



RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

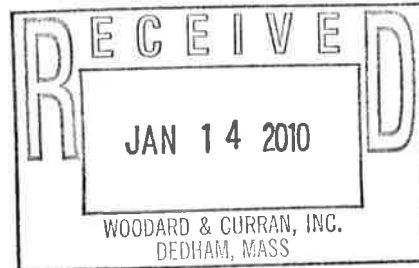
235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

January 6, 2010

CERTIFIED MAIL

Mr. C. Richard Paduch, Town Manager
Town of Warren
514 Main Street
Warren, RI 02885-4369



RE: 14-Day Draft Permit; RIPDES Application No. RI0100056

Dear Mr. Paduch,

In accordance with regulations adopted pursuant to Chapter 46-12 of the General Laws of Rhode Island, as amended, the Rhode Island Department of Environmental Management (DEM) intends to reissue a Rhode Island Pollutant Discharge Elimination System (RIPDES) Permit to the Warren Wastewater Treatment Facility (WWTF) in the near future.

The enclosed draft permit has been developed by the DEM and contains effluent limitations and conditions to assure that the WWTF's discharge receives adequate treatment and will not violate water quality standards. Also, enclosed are the Fact Sheet and Permit Development Document, which describe the basis for the permit conditions, and a report titled *Evaluation of Nitrogen Targets and Load Reductions for the Palmer River*, which is referenced in the Permit Development Document. The Town of Warren (Town) is encouraged to closely review all terms and conditions contained in this draft permit. If the Town believes the permit does not accurately describe the WWTF's discharge, it should notify the DEM, in writing by February 5, 2010. Particular attention should be given to the following sections:

- Effluent Limitations and Monitoring Requirements

This section contains listings of effluent characteristics, discharge limitations and monitoring requirements. Please note that monitoring for Total Cadmium, Total Chromium, Total Lead, Total Zinc, Total Nickel, and Total Aluminum is being required quarterly as part of the DEM's list of standard parameters, for discharges to salt waters, that must be measured as part of the bioassay procedures. Also note that limits for Total Nitrogen have been included in the permit based on a nutrient loading analysis that the DEM performed on the Palmer River. The basis for the Total Nitrogen limits are included in the enclosed Permit Development Document and the report titled *Evaluation of Nitrogen Targets and Load Reductions for the Palmer River*.

Office of Water Resources/Telephone: 401.222.4700/Fax: 401.222.6177



- Monitoring and Reporting

This section contains your responsibilities for reporting monitoring results.

The law requires public notice to be given of the preparation of a draft permit to allow opportunity for public comments and a public hearing. If the DEM does not receive any comments from the Town by February 5, 2010, it will initiate the public comment period by proceeding to publish public notice of the proposed issuance of this permit. In order to preserve the right to a formal hearing to contest provisions in a final permit, all persons, including the Town, who believe any condition of the draft is inappropriate, must raise all reasonably ascertainable issues and submit all reasonably available arguments and factual grounds supporting their position by the close of the public comment period. Following the public comment period, a public hearing will be held, after which the final permit will be issued providing no new substantial questions are raised. If new questions develop during the comment period or public hearing, it may be necessary to draft a new permit, revise the Fact Sheet, and/or reopen the public comment period.

On January 1, 1996 a state law (R.I.G.L. 42-17.4-12) was enacted regarding public notices and public hearings for RIPDES Permits. This law requires a public hearing for the reissuance of all major RIPDES permits and requires that the public notice for the hearing be in the form of a display advertisement in the newspaper to be paid for by the facility. In addition, the law states that the stenographer is also to be paid for by the facility. Unless notified to the contrary, the DEM will provide the Providence Journal and the stenographer with the address above for billing and ask that they bill the Town directly.

As the Town is aware, the WWTF routinely violates its flow limit and, as a result, the Town is in the process of conducting inflow removal activities. In addition, the WWTF will not be able to immediately comply with the Total Nitrogen permit limits in the attached draft permit. Therefore, subsequent to permit issuance, the DEM intends to enter into a consent agreement with the Town that will establish a schedule for the Town to complete its inflow removal activities and construct the upgrades that will be necessary for the WWTF to comply with the Total Nitrogen limits. This Consent Agreement will include interim limits for flow and Total Nitrogen and a schedule for the completion of the inflow removal work, submittal of a Facilities Plan Amendment, and construction of the necessary upgrades to meet final limits. If the Facilities Plan Amendment includes a proposal to re-rate the WWTF's design flow to a flow that is greater than the permitted flow limit established in this permit, then the Facilities Plan Amendment must indicate that pollutant loadings will not be increased and the Town agrees not to appeal a permit modification that establishes concentration limits that insure compliance with this requirement (i.e., concentration limits that are decreased proportional to the flow increase). In order to enter into this Consent Agreement, the Town will have to appeal its flow and Total Nitrogen limits within thirty (30) days after the DEM's issues the final permit. At that time, a draft Consent Agreement will be developed and sent to the Town for review.

Mr. C. Richard Paduch
January 6, 2010
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In addition to transmitting the Town's draft permit, this letter is also being written in response to the December 4, 2009 letter that Woodard and Curran submitted to the DEM on behalf of the Town. After review of the December 4th letter, the DEM is approving the Town's extension request to submit its Final Inflow Report. Therefore, in accordance with the approved extension request, the Town must submit its Final Inflow Report to the DEM by September 14, 2010 and its Facilities Plan Amendment for a flow re-rating to the DEM by April 26, 2011.

The DEM has also reviewed the alternative large building inspection threshold of 24,000 ft² that was proposed in the December 4th letter. Although the DEM may be willing to establish an alternative large building inspection threshold, the DEM has some concerns regarding the methodology used to establish the 24,000 ft² threshold. Specifically, the DEM is concerned that the proposed methodology does not take into account the true cost to treat stormwater runoff because it did not account for the increased cost that will be required to meet the new limits proposed in this permit (i.e., the Total Nitrogen limits), it did not account for any localized impacts of inflow on flow limited sewers, and it did not account for the recurring cost to treat stormwater vs. the one-time cost to inspect a building. Therefore, prior to DEM's approval of an alternative large building inspection threshold, the Town must submit an analysis that includes the following: the number of large buildings that fall into 5,000 ft² size tiers (i.e., 5,000 – 10,000 ft², 10,000 – 15,000 ft², 15,000 – 20,000 ft², and 20,000 – 24,000 ft²); an estimate of the total combined inflow volume that would be generated by the buildings in each tier during a six hour, one-year storm event with a total rainfall of 1.72 inches; a map with color-coded locations of the buildings that fall into each size tier with capacity limited sewers identified; and a recommendation of an alternative large building inspection threshold based on the anticipated total gallons of inflow that could be removed from buildings in each size tier. This analysis must be submitted by February 5, 2010. Once the DEM reviews this revised analysis, a decision will be made regarding the final large building inspection threshold.

If the Town has any questions or would like to meet to discuss the draft permit or the revised large building inspection threshold analysis requirements, do not hesitate to contact Joseph Haberek, P.E. at 401-222-4700, extension 7715.

Sincerely,



Eric A. Beck, P.E.
Supervising Sanitary Engineer

cc: Heidi Travers, DEM
Jonathan Himlan, Woodard & Curran
David Komeiga, United Water

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, the

Town of Warren
514 Main Street
Warren, RI 02885

is authorized to discharge from a facility located at the

Warren Wastewater Treatment Facility
427 Water Street
Warren, RI 02885

to receiving waters named the

Warren River

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

This permit shall become effective on _____.

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

This permit supersedes the permit issued on September 30, 2002.

This permit consists of 21 pages in Part I including effluent limitations, monitoring requirements, etc. and 10 pages in Part II including General Conditions.

Signed this _____ day of _____, 2010.

DRAFT

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

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date of this permit and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 001 (Final Discharge from the WWTF After All Treatment Processes).

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Quantity - lbs./day		Discharge Limitations		Concentration - specify units		Monitoring Requirement	
	Average Monthly	Maximum Daily	Average Monthly	Average Weekly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Flow	2.01 MGD	---	---	---	*(Average)	*(Maximum)	Continuous	Recorder
BOD ₅	502	838	30 mg/l	45 mg/l	45 mg/l	50 mg/l	3/Week	24-Hr. Comp.
BOD ₅ - % Removal			85%				1/Month	Calculated
TSS	502	838	30 mg/l	45 mg/l	45 mg/l	50 mg/l	3/Week	24-Hr. Comp.
TSS - % Removal			85%				1/Month	Calculated
Settleable Solids				---	m/l	---	1/Day	Grab

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

Sampling for TSS and BOD₅ shall be performed Tuesday, Thursday, and either Saturday or Sunday. All BOD₅ and TSS samples shall be taken on the influent and effluent with appropriate allowances for hydraulic detention (flow-through) time.

Sampling for Flow and Settleable Solids shall be performed Sunday-Saturday.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 001A (Final Discharge from the WWTF After All Treatment Processes).

PART I
A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning on the effective date of this permit and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 001 (Final Discharge from the WWTF After All Treatment Processes).

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Quantity - lbs./day		Discharge Limitations		Concentration - specify units		Monitoring Requirement	
	Average Monthly	Maximum Daily	Average Monthly	Maximum Daily	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Fecal Coliform			200 MPN ¹ 100 ml		400 MPN ¹ 100 ml	400 MPN ¹ 100 ml	3Week	Grab
Total Residual Chlorine (TRC)			455 ug/l ²		455 ug/l ²	455 ug/l ²	Daily	Grab ²
pH			(6.5 SU)		(6.5 SU)	(8.5 SU)	2/Day	Grab

¹Two (2) of the three (3) Fecal Coliform samples are to be taken on Tuesday and Thursday. All three (3) of the Fecal Coliform samples shall be taken at the same time of day as the second TRC sample. The Geometric Mean shall be used to obtain the "weekly average" and the "monthly average."

² The use of a continuous TRC recorder after chlorination and prior to dechlorination is required to provide a record that proper disinfection was achieved at all times. Compliance with the permit limitations shall be determined by taking three grab samples of the final effluent (after dechlorination) Monday - Friday (except holidays), equally spaced over one (1) eight (8) hour working shift with a minimum of three hours between grabs, and on Saturdays, Sundays, and Holidays by taking at least two (2) grab samples each day with a minimum of two (2) hours between grabs. 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 parentheses () are to be reported as Minimum/Maximum for the reporting period rather than Average Monthly/Maximum Daily.

Sampling for pH and Chlorine Residual shall be performed Sunday-Saturday.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 001A (Final Discharge from the WWTF After All Treatment Processes).

PART I
A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

3. During the period beginning on the effective date of this permit and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 001 (Final Discharge from the WWTF After All Treatment Processes).

Such discharges shall be monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Concentration - specify units		Monitoring Requirement	
	Average Monthly	Maximum Daily	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Oil and Grease				--- mg/l	1/Month	3 Grabs ¹
Nitrate, Total (as N) (Nov. 1 – April 30) (May 1 – Oct. 31)	--- mg/l			--- mg/l	1/Week	24-Hr. Comp.
	--- mg/l			--- mg/l	1/Week	24-Hr. Comp.
Nitrite, Total (as N) (Nov. 1 – April 30) (May 1 – Oct. 31)	--- mg/l			--- mg/l	1/Week	24-Hr. Comp.
	--- mg/l			--- mg/l	1/Week	24-Hr. Comp.
Total Kjeldahl Nitrogen - TKN (as N) (Nov. 1 – April 30) (May 1 – Oct. 31)	--- mg/l			--- mg/l	1/Week	24-Hr. Comp.
	--- mg/l			--- mg/l	1/Week	24-Hr. Comp.
Nitrogen, Total (TKN + Nitrate + Nitrite, as N) (Nov. 1 – April 30) (May 1 – Oct. 31)	14.3 mg/l			--- mg/l	1/Week	Calculated
	83.8 lbs/d			--- mg/l	1/Week	Calculated

¹Three (3) grab samples shall be equally spaced over the course of an eight (8) hour shift with a minimum of three (3) hours between grabs. Each grab sample must be analyzed individually and the maximum values reported.

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

Samples taken in compliance with the monitoring requirements specified above shall be taken Monday through Friday at the following location: Outfall 001A (Final Discharge from the WWTF After All Treatment Processes).

PART I
A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

4. During the period beginning on the effective date of this permit and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 001 (Final Discharge from the WWTF After All Treatment Processes).

Such discharges shall be monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Concentration - specify units		Monitoring Requirement	
	Average Monthly	Quantity - lbs. per day Maximum Daily	Average Monthly	Average Weekly	Measurement Frequency	Sample Type
Copper, Total ¹		50 ug/l		162 ug/l	1/Month	24-Hr. Comp.
Cyanide ¹		28 ug/l		28 ug/l	1/Month	Composite ²
Cadmium, Total ¹		708 ug/l		1127 ug/l	1/Quarter	24-Hr. Comp.
Chromium, Total ¹		4028 ug/l		31017 ug/l	1/Quarter	24-Hr. Comp.
Lead, Total ¹		681 ug/l		6183 ug/l	1/Quarter	24-Hr. Comp.
Zinc, Total ¹		2664 ug/l		2664 ug/l	1/Quarter	24-Hr. Comp.
Nickel, Total ¹		663 ug/l		2093 ug/l	1/Quarter	24-Hr. Comp.
Aluminum, Total ¹		--- ug/l		--- ug/l	1/Quarter	24-Hr. Comp.

¹ Sampling of influent and effluent shall be done to account for hydraulic detention (flow-through) time.

² Three (3) grab samples shall be equally spaced over one (1) eight (8) hour shift, with a minimum of three (3) hours between grabs. All three (3) samples shall be composited, then analyzed for available Cyanide.

Samples taken in compliance with the monitoring requirements specified above shall be taken Monday through Friday at the following locations: Outfall 001A (Final Discharge from the WWTF After All Treatment Processes).

PART I
A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

5. During the period beginning on the effective date of this permit and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 001 (Final Discharge from the WWTF After All Treatment Processes).

Such discharges shall be monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Concentration - specify units		Monitoring Requirement	
	Average Monthly	Maximum Daily	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
<i>Mysidopsis bahia</i>						
LC50 ¹				100% or Greater ²	1/Quarter	24-Hr. Comp.

¹LC₅₀ is defined as the concentration of wastewater that causes mortality to 50% of the test organisms.

²The 100% or greater limit is defined as a sample which is composed of 100% effluent.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: Outfall 001A (Final Discharge from the WWTF After All Treatment Processes) in accordance with I.B. of the permit.

6. a. The pH of the effluent shall not be less than 6.5 nor greater than 8.5 standard units at any time, 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.
- d. The permittee's treatment facility shall maintain a minimum of 85 percent removal of both total suspended solids and 5-day biochemical oxygen demand. The percent removal shall be based on monthly average values.
- e. When the effluent discharged for a period of 90 consecutive days exceeds 80 percent of the permitted monthly average flow, the permittee shall submit to the Department of Environmental Management a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.
- f. The permittee shall analyze its effluent annually for the EPA Priority Pollutants as listed in 40 CFR 122, Appendix D, Table II and III. The results of these analyses shall be submitted to the Department of Environmental Management by January 15th of each year for the previous calendar year. All sampling and analysis shall be done in accordance with EPA Regulations, including 40 CFR, Part 136; grab and composite samples shall be taken as appropriate.
- g. This permit serves as the State's Water Quality Certificate for the discharges described herein.

B. BIOMONITORING REQUIREMENTS AND INTERPRETATION OF RESULTS

1. General

Beginning on the effective date of the permit, the permittee shall perform four (4) acute toxicity tests per year on samples collected from discharge outfall 001 (Final Discharge from the WWTF After All Treatment Processes). The permittee shall conduct the tests during dry weather periods (no rain within forty-eight (48) hours prior to or during sampling unless approved by RIDEM) according to the following test frequency and protocols. Acute data shall be reported as outlined in Part I.B.9. The State may require additional screening, range finding, definitive acute or chronic bioassays as deemed necessary based on the results of the initial bioassays required herein. Indications of toxicity could result in requiring a Toxicity Reduction Evaluation (TRE) to investigate the causes and to identify corrective actions necessary to eliminate or reduce toxicity to an acceptable level.

2. Test Frequency

On four (4) sampling events, (one (1) each calendar quarter) the permittee will conduct forty-eight (48) hour acute definitive toxicity tests on the species listed below, for a total of four (4) acute toxicity tests per year. This requirement entails performing one (1-) species testing as follows:

<u>Species</u>	<u>Test Type</u>	<u>Frequency</u>
Mysids (<i>Mysidopsis bahia</i>)	Definitive 48-Hour Acute Static (LC ₅₀)	Quarterly

3. Testing Methods

Acute definitive toxicity tests shall be conducted in accordance with protocols listed in the EPA document: Cornelius I. Weber, et. al., 1991. Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms, Fourth Edition (or the most recent edition), Office of Research and Development, Cincinnati, OH (EPA-600/4-90-027), incorporating any deviations from protocol listed herein, or additional methods if approved by the Director of RIDEM.

4. Sample Collection

For each sampling event a twenty-four (24) hour flow proportioned composite final effluent sample shall be collected during dry weather (no rain forty-eight (48) hours prior to or during sampling unless approved by RIDEM). This sample shall be kept cool (at 4°C) and testing shall begin within twenty-four (24) hours after the last sample of the composite is collected. In the laboratory, the sample will be split into two (2) subsamples, after thorough mixing, for the following:

- A: Chemical Analysis
- B: Acute Toxicity Testing

All samples held overnight shall be refrigerated at 4°C. Grab samples must be used for pH and temperature.

5. Salinity Adjustment

Prior to the initiation of testing, the effluent must be adjusted to make the salinity of the effluent equal to that of the marine dilution water. The test solution must be prepared by adding non-toxic dried ocean salts to a sufficient quantity of 100% effluent to raise the salinity to the desired level. After the addition of the dried salts, stir gently for thirty (30) to sixty (60) minutes, preferably with a magnetic stirrer, to ensure that the salts are in solution. It is important to check the final salinity with a refractometer or salinometer. Salinity adjustments following this procedure and in accordance with EPA protocol will ensure that the concentrations (% effluent) of each dilution are real and allow for an accurate evaluation with the acute permit limit and acute monitoring requirements.

6. Dilution Water

Dilution water used for marine acute toxicity analyses should be of sufficient quality to meet minimum acceptability of test results (See Part I.B. 7). Natural seawater shall be used as the dilution water. This water shall be collected from Narragansett Bay off the dock at the URI's Graduate School of Oceanography on South Ferry Road, Narragansett. It is noted that the University claims no responsibility for the personal safety on this dock. The permittee shall observe the rules posted at the dock. If this natural seawater diluent is found to be, or suspected to be toxic or unreliable, an alternate source of natural seawater or, deionized water mixed with hypersaline brine or artificial sea salts of known quality with a salinity and pH similar to that of the receiving water may be substituted AFTER RECEIVING WRITTEN APPROVAL FROM RIDEM.

7. Effluent Toxicity Test Conditions for Mysids¹ (*Mysidopsis bahia*)

a.	Test Type	48-Hour Static Acute Definitive
b.	Salinity	25 ppt \pm 10% for all dilutions
c.	Temperature (C)	25 ^o \pm 1 ^o C
d.	Light Quality	Ambient laboratory illumination
e.	Photoperiod	8 - 16 Hour Light/24-Hour
f.	Test Chamber Size	250 ml
g.	Test Solution Volume	200 ml
h.	Age of Test Organisms	1 - 5 Days
i.	No. Mysids Per Test Chamber	10
j.	No. of Replicate Test Chamber Per Concentration	2
k.	Total No. Mysids Per Test Concentration	20
l.	Feeding Regime	Light feeding (two (2) drops concentrated brine shrimp nauplii, approximately 100 nauplii per mysid twice daily).
m.	Aeration	None, unless dissolved oxygen falls below 40% of saturation at which time gentle single-bubble aeration should be started.
n.	Dilution Water	Narragansett Bay water as discussed above.
o.	Dilutions	Five (5) dilutions plus a control: 100%, 50%, 25%, 12.5%, 6.25% and 0% effluent.
p.	Effect Measured and Test	Mortality - no movement of body test duration or appendages on gentle prodding, 48-hour LC ₅₀ and NOAEL.
q.	Test Acceptability	90% or greater survival of test organisms in control solution.
r.	Sampling Requirements	Samples are collected and used within 24 hours after the last sample of the composite is collected.
s.	Sample Volume Required	Minimum four (4) liters

¹Adapted from EPA/600/4-90/027

8. Chemical Analysis

The following chemical analysis shall be performed for every sampling event.

<u>Parameter</u>	<u>Effluent</u>	<u>Saline Diluent</u>	<u>Detection Limit (mg/l)</u>
pH	X	X	---
Specific Conductance	X	X	---
Total Solids and Suspended Solids	X	X	---
Ammonia	X		0.1
Total Organic Carbon	X		0.5
Cyanide	X		0.01
Total Phenols	X		0.05
Salinity	X	X	PPT(0/00)

During the first, second, and fourth calendar quarter bioassay sampling events the following chemical analyses shall be performed:

<u>Total Metals</u>	<u>Effluent</u>	<u>Saline Diluent</u>	<u>Detection Limit (µg/l)</u>
Total Copper	X	X	20.0
Total Cadmium	X	X	1.0
Total Chromium	X	X	5.0
Total Lead	X	X	3.0
Total Zinc	X	X	20.0
Total Nickel	X	X	10.0
Total Aluminum	X	X	20.0

The above metal analyses may be used to fulfill, in part or in whole, monthly monitoring requirements in the permit for these specific metals.

During the third calendar quarter bioassay sampling event, the final effluent sample collected during the same twenty-four (24) hour period as the bioassay sample, shall be analyzed for priority pollutants (as listed in Tables II and III of Appendix D of 40 CFR 122). The bioassay priority pollutant scan shall be a full scan and may be coordinated with the priority pollutant scan requirements in Part I.A.6.f.

9. Toxicity Test Report Elements

A report of results will include the following:

- Description of sample collection procedures and site description.
- Names of individuals collecting and transporting samples, times, and dates of sample collection and analysis.

- General description of tests: age of test organisms, origin, dates and results of standard toxicant tests (quality assurance); light and temperature regime; dilution water description; other information on test conditions if different than procedures recommended.
- The method used to adjust the salinity of the effluent must be reported.
- All chemical and physical data generated (include detection limits).
- Raw data and bench sheets.
- Any other observations or test conditions affecting test outcome.

Toxicity test data shall include the following:

- Survival for each concentration and replication at time twenty-four (24) and forty-eight (48) hours.
- LC₅₀ and 95% confidence limits shall be calculated using one of the following methods in order of preference: Probit, Trimmed Spearman Karber, Moving Average Angle, or the graphical method. All printouts (along with the name of the program, the date, and the author(s)) and graphical displays must be submitted. When data is analyzed by hand, worksheets should be submitted. The report shall also include the No Observed Acute Effect Level (NOAEL) which is defined as the highest concentration of the effluent (in % effluent) in which 90% or more of the test animals survive.
- The Probit, Trimmed Spearman Karber, and Moving Average Angle methods of analyses can only be used when mortality of some of the test organisms are observed in at least two (2) of the (percent effluent) concentrations tested (i.e., partial mortality). If a test results in a 100% survival and 100% mortality in adjacent treatments ("all or nothing" effect), an LC₅₀ may be estimated using the graphical method.

10. Special Condition

Due to the fact that the suggested dilution water for this facility to use in conducting the bioassays is from the end of the dock at the URI's Narragansett Bay Campus, a Letter of Agreement must be signed and submitted to the Graduate School of Oceanography. Requests to use another source of dilution water will have to be approved by the Department of Environmental Management, Office of Water Resources.

11. Reporting of Bioassay Testing

Bioassay Testing shall be reported as follows:

<u>Quarter Testing to be Performed</u>	<u>Report Due No Later Than</u>	<u>Results Submitted on DMR for</u>
January 1 - March 31	April 15	March
April 1 - June 30	July 15	June
July 1 - September 30	October 15	September
October 1 - December 31	January 15	December

Bioassay testing following the protocol described herein shall commence during the first calendar quarter that the permit becomes effective and the first report shall be submitted to RIDEM in accordance with the schedule above.

Bioassay reports shall be submitted to the:

Office of Water Resources
RIPDES Program
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908-5767

C. INDUSTRIAL PRETREATMENT PROGRAM

1. Definitions

For the purpose of this permit, the following definitions apply.

- a. 40 CFR 403 and sections thereof refer to the General Pretreatment regulations, 40 CFR Part 403 as revised.
- b. Categorical Pretreatment Standards mean any regulation containing pollutant discharge limits promulgated by the USEPA in accordance with section 307(b) and (c) of the Clean Water Act(33 USC 1251), as amended, which apply to a specific category of industrial users and which appears in 40 CFR Chapter 1, subchapter N.
- c. Pretreatment Standards include all specific prohibitions and prohibitive discharge limits established pursuant to 40 CFR 403.5, including but not limited to, local limits, and the Categorical Pretreatment Standards.
- d. Regulated Pollutants shall include those pollutants contained in applicable categorical standards and any other pollutants listed in the Pretreatment Standards which have reasonable potential to be present in an industrial users effluent.

2. Implementation

The authority and procedures of the Industrial Pretreatment Program shall at all times be fully and effectively exercised and implemented, in compliance with the requirements of this permit and in accordance with the legal authorities, policies, procedures and financial provisions described in the permittee's approved Pretreatment Program and Sewer Use Ordinance, the Rhode Island Pretreatment Regulations and the General Pretreatment Regulations 40 CFR 403. The permittee shall maintain adequate resource levels to accomplish the objectives of the Pretreatment Program.

3. Local Limits

Pollutants introduced into POTWs by a non-domestic source (user) shall not: pass through the POTW, interfere with the operation or performance of the works, contaminate sludge as to adversely effect disposal options, or adversely effect worker safety and health.

- a. The permittee has submitted a Local Limits Monitoring Plan that was approved on February 24, 2003. The approved Local Limits Monitoring Plan shall be implemented at all times.

- b. At the time of renewal of this permit and in accordance with 40 CFR 122.21(j)(4) as revised July 24, 1990, the permittee shall submit to the DEM with its permit renewal application a written technical evaluation of the need to revise local limits. The evaluation shall be based, at a minimum, on information obtained during the implementation of the permittee's approved local limits monitoring plan and procedures and current RIPDES permit discharge limits, sludge disposal criteria, secondary treatment inhibition, and worker health and safety criteria.

4. General

- a. The permittee shall carry out inspection, surveillance, and monitoring procedures which will determine, independent of information supplied by the industrial user, whether the industrial user is in compliance with Pretreatment Standards. At a minimum, all significant industrial users shall be inspected and monitored for all regulated pollutants at the frequency established in the approved Industrial Pretreatment Program but in no case less than once per year (one (1) year being determined as the reporting year established in Part I.C.6 of this permit). In addition, these inspections, monitoring and surveillance activities must be conducted in accordance with EPA's Industrial User Inspection and Sampling Manual for POTW's, April 1994. All inspections, monitoring, and surveillance activities shall be performed, and have records maintained, with sufficient care to produce evidence admissible in enforcement proceedings or judicial actions. The permittee shall evaluate whether each SIU requires a slug control plan. If a slug control plan is required, it shall include the contents specified by 40 CFR 403.8(f)(2)(vi).
- b. The permittee shall reissue all necessary Industrial User (IU) control mechanisms within thirty (30) days of their expiration date. The permittee shall issue, within sixty (60) days after the determination that an IU is a Significant Industrial User (SIU), all SIU control mechanisms. All SIU control mechanisms must contain, at a minimum, those conditions stated in 40 CFR 403.8(f)(1)(iii)(B). All control mechanisms must be mailed via Certified Mail, Return Receipt Requested. A complete bound copy of the control mechanism with the appropriate receipt must be kept as part of the Industrial User's permanent file. In addition, the permittee must develop a fact sheet describing the basis for the SIU's permit and retain this fact sheet as part of the SIU's permanent file.
- c. The permittee must identify each instance of noncompliance with any pretreatment standard and/or requirement and take a formal documented action for each instance of noncompliance. Copies of all such documentation must be maintained in the Industrial User's permanent file.
- d. The permittee shall prohibit Industrial Users from the dilution of a discharge as a substitute for adequate treatment in accordance with 40 CFR 403.6(d).
- e. The permittee shall comply with the procedures of 40 CFR 403.18 for instituting any modifications of the permittee's approved Pretreatment Program. Significant changes in the operation of a POTW's Approved Pretreatment Program must be submitted and approved following the procedures outlined in 40 CFR 403.18(b) and 403.9(b). However, the endorsement of local officials responsible for supervising and/or funding the pretreatment program required by 403.9(b)(2) will not be required until DEM completes a preliminary review of the submission. The DEM will evaluate and review the permittee's initial proposal for a modification and provide written notification either granting preliminary approval

of the proposed modifications or stating the deficiencies contained therein. DEM's written notification will also include a determination whether the submission constitutes a substantial or non-substantial program modification as defined by 40 CFR 403.18. Should DEM determine that a deficiency exists in the proposed modification, the permittee shall submit to DEM, within thirty (30) days of the receipt of said notice, a revised submission consistent with DEM's notice of deficiency.

Pretreatment program modifications which the permittee considers Non-substantial, shall be deemed to be approved within (90) days after submission of the request for modification, unless DEM determines that the modification is in fact a substantial modification or notifies the permittee of deficiencies. Upon receipt of notification that DEM has determined the modification is substantial, the permittee shall initiate the procedures and comply with the deadlines for substantial modifications, which are outlined below.

For substantial modifications, the permittee shall, within sixty (60) days (unless a longer time frame is granted) of the receipt of DEM's preliminary approval of the proposed modification, submit a statement (as required by 403.9(b)(2)) that any local public notification/participation procedures required by local law have been completed and upon approval by RIDEM, the local officials will endorse and/or approve the modification.

Within thirty (30) days of DEM's final approval of the proposed modification(s), the permittee shall implement the modification. Upon final approval by the DEM and adoption by the permittee, this modification(s) shall become part of the approved pretreatment program and shall be incorporated into this permit in accordance with 40CFR 122.63(g).

- f. All sampling and analysis required of the permittee, or by the permittee of any Industrial User, must be performed in accordance with the techniques described in 40 CFR 136.
- g. For those Industrial Users with discharges that are not subject to Categorical Pretreatment Standards, the permittee shall require appropriate reporting in accordance with 40 CFR 403.12(h).
- h. The permittee shall, in accordance with 40 CFR 403.12(f), require all Industrial Users to immediately notify the permittee of all discharges by the Industrial User that could cause problems to the POTW, including slug loadings, as defined by 40 CFR 403.5(b).
- i. The permittee shall require all Industrial Users to notify the permittee of substantial changes in discharge as specified in 40 CFR 403.12(j).
- j. The permittee shall require New Sources to install and have in operation all pollution control equipment required to meet applicable Pretreatment Standards before beginning to discharge. In addition, the permittee shall require New Sources to meet all applicable Pretreatment Standards within the shortest feasible time which shall not exceed ninety (90) days in accordance with 40 CFR 403.6(b).
- k. The permittee shall require all Industrial Users who are required to sample their effluent and report the results of analysis to the POTW to comply with signatory requirements contained in 40 CFR 403.12(l) when submitting such reports.

- i. The permittee shall determine, based on the criteria set forth in 40 CFR 403.8(f)(2)(viii), using the EPA method of "rolling quarters", the compliance status of each Industrial User. Any Industrial User determined to meet Significant Non-Compliance (SNC) criteria shall be included in an annual public notification as specified in 40 CFR 403.8(f)(2)(viii).
- m. The permittee shall require Industrial Users to comply with the notification and certification requirements of 40 CFR 403.12(p)(1), (3) and (4) pertaining to the discharge of substances to the POTW, which if disposed of otherwise, would be a hazardous waste under 40 CFR Part 261.
- n. The permittee shall continue to designate, as SIUs, those Industrial Users (IUs) which meet the definition contained in the permittee's sewer use ordinance.

The permittee shall notify each newly designated SIU of its classification as an SIU within thirty (30) days of identification and shall inform the SIU of the requirements of an SIU contained in 40 CFR 403.12.

5. Categorical Industrial Users (CIUs)

- a. The permittee shall require Industrial Users to comply with applicable Categorical Pretreatment Standards in addition to all applicable Pretreatment Standards and Requirements. The permittee shall require of all Categorical Industrial Users (CIUs), all reports on compliance with applicable Categorical Pretreatment Standards and Categorical Pretreatment Standard deadlines as specified in and in accordance with Sections (b), (d), (e) and (g) of 40 CFR 403.12. In addition, the permittee shall require Categorical Industrial Users to comply with the report signatory requirements contained in 40 CFR 403.12(1) when submitting such reports.
- b. If the permittee applies the Combined Wastestream Formula (CWF) to develop fixed alternative discharge limits of Categorical Pretreatment Standards, the application of the CWF and the enforcement of the resulting limits must comply with 40 CFR 403.6(e). The permittee must document all calculations within the control mechanism fact sheet and the resulting limits within the CIU's control mechanism. The permittee must ensure that the most stringent limit is applied to the CIU's effluent at end-of-pipe based upon a comparison of the resulting CWF limits and the permittee's local limits.
- c. If the permittee has or obtains the authority to apply and enforce equivalent mass-per-day and/or concentration limitations of production-based Categorical Pretreatment Standards, then the permittee shall calculate and enforce the limits in accordance with 40 CFR 403.6(c). The permittee must document all calculations within the control mechanism fact sheet and the resulting limits within the CIU's control mechanism.

6. Annual Report

The annual report for the permittee's program shall contain information pertaining to the reporting year which shall extend from October 1st through September 30th and shall be submitted to the DEM by November 15th. Each item below must be addressed separately and any items which are not applicable must be so indicated. If any item is deemed not applicable a brief explanation must be provided. The annual report shall include the following information pertaining to the reporting year: