary with the type of sample. MDLs which are determined in reagent water may be lower than those determined in wastewater due to fewer matrix interferences. Wastewater is variable in composition and may therefore contain substances (interferents) that could affect MDLs for some analytes of interest. Variability in instrument performance can also lead to inconsistencies in determinations of MDLs.

C. MONITORING AND REPORTING

1. Monitoring

All monitoring required by this permit shall be done in accordance with sampling and analytical testing procedures specified in Federal Regulations (40 CFR Part 136).

2. Reporting

Monitoring results obtained during the previous calendar quarter shall be summarized and reported on Discharge Monitoring Report Form(s), postmarked no later than the 15th day of the month following the completed calendar quarter.

Testing shall be reported as follows:

Quarter Testing to be Performed	Report Due No Later Than
January 1 – March 31	April 15
April 1 – June 30	July 15
July 1 – September 30	October 15
October 1 – December 31	January 15

A signed copy of these, and all other reports required herein, shall be submitted to:

Electronic Computer Operator
Rhode Island Department of Environmental Management
RIPDES Program
235 Promenade Street
Providence, Rhode Island 02908

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
235 PROMENADE STREET
PROVIDENCE, RHODE ISLAND 02908-5767

STATEMENT OF BASIS

DRAFT RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES) PERMIT TO DISCHARGE TO WATERS OF THE STATE

RIPDES PERMIT NO.

RI0000949

NAME AND ADDRESS OF APPLICANT:

U.S. Environmental Protection Agency
Atlantic Ecology Division
27 Tarzwell Drive
Narragansett, Rhode Island 02882

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

U.S. Environmental Protection Agency
Atlantic Ecology Division
27 Tarzwell Drive
Narragansett, Rhode Island

RECEIVING WATER:

Narragansett Bay – West Passage

CLASSIFICATION:

SB

I. Proposed Action, Type of Facility, and Discharge Location

The above named applicant has applied to the Rhode Island Department of Environmental Management (DEM) for reissuance of a RIPDES Permit to discharge into the designated receiving water. The applicant's discharges consist of filtered seawater used in the wet labs, bypassed unfiltered seawater, and intermittent discharges of filter back wash and filter chlorination rinsate. This permit also authorizes the discharge of boat bottom wash water from aluminum and fiberglass boats that are not painted with anti-fouling paints provided that detergents are not used. The discharge is to the West Passage of Narragansett Bay.

II. Limitations and Conditions

The effluent limitations of the draft permit, the monitoring requirements, and any implementation

schedule (if required) may be found in the draft permit.

III. Description of Discharge

The Environmental Protection Agency (EPA) Atlantic Ecology Division (AED) in Narragansett, Rhode Island is engaged in measuring the effects of pollutants on marine and estuarine organisms and ecosystems. Research at the AED focuses on the ecological effects of human activities on the coastal waters and watersheds of the Atlantic seaboard, with particular emphasis on the effects of these activities on the populations of fish, shellfish, and aquatic dependent life. AED's research activities primarily fall within the disciplines of coastal marine ecology, aquatic toxicology, and marine chemistry. Using this expertise, AED researchers support the mission of EPA by (1) conducting scientific research, (2) providing scientific and organizational leadership, and (3) supplying technical advice to the EPA program offices and regions.

The facility reapplied to reissue its RIPDES permit on September 18, 2009 and amended its application on February 9, 2010. In the amendment it was noted that the facility had ceased its filter backwash chlorination process when the facility replaced sand as the filtration media with Perma-Bead Media. These beads eliminate clogging, channeling and compaction in sand filters and require no plumbing changes in the pre-existing filtration system. The very hard polymer surface properties of Perma-Beads prevent microbial growth from etching into the surface and the slipperiness prevents growth from adhering onto the polymer substrate. Growth can be scrubbed off as the bed fluidizes during the backwash cycle. Since it was anticipated that backwash and disinfection may still be required in the future, the facility requested to leave the permit requirements for both process flows. The DEM commented on the reapplication on April 26, 2011 and in a June 1, 2011 response to the deficiencies it was noted that filter chlorination and backwash was resuming.

Outfall 001A discharges to the West Passage of Narragansett Bay in the segment defined as water body ID number RI0007027E-03H. This segment is described as the West Passage waters within a 700 foot radius of the extension of South Ferry Road at the URI Bay Campus, including the EPA dock located north of South Ferry Road and the GSO dock located south of South Ferry Road. This segment is located in Narragansett and is classified as Class SB water body according to the RI Water Quality Regulations. Class SB waters are designated for primary and secondary contact recreational activities; shellfish harvesting for controlled relay and depuration; and fish and wildlife habitat. They shall be suitable for aquacultural uses, navigation, and industrial cooling. These waters shall have good aesthetic value. Currently, this segment is not listed as impaired.

The discharge to Narragansett Bay consists of water that is drawn from the Bay, some of which is directed to the aquaria used for raising experimental organisms. No contaminants are introduced into these aquaria. Most of the flow is bypassed back to the Bay. A portion of the water is filtered before use and the filters are backwashed every 24 hours without disinfection (or more often as needed). The backwash is included in the discharge.

The discharge is composed of filtered seawater used in the wet labs, bypassed unfiltered seawater, and intermittent discharges of filter back wash and filter chlorination rinsate. Wastewater generated in experimental test systems is pretreated and discharged to the Narragansett Municipal Sewer System. This permit also authorizes the discharge of boat bottom wash water from aluminum and fiberglass boats that are not painted with anti-fouling paints provided that detergents are not used.

A quantitative description of the discharge from Outfall 001 in terms of significant effluent parameters based on Discharge Monitoring Report Data for the past five (5) years is shown in Attachment A-1. Attachment A-2 includes a site location map; and Attachment A-3 includes a line flow diagram for Outfall 001A for estimated flow.

IV. Permit Basis and Explanation of Effluent Limitation Derivation

General Requirements

The requirements set forth in this permit are from the State's Water Quality Regulations and the State's Regulations for the Rhode Island Pollutant Discharge Elimination System, both filed pursuant to RIGL Chapter 46-12, as amended. DEM's primary authority over the permit comes from EPA's delegation of the program in September 1984 under the Federal Clean Water Act (CWA).

When developing effluent limits for RIPDES Permits DEM is required to consider treatment technology and water quality requirements. Technology based treatment requirements represent the minimum level of control that must be imposed under Section 402 and 301(b) of the CWA (see 40 CFR 125 Subpart A) to meet Best Practicable Control Technology Currently Available (BPT), Best Conventional Control Technology (BCT) for conventional pollutants, and Best Available Technology Economically Achievable (BAT) for toxic pollutants. EPA has not promulgated National Effluent Guidelines for discharges from aquatic research facilities. In the absence of technology-based guidelines, DEM is authorized to use Best Professional Judgement (BPJ) to establish effluent limitations, in accordance with Section 402(a)(1) of the CWA.

Under Section 301 (b)(1)(C) of the CWA, discharges are subject to effluent limitations based on water quality standards. The Rhode Island Water Quality Standards include a narrative statement that prohibits the discharge of any pollutant or combination of pollutants in quantities that would be toxic or injurious to aquatic life. In addition, the State has adopted EPA's numerical criteria for specific toxic pollutants and toxicity criteria as published in the EPA Quality Criteria for Water, 1986, (EPA 440/5-86-001) as amended.

The effluent monitoring requirements have been specified in accordance with RIPDES regulations as well as 40 CFR 122.41 (j), 122.44 (i), and 122.48 to yield data representative of the discharge.

The remaining general and specific conditions of the permit are based on the RIPDES regulations as well as 40 CFR Parts 122 through 125 and consist primarily of management requirements common to all permits.

Explanation of Effluent Limitation Derivation and Conditions

The draft RIDES permit for the EPA AED includes numeric effluent limitations for protection of the environment. The effluent parameters in the draft permit are discussed in more detail below following the effluent limitation derivation for the one Outfall being regulated by this permit.

Outfall 001A: Effluent limitations for Outfall 001A have been established for Flow, BOD_5, and Total Residual Chlorine (TRC). Flow and BOD_5 monitoring is carried over from the previous permits dated December 3, 1986 and May 18, 2005. As a result of the design flow increase at the EPA AED from 0.6 MGD to 0.98 MGD, the DEM has modified the allowable discharge limit for BOD_5 at Outfall 001A so the mass load remains constant. The constant mass loading is applied at Outfall 001A as this is the final discharge point into the receiving water. A ratio of old design flow to the new design flow was used to adjust the Outfall 001A maximum daily concentration limit of BOD_5. The daily max limit of BOD_5 at Outfall 001A changed from 15 mg/L to 9.2 mg/L due to the increased flow limit.

The narrative effluent limitations for pH are based on the saltwater water quality criteria established in Table 2.8.D (3) of the State's Water Quality Regulations for Saltwater Receiving Waters.

Outfall 001A must also be monitored for Total Suspended Solids (TSS), Fecal Coliform, and

Dissolved Oxygen (DO) twice per quarter, where one sampling event is concurrent with disinfection/rinsing and one sampling event is concurrent with filter backwash (no disinfection occurring). These pollutants were chosen as the DEM has identified these parameters as being present in discharges from facilities with similar operations (indicators used to characterize contamination from the filter disinfection/rinsing, filter backwash, and aquatic organism wet testing processes) and to evaluate the loading of these pollutants from the EPA facility.

In the May 2005 reissuance of the permit the DEM required Settleable Solids, Ammonia, TKN, nitrate, nitrite, and total nitrogen be monitored on a quarterly basis in order to obtain data that would be used to make a determination on the necessity for future nutrient limits for the facility. In the EPA AED's June 1, 2011 response to deficiencies on its reapplication and in other correspondence, the facility requested that settleable solids, Ammonia, and TKN be removed from the monitoring requirements of the permit. Upon evaluation of the Discharge Monitoring Report (DMR) data for the period September 2005 – September 2012 the DEM has removed monitoring requirements for settleable solids, Ammonia, TKN, nitrate, nitrite and total nitrogen. This determination was made based on the fact that the data was either below or slightly above detection limits and that at these low levels the discharge would pose no concern of impacting water quality.

Flow: The flow limitation is based on the facility's maximum pumping capacity. In the previous reapplication process and permit issued on May 18, 2005 it was identified that the average flow intake/outtake was 0.6 MGD. This average design value has been the permitted monthly average flow from the facility for the past two permits issued in 1986 and 2005. The most recent reapplication identified conflicting average flows in the forms and in diagrams and schematics of the seawater intake system. The DEM's April 2011 comment letter required the EPA to amend its application and line drawings to reflect the correct average flows between intakes, operations, treatment units, and outfall. The June 2011 response by EPA noted that for total daily seawater flow that the pumps are rated for 680 gallons per minute, there are two (2) pumps that are alternated on a monthly basis with one pump running at a time, and that based on the rating of the pump it is calculated that 980,000 gallons per day (0.98 MGD) is pumped for intake. Therefore, the monthly average flow limit assigned in the permit is 0.98 MGD.

Total Residual Chlorine: The first step in the process used to calculate an effluent limitation for total residual chlorine is to establish the size of the mixing zone. The procedure used to establish the size of this zone was detailed in the US Environmental Protection Agency's document entitled "Technical Support Document for Water Quality Based Toxics Control" (EPA/505/2-90-001) or the "TSD". The TSD proscribes a procedure to establish the size of a regulatory mixing zone by choosing the most restrictive of the following three cases:

1. 10% of the distance from the edge of the outfall structure to the edge of the regulatory mixing zone in any spatial direction.
2. 50 times the discharge length scale in any spatial direction where the discharge length scale equals the square root of the cross sectional area of the discharge outlet.
3. Five times the local water depth in any horizontal direction from any discharge outlet.

A regulatory mixing zone is not given for this outfall, so criteria 1 is not relevant here. Criteria 2 yields a distance from the outfall of 20.3 meters (66.47 feet). Criteria 3 is 5 times the local water depth of 2m (this number was provided by the USEPA lab) which yields 10 meters (32.81 feet). This third criteria is the most restrictive and so the distance of 10 meters was used as the acute mixing zone.

The next step in the process used to calculate an effluent limitation for total residual chlorine was the use of the Cormix model to calculate the dilution factor at a given distance from the outfall, given a host of input parameters. Cormix is designed to simulate the dilution characteristics of submerged multiport diffuser discharges, submerged single port discharges, or above surface

discharges. The ultimate goal of the use of Cormix is to determine the contaminant concentration and related dilution factor at a given distance from the outfall, which in this case is 10 meters, from the third TSD criteria, above. The input parameters for the Cormix run were as follows: average water depth (2m), depth at discharge (2m), Darcy-Weisbach friction factor for the bottom surface of the channel (calculated value of 0.0561 based on a Manning number of 0.03 [corresponding to a smooth channel with a surface roughness of 500mm]), a wind velocity of 4.52 m/s (median average monthly wind speed in Narragansett, Rhode Island), tidal simulation at time -3.1 hours, water speed/tidal velocity of 0.412 m/s, period of tidal reversal of 12.4 hours, water density of 1025 kg/m^3, flush shoreline discharge, distance from bank to outlet of 0 meters (in fact there is an offset between the bank and the outlet, however the discharge was modeled as flowing from a channel into the bay), discharge angle of 90 degrees, depth near discharge outlet of 2 meters, bottom slope at discharge 41 degrees, rectangular pipe length and width of 0.4052 meters (equivalent to the cross sectional area of the 18" pipe diameter), discharge flow rate 0.0429 m^3/s, discharge density 1025 kg/m^3, discharge concentration 0.434 mg/l. Given an area of interest with a radius of 10 meters, centered at the outfall, Cormix calculated that the corresponding dilution factor is 33.4. This dilution factor of 33.4 is considered to be the acute dilution factor. Cormix was again used to calculate the dilution factor at a distance of 100 meters from the outfall, keeping all other input parameters the same as the 10 meter case. A distance of 100 meters was chosen for the chronic mixing zone based on criteria 1 from the Technical Support Document that proposes that the acute mixing zone radius (10 meters in this case) is 10% of the size of the chronic mixing zone. Cormix calculated that dilution factor at 100 meters from the outfall to be 57.9. Therefore, the dilution factor of 57.9 is considered to be the chronic dilution factor.

The third step in the process used to develop the effluent limitation for total residual chlorine was to calculate the acceptable concentration of chlorine at the edge of the mixing zones. 100% allocation of total residual chlorine (TRC) was used due to the fact that Chlorine is not expected to be found in ambient water and is a non-conservative pollutant.

Water quality-based limits were calculated for chlorine using the dilution at the edge of the areas of interest (10 meter radius and 100 meter radius) based on the dilution factors from Cormix and the RI Water Quality Criteria. Based on these calculations, the daily maximum limit for chlorine is 434.2 µg/L and the monthly average limit for chlorine is 434.25 µg/L. As the daily maximum limit is more stringent than the monthly average limit both limits are set equal to the daily maximum limit of 434.2 µg/L. The spreadsheet used to calculate water quality based limits is presented in Attachment A-4.

Historic TRC levels in the discharge have been as high as 330 µg/L and frequently approach 300 µg/L, based on historic Discharge Monitoring Report (DMR) data. Therefore, there is reasonable potential for limits being exceeded. As a result, the permit includes the above-mentioned TRC limits.

In accordance with 40 CFR 122.4(d)(1)(iii), it is only necessary to establish water quality-based permit limits for those pollutants in the discharge which have the reasonable potential to cause or contribute to the exceedance of instream criteria. In order to evaluate the need for permit limits, the most stringent calculated acute and chronic limits were compared to the Discharge Monitoring Report (DMR) data for the period September 2005 – September 2012 and the information included in the facility's RIPDES application. Based on the analysis presented above, water quality based permit limits are only required for Total Residual Chlorine.

Boat Bottom Pressure Wash Water: In the EPA AED's June 1, 2011 response to comments on the facility's reapplication it was identified that the facility was planning on washing EPA owned boats using a hot water/detergent mixture after their return from field activities. The mixture would be at approximately 180 degrees Fahrenheit and could range from 5 to 20 gallons of solution per wash down. The number of wash downs per year would be approximately 75. It was noted that there is a nearby storm drain that discharges to Narragansett Bay, and the area

where boats would be washed slopes towards this area. During a June 16, 2011 DEM inspection of the EPA AED, the building where boats are stored and where wash downs would occur was observed. EPA was informed that this wash water discharge is considered to be a "process" discharge, and is not an allowed non-storm water discharge under the Multi-Sector General Permit. In a post-inspection follow-up notification, the DEM noted that the Office of Customer and Technical Assistance has developed a draft Boat Bottom Pressure Washing Guidance document that recommends that facilities with this type of operation install a recycling system, collect and ship wastewater to a treatment facility, or receive permission to discharge to a sewer system. Based on the inspection, multi-sector permit requirements, and guidance the DEM prohibited the discharge of boat bottom wash water to the Narragansett Bay due to the potential pollutants that may be present and the fact that treatment would be needed and requested EPA provide a proposal on which of the above methods would be most suitable for the facility. In following discussions between DEM and EPA's Office of Research and Development it was determined that EPA would develop a procedure to perform pressure washing of boats and then collect samples of the wash water and analyze for oil and grease, aluminum, and total petroleum hydrocarbons. This procedure and the results are discussed below.

From the above discussion, the EPA AED's fleet of boats (without anti-fouling paint) were grouped into those with motors and those without motors; boats in each group were washed down with hot water pressure washer or rinse water only without any detergents; wash water from each group was collected and the samples sent off-site for certified laboratory analysis of oil and grease, aluminum, and total petroleum hydrocarbons (TPH); and the sample results/summary forwarded to DEM for review of data. In an April 5, 2012 submittal the results for the above testing procedure was sent to the DEM for review. In this submittal the following was noted: the sampling represent the AED's normal daily operations except that not all boats would be washed at one time since not all boats are used on a daily basis; at the end of each collection day approximately 20 gallons of water minus the sample volume was collected after the boats and tarp were washed; and the EPA AED understands that boats with anti-fouling paint will continue to be washed off-site at appropriately equipped marinas in the area that have been permitted by the local POTW for the treatment of such wash water. From review of the collection of boat washing effluent for analysis attached to the above submittal, below is a summary of data for the four groups of boats:

Boat Bottom Wash Water Sampling Results (samples taken March 14, 2012)

	Non-Motorized Fiberglass	Non-Motorized Aluminum	Motorized Fiberglass	Motorized Aluminum
Aluminum, mg/L	0.56	4.25	1.18	1.84
Oil & Grease, mg/L	3	3	12	12
TPH, mg/L	<2	<2	7	7

Review of the above data displays elevated levels of oil and grease and Total Petroleum Hydrocarbons (TPH) in those boats that have motors. It should be noted that the DEM Water Quality Regulations for saltwater receiving waters do not have water quality criteria for aluminum. Therefore, this permit only authorizes the discharge of boat bottom wash water from aluminum and fiberglass boats/vessels that do not have anti-fouling paint, provided that detergents are not used. The permit also requires that appropriate Best Management Practices be used to minimize exposure of motors and their components to wash water. This will ensure that the wash water does not contain elevated levels of Oil and Grease or TPH.

Antibacksliding: EPA's antibacksliding provision at 40 CFR §122.44(l) prohibit the relaxation of permit limits, standards, and conditions unless the circumstances on which previous permit was based have materially and substantially changed since the time the permit was issued.

Although the flow at the facility has substantially increased since the issuance of the last RIPDES

permit, the limits in this permit have been set to keep the mass loads constant. Therefore, since all of the permit limits are at least as stringent as those from the previous permit, this permit satisfies the antibacksliding provisions at 40 CFR §122.44(l).

Similarly, the RI DEM has determined that all permit limitations are consistent with the Rhode Island Antidegradation policy.

V. Comment Period, Hearing Requests, and Procedures for Final Decisions

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to the Rhode Island Department of Environmental Management, Office of Water Resources, 235 Promenade Street, Providence, Rhode Island, 02908-5767. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to the Rhode Island Department of Environmental Management. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty (30) days public notice whenever the Director finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit the Director will respond to all significant comments and make these responses available to the public at DEM's Providence Office.

Following the close of the comment period, and after a public hearing, if such hearing is held, the Director will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice. Within thirty (30) days following the notice of the final permit decision any interested person may submit a request for a formal hearing to reconsider or contest the final decision. Requests for formal hearings must satisfy the requirements of Rule 49 of the Regulations for the Rhode Island Pollutant Discharge Elimination System.

VI. DEM Contact

Additional information concerning the permit may be obtained between the hours of 8:30 a.m. and 4:00 p.m., Monday through Friday, excluding holidays from:

Aaron Mello
RIPDES Program
Office of Water Resources
Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908
Telephone: (401) 222-6820 Ext.7405
Email: aaron.mello@dem.ri.gov

7/1/13
Date

Joseph B. Haberek, P.E.
Principal Sanitary Engineer
RIPDES Permitting Section
Office of Water Resources
Department of Environmental Management

ATTACHMENT A-1

DESCRIPTION OF DISCHARGES: 001A – Effluent from the facility that includes filtered seawater used in the wet labs, bypassed unfiltered seawater, and intermittent discharges of filter backwash and filter chlorination rinsate

AVERAGE EFFLUENT CHARACTERISTICS AT POINT OF DISCHARGE:

PARAMETER	AVERAGE[1]	MAXIMUM[2]
FLOW (MGD)		0.4296 MGD
BOD_5		<3.8148 mg/l
TSS		<21.70 mg/l
pH	7.57 S.U. (Minimum)	7.81 S.U. (Maximum)
Setlleable Solids		<0.2143 ml/l
Ammonia (as N)		<0.1536 mg/l
TKN (as N)		<1.126 mg/l
Total Nitrate (as N)		<0.1058 mg/l
Total Nitrite (as N)		<0.0153 mg/l
Total Nitrogen		<0.8904 mg/l
Fecal Coliform		<11.69 MPN/100 ml
Dissolved Oxygen		11.34 mg/l
Total Residual Chlorine	<0.0695 mg/l	<0.1049 mg/l

[1]Data represents the mean of the monthly average data from September 2005 through September 2012.
[2]Data represents the mean of the daily maximum data from September 2005 through September 2012.
BDL = Below Detection Limit

ATTACHMENT A-2

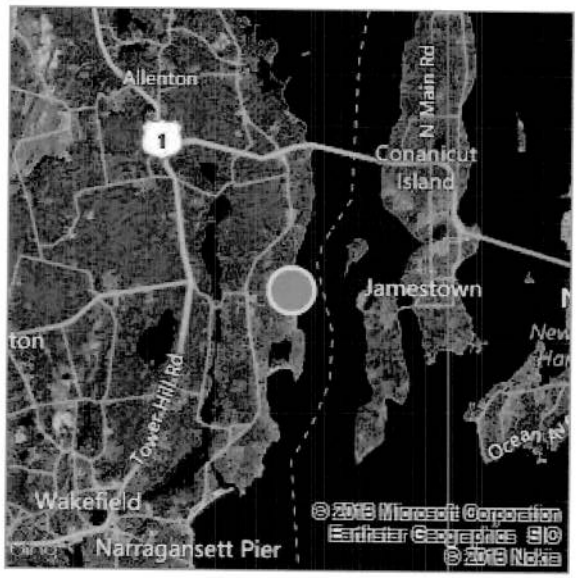
US E.P.A. – Atlantic Ecology Division
SITE LOCATION MAP

bing Maps

27 Tarzwell Dr, Narragansett Pier, RI 02882

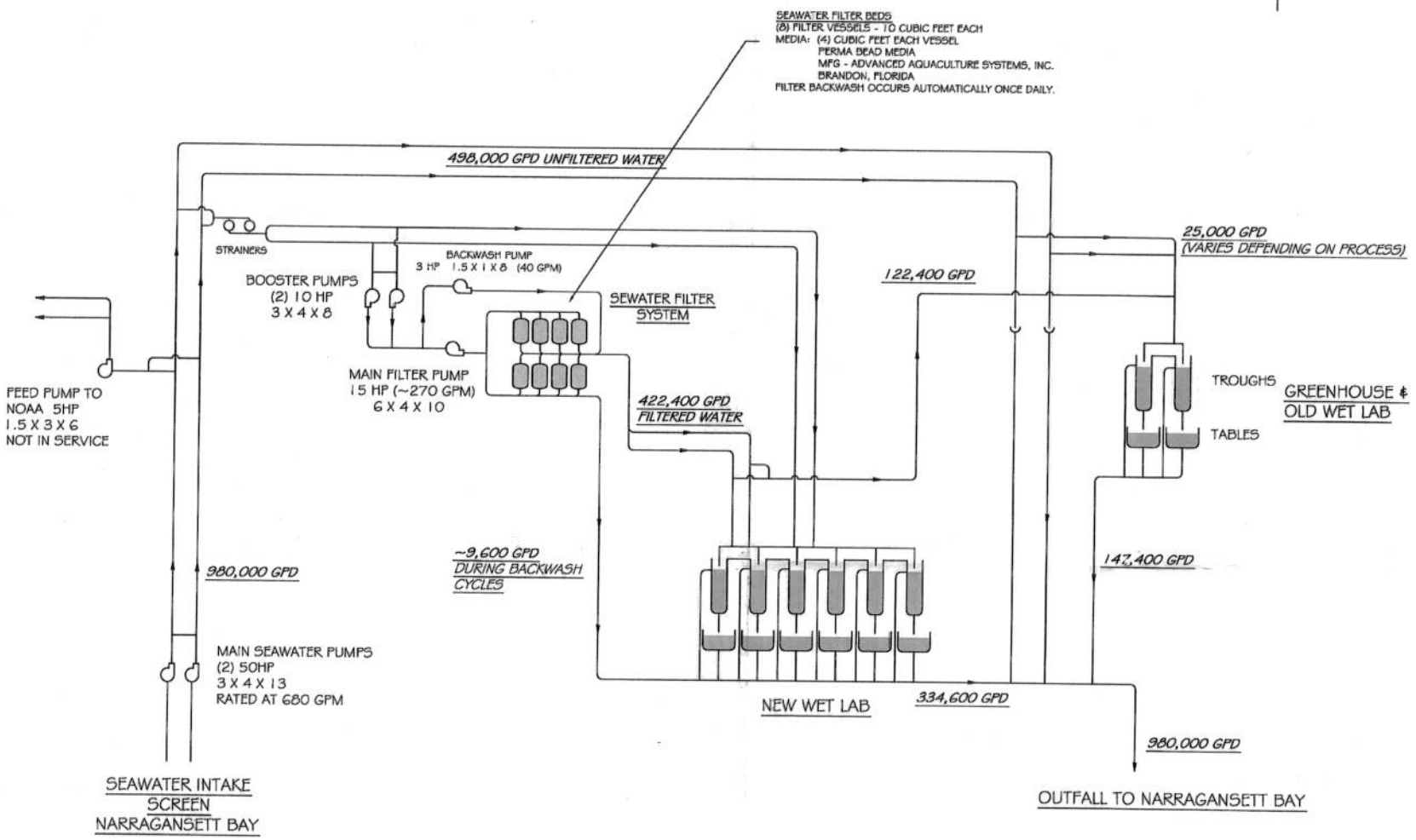
US EPA - Atlantic Ecology Division

On the go? Use **m.bing.com** to find maps, directions, businesses, and more



ATTACHMENT A-3

US E.P.A. – Atlantic Ecology Division
LINE FLOW DIAGRAM



NOTES:

1. MAIN SEAWATER PUMPS ARE RUN ALTERNATELY AND SWTICHED MANUALLY ON A MONTHLY BASIS.

2. SEAWATER FILTER BOOSTER PUMPS ARE RUN ALTERNATELY AND SWITCHED AUTOMATICALLY ON A DAILY BASIS.

3. FEED PUMP TO NOAA IS OPERATED AS REQUIRED.

4. SEAWATER FILTER BACKWASH PUMP OPERATES AUTOMATICALLY DURING THE FILTER BACKWASH CYCLE WHICH OCCURS EVERY (8) HOUR PERIOD OR DURING LOW FLOW CONDITION.

FILTER BED CHLORINATION NOTES:

FILTER BED CHLORINGATION TAKES PLACE ONCE PER MONTH

TOTAL QUANTITY OF (2) GALLONS 12% SODIUM HYPOCHLORITE SOLUTION CIRCULATED THROUGH FILTER SYSTEM AND DISCHARGED USING FILTER BACKWASH CYCLE.

WATER SAMPLES TAKEN DURING BACKWASH AT THE OUTFALL.

Attachment C

DCT, Inc.

USEPA ATLANTIC ECOLOGY DIV
MAIN SEAWATER - ONE LINE DIAGRAM
MAIN BLDG

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ATTACHMENT A-4

US E.P.A. – Atlantic Ecology Division
CALCULATION OF ALLOWABLE ACUTE AND CHRONIC TRC DISCHARGE LIMITATIONS
BASED ON SALTWATER AQUATIC LIFE CRITERIA

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS
FACILITY SPECIFIC DATA INPUT SHEET

NOTE: LIMITS BASED ON RI WATER QUALITY CRITERIA DATED JULY 2006

FACILITY NAME: **USEPA Lab - Atlantic Ecology Division**

RIPDES PERMIT #: **RI0000949**

	DISSOLVED BACKGROUND DATA (ug/L)	ACUTE METAL TRANSLATOR	CHRONIC METAL TRANSLATOR
ALUMINUM	**NA**	**NA**	**NA**
ARSENIC	**1.13**	**1**	**1**
CADMIUM	**0.0368**	**0.994**	**0.994**
CHROMIUM III	**NA**	**NA**	**NA**
CHROMIUM VI	**0.234**	**0.993**	**0.993**
COPPER	**0.601**	**0.83**	**0.83**
LEAD	**0.08**	**0.951**	**0.951**
MERCURY	**0.000669**	**0.85**	**NA**
NICKEL	**0.87**	**0.99**	**0.99**
SELENIUM	**0.0406**	**0.998**	**0.998**
SILVER	**0.0147**	**0.85**	**0.85**
ZINC	**1.394**	**0.946**	**0.946**

USE NA WHEN NO DATA IS AVAILABLE

NOTE 1: BACKGROUND DATA BASED ON AVERAGE CONCENTRATIONS IN ATTACHMENT B.

NOTE 2: METAL TRANSLATORS FROM RI WATER QUALITY REGS.

DILUTION FACTORS		
ACUTE =	**33.4**	x
CHRONIC =	**57.9**	x
HUMAN HEALTH =	**57.9**	x

NOTE: TEST WWTF'S DILUTION FACTORS OBTAINED FROM A DYE STUDY.

TOTAL AMMONIA CRITERIA (ug/L)		
WINTER	ACUTE =	**6000**
	CHRONIC =	**900**
SUMMER	ACUTE =	**4600**
	CHRONIC =	**690**

NOTE 1: LIMITS ARE FROM TABLE 3 IN THE RI WATER QUALITY REGS.
USING:
SALINITY = 30 g/Kg
WINTER (NOV-APRIL) pH=8.4 s.u.;
SUMMER (MAY-OCT) pH=8.2 s.u.
WINTER (NOV-APRIL) TEMP=10.0 C;
SUMMER (MAY-OCT) TEMP=20.0 C.

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: USEPA Lab - Atlantic Ecology Division RIPDES PERMIT #: RI0000949

NOTE: METALS CRITERIA ARE DISSOLVED, METALS LIMITS ARE TOTAL; AMMONIA CRITERIA AND LIMITS HAVE BEEN CONVERTED TO ug/l N.

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	SALTWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	SALTWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
PRIORITY POLLUTANTS:							
TOXIC METALS AND CYANIDE							
ANTIMONY	7440360			No Criteria		640	29644.8
ARSENIC (limits are total recoverable)	7440382	1.13	69	2037.528	36	1.4	8.657
ASBESTOS	1332214			No Criteria			No Criteria
BERYLLIUM	7440417			No Criteria			No Criteria
CADMIUM (limits are total recoverable)	7440439	0.0368	40	1208.458431	8.8		459.2294567
CHROMIUM III (limits are total recoverable)	16065831	NA		No Criteria			No Criteria
CHROMIUM VI (limits are total recoverable)	18540299	0.234	1100	33291.45861	50		2610.45861
COPPER (limits are total recoverable)	7440508	0.601	4.8	150.380241	3.1		153.4266265
CYANIDE	57125		1	26.72	1	140	46.32
LEAD (limits are total recoverable)	7439921	0.08	210	6635.129338	8.1		439.0525762
MERCURY (limits are total recoverable)	7439976	0.000669	1.8	63.63096988	0.94	0.15	7.7784339
NICKEL (limits are total recoverable)	7440020	0.87	74	2218.436364	8.2	4600	381.6151515
SELENIUM (limits are total recoverable)	7782492	0.0406	290	8733.551663	71	4200	3704.909679
SILVER (limits are total recoverable)	7440224	0.0147	1.9	66.63261176			No Criteria
THALLIUM	7440280			No Criteria		0.47	21.7704
ZINC (limits are total recoverable)	7440666	1.394	90	2812.087104	81	26000	4378.003594
VOLATILE ORGANIC COMPOUNDS							
ACROLEIN	107028			No Criteria		290	13432.8
ACRYLONITRILE	107131			No Criteria		2.5	115.8
BENZENE	71432			No Criteria		510	23623.2
BROMOFORM	75252			No Criteria		1400	64848
CARBON TETRACHLORIDE	56235			No Criteria		16	741.12
CHLOROBENZENE	108907			No Criteria		1600	74112
CHLORODIBROMOMETHANE	124481			No Criteria		130	6021.6
CHLOROFORM	67663			No Criteria		4700	217704
DICHLOROBROMOMETHANE	75274			No Criteria		170	7874.4
1,2DICHLOROETHANE	107062			No Criteria		370	17138.4
1,1DICHLOROETHYLENE	75354			No Criteria		7100	328872
1,2DICHLOROPROPANE	78875			No Criteria		150	6948
1,3DICHLOROPROPYLENE	542756			No Criteria		21	972.72
ETHYLBENZENE	100414			No Criteria		2100	97272
BROMOMETHANE (methyl bromide)	74839			No Criteria		1500	69480
CHLOROMETHANE (methyl chloride)	74873			No Criteria			No Criteria
METHYLENE CHLORIDE	75092			No Criteria		5900	273288

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: USEPA Lab - Atlantic Ecology Division RIPDES PERMIT #: RI0000949

NOTE: METALS CRITERIA ARE DISSOLVED, METALS LIMITS ARE TOTAL; AMMONIA CRITERIA AND LIMITS HAVE BEEN CONVERTED TO ug/l N.

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	SALTWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	SALTWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
1,1,2,2TETRACHLOROETHANE	79345			No Criteria		40	1852.8
TETRACHLOROETHYLENE	127184			No Criteria		33	1528.56
TOLUENE	108883			No Criteria		15000	694800
1,2TRANSDICHLOROETHYLENE	156605			No Criteria		10000	463200
1,1,1TRICHLOROETHANE	71556			No Criteria			No Criteria
1,1,2TRICHLOROETHANE	79005			No Criteria		160	7411.2
TRICHLOROETHYLENE	79016			No Criteria		300	13896
VINYL CHLORIDE	75014			No Criteria		2.4	111.168
ACID ORGANIC COMPOUNDS							
2CHLOROPHENOL	95578			No Criteria		150	6948
2,4DICHLOROPHENOL	120832			No Criteria		290	13432.8
2,4DIMETHYLPHENOL	105679			No Criteria		850	39372
4,6DINITRO2METHYL PHENOL	534521			No Criteria		280	12969.6
2,4DINITROPHENOL	51285			No Criteria		5300	245496
4NITROPHENOL	88755			No Criteria			No Criteria
PENTACHLOROPHENOL	87865		13	347.36	7.9	30	365.928
PHENOL	108952			No Criteria		1700000	78744000
2,4,6TRICHLOROPHENOL	88062			No Criteria		24	1111.68
BASE NEUTRAL COMPUNDS							
ACENAPHTHENE	83329			No Criteria		990	45856.8
ANTHRACENE	120127			No Criteria		40000	1852800
BENZIDINE	92875			No Criteria		0.002	0.09264
POLYCYCLIC AROMATIC HYDROCARBONS				No Criteria		0.18	8.3376
BIS(2CHLOROETHYL)ETHER	111444			No Criteria		5.3	245.496
BIS(2CHLOROISOPROPYL)ETHER	108601			No Criteria		65000	3010800
BIS(2ETHYLHEXYL)PHTHALATE	117817			No Criteria		22	1019.04
BUTYL BENZYL PHTHALATE	85687			No Criteria		1900	88008
2CHLORONAPHTHALENE	91587			No Criteria		1600	74112
1,2DICHLOROBENZENE	95501			No Criteria		1300	60216
1,3DICHLOROBENZENE	541731			No Criteria		960	44467.2
1,4DICHLOROBENZENE	106467			No Criteria		190	8800.8
3,3DICHLOROBENZIDENE	91941			No Criteria		0.28	12.9696
DIETHYL PHTHALATE	84662			No Criteria		44000	2038080
DIMETHYL PHTHALATE	131113			No Criteria		1100000	50952000
DInBUTYL PHTHALATE	84742			No Criteria		4500	208440
2,4DINITROTOLUENE	121142			No Criteria		34	1574.88

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: USEPA Lab - Atlantic Ecology Division RIPDES PERMIT #: RI0000949

NOTE: METALS CRITERIA ARE DISSOLVED, METALS LIMITS ARE TOTAL; AMMONIA CRITERIA AND LIMITS HAVE BEEN CONVERTED TO ug/l N.

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	SALTWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	SALTWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
1,2DIPHENYLHYDRAZINE	122667			No Criteria		2	92.64
FLUORANTHENE	206440			No Criteria		140	6484.8
FLUORENE	86737			No Criteria		5300	245496
HEXACHLOROBENZENE	118741			No Criteria		0.0029	0.134328
HEXACHLOROBUTADIENE	87683			No Criteria		180	8337.6
HEXACHLOROCYCLOPENTADIENE	77474			No Criteria		1100	50952
HEXACHLOROETHANE	67721			No Criteria		33	1528.56
ISOPHORONE	78591			No Criteria		9600	444672
NAPHTHALENE	91203			No Criteria			No Criteria
NITROBENZENE	98953			No Criteria		690	31960.8
NNITROSODIMETHYLAMINE	62759			No Criteria		30	1389.6
NNITROSODINPROPYLAMINE	621647			No Criteria		5.1	236.232
NNITROSODIPHENYLAMINE	86306			No Criteria		60	2779.2
PYRENE	129000			No Criteria		4000	185280
1,2,4trichlorobenzene	120821			No Criteria		70	3242.4
PESTICIDES/PCBs							
ALDRIN	309002		1.3	34.736		0.0005	0.02316
Alpha BHC	319846			No Criteria		0.049	2.26968
Beta BHC	319857			No Criteria		0.17	7.8744
Gamma BHC (Lindane)	58899		0.16	4.2752		1.8	83.376
CHLORDANE	57749		0.09	2.4048	0.004	0.0081	0.18528
4,4DDT	50293		0.13	3.4736	0.001	0.0022	0.04632
4,4DDE	72559			No Criteria		0.0022	0.101904
4,4DDD	72548			No Criteria		0.0031	0.143592
DIELDRIN	60571		0.71	18.9712	0.0019	0.00054	0.0250128
ENDOSULFAN (alpha)	959988		0.034	0.90848	0.0087	89	0.402984
ENDOSULFAN (beta)	33213659		0.034	0.90848	0.0087	89	0.402984
ENDOSULFAN (sulfate)	1031078			No Criteria		89	4122.48
ENDRIN	72208		0.037	0.98864	0.0023	0.06	0.106536
ENDRIN ALDEHYDE	7421934			No Criteria		0.3	13.896
HEPTACHLOR	76448		0.053	1.41616	0.0036	0.00079	0.0365928
HEPTACHLOR EPOXIDE	1024573		0.053	1.41616	0.0036	0.00039	0.0180648
POLYCHLORINATED BIPHENYLS3	1336363			No Criteria	0.03	0.00064	0.0296448
2,3,7,8TCDD (Dioxin)	1746016			No Criteria		0.000000051	2.36232E-06
TOXAPHENE	8001352		0.21	5.6112	0.0002	0.0028	0.009264
TRIBUTYLTIN			0.42	11.2224	0.0074		0.342768

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: USEPA Lab - Atlantic Ecology Division RIPDES PERMIT #: RI0000949

NOTE: METALS CRITERIA ARE DISSOLVED, METALS LIMITS ARE TOTAL; AMMONIA CRITERIA AND LIMITS HAVE BEEN CONVERTED TO ug/l N.

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	SALTWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	SALTWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
NON PRIORITY POLLUTANTS: OTHER SUBSTANCES							
ALUMINUM (limits are total recoverable)	7429905	NA		No Criteria			No Criteria
AMMONIA as N (winter/summer)	7664417		4932 | 3781.2	131783 101034	739.8 | 567.2		34267.5 | 26271.8
4BROMOPHENYL PHENYL ETHER				No Criteria			No Criteria
CHLORIDE	16887006			No Criteria			No Criteria
CHLORINE	7782505		13	434.2	7.5		434.25
4CHLORO2METHYLPHENOL				No Criteria			No Criteria
1CHLORONAPHTHALENE				No Criteria			No Criteria
4CHLOROPHENOL	106489			No Criteria			No Criteria
2,4DICHLORO6METHYLPHENOL				No Criteria			No Criteria
1,1DICHLOROPROPANE				No Criteria			No Criteria
1,3DICHLOROPROPANE	142289			No Criteria			No Criteria
2,3DINITROTOLUENE				No Criteria			No Criteria
2,4DINITRO6METHYL PHENOL				No Criteria			No Criteria
IRON	7439896			No Criteria			No Criteria
pentachlorobenzene	608935			No Criteria			No Criteria
PENTACHLOROETHANE				No Criteria			No Criteria
1,2,3,5tetrachlorobenzene				No Criteria			No Criteria
1,1,1,2TETRACHLOROETHANE	630206			No Criteria			No Criteria
2,3,4,6TETRACHLOROPHENOL	58902			No Criteria			No Criteria
2,3,5,6TETRACHLOROPHENOL				No Criteria			No Criteria
2,4,5TRICHLOROPHENOL	95954			No Criteria			No Criteria
2,4,6TRINITROPHENOL	88062			No Criteria			No Criteria
XYLENE	1330207			No Criteria			No Criteria

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: USEPA Lab - Atlantic Ecology Division RIPDES PERMIT #: RI0000949

CHEMICAL NAME	CAS#	DAILY MAX LIMIT (ug/L)	MONTHLY AVE LIMIT (ug/L)
PRIORITY POLLUTANTS:			
TOXIC METALS AND CYANIDE			
ANTIMONY	7440360	No Criteria	29644.80
ARSENIC, TOTAL	7440382	2037.53	8.66
ASBESTOS	1332214	No Criteria	No Criteria
BERYLLIUM	7440417	No Criteria	No Criteria
CADMIUM, TOTAL	7440439	1208.46	459.23
CHROMIUM III, TOTAL	16065831	No Criteria	No Criteria
CHROMIUM VI, TOTAL	18540299	33291.46	2610.46
COPPER, TOTAL	7440508	150.38	150.38
CYANIDE	57125	26.72	26.72
LEAD, TOTAL	7439921	6635.13	439.05
MERCURY, TOTAL	7439976	63.63	7.78
NICKEL, TOTAL	7440020	2218.44	381.62
SELENIUM, TOTAL	7782492	8733.55	3704.91
SILVER, TOTAL	7440224	66.63	No Criteria
THALLIUM	7440280	No Criteria	21.77
ZINC, TOTAL	7440666	2812.09	2812.09
VOLATILE ORGANIC COMPOUNDS			
ACROLEIN	107028	No Criteria	13432.80
ACRYLONITRILE	107131	No Criteria	115.80
BENZENE	71432	No Criteria	23623.20
BROMOFORM	75252	No Criteria	64848.00
CARBON TETRACHLORIDE	56235	No Criteria	741.12
CHLOROBENZENE	108907	No Criteria	74112.00
CHLORODIBROMOMETHANE	124481	No Criteria	6021.60
CHLOROFORM	67663	No Criteria	217704.00
DICHLOROBROMOMETHANE	75274	No Criteria	7874.40
1,2DICHLOROETHANE	107062	No Criteria	17138.40
1,1DICHLOROETHYLENE	75354	No Criteria	328872.00
1,2DICHLOROPROPANE	78875	No Criteria	6948.00
1,3DICHLOROPROPYLENE	542756	No Criteria	972.72
ETHYLBENZENE	100414	No Criteria	97272.00
BROMOMETHANE (methyl bromide)	74839	No Criteria	69480.00
CHLOROMETHANE (methyl chloride)	74873	No Criteria	No Criteria
METHYLENE CHLORIDE	75092	No Criteria	273288.00
1,1,2,2TETRACHLOROETHANE	79345	No Criteria	1852.80
TETRACHLOROETHYLENE	127184	No Criteria	1528.56
TOLUENE	108883	No Criteria	694800.00
1,2TRANSDICHLOROETHYLENE	156605	No Criteria	463200.00
1,1,1TRICHLOROETHANE	71556	No Criteria	No Criteria
1,1,2TRICHLOROETHANE	79005	No Criteria	7411.20
TRICHLOROETHYLENE	79016	No Criteria	13896.00
VINYL CHLORIDE	75014	No Criteria	111.17
ACID ORGANIC COMPOUNDS			
2CHLOROPHENOL	95578	No Criteria	6948.00
2,4DICHLOROPHENOL	120832	No Criteria	13432.80
2,4DIMETHYLPHENOL	105679	No Criteria	39372.00
4,6DINITRO2METHYL PHENOL	534521	No Criteria	12969.60
2,4DINITROPHENOL	51285	No Criteria	245496.00
4NITROPHENOL	88755	No Criteria	No Criteria
PENTACHLOROPHENOL	87865	347.36	347.36
PHENOL	108952	No Criteria	78744000.00
2,4,6TRICHLOROPHENOL	88062	No Criteria	1111.68
BASE NEUTRAL COMPUNDS			
ACENAPHTHENE	83329	No Criteria	45856.80
ANTHRACENE	120127	No Criteria	1852800.00
BENZIDINE	92875	No Criteria	0.09
PAHs		No Criteria	8.34
BIS(2CHLOROETHYL)ETHER	111444	No Criteria	245.50
BIS(2CHLOROISOPROPYL)ETHER	108601	No Criteria	3010800.00
BIS(2ETHYLHEXYL)PHTHALATE	117817	No Criteria	1019.04
BUTYL BENZYL PHTHALATE	85687	No Criteria	88008.00
2CHLORONAPHTHALENE	91587	No Criteria	74112.00
1,2DICHLOROBENZENE	95501	No Criteria	60216.00
1,3DICHLOROBENZENE	541731	No Criteria	44467.20
1,4DICHLOROBENZENE	106467	No Criteria	8800.80
3,3DICHLOROBENZIDENE	91941	No Criteria	12.97
DIETHYL PHTHALATE	84662	No Criteria	2038080.00
DIMETHYL PHTHALATE	131113	No Criteria	50952000.00
DI-n-BUTYL PHTHALATE	84742	No Criteria	208440.00
2,4DINITROTOLUENE	121142	No Criteria	1574.88
1,2DIPHENYLHYDRAZINE	122667	No Criteria	92.64
FLUORANTHENE	206440	No Criteria	6484.80

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: USEPA Lab - Atlantic Ecology Division RIPDES PERMIT #: RI0000949

CHEMICAL NAME	CAS#	DAILY MAX LIMIT (ug/L)	MONTHLY AVE LIMIT (ug/L)
FLUORENE	86737	No Criteria	245496.00
HEXACHLOROBENZENE	118741	No Criteria	0.13
HEXACHLOROBUTADIENE	87683	No Criteria	8337.60
HEXACHLOROCYCLOPENTADIENE	77474	No Criteria	50952.00
HEXACHLOROETHANE	67721	No Criteria	1528.56
ISOPHORONE	78591	No Criteria	444672.00
NAPHTHALENE	91203	No Criteria	No Criteria
NITROBENZENE	98953	No Criteria	31960.80
N-NITROSODIMETHYLAMINE	62759	No Criteria	1389.60
N-NITROSODI-N-PROPYLAMINE	621647	No Criteria	236.23
N-NITROSODIPHENYLAMINE	86306	No Criteria	2779.20
PYRENE	129000	No Criteria	185280.00
1,2,4trichlorobenzene	120821	No Criteria	3242.40
PESTICIDES/PCBs			
ALDRIN	309002	34.74	0.02
Alpha BHC	319846	No Criteria	2.27
Beta BHC	319857	No Criteria	7.87
Gamma BHC (Lindane)	58899	4.28	4.28
CHLORDANE	57749	2.40	0.19
4,4DDT	50293	3.47	0.05
4,4DDE	72559	No Criteria	0.10
4,4DDD	72548	No Criteria	0.14
DIELDRIN	60571	18.97	0.03
ENDOSULFAN (alpha)	959988	0.91	0.40
ENDOSULFAN (beta)	33213659	0.91	0.40
ENDOSULFAN (sulfate)	1031078	No Criteria	4122.48
ENDRIN	72208	0.99	0.11
ENDRIN ALDEHYDE	7421934	No Criteria	13.90
HEPTACHLOR	76448	1.42	0.04
HEPTACHLOR EPOXIDE	1024573	1.42	0.02
POLYCHLORINATED BIPHENYLS3	1336363	No Criteria	0.03
2,3,7,8TCDD (Dioxin)	1746016	No Criteria	0.00
TOXAPHENE	8001352	5.61	0.01
TRIBUTYLTIN		11.22	0.34

CHEMICAL NAME	CAS#	DAILY MAX LIMIT (ug/L)	MONTHLY AVE LIMIT (ug/L)
NON PRIORITY POLLUTANTS:			
OTHER SUBSTANCES			
ALUMINUM, TOTAL	7429905	No Criteria	No Criteria
AMMONIA (as N), WINTER (NOV-APR	7664417	131783.04	34267.54
AMMONIA (as N), SUMMER (MAY-OC	7664417	101033.66	26271.78
4BROMOPHENYL PHENYL ETHER		No Criteria	No Criteria
CHLORIDE	16887006	No Criteria	No Criteria
CHLORINE	7782505	434.20	434.20
4CHLORO2METHYLPHENOL		No Criteria	No Criteria
1CHLORONAPHTHALENE		No Criteria	No Criteria
4CHLOROPHENOL	106489	No Criteria	No Criteria
2,4DICHLORO6METHYLPHENOL		No Criteria	No Criteria
1,1DICHLOROPROPANE		No Criteria	No Criteria
1,3DICHLOROPROPANE	142289	No Criteria	No Criteria
2,3DINITROTOLUENE		No Criteria	No Criteria
2,4DINITRO6METHYL PHENOL		No Criteria	No Criteria
IRON	7439896	No Criteria	No Criteria
pentachlorobenzene	608935	No Criteria	No Criteria
PENTACHLOROETHANE		No Criteria	No Criteria
1,2,3,5tetrachlorobenzene		No Criteria	No Criteria
1,1,1,2TETRACHLOROETHANE	630206	No Criteria	No Criteria
2,3,4,6TETRACHLOROPHENOL	58902	No Criteria	No Criteria
2,3,5,6TETRACHLOROPHENOL		No Criteria	No Criteria
2,4,5TRICHLOROPHENOL	95954	No Criteria	No Criteria
2,4,6TRINITROPHENOL	88062	No Criteria	No Criteria
XYLENE	1330207	No Criteria	No Criteria

PART II
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GENERAL REQUIREMENTS

(a) Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Chapter 46-12 of the Rhode Island General Laws and the Clean Water Act (CWA) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(1) The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

(2) The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the CWA is subject to a civil penalty not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307 or 308 of the Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment of not more than 1 year, or both.

(3) Chapter 46-12 of the Rhode Island General Laws provides that any person who violates a permit condition is subject to a civil penalty of not more than $5,000 per day of such violation. Any person who willfully or negligently violates a permit condition is subject to a criminal penalty of not more than $10,000 per day of such violation and imprisonment for not more than 30 days, or both. Any person who knowingly makes any false statement in connection with the permit is subject to a criminal penalty of not more than $5,000 for each instance of violation or by imprisonment for not more than 30 days, or both.

(b) Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The permittee shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

(c) Need to Halt or Reduce Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(e) Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures, and, where applicable, compliance with DEM "Rules and Regulations Pertaining to the Operation and Maintenance of Wastewater Treatment Facilities" and "Rules and Regulations Pertaining to the Disposal and Utilization of Wastewater Treatment Facility Sludge." This provision requires the operation of back-up or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of the permit.

(f) Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause, including but not limited to: (1) Violation of any terms or conditions of this permit; (2) Obtaining this permit by misrepresentation or failure to disclose all relevant facts; or (3) A change in any conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(g) Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

(h) Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

(i) Inspection and Entry

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

(1) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times any records that must be kept under the conditions of this permit;

(3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

(4) Sample or monitor any substances or parameters at any location, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA or Rhode Island law.

(j) Monitoring and Records

(1) Samples and measurements taken for the purpose of monitoring shall be representative of the volume and nature of the discharge over the sampling and reporting period.

(2) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings from continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 5 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

(3) Records of monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) 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.

(4) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 and applicable Rhode Island regulations, unless other test procedures have been specified in this permit.

(5) The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall upon conviction, be punished by a fine of not more than $10,000 per violation or by imprisonment for not more than 6 months per violation or by both. Chapter 46-12 of the Rhode Island General Laws also provides that such acts are subject to a fine of not more than $5,000 per violation, or by imprisonment for not more than 30 days per violation, or by both.

(6) Monitoring results must be reported on a Discharge Monitoring Report (DMR).

(7) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136, applicable State regulations, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

(k) Signatory Requirement

All applications, reports, or information submitted to the Director shall be signed and certified in accordance with Rule 12 of the Rhode Island Pollutant Discharge Elimination System (RIPDES) Regulations. Rhode Island General Laws, Chapter 46-12 provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $5,000 per violation, or by imprisonment for not more than 30 days per violation, or by both.

(l) Reporting Requirements

(1) Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.

(2) Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with the permit requirements.

(3) Transfers. This permit is not transferable to any person except after written notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under State and Federal law.

(4) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(5) Twenty-four hour reporting. The permittee shall immediately report any noncompliance which may endanger health or the environment by calling DEM at (401) 222-3961, (401) 222-6519 or (401) 222-2284 at night.

A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The following information must be reported immediately:

(i) Any unanticipated bypass which causes a violation of any effluent limitation in the permit; or

(ii) Any upset which causes a violation of any effluent limitation in the permit; or

(iii) Any violation of a maximum daily discharge limitation for any of the pollutants specifically listed by the Director in the permit.

The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

(6) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (1), (2), and (5), of this section, at the time monitoring reports are submitted. The reports shall contain the information required in paragraph (l)(5) of the section.

(7) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, they shall promptly submit such facts or information.

(m) Bypass

"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

(1) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (2) and (3) of this section.

(2) Notice.

(i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass.

(ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Rule 14.18 of the RIPDES Regulations.

(3) Prohibition of bypass.

(i) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage, where "severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production;

(B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(C) The permittee submitted notices as required under paragraph (2) of this section.

(ii) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (3)(i) of this section.

(n) Upset

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(1) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph (2) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(2) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(a) An upset occurred and that the permittee can identify the cause(s) of the upset;

(b) The permitted facility was at the time being properly operated;

(c) The permittee submitted notice of the upset as required in Rule 14.18 of the RIPDES Regulations; and

(d) The permittee complied with any remedial measures required under Rule 14.05 of the RIPDES Regulations.

(3) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

(o) Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. Discharges which cause a violation of water quality standards are prohibited. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different or increased discharges of pollutants must be reported by submission of a new NPDES application at least 180 days prior to commencement of such discharges, or if such changes will not violate the effluent limitations specified in this permit, by notice, in writing, to the Director of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by the permit constitutes a violation.

(p) Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner consistent with applicable Federal and State laws and regulations including, but not limited to the CWA and the Federal Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq., Rhode Island General Laws, Chapters 46-12, 23-19.1 and regulations promulgated thereunder.

(q) Power Failures

In order to maintain compliance with the effluent limitation and prohibitions of this permit, the permittee shall either:

> In accordance with the Schedule of Compliance contained in Part I, provide an alternative power source sufficient to operate the wastewater control facilities;

or if such alternative power source is not in existence, and no date for its implementation appears in Part I,

> Halt reduce or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

(r) Availability of Reports

Except for data determined to be confidential under paragraph (w) below, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the DEM, 291 Promenade Street, Providence, Rhode Island. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA and under Section 46-12-14 of the Rhode Island General Laws.

(s) State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law.

(t) Other Laws

The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, nor does it relieve the permittee of its obligation to comply with any other applicable Federal, State, and local laws and regulations.

(u) Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

(v) Reopener Clause

The Director reserves the right to make appropriate revisions to this permit in order to incorporate any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the CWA or State law. In accordance with Rules 15 and 23 of the RIPDES Regulations, if any effluent standard or prohibition, or water quality standard is promulgated under the CWA or under State law which is more stringent than any limitation on the pollutant in the permit, or controls a pollutant not limited in the permit, then the Director may promptly reopen the permit and modify or revoke and reissue the permit to conform to the applicable standard.

(w) Confidentiality of Information

(1) Any information submitted to DEM pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, DEM may make the information available to the pubic without further notice.

(2) Claims of confidentiality for the following information will be denied:

(i) The name and address of any permit applicant or permittee;

(ii) Permit applications, permits and any attachments thereto; and

(iii) NPDES effluent data.

(x) Best Management Practices

The permittee shall adopt Best Management Practices (BMP) to control or abate the discharge of toxic pollutants and hazardous substances associated with or ancillary to the industrial manufacturing or treatment process and the Director may request the submission of a BMP plan where the Director determines that a permittee's practices may contribute significant amounts of such pollutants to waters of the State.

(y) Right of Appeal

Within thirty (30) days of receipt of notice of a final permit decision, the permittee or any interested person may submit a request to the Director for an adjudicatory hearing to reconsider or contest that decision. The request for a hearing must conform to the requirements of Rule 49 of the RIPDES Regulations.

DEFINITIONS

1. For purposes of this permit, those definitions contained in the RIPDES Regulations and the Rhode Island Pretreatment Regulations shall apply.

2. The following abbreviations, when used, are defined below.

cu. M/day or M^3/day	cubic meters per day
mg/l	milligrams per liter
ug/l	micrograms per liter
lbs/day	pounds per day
kg/day	kilograms per day
Temp. ^oC	temperature in degrees Centigrade
Temp. ^oF	temperature in degrees Fahrenheit
Turb.	turbidity measured by the Nephelometric Method (NTU)
TNFR or TSS	total nonfilterable residue or total suspended solids
DO	dissolved oxygen
BOD	five-day biochemical oxygen demand unless otherwise specified
TKN	total Kjeldahl nitrogen as nitrogen
Total N	total nitrogen
NH_3-N	ammonia nitrogen as nitrogen
Total P	total phosphorus
COD	chemical oxygen demand
TOC	total organic carbon
Surfactant	surface-active agent
pH	a measure of the hydrogen ion concentration
PCB	polychlorinated biphenyl
CFS	cubic feet per second
MGD	million gallons per day
Oil & Grease	Freon extractable material
Total Coliform	total coliform bacteria
Fecal Coliform	total fecal coliform bacteria
ml/l	milliliter(s) per liter
NO_3-N	nitrate nitrogen as nitrogen
NO_2-N	nitrite nitrogen as nitrogen
NO_3-NO_2	combined nitrate and nitrite nitrogen as nitrogen
$C1_2$	total residual chlorine

RESPONSE TO COMMENTS

NO SIGNIFICANT COMMENTS WERE RECEIVED ON THE DRAFT PERMIT FOR THIS FACILITY; THEREFORE, NO RESPONSE WAS PREPARED.

HEARING REQUESTS

If you wish to contest any of the provisions of this permit, you may request a formal hearing within thirty (30) days of receipt of this letter. The request should be submitted to the Administrative Adjudication Division at the following address:

Bonnie Stewart, Clerk
Office of Administrative Adjudication
One Capitol Hill, Second Floor
Providence, RI 02903

Any request for a formal hearing must conform to the requirements of Rule 49 of the State Regulations.

STAYS OF RIPDES PERMITS

Should the Department receive and grant a request for a formal hearing, the contested conditions of the permit will not automatically be stayed. However, the permittee, in accordance with Rule 50, may request a temporary stay for the duration of adjudicatory hearing proceedings. Requests for stays of permit conditions should be submitted to the Office of Water Resources at the following address:

Angelo S. Liberti, P.E.
Chief of Surface Water Protection
Office of Water Resources
235 Promenade Street
Providence, Rhode Island 02908

All uncontested conditions of the permit will be effective and enforceable in accordance with the provisions of Rule 49.