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

PUBLIC NOTICE OF PROPOSED PERMIT ACTIONS UNDER THE RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES) PROGRAM WHICH REGULATES DISCHARGES INTO THE WATERS OF THE STATE UNDER CHAPTER 46-12 OF THE RHODE ISLAND GENERAL LAWS OF 1956, AS AMENDED.

DATE OF NOTICE: April 20, 2018

PUBLIC NOTICE NUMBER: PN18-01

DRAFT RIPDES PERMITS

RIPDES PERMIT NUMBER: RI0100404

NAME AND MAILING ADDRESS OF APPLICANT:

Quonset Development Corporation
95 Cripe Street
North Kingstown, Rhode Island 02852

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Quonset Wastewater Treatment Facility
150 Zarbo Ave.
North Kingstown, Rhode Island 02852

RECEIVING WATER: Narragansett Bay

RECEIVING WATER CLASSIFICATION: SB1

The facility, which is the source of the wastewater discharge, is located at the Quonset Point/ Davisville Industrial Park in North Kingstown and is engaged in the treatment of sanitary and industrial sewage contributed by the Quonset Point industrial park and the Town of North Kingstown. The facility has reapplied to the Rhode Island Department of Environmental Management (DEM) for reissuance of its permit to discharge from the wastewater treatment plant, which uses the following equipment and processes: coarse screening, grit removal, primary settling, rotating biological contactors, secondary settling, and chlorination. The discharge of treated effluent is made to Narragansett Bay through outfall 001A. The permit includes limits to ensure that the discharge will not cause a water quality violation.

FURTHER INFORMATION:

A fact sheet (describing the type of facility and significant factual, legal and policy questions considered in these permit actions) may be obtained at no cost by writing or calling DEM as noted below:

Samuel Kaplan, P.E.
Rhode Island Department of Environmental Management
Office of Water Resources
Permits Section
235 Promenade Street
Providence, Rhode Island 02908-5767
(401) 222-4700 ext. 7046

The administrative record containing all documents relating to these permit actions is on file and may be inspected, by appointment, at the DEM's Providence office mentioned above between 8:30 a.m. and 4:00 p.m., Monday through Friday, except holidays.

PUBLIC COMMENT AND REQUEST FOR PUBLIC HEARING:

Pursuant to Chapter 42-17.4 of the Rhode Island General Laws a public hearing has been scheduled to consider these permits if requested. Requests for a Public Hearing must be submitted in writing to the attention of Samuel Kaplan at the address indicated above. Notice should be taken that if DEM receives a request from twenty-five (25) people, a governmental agency or subdivision, or an association having no less than twenty-five (25) members on or before Monday, May 21, a public hearing will be held at the following time and place:

5PM Thursday, May 24, 2018
Room 280
235 Promenade Street
Providence, Rhode Island 02908

Interested persons should contact DEM to confirm if a hearing will be held at the time and location noted above.

235 Promenade Street is accessible to the handicapped. Individuals requesting communication assistance (assistive listening devices/readers/interpreters/captions) must notify the D.E.M. at the telephone number listed above or at 831-5508 (T.D.D.) 48 hours in advance of the hearing date.

Interested parties may submit comments on the permit actions and the administrative record to the address above no later than 4PM Friday, May 25, 2018.

If, during the public comment period, significant new questions are raised concerning the permit, DEM may require a new draft permit or statement of basis or may reopen the public comment period. A public notice will be issued for any of these actions.

Any person, including the permittee/applicant, who believes these permit actions are inappropriate, must raise all reasonably ascertainable issues and submit all reasonably available arguments and factual grounds supporting their position, including all supporting material, by the close of the public comment period under Rule 41. The public comment period is from Friday April 20, 2018 to Friday May 25, 2018. Commenters may request a longer comment period if necessary to provide a reasonable opportunity to comply with these requirements. Comments should be directed to DEM as noted above.

FINAL DECISION AND APPEALS:

Following the close of the comment period, and after a public hearing, if such hearing is held, the

Director will issue a final decision and forward a copy of the final decision to the permittee and each person who has submitted written comments or requested notice. Within 30 days following the notice of the final decision, any interested person may submit a request for a formal hearing in accordance with the requirements of Rule 49.

4/13/18
Date

Joseph B. Haberek, P.E.
Supervising Sanitary Engineer
Permits Section, Office of Water Resources
Department of Environmental Management

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

Quonset Development Corporation
95 Cripe Street
North Kingstown, Rhode Island 02852

is authorized to discharge from a facility located at the

Quonset Wastewater Treatment Facility
150 Zarbo Ave.
North Kingstown, Rhode Island 02852

to receiving waters named

Narragansett Bay

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

This permit shall become effective on _____, 201_.

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

This permit supersedes the permit issued on January 13, 2012.

This permit consists of 22 pages in Part I including effluent limitations, monitoring requirements, etc. and 10 pages in Part II including General Conditions.

Signed this day of , 201_.

DRAFT

Angelo S. Liberti, 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 and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 001A (final discharge from the WWTF after all treatment processes).
   Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations					Monitoring Requirement	
	Quantity - lbs./day		Concentration - specify units				
	Average Monthly	Maximum Daily	Average Monthly *(Minimum)	Average Weekly *(Average)	Maximum Daily *(Maximum)	Measurement Frequency	Sample Type
Flow	1.78 MGD	--- MGD				Continuous	Recorder
BOD_5	445	742	30 mg/l	45 mg/l	50 mg/l	3/Week	24-Hr. Comp.
BOD_5 - % Removal			85%			1/Month	Calculated
TSS	445	742	30 mg/l	45 mg/l	50 mg/l	3/Week	24-Hr. Comp.
TSS - % Removal			85%			1/Month	Calculated
Settleable Solids				--- ml/l	--- ml/l	1/Day	Grab

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

Sampling for TSS shall be performed Tuesday, Thursday and either Saturday or Sunday. Two (2) of the BOD_5 samples shall be taken at the same time as two (2) of the TSS samples. All BOD_5 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 and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 001A (final discharge from the WWTF after all treatment processes).
Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations					Monitoring Requirement	
	Quantity - lbs./day		Concentration - specify units				
	Average Monthly	Maximum Daily	Average Monthly *(Minimum)	Average Weekly *(Average)	Maximum Daily *(Maximum)	Measurement Frequency	Sample Type
Enterococci			35 cfu[1] / 100 ml		276 cfu[1] / 100 ml	3/Week	Grab
Fecal Coliform			--- MPN[1] / 100 ml		--- MPN[1] / 100 ml	3/Week	Grab
Total Residual Chlorine (TRC)			1.3 mg/l		1.3 mg/l	3/Day[2]	Grab[2]
pH			(6.0 SU)		(9.0 SU)	2/Day[3]	Grab

[1]Fecal coliform samples are to be taken Sunday, Tuesday, and Thursday. All three (3) of the Enterococci samples shall be taken at the same time of day as the second TRC sample. The Fecal Coliform samples shall be taken at the same time as the Enterococci samples. The Geometric Mean shall be used to obtain the "weekly average" and "monthly average." The facility shall report any fecal coliform sample result that exceeds 400 MPN/100 mL to the RI DEM in accordance with the 24-hour reporting requirements under Part II(I)(5) of the permit.

[2]The use of a continuous TRC recorder after chlorination is required to provide a record that proper disinfection was achieved at all times. Compliance with these limitations shall be determined by taking three (3) grab samples per day, Monday - Friday (except holidays), equally spaced over one (1) eight (8) hour working shift with a minimum of three (3) hours between grabs. On Saturdays, Sundays and holidays, at least (2) grab samples shall be taken each day with a minimum of two (2) hours between grabs. The maximum daily and average monthly values are to be computed from the average grab sample results for each calendar 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); (4) Iodometric direct titration, EPA No. 330.3 or Standard Methods (18th Edition) No. 4500-Cl B; or (5) Iodometric back titration (either end-point), EPA No. 330.2 or Standard Methods (18th Edition) No. 4500-Cl C.

[3]The permittee shall continuously monitor the influent wastewater to the WWTF's rotating biological contactors (RBCs) for pH. The pH meter shall continuously record to a strip chart and shall be alarmed to immediately notify WWTF personnel of pH levels less than 6.2 S.U. or greater than 8.4 S.U.

Values in parentheses () are to be reported as Minimum/Average/Maximum for the reporting period rather than Average Monthly/Average Weekly/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 and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 001A (final discharge from the WWTF after all treatment processes).
Such discharges shall be monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations					Monitoring Requirement	
	Quantity - lbs./day		Concentration - specify units				
	Average Monthly	Maximum Daily	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Oil and Grease					--- mg/l	1/Month	Grab[1]
Nitrate, Total (as N)							
May 1 – October 31			--- mg/l		--- mg/l	2/Month	24-Hr. Comp.
November 1 – April 30			--- mg/l		--- mg/l	1/Month	24-Hr. Comp.
Nitrite, Total (as N)							
May 1 – October 31			--- mg/l		--- mg/l	2/Month	24-Hr. Comp.
November 1 – April 30			--- mg/l		--- mg/l	1/Month	24-Hr. Comp.
Total Kjeldahl Nitrogen (TKN, as N)							
May 1 – October 31			--- mg/l		--- mg/l	2/Month	24-Hr. Comp.
November 1 - April 30			--- mg/l		--- mg/l	1/Month	24-Hr. Comp.
Nitrogen, Total (Nitrate + Nitrite + TKN, as N)							
May 1 – October 31	--- lb/d		--- mg/l		--- mg/l	2/Month	Calculated
November 1 – April 30	--- lb/d		--- mg/l		--- mg/l	1/Month	Calculated

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

--- signifies a parameter which 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 and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 001A (final discharge from the WWTF after all treatment processes).
Such discharges shall be monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations					Monitoring Requirement	
	Quantity - lbs./day		Concentration - specify units				
	Average Monthly	Maximum Daily	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Total Copper[1]			--- ug/l		--- ug/l	1/Quarter	24-Hr. Comp.
Cyanide, Available[1]			47.3 ug/l		80.0 ug/l	1/Month	Composite[2]
Total Cadmium[1]			--- ug/l		--- ug/l	1/Quarter	24-Hr. Comp.
Hexavalent Chromium[1]			--- ug/l		--- ug/l	1/Quarter	24-Hr. Comp.
Total Lead[1]			--- ug/l		--- ug/l	1/Quarter	24-Hr. Comp.
Total Zinc[1]			--- ug/l		--- ug/l	1/Quarter	24-Hr. Comp.
Total Nickel[1]			--- ug/l		--- ug/l	1/Quarter	24-Hr. Comp.
Total Aluminum[1]			--- ug/l		--- ug/l	1/Quarter	24-Hr. Comp.

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

[1]Monitoring data may be obtained in conjunction with the bioassay testing required in Part I.B. of the permit.

[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 location: 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 and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 001A (final discharge prior to chlorination).
Such discharges shall be monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations					Monitoring Requirement	
	Quantity - lbs./day		Concentration - specify units				
	Average Monthly	Maximum Daily	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Mysidopsis bahia							
LC_{50} [1,2]					50% or Greater[3]	1/Quarter	24-Hr. Comp.
Menidia spp							
LC_{50} [1,2]					50% or Greater[3]	1/Quarter	24-Hr. Comp.

[1]LC_{50} is defined as the concentration of wastewater that causes mortality to 50% of the test organisms.

[2]LC_{50} samples shall be taken in accordance with Part 1.B. of the permit.

[3]The 50% or greater limit is defined as a sample which is composed of at least 50% effluent.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 001A in accordance with Part I.B. of the permit (final discharge prior to chlorination).

6. a. The pH of the effluent shall not be less than 6.0 nor greater than 9.0 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 ninety (90) consecutive days exceeds 80 percent of the designed flow, the permittee shall submit to the permitting authorities 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. Such analysis shall be conducted during the third calendar quarter bioassay sampling event. The effluent sample shall be collected during the same twenty-four (24) hour period as the bioassay sample. The results of these analyses shall be submitted to the Department of Environmental Management by October 15th of each 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 eight (8) acute toxicity tests per year on samples collected from discharge outfall 001A. 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 Section I.B.10. Test results will be interpreted by the State. The State may require additional screening, range finding, definitive acute or chronic bioassays as deemed necessary based on the results of the 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 two (2) species listed below, for a total of eight (8) acute toxicity tests per year. This requirement entails performing two-species testing as follows:

Species	Test Type	Frequency
		Four (4) Times Annually

Species	Test Type	Frequency
Mysids (Mysidopsis bahia)	Definitive 48-Hour Acute Static (LC_{50})	Quarterly
		Four (4) Times Annually
Silversides (Menidia spp.)	Definitive 48-Hour Acute Static (LC_{50})	Quarterly

3. Testing Methods

Acute definitive toxicity tests shall be conducted in accordance with protocols listed in 40 CFR Part 136.

4. Sample Collection

For each sampling event a twenty-four (24) hour flow composited effluent sample shall be collected at a location just prior to chlorination during a 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 limits.

6. Dilution Water

Dilution water used for marine acute toxicity analyses should be of sufficient quality to meet minimum acceptability of test results (See Sections I.B.7 and I.B.8). For both species, 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 Mysids[1] (Mysidopsis bahia)

a.	Test Type	48-Hour Static Acute Definitive
b.	Salinity	25 ppt ± 10% for all dilutions
c.	Temperature (C)	25° ± 1°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, approx. 100 nauplii per mysid twice daily).
m.	Aeration	None, unless dissolved oxygen concentration 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

8. Effluent Toxicity Conditions for Silversides (Menidia spp.)

a.	Test Type	48-Hour Static Acute Definitive
b.	Salinity	25ppt ± 2ppt
c.	Temperature	25° ± 1°C
d.	Light Quality	Ambient laboratory illumination
e.	Photoperiod	8-14 hour light/24 hour
f.	Test Chamber Size	250-1000 ml
g.	Test Solution Volume	Minimum 200ml/replicate
h.	Age of Test Organisms	Less than thirty (30) days
i.	No. Fish Per Test Chamber	10 (Not to exceed loading limits).
j.	No. of Replicate Test Chambers Per Concentration	2
k.	Total No. of Fish Per Test Concentration	20
l.	Feeding Regime	None
m.	Aeration	None, unless DO concentration 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 Duration	Mortality - no movement, 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

9. Chemical Analysis

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

Parameter	Effluent	Saline Diluent	Detection Limit (mg/l)
pH	X	X	---
Specific Conductance	X	X	---
Total Solids and Suspended Solids	X	X	---
Total Ammonia	X		0.1
Total Organic Carbon	X		0.5
Available 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 analysis shall be performed:

Total Metals	Effluent	Saline Diluent	Detection Limit (µg/l)
Total Cadmium	X	X	0.1
Hexavalent Chromium	X	X	20.0
Total Copper	X	X	1.0
Total Lead	X	X	1.0
Total Zinc	X	X	5.0
Total Nickel	X	X	1.0
Total Aluminum	X	X	5.0

The above metal analysis 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).

10. 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.
- LC_{50} 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 LC_{50} may be estimated using the graphical method.

11. 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.

12. Reporting of Bioassay Testing

Bioassay Testing shall be reported as follows:

Quarter Testing to be Performed	Results Submitted on DMR for
January 1 - March 31	March
April 1 - June 30	June
July 1 - September 30	September
October 1 - December 31	December

Reports shall be maintained by the permittee and shall be made available upon request by RIDEM.

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 user's 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 an approved Local Limits Monitoring Plan (LLMP) that shall continue to be implemented at all times.

b. At the time of renewal of this permit and in accordance with 40 CFR 122.44(j)(2), 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 local limits monitoring plan and procedures required by Part I.C.3.a of this permit and current RIPDES permit discharge limits, sludge disposal criteria, secondary treatment inhibition, and worker health and safety criteria.

4. Enforcement Response Plan (ERP)

The permittee has an approved ERP dated December 22, 2008 that meets the requirements of 40 CFR 403.8(f)(5). The permittee shall continue to implement its approved ERP at all times.

5. 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.7 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, at least every two years unless specific superseding 40 CFR 403 streamlining provisions have been adopted, 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 forty-five (45) 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 documentation (as required by 403.9(b)(2)) that any local public notification/participation procedures required by law have been completed, including any responses to public comments, and a statement that the local officials will endorse and/or approve the modification upon approval by DEM.

Within thirty (30) days of DEM's final approval of the proposed modification(s), the permittee shall implement the modification and submit proof that the local officials have endorse and/or approved the modification(s) to the DEM. 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 summarized in 40 CFR 403.5.

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) and the permittee shall also notify DEM of each such substantial change in discharge prior to acceptance.

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.

l. 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 40 CFR 403.3 and 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.

6. 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.

7. Annual Report

The annual report for the permittee's Industrial Pretreatment Program shall contain information pertaining to the reporting year which shall extend from July 1 through June 30, and shall be submitted to the DEM by September 15 each year. 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:

a. A listing of Industrial Users which complies with requirements stated in 40 CFR 403.12(i)(1). The list shall identify all Categorical Industrial Users, Significant Industrial Users and any other categories of users established by the permittee;

b. A summary, including dates of any notifications received by the permittee of any substantial change in the volume or character of pollutants being introduced into the POTW by new or existing IUs. If applicable, an evaluation of the quality and quantity of influent introduced into the POTW and any anticipated impact due to the changed discharge on the quantity or quality of effluent to be discharged from the POTW shall be included;

c. A summary of the Compliance status of each Industrial User (IU), as of the end of last quarter covered by the annual report. The list shall identify all IUs in non-compliance, the pretreatment program requirement which the IU failed to

meet, and the type, and date of the enforcement action initiated by the permittee in response to the violation. If applicable, the list shall also contain the date which IUs in non-compliance returned to compliance, a description of corrective actions ordered, and the penalties levied.

d. A list of industries which were determined, in accordance with Part I.C.5.(l) of this permit, to be in significant non-compliance required to be published in a local newspaper and a copy of proof of publication from the newspaper that the names of these violators has been published.

e. A summary of inspection and monitoring activity performed by the permittee, including;

- significant industrial users inspected by the POTW (include inspection dates for each industrial user);
- significant industrial user sampled by the POTW (include sampling dates and dates of analysis for each industrial user);

f. A summary of permit issuance/reissuance activities including the name of the industrial user, expiration date of previous permit, issuance date of new permit, and a brief description of any changes to the permit;

g. A list including the report/notification type, due date, and receipt date for each report/notification required by 40 CFR 403.12.

h. A summary of public participation efforts including meetings and workshops held with the public and/or industry and notices/newsletters/bulletins published and/or distributed;

i. A program evaluation in terms of program effectiveness, local limits application and resources which addresses but is not limited to:
- A description of actions being taken to reduce the incidence of SNC by Industrial Users;
- effectiveness of enforcement response program;
- sufficiency of funding and staffing;
- sufficiency of the SUO, Rules and Regulations and/or statutory authority;

j. An evaluation of recent/proposed program modifications, both substantial and non-substantial, in terms of the modification type, implementation and actual/ expected effect (note proposed modifications must be submitted under separate cover along with the information required by 40 CFR 403.18);

k. A detailed description of all interference and pass-through that occurred during the past year and, if applicable;

- A thorough description of all investigations into interference and pass-through during the past year;

- A description of the monitoring, sewer inspections and evaluations which were done during the past year to detect interference and pass-through, specifying pollutants analyzed and frequencies;

l. A summary of the average, maximum concentration, minimum concentration, and number of data points used for pollutant analytical results for influent, effluent, sludge and any toxicity or bioassay data from the wastewater treatment facility. The summary shall include a comparison of influent sampling results versus the maximum allowable headworks loadings contained in the approved local limits evaluation and effluent sampling results versus water quality

standards. Such a comparison shall be based on the analytical results required in Parts I.A and I.C. of this permit and any additional sampling data available to the permittee; and

m. A completed Annual Pretreatment Report Summary Sheet.

8. Interjurisdictional Agreement

The permittee has an approved Interjurisdictional Agreement with the Town of North Kingstown and shall continue to implement its approved Interjurisdictional Agreement at all times.

9. Sewer Use Regulations

The permittee has approved Sewer Use Regulations (as amended in May, 2011) which shall continue to be implemented at all times.

D. OPERATION AND MAINTENANCE OF THE SEWER SYSTEM

Operation and maintenance of the sewer system shall be in compliance with the General Requirements of Part II and the following terms and conditions:

1. Maintenance Staff

The permittee shall provide an adequate staff to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this permit.

2. Infiltration/Inflow

The permittee shall minimize infiltration/inflow to the sewer system. A summary report of all actions taken to minimize infiltration/inflow during the previous two (2) years shall be submitted to RIDEM, Office of Water Resources, by the 15th day of January following the two (2) year period. The first report is due January 15, 2019.

3. Resiliency Planning

Within one year of the effective date of this permit, the permittee shall submit a Resiliency Plan and schedule of short and long term actions that will be taken to maintain operation and protect key collection and treatment system assets. The plan shall be consistent with the DEM's Guidance for the Consideration of Climate Change Impacts in the Planning and Design of Municipal Wastewater Collection and Treatment Infrastructure and include consideration of the findings of the 2017 DEM report Implications of Climate Change for Rhode Island Wastewater Collection and Treatment Infrastructure. The Resiliency Plan shall include, but not be limited to: (i) an assessment of current and projected impacts from natural hazards on critical components within the collection and treatment systems, as well as on the systems themselves; (ii) a plan to adapt and protect vulnerable components and systems; (iii) an analysis that provides justification for selected adaptation methods. The analysis must consider component and system design life and sea-level rise projections. For the purposes of this Resiliency Plan, critical components are considered those necessary to ensure the forward flow and treatment of wastewater in accordance with the limits set forth in this permit. The Resiliency Plan shall also consider impacts on the WWTF from neighboring facilities during high hazard events. This Plan shall be subject to DEM review and approval. If DEM determines that modifications need to be made to the Plan, DEM shall notify the permittee in writing which elements of the Plan need to be modified and the reason for the needed modification. This notification shall include a schedule for making the changes. After such notification from the DEM, the permittee shall make changes to the Plan and submit the revisions to the DEM for their approval.

E. SLUDGE

The permittee shall conform and adhere to all conditions, practices and regulations as contained in the State of Rhode Island Rules and Regulations to the Treatment, Disposal, Utilization and Transportation of Wastewater Treatment Facility Sludge. The permittee shall comply with its Order of Approval for the disposal of sludge.

F. DETECTION LIMITS

The permittee shall assure that all wastewater testing required by this permit, is performed in conformance with the method detection limits below. All sludge testing required by this permit shall be in conformance with the method detection limits found in 40 CFR 503.8. 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 or sludge 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 MDL 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*	2.0
6B	benzo(a)pyrene*	2.0
7B	3,4-benzofluoranthene*	1.0
8B	benzo(ghi)perylene*	2.0
9B	benzo(k)fluoranthene*	2.0
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*	1.0
19B	dibenzo (a,h)anthracene*	2.0
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*	2.0
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)
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
Aluminum	10.0
TCDD	**
MTBE (Methyl Tert Butyl Ether)	1.0

*Polynuclear Aromatic Hydrocarbons
**No Rhode Island Department of Environmental Management (RIDEM) MDL

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.

To help verify the absence of matrix or chemical interference the analyst is required to complete specific quality control procedures. For the metals analyses listed above the analyst must withdraw from the sample two equal aliquots; to one aliquot add a known amount of analyte, and then dilute both to the same volume and analyze. The unspiked aliquot multiplied by the dilution factor should be compared to the original. Agreement of the results within 10% indicates the absence of interference. Comparison of the actual signal from the spiked aliquot to the expected response from the analyte in an aqueous standard should help confirm the finding from the dilution analysis. (Methods for Chemical Analysis of Water and Wastes EPA-600/4-79/020).

For Methods 624 and 625 the laboratory must on an ongoing basis, spike at least 5% of the samples from each sample site being monitored. For laboratories analyzing 1 to 20 samples per month, at least one spiked sample per month is required. The spike should be at the discharge permit limit or 1 to 5 times higher than the background concentration determined in Section 8.3.2, whichever concentration would be larger. (40 CFR Part 136 Appendix B Method 624 and 625 subparts 8.3.1 and 8.3.11).

G. MONITORING AND REPORTING

The monitoring program in the permit specifies sampling and analysis, which will provide continuous information on compliance and the reliability and effectiveness of the installed pollution abatement equipment. The approved analytical procedures found in 40 CFR Part 136 are required unless other procedures are explicitly required in the permit. The Permittee is obligated to monitor and report sampling results to the DEM within the time specified within the permit.

Unless otherwise specified in this permit, the permittee shall submit reports, requests, and information and provide notices in the manner described in this section.

1. Submittal of DMRs Using NetDMR

   The permittee shall continue to submit its monthly monitoring data in discharge monitoring reports (DMRs) to DEM no later than the 15th day of the month electronically using NetDMR. When the permittee submits DMRs using NetDMR, it is not required to submit hard copies of DMRs to DEM.

2. Submittal of Reports as NetDMR Attachments

   Unless otherwise specified in this permit, the permittee must submit electronic copies of documents in NetDMR that are directly related to the DMR. These include the following:

   - DMR Cover Letters
   - Below Detection Limit summary tables
   - Monthly Operating Reports

3. Submittal of Reports in Hard Copy Form

   The following notifications and reports shall be submitted as hard copy with a cover letter describing the submission. These reports shall be signed and dated originals submitted to DEM.

   A. Written notifications required under Part II
   B. Notice of unauthorized discharges, including Sanitary Sewer Overflow (SSO) reporting
   C. Priority Pollutant Scan results
   D. Infiltration/Inflow Reports
   E. Pretreatment Reports

   This information shall be submitted to DEM at the following address:

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

5. Verbal Reports and Verbal Notifications

   Any verbal reports or verbal notifications, if required in Parts I and/or II of this permit, shall be made to the DEM. This includes verbal reports and notifications which require reporting within 24 hours. (See Part II.(I)(5) General Requirements for 24-hour reporting) Verbal reports and verbal notifications shall be made to DEM at (401) 222-4700 or (401) 222-3070 at night.

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

FACT SHEET

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

RIPDES PERMIT NO. **RI0100404**

NAME AND ADDRESS OF APPLICANT:

Quonset Development Corporation
95 Cripe Street
North Kingstown, Rhode Island 02852

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Quonset Wastewater Treatment Facility
150 Zarbo Ave.
North Kingstown, Rhode Island 02852

RECEIVING WATER: **Narragansett Bay** (water body ID #: RI0007027E-03C)

CLASSIFICATION: **SB1**

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 facility is engaged in the treatment of domestic and industrial sewage. The discharge is from the Quonset Wastewater Treatment Facility (WWTF) outfall. As of December 2016, the end of Quonset's most recent Industrial Pretreatment Program reporting year, there were 6 (six) Significant Industrial Users (SIUs) contributing wastewater to the Quonset WWTF.

II. Description of Discharge

A quantitative description of the discharge in terms of significant effluent parameters based on DMR data from April 2012 through March 2017 is shown on Attachment A-1

III. Permit Limitations and Conditions

The final effluent limitations and monitoring requirements may be found in the draft permit.

IV. Permit Basis and Explanation of Effluent Limitation Derivation

The Quonset Development Corporation (QDC) owns and operates the Quonset WWTF located at the Quonset Point/Davisville Industrial Park in North Kingstown, Rhode Island. The discharge to Narragansett Bay consists of treated sanitary and industrial sewage contributed by the Industrial Park and the Town of North Kingstown. Treatment consists of:

Coarse Screening
Grit Removal
Primary Settling
Rotating Biological Contactors
Secondary Settling
Chlorination

Attachment A-2 includes a wastewater treatment facility site plan.

Quonset's most recent RIPDES permit, authorizing discharges from the above-mentioned facility, was issued on January 13, 2012. The permit became effective on March 1, 2012 and expired on March 1, 2017. Quonset submitted an application for permit reissuance to the DEM on October 25, 2016. On November 23, 2016, DEM issued an application complete letter to Quonset. In accordance with Rule 31(a) of the Regulations for the Rhode Island Pollutant Discharge Elimination System, Quonset's January 13, 2012 permit remains in effect since the DEM has determined that a timely and complete permit application was submitted. Once this permit is reissued, it will supersede the January 13, 2012 permit.

Receiving Water Description

The water body segment that receives the discharge from the Quonset WWTF is described as the "West Passage". West Passage waters are in the vicinity of Quonset Point within 1500 feet of the shore from the western end of the carrier pier to a point 1000 feet north of Quonset Point in North Kingstown. The waterbody identification # for this water body is RI0007027E-03C. This segment is located in North Kingstown and is classified as a class SB1 water body according to the Rhode Island Water Quality Regulations. SB1 waters are designated for primary and secondary contact recreational activities and fish and wildlife habitat. They shall be suitable for aquacultural uses, navigation, and industrial cooling. These waters shall have good aesthetic value. Primary contact recreational activities may be impacted due to pathogens from approved wastewater discharges. However, all Class SB criterial must be met. Currently, this segment is not listed as impaired in the DEM's 2014 303(d) List of Impaired Waters.

Permit Development

Development of RIPDES permit limitations is a multi-step process consisting of the following steps: calculating allowable water quality-based discharge levels using instream criteria, background data and available dilution; determining if technology based limits apply; developing Best Professional Judgment (BPJ)-based limits; taking the most stringent of the water quality-based, technology-based, and BPJ-based limits as the new allowable discharge levels; comparing existing permit limits to the new allowable discharge levels and performing an antidegradation/antibacksliding analysis to determine the final permit limits; and evaluating the ability of the facility to meet the final permit limits.

Water quality criteria are comprised of numeric and narrative criteria. Numeric criteria are scientifically derived ambient concentrations developed by EPA or the State for various pollutants of concern to protect human health and aquatic life. Narrative criteria are statements that describe the desired water quality goal. A technology-based limit is a numeric limit, which is determined by examining the capability of a treatment process to reduce or eliminate pollutants.

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. RIDEM's primary authority over the permit comes from EPA's delegation of the program in September 1984 under the Federal Clean Water Act (CWA).

WWTF Conventional Pollutant Permit Limitations

Flow limits

The basis for the facility's average monthly flow limit of 1.78 MGD is the facility's Master Plan Update dated April 2012 and approved April 27, 2012.

BOD_5, TSS, Settleable Solids, and pH

The "Average Monthly" and "Average Weekly" BOD_5 and TSS limitations plus the pH limitations are based upon the secondary treatment requirements of Section 301 (b)(1)(B) of the CWA as defined in 40 CFR 133.102 (a) - (c). The "Maximum Daily" BOD_5 and TSS limits are based on Rhode Island requirements for Publicly Owned Treatment Works (POTW's) under Section 401 (a)(1) of the CWA and in 40 CFR 124.53 and 124.56. The "Percent Removal" requirements are in accordance with 40 CFR 133.102. Settleable Solids has been included as a process-control parameters that can aid in the assessment of the operation of the plant but need not be an effluent limit.

Oil and Grease

Oil and Grease monitoring requirements have been maintained in this permit based on Best Professional Judgement in order to serve as a process control parameter. Monitoring data will serve as an indicator of excessive levels of Oil and Grease in the collection system. The QDC and DEM will be able to use this data to track and potentially initiate corrective action if necessary to prevent backups and blockages within the sewer collection system and to ensure that oil and grease levels do not cause impacts to the receiving water (i.e., "grease balls").

Enterococci and Fecal Coliform

Table 2.8.D(3) of the Rhode Island Water Quality Regulations includes Enterococci criteria for primary contact/swimming of a geometric mean of 35 colonies/100 ml and a single sample maximum of 104 colonies/100 ml. The "single sample maximum" value is only used by the Rhode Island Department of Health to evaluate beach swimming advisories and is not applied to the receiving water in the area of the Quonset WWTF's outfall. EPA's November 12, 2008 memorandum regarding "Initial Zones of Dilution for Bacteria in Rivers and Streams Designated for Primary Contact Recreation" clarifies that it is not appropriate to use dilution for bacteria criteria in receiving waters that are designated for primary contact recreation. Therefore, because the receiving water is designated for primary contact recreation, the DEM is maintaining a monthly average Enterococci limit of 35 colonies/100 ml. This limit is consistent with the water quality criteria from Table 2.8.D(3) of the Rhode Island Water Quality Regulations. The daily maximum enterococci limit has been maintained at the 90% upper confidence level value for "lightly used full body contact recreation" of 276 colonies/100 ml. The DEM has also assigned Fecal Coliform monitoring to ensure that the discharge from the WWTF will not have an impact on any areas designated for shellfish harvesting outside of the immediate vicinity of the outfall.

WWTF Toxic Pollutant Limits

The allowable effluent limitations were established on the basis of acute and chronic aquatic life criteria and human health criteria using the following: available instream dilution; an allocation factor; and background concentrations when available and/or appropriate. The aquatic life and human health criteria are specified in the Rhode Island Water Quality Regulations. Aquatic life criteria have been established to ensure the protection and propagation of aquatic life while human health criteria represent the pollutant levels that would not result in a significant risk to public health from ingestion of aquatic organisms. The more stringent of the two criteria was then used in establishing allowable effluent limitations. Details concerning the calculation of potential permit limitations, selection of factors, which influence their calculation, and the selection of final permit limitations are included below. The Quonset WWTF's previous permit contained water quality based limits.

Mixing Zones and Dilution Factors

It was previously determined that a mixing zone and corresponding dilution factor is acceptable for the effluent from the Quonset Point Wastewater Treatment Facility. A chronic dilution factor of 200:1 with a mixing zone of 200m in radius (approximately 656 ft.) and an acute dilution factor of

100:1 with a mixing zone of 170m in radius (approximately 558 ft.) were established based on the findings of the Quonset Point Wastewater Treatment Facility Outfall Dilution Study (ASA, 1993) and RIDEM's prior analysis of the raw data for ASA's Outfall Dilution Study. The Quonset WWTF's mixing zone is presented in Attachment A-3

Using the above-mentioned dilution factors the allowable discharge limits were calculated as follows:

a) Background concentration unknown or available data is impacted by sources that have not yet achieved water quality based limits.

$$Limit_1 = (DF) * (Criteria) * (80\%)$$

Where: DF = acute or chronic dilution factor, as appropriate

b) Using available background concentration data[1].

$$Limit_1 = (DF) * (Criteria) * 90\% - (Background) * (DF - 1)$$

Where: DF = acute or chronic dilution factor, as appropriate

Based on the above dilution factors and the saltwater aquatic life and non-Class A human health criteria from the Rhode Island Water Quality regulations, allowable discharge concentrations were established using 80% allocation when no background data was available. 90% allocation was used when background data was available. Background data for Cadmium, Chromium, Copper, Lead, Nickel, and Silver was obtained from the four (4) SINBADD cruises in "Cruise and Data Report", SINBADD 1,2,3 and 4.

The formulas and data noted above were applied with the following exceptions:

A) Pollutants that, based on the acute and chronic dilution factors, have a higher allowable chronic limit than allowable acute limit. For this situation, both the "Monthly Average" and "Daily Maximum" limits were set at the allowable acute limit.

B) Total Residual Chlorine (TRC). The limits for TRC were established in accordance with the DEM Effluent Disinfection Policy. The "Monthly Average" and "Daily Maximum" were based on a 100% allocation, a zero background concentration, and the appropriate dilution factors. The 100% allocation factor for TRC was used due to the non-conservative nature of chlorine and the improbability of the receiving water having a detectable background TRC concentration.

The potential ammonia limitations were derived from acute and chronic water quality criteria for saltwater from the Rhode Island Water Quality Regulations, which are based upon salinity, pH, and temperature. A salinity equal to 30 ppt., pH equal to 8.0 standard units, and average temperatures equal to 20°C and 5°C during Summer and Winter seasons, respectively, were used to calculate the allowable water quality-based discharge levels for ammonia. Salinity and temperature values were based upon data contained in the Narragansett Bay Project Reports, #NBP-89-22, titled "Water Quality Survey of Narragansett Bay-A Summary of the SINBADD 1985-1986". The pH value was determined from data contained in a report titled "Monitoring of the Providence and Seekonk Rivers for Trace Metals and Associated Parameters-SPRAY Cruises I, II, III" [Deoring et al., 1988], and from a University of Rhode Island Graduate School of Oceanography research paper titled "Co-occurrence of Dinoflagellate Blooms and High pH in Marine Enclosures", [Hinga, 1992].

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[1]Source of background data for cadmium, chromium VI, copper, lead, nickel, and silver is *Water Quality Survey of Narragansett Bay - A Summary of Results from the SINBADD 1985-1986*; Pilson, Michael E.Q. and Hunt, Carlton, D.; March 1989; Report #NBP-89-22.

Reference Attachment A-4 for calculations of allowable discharge levels based on Aquatic Life and Human Health Criteria.

Antibacksliding

Antibacksliding restricts the level of relaxation of water quality based limits from the previous permit. Section 303(d)(4) of the Clean Water Act addresses antibacksliding as the following:

Section 303(d)(4)

A) Standards not attained - For receiving waters that have not attained the applicable water quality standards, limits based on a TMDL or WLA can only be revised if the water quality standards will be met. This may be done by (i) determining that the cumulative effect of all such revised limits would assure the attainment of such water quality standards; or (ii) removing the designated use which is not being attained in accordance with regulations under Section 303.

B) Standards attained - For receiving waters achieving or exceeding applicable water quality standards, limits can be relaxed if the revision is consistent with the State's Antidegradation Policy.

Therefore, in order to determine whether backsliding is permissible, the first question that must be answered is whether or not the receiving water is attaining the water quality standard. The DEM has determined the most appropriate evaluation of existing water quality is by calculating the pollutant levels, which would result after consideration of all currently valid RIPDES permit limits or historic discharge data (whichever is greater), background data (when available), and any new information (i.e.: dilution factors).

Antidegradation

The RIDEM's "Policy on the Implementation of the Antidegradation Provisions of the Rhode Island Water Quality Regulations" (the Policy) establishes four tiers of water quality protection:

Tier 1. In all surface waters, existing uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

Tier 2. In waters where the existing water quality exceeds levels necessary to support propagation of fish and wildlife, and recreation in and on the water, that quality shall be maintained and protected, except for insignificant changes in water quality as determined by the Director and in accordance with the Antidegradation Implementation Policy, as amended. In addition, the Director may allow significant degradation which is determined to be necessary to achieve important economic or social benefits to the State in accordance with the Antidegradation Implementation Policy, as amended.

Tier 2½. Where high quality waters constitute a Special Resource Protection Water SRPW[2], there shall be no measurable degradation of the existing water quality necessary to protect the characteristic(s) which cause the waterbody to be designated a SRPW. Notwithstanding that all public drinking water supplies are SRPWs, public drinking water suppliers may undertake temporary and short-term activities within the boundary perimeter of a public drinking water supply impoundment for essential maintenance or to address emergency conditions in order to prevent adverse effect on public health or safety. These activities must comply with the requirements set forth in Rule 18 sections B. of the Rhode Island Water Quality Regulations. Rule 18.B states that any existing in-stream water uses and level of surface water quality necessary to protect the existing uses, shall be maintained and protected.

[2]SRPWs are surface waters identified by the Director as having significant recreational or ecological uses.

Tier 3. Where high quality waters constitute an ONRW[3], that water quality shall be maintained and protected. The State may allow some limited activities that result in temporary and short-term changes in the water quality of an ONRW. Such activities must not permanently degrade water quality or result in water quality lower than necessary to protect the existing uses in the ONRW.

The formulas previously presented ensure that permit limitations are based upon water quality criteria and methodologies established to ensure that all designated uses will be met.

In terms of the applicability of Tier 2 of the Policy, a water body is assessed as being high quality on a parameter-by-parameter basis. In accordance with Part II of the Policy, "Antidegradation applies to all new or increased projects or activities which may lower water quality or affect existing water uses, including but not limited to all 401 Water Quality Certification reviews and any new, reissued, or modified RIPDES permits." Part VI.A of the Policy indicates that it is not applicable to activities which result in insignificant (i.e.: short-term minor) changes in water quality and that significant changes in water quality may be allowed if it is necessary to accommodate important economic and social development in the area in which the receiving waters are located (important benefits demonstration). Part VI.B.4 of the Policy states that: "Theoretically, any new or increased discharge or activity could lower existing water quality and thus require the important benefits demonstration. However, RIDEM will: 1) evaluate applications on a case-by-case basis, using BPJ and all pertinent and available facts, including scientific and technical data and calculations as provided by the applicant; and 2) determine whether the incremental loss is significant enough to require the important benefits demonstration described below. [If not then as a general rule RIDEM will allocate no more than 20%.] Some of the considerations which will be made to determine if an impact is significant in each site specific decision are: 1) percent change in water quality parameter value and their temporal distribution; 2) quality and value of the resource; 3) cumulative impact of discharges and activities on water quality to-date; 4) measurability of the change; 5) visibility of the change; 6) impact on fish and wildlife habitat; and 7) impact on potential and existing uses. As a general guide, any discharge or activity which consumes greater than 20% of the remaining assimilative capacity (See Section VI.B.2) will be considered a significant impact and will be required to demonstrate important economic or social benefits to justify the activity (See Section VI.C. below). However, on a case-by-case basis, <u>any</u> proposed percent consumption of the remaining assimilative capacity may be deemed significant and invoke full requirements to demonstrate important economic or social benefits."

In terms of a RIPDES permit, an increased discharge is defined as an increase in any limitation, which would result in an increased mass loading to a receiving water. The baseline for this comparison would be the monthly average mass loading established by the previous permit. It would be inappropriate to use the daily maximum mass loading since the Policy is not applicable to short-term changes in water quality.

For the purposes of ensuring that the revised limit is consistent with the requirements of antidegradation, existing water quality must be defined. As explained earlier, DEM evaluates existing water quality by determining the pollutant levels which would result under the design conditions appropriate for the particular criteria (i.e., background water quality, when available and/or appropriate; non-point source inputs; and existing RIPDES permit limitations or recent historical discharge data, whichever is higher). In general, available data would be used to make this determination.

Using the above-mentioned criteria, the present instream water quality C_p is defined as:

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[3]ONRWs are a special subset of high quality water bodies, identified by the State as having significant recreational or ecological water uses.

$$C_p = \frac{(DF - 1) * C_b + (1 * C_d)}{DF}$$

where: C_b = background concentration[4]
C_d = discharge data[5]
DF = dilution factor

If the waterbody is a high quality water for the pollutant in question ($C_p < C_{criteria}$), then the discharge requires an evaluation under Tier 2 protection. If the waterbody is not determined to be high quality for that parameter, then antibacksliding will allow an increased permit limit only if it can be assured that water quality standards would be attained. Therefore, the permit limit would be calculated to comply with Tier 1 protection, using the procedures noted previously (i.e., $Limit_1$).

Assuming the receiving water has been designated as a high quality waterbody for the parameter under investigation, the next step is to determine whether the new or increased discharge is permissible and if so whether an important benefits demonstration is required. As explained above, for existing discharges RIDEM shall follow the general rule of allocating no more than 20% of the remaining assimilative capacity without the need to complete this demonstration (assuming the receiving water is not an SRPW or ONRW). On a case-by-case basis, the DEM may limit the allocation or determine that any incremental loss or impact to the receiving water is significant enough to require a detailed important benefits demonstration.

Water Quality Based Limits - Considering Antibacksliding and Antidegradation

Below are the four (4) steps RIDEM uses to establish permit limitations to be consistent with Tier 2 protection of antidegradation.

1) Determine the remaining assimilative capacity of the receiving water C_{rac}. The remaining assimilative capacity (or buffer) is equivalent to the difference between the criteria and the calculated present instream water quality concentrations:

$$C_{rac} = C_{criteria} - C_p$$

where:
$C_{criteria}$=applicable standard for the most sensitive use; and
C_p = the calculated present water quality concentration.

2) Establish the percentage of the remaining assimilative capacity that will be allocated to the permittee.

3) Calculate an increased permit limit that would meet the Antidegradation Implementation Policy.

The next step is to calculate a permit limit based on the available concentration. Basically, the available concentration is a percentage of the remaining assimilative capacity of the receiving water, which can be allocated to the permittee, plus the present water quality. This concentration is then used to calculate a permit limit. The limit is calculated by subtracting background data (if

[4]Data collected at a location that is unimpacted by significant point source discharges.

[5]Discharge data refers to the maximum of the permit limit or the historic discharge level. The historic discharge level is determined by calculating the upper 95th percent confidence interval for the monthly average reported data for the past five (5) years. For specific cases, changes in treatment efficiency or pretreatment limitations may support the use of an alternative period of time.

available or appropriate) from the criteria and using the appropriate dilution factors and allocation factors in a mass balanced relationship.

The limit is determined by:

$$Limit_2 = (C_p + \% * C_{rac}) * DF - (DF - 1) * C_b$$

4) Finally, compare $Limit_1$ to $Limit_2$.

The final limit is the minimum of $Limit_1$ and $Limit_2$.

During the development of the 2017 draft permit for the facility, historical effluent discharge levels were compared to antidegradation monthly average limits which had been carried over from Attachment D of the facility's 2012 Development Document. (Attachment D of the 2012 Development Document was entitled "Comparison of Allowable Limits with Discharge Monitoring Report Data and State User Fee Data"). This analysis determined that effluent levels for parameters with anti-degradation limits were all well below antidegradation limits, therefore, prior antidegradation limits are being carried forward in the 2017 permit in Attachment A-7. Attachment A-7 is a summary comparison of the allowable limits vs. the DMR and State User Fee Program data.

A summary of the pollutants detected in the WWTF's Discharge Monitoring Report data and Priority Pollutant Scan data for the past five (5) years are provided in Attachments A-5 and A-6 respectively.

In accordance with 40 CFR Part 122.4(d)(1)(iii), it is only necessary to establish 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 average Discharge Monitoring Report (DMR) data and the mean concentrations reported in the WWTF's annual priority pollutant scans. Based on this analysis, permit limits are required for Total Residual Chlorine and Available Cyanide. Although reasonable potential was not established for the following pollutants (i.e., effluent data was consistently far below the permissible levels), quarterly monitoring is being maintained for Total Copper, Total Cadmium, Total Chromium, Total Lead, Total Zinc, Total Nickel, and Total Aluminum. These pollutants are all part of DEM's list of standard parameters, for discharges to salt waters, that must be measured as part of the bioassay procedures.

Nutrient Limits

At this time, nutrient criteria have not been established for the receiving water. The testing requirements for TKN, Nitrate and Nitrite are necessary to determine nutrient loadings to the receiving water, and are consistent with the Department's policy requiring all facilities to perform baseline nutrient monitoring. This information will aid the Department in the determination of the necessity for future nutrient removal from the treatment plant effluent.

Bioassay Testing

Evaluation of past bioassay reports from QDC has revealed that the prechlorinated effluent samples from the treatment plant have demonstrated acceptable toxicity values. Based upon the high degree of instream mixing, the draft permit requires an LC_{50} limit of ≥50% effluent. Toxicity results for effluent collected prior to chlorination consistently had LC_{50} values >50% effluent. The actual data can be found in Attachment A-1.

The biomonitoring requirements are set forth in 40 CFR 131.11 and in the State's Water Quality Regulations. The bioassay requirements in the permit (2) acute toxicity tests to be conducted on a twenty-four (24) hour flow proportioned composite sample, taken just prior to chlorination, once per quarter shall assure control of toxicity in the effluent. The draft permit requires testing with both Mysids and Silversides. If future toxicity is demonstrated, then toxicity identification and reduction will be required.

Resiliency Plan

The permit requires that, within one year of the effective date of this permit, the Permittee shall submit a Resiliency Plan and schedule of short and long term actions that will be taken to maintain operation and protect key collection and treatment system assets that will be subject to DEM review and approval. The plan shall be consistent with the DEM's Guidance for the Consideration of Climate Change Impacts in the Planning and Design of Municipal Wastewater Collection and Treatment Infrastructure and include consideration of the findings of the 2017 DEM report Implications of Climate Change for Rhode Island Wastewater Collection and Treatment Infrastructure. The Resiliency Plan shall include, but not be limited to: (i) an assessment of current and projected impacts from natural hazards on critical components within the collection and treatment systems, as well as on the systems themselves; (ii) a plan to adapt and protect vulnerable components and systems; (iii) an analysis that provides justification for selected adaptation methods. The analysis must consider component and system design life and sea-level rise projections. For the purposes of this Resiliency Plan, critical components are considered those necessary to ensure the forward flow and treatment of wastewater in accordance with the limits set forth in this permit. The Resiliency Plan shall also consider impacts from neighboring facilities during high hazard events.

Other Limits and Conditions

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 permit contains requirements for the permittee to comply with the State's Sludge Regulations and its Order of Approval for sludge disposal in accordance with the requirements of Section 405(d) of the Clean Water Act (CWA). Permits must contain sludge conditions requiring compliance with limits, state laws, and applicable regulations as per Section 405(d) of the CWA and 40 CFR 503. The RIDEM Sludge Order of Approval sets forth the conditions to ensure this compliance.

The permit contains a reporting requirement for a local program to regulate industrial discharges to the sewer system (referred to as pretreatment program). This program is being required under authority of Section 402(b)(8) of the CWA and 40 CFR 122.44 (j) and 403.8 because the treatment facility receives significant discharges of industrial wastewater. RIDEM approved Quonset's IPP on September 24, 1986.

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.

Final Permit Limits

Presented in the following Table is a summary of the permit limitations for outfall 001A set forth in the Final Permit.

Parameter	Monthly Average (Minimum)	Weekly Average	Daily Maximum (Maximum)
Flow (MGD)	1.78		---
BOD_5 (load, lbs/day)	445		742
BOD_5 (concentration, mg/l)	30	45	50
BOD_5 % removal	85		
TSS (load)	445		742
TSS (concentration)	30	45	50
TSS % removal	85		
Settleable Solids (ml/l)		---	---
Enterococci (cfu/ml)	35/100		276/100

Parameter	Monthly Average (Minimum)	Weekly Average	Daily Maximum (Maximum)
Fecal Coliform (MPN/100 ml	---		---
Total Residual Chlorine (mg/l)	1.3		1.3
pH (S.U.)	(6.0)		(9.0)
Oil and Grease			---
Nitrate (May 1-Oct. 31), mg/l	---		---
Nitrate (Nov. 1-Apr. 30), mg/l	---		---
Nitrite (May 1-Oct. 31), mg/l	---		---
Nitrite (Nov. 1-Apr. 30), mg/l	---		---
TKN (May 1-Oct.31), mg/l	---		---
TKN (Nov. 1-Apr. 30), mg/l	---		---
Total Nitrogen (May 1 1-Oct. 31), mg/l	---		---
Total Nitrogen (Nov. 1-Oct. 31) mg/l	---		---
Total Nitrogen (May 1 1-Oct. 31), (load, lbs/day)-	---		
Total Nitrogen (Nov. 1-Oct. 31), (load, lbs/day)	---		
Total Copper (ug/l)	---		---
Cyanide, Available (ug/l)	47.3		80.0
Total Cadmium	---		---
Hexavalent Chromium (ug/l)	---		---
Total Lead (ug/l)	---		---
Total Zinc (ug/l)	---		---
Total Nickel (ug/l)	---		---
Total Aluminum (ug/l)	---		---
Mysidopsis bahia (LC_{50})			50% or greater
Menidia spp (LC_{50})			50% or greater

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

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. In accordance with Chapter 46-17.4 of Rhode Island General Laws, a public hearing will be held prior to the close of the public comment period. 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, 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, provided oral testimony, 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:

Samuel Kaplan, P.E.
Senior Engineer
RIPDES Program
Office of Water Resources
Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908
Telephone: (401) 222-4700, extension 7046
Email: samuel.kaplan@dem.ri.gov

4/16/18
Date

Joseph B. Haberek, P.E.
Supervising Sanitary Engineer
RIPDES Program
Office of Water Resources
Department of Environmental Management

ATTACHMENT A-1 Historical Effluent Data

DESCRIPTION OF DISCHARGE: Secondary Treated Domestic and Industrial Wastewater.
DISCHARGE: 001A - Secondary Treatment Discharge

AVERAGE EFFLUENT CHARACTERISTICS AT POINT OF DISCHARGE:

PARAMETER	AVERAGE[1]	AVERAGE[2]	MAXIMUM[2]
FLOW (MGD)	0.41		0.54
BOD_5 (LBS/DAY)	65.6		111.4
BOD_5 (mg/L)	17.84	23.54	29.27
BOD_5 (% Removal)	93.80		
TSS (mg/L)	13.36	17.02	22.890
TSS (LBS/DAY)	45.76		81.99
TSS - % Removal	97.00		
Oil & Grease (mg/L)			4.41
Fecal Coliform (MPN/100 ml)	2.95		38.38
Enterococci (CFU/100 ml)	6.22		60.48
Settleable Solids (ml/l)	0.095		0.095
pH (S.U.)	6.80 (Minimum)		7.45 (Maximum)
Chlorine, Total Residual (mg/l)	0.9129		1.1896
Copper (ug/l)	33.08		48.8
Nitrate, Total (as N) (mg/l)			9.48
Nitrite, Total (as N) (mg/l)			2.68
Nitrogen, Total (Nitrate +Nitrite + TKN as N) (mg/l)			28.92
Total Kjeldhal Nitrogen (TKN as N) (mg/l)			18.67
<u>Outfall 001Q</u>			
Aluminum (ug/l)	99.82		101.46
Cadmium (ug/l)	1.46		1.42
Chromium (ug/l)	1.4		1.36
Copper (ug/l)	27.26		33.15
Cyanide (ug/l)	9.9		9.9
Lead (ug/l)	1.84		2.01
Nickel (ug/l)	6.44		6.87
Zinc (ug/l)	82.2		92.1

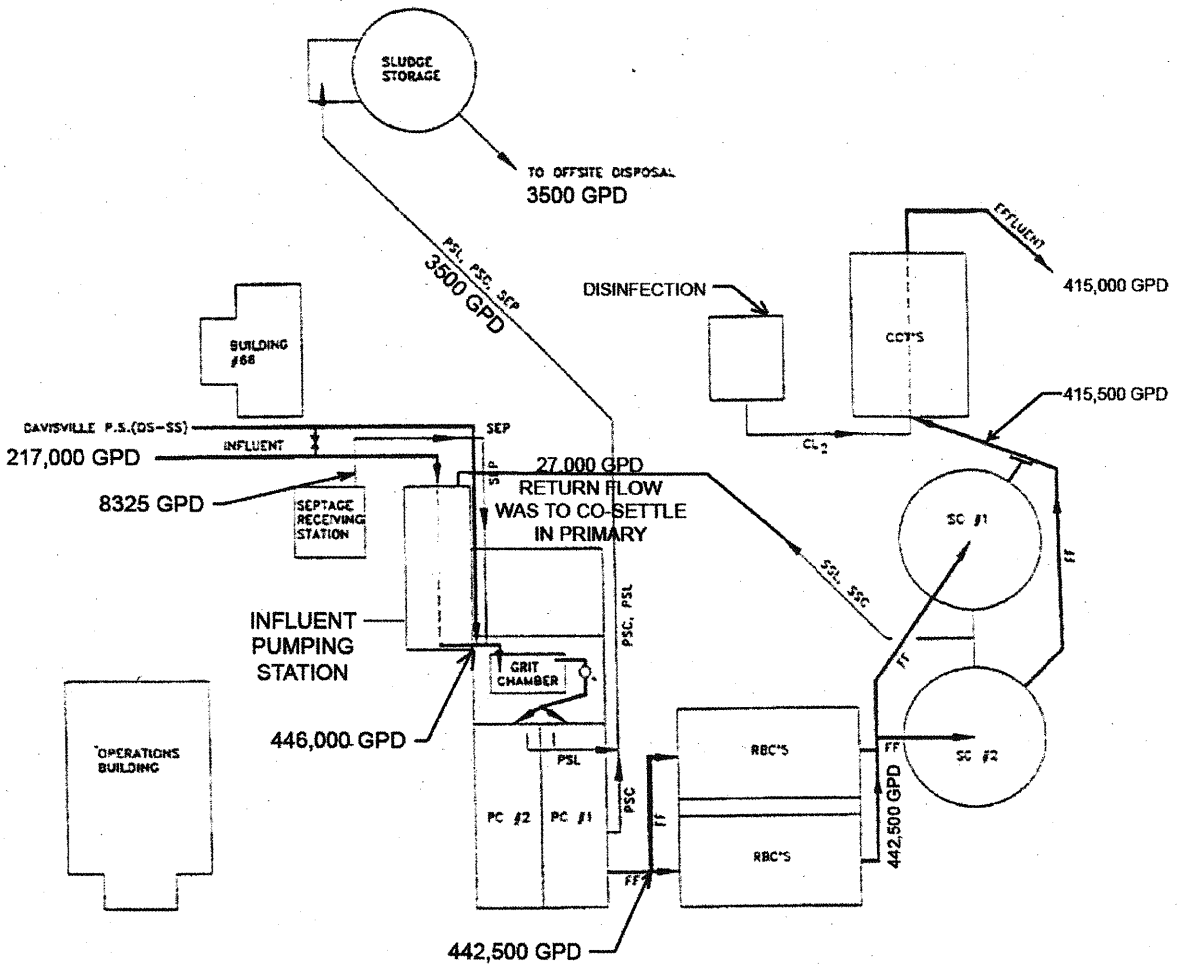
[1]Data represents statistical mean of the monthly average data from 04/2012 – 03/2017
[2]Data represents the statistical mean of the daily maximum data from 04/2012 – 03/2017

Biotoxicity Data LC_{50} Values (in percent effluent)

	2015 2nd (quarter)	2015 3rd	2015 4th	2016 1st	2016 2nd	2016 3rd	2016 4th	2017 1st
LC_{50} Mysidopsis bahia	=100	=100	=100	=80.5	=100	=100	=100	>100
LC_{50} Menidia spp	=82	=100	=100	=74.5	=100	=79.4	=100	>100

Attachment A-2

Wastewater Treatment Facility Site Plan



PROCESS FLOW DIAGRAM HAS BEEN TAKEN FROM WRIGHT PIERCE CONTRACT DOCUMENTS & MODIFIED FOR THE 2011 PERMIT APPLICATION

FLOW IS BASED ON 2010 AVERAGE FLOW DATA

LEGEND

•	COMMINUTOR
SEP	SEPTAGE
PSC	PRIMARY SCUM
PSL	PRIMARY SLUDGE
PC	PRIMARY CLARIFIER
FF	FORWARD FLOW
RBC	ROTATING BIOLOGICAL CONDUCTOR
SC	SECONDARY CLARIFIER
SSL	SECONDARY SLUDGE
SSC	SECONDARY SCUM
CL_2	CHLORINE
CCT	CHLORINE CONTACT TANKS

JAMES J. GERENA & ASSOCIATES, INC.

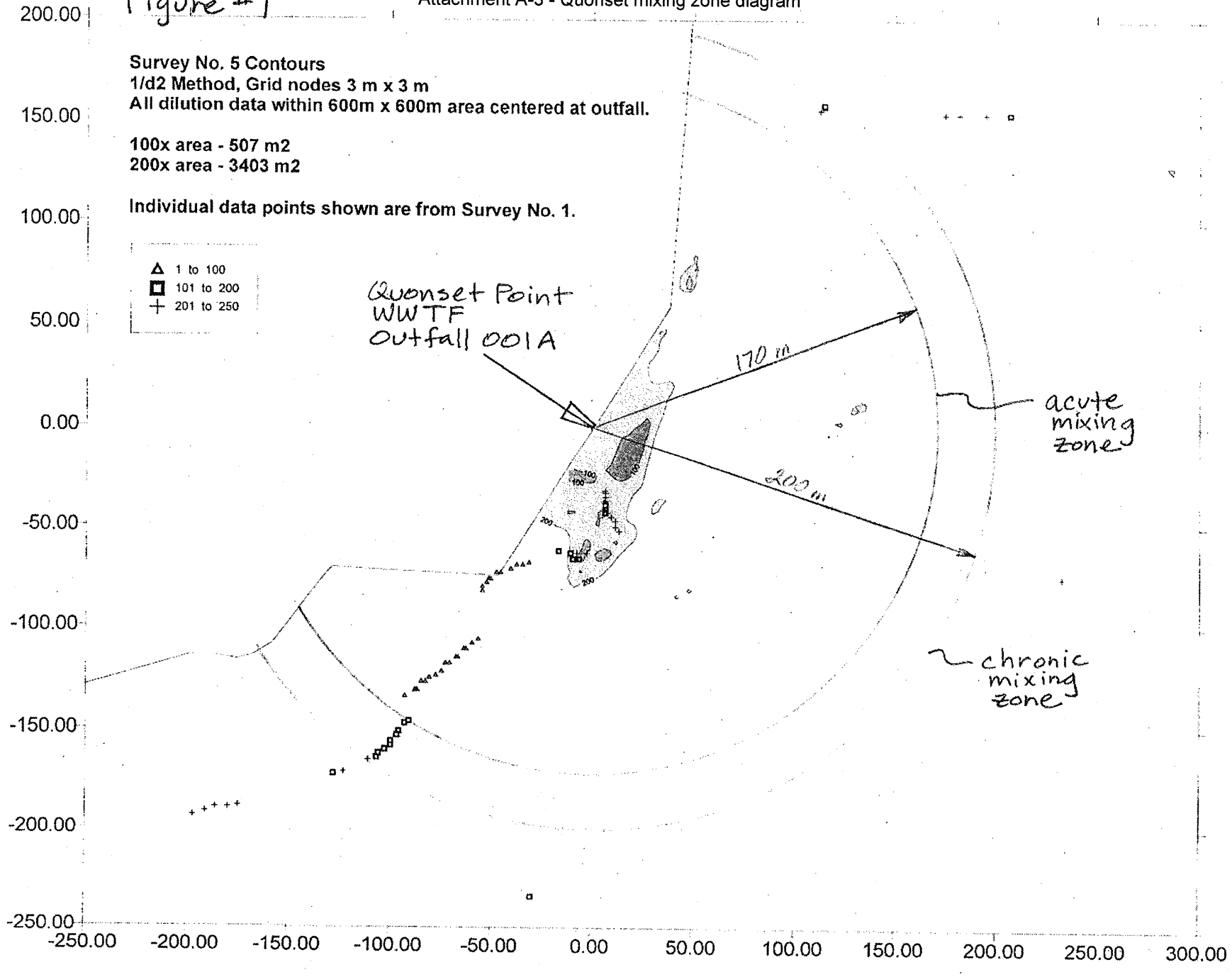
QDC WASTEWATER TREATMENT PLANT PROCES FLOW SCHEMATIC

Attachment A-3

Quonset WWTF Mixing Zone

Figure #1

Attachment A-3 - Quonset mixing zone diagram



Attachment A-4

Calculation of Allowable Acute and Chronic Discharge Limitations Based on Saltwater Aquatic Life Criteria and Human Health 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: **Quonset WWTF**

RIPDES PERMIT #: **RI0100404**

	DISSOLVED BACKGROUND DATA (ug/L)	ACUTE METAL TRANSLATOR	CHRONIC METAL TRANSLATOR
ALUMINUM	**NA**	**NA**	**NA**
ARSENIC	**NA**	**1**	**1**
CADMIUM	**0.0304**	**0.994**	**0.994**
CHROMIUM III	**NA**	**NA**	**NA**
CHROMIUM VI	**0.1503**	**0.993**	**0.993**
COPPER	**0.538**	**0.83**	**0.83**
LEAD	**0.0414**	**0.951**	**0.951**
MERCURY	**NA**	**0.85**	**NA**
NICKEL	**0.8643**	**0.99**	**0.99**
SELENIUM	**NA**	**0.998**	**0.998**
SILVER	**0.0033**	**0.85**	**0.85**
ZINC	**NA**	**0.946**	**0.946**

USE NA WHEN NO DATA IS AVAILABLE

NOTE 1: BACKGROUND DATA BASED ON AVERAGE CONCENTRATIONS OBTAINED FROM THE FOUR SINBADD CRUISES IN CURRENT REPORT #: NBP-89-22 (LOCATIONS B8, B9, B15 & B16).

NOTE 2: METAL TRANSLATORS FROM RI WATER QUALITY REGS.

DILUTION FACTORS		
	ACUTE =	**100** x
	CHRONIC =	**200** x
	HUMAN HEALTH =	**200** x

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

TOTAL AMMONIA CRITERIA (ug/L)		
WINTER	ACUTE =	**21000**
	CHRONIC =	**3100**
SUMMER	ACUTE =	**7300**
	CHRONIC =	**1100**

NOTE 1: LIMITS ARE FROM TABLE 3 IN THE RI WATER QUALITY REGS.
USING:
SALINITY = 30 g/Kg
WINTER (NOV-APRIL) pH=8.0 s.u.;
SUMMER (MAY-OCT) pH=8.0 s.u.
WINTER (NOV-APRIL) TEMP=5.0 C;
SUMMER (MAY-OCT) TEMP=20.0 C.

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: Quonset WWTF RIPDES PERMIT #: RI0100404

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	102400
ARSENIC (limits are total recoverable)	7440382	NA	69	5520	36	1.4	224
ASBESTOS	1332214			No Criteria			No Criteria
BERYLLIUM	7440417			No Criteria			No Criteria
CADMIUM (limits are total recoverable)	7440439	0.0304	40	3618.702616	8.8		1587.475252
CHROMIUM III (limits are total recoverable)	16065831	NA		No Criteria			No Criteria
CHROMIUM VI (limits are total recoverable)	18540299	0.1503	1100	99682.9006	50		9033.323565
COPPER (limits are total recoverable)	7440508	0.538	4.8	456.3108434	3.1		543.2987952
CYANIDE	57125		1	80.00	1	140	160
LEAD (limits are total recoverable)	7439921	0.0414	210	19869.50726	8.1		1524.459937
MERCURY (limits are total recoverable)	7439976	NA	1.8	169.4117647	0.94	0.15	24
NICKEL (limits are total recoverable)	7440020	0.8643	74	6640.842727	8.2	4600	1317.176061
SELENIUM (limits are total recoverable)	7782492	NA	290	23246.49299	71	4200	11382.76553
SILVER (limits are total recoverable)	7440224	0.0033	1.9	200.7921176			No Criteria
THALLIUM	7440280			No Criteria		0.47	75.2
ZINC (limits are total recoverable)	7440666	NA	90	7610.993658	81	26000	13699.78858
VOLATILE ORGANIC COMPOUNDS							
ACROLEIN	107028			No Criteria		290	46400
ACRYLONITRILE	107131			No Criteria		2.5	400
BENZENE	71432			No Criteria		510	81600
BROMOFORM	75252			No Criteria		1400	224000
CARBON TETRACHLORIDE	56235			No Criteria		16	2560
CHLOROBENZENE	108907			No Criteria		1600	256000
CHLORODIBROMOMETHANE	124481			No Criteria		130	20800
CHLOROFORM	67663			No Criteria		4700	752000
DICHLOROBROMOMETHANE	75274			No Criteria		170	27200
1,2DICHLOROETHANE	107062			No Criteria		370	59200
1,1DICHLOROETHYLENE	75354			No Criteria		7100	1136000
1,2DICHLOROPROPANE	78875			No Criteria		150	24000
1,3DICHLOROPROPYLENE	542756			No Criteria		21	3360
ETHYLBENZENE	100414			No Criteria		2100	336000
BROMOMETHANE (methyl bromide)	74839			No Criteria		1500	240000
CHLOROMETHANE (methyl chloride)	74873			No Criteria			No Criteria
METHYLENE CHLORIDE	75092			No Criteria		5900	944000

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: Quonset WWTF RIPDES PERMIT #: RI0100404

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	6400
TETRACHLOROETHYLENE	127184			No Criteria		33	5280
TOLUENE	108883			No Criteria		15000	2400000
1,2TRANSDICHLOROETHYLENE	156605			No Criteria		10000	1600000
1,1,1TRICHLOROETHANE	71556			No Criteria			No Criteria
1,1,2TRICHLOROETHANE	79005			No Criteria		160	25600
TRICHLOROETHYLENE	79016			No Criteria		300	48000
VINYL CHLORIDE	75014			No Criteria		2.4	384
ACID ORGANIC COMPOUNDS							
2CHLOROPHENOL	95578			No Criteria		150	24000
2,4DICHLOROPHENOL	120832			No Criteria		290	46400
2,4DIMETHYLPHENOL	105679			No Criteria		850	136000
4,6DINITRO2METHYL PHENOL	534521			No Criteria		280	44800
2,4DINITROPHENOL	51285			No Criteria		5300	848000
4NITROPHENOL	88755			No Criteria			No Criteria
PENTACHLOROPHENOL	87865		13	1040	7.9	30	1264
PHENOL	108952			No Criteria		1700000	272000000
2,4,6TRICHLOROPHENOL	88062			No Criteria		24	3840
BASE NEUTRAL COMPUNDS							
ACENAPHTHENE	83329			No Criteria		990	158400
ANTHRACENE	120127			No Criteria		40000	6400000
BENZIDINE	92875			No Criteria		0.002	0.32
POLYCYCLIC AROMATIC HYDROCARBONS				No Criteria		0.18	28.8
BIS(2CHLOROETHYL)ETHER	111444			No Criteria		5.3	848
BIS(2CHLOROISOPROPYL)ETHER	108601			No Criteria		65000	10400000
BIS(2ETHYLHEXYL)PHTHALATE	117817			No Criteria		22	3520
BUTYL BENZYL PHTHALATE	85687			No Criteria		1900	304000
2CHLORONAPHTHALENE	91587			No Criteria		1600	256000
1,2DICHLOROBENZENE	95501			No Criteria		1300	208000
1,3DICHLOROBENZENE	541731			No Criteria		960	153600
1,4DICHLOROBENZENE	106467			No Criteria		190	30400
3,3DICHLOROBENZIDENE	91941			No Criteria		0.28	44.8
DIETHYL PHTHALATE	84662			No Criteria		44000	7040000
DIMETHYL PHTHALATE	131113			No Criteria		1100000	176000000
DInBUTYL PHTHALATE	84742			No Criteria		4500	720000
2,4DINITROTOLUENE	121142			No Criteria		34	5440

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: Quonset WWTF RIPDES PERMIT #: RI0100404

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	320
FLUORANTHENE	206440			No Criteria		140	22400
FLUORENE	86737			No Criteria		5300	848000
HEXACHLOROBENZENE	118741			No Criteria		0.0029	0.464
HEXACHLOROBUTADIENE	87683			No Criteria		180	28800
HEXACHLOROCYCLOPENTADIENE	77474			No Criteria		1100	176000
HEXACHLOROETHANE	67721			No Criteria		33	5280
ISOPHORONE	78591			No Criteria		9600	1536000
NAPHTHALENE	91203			No Criteria			No Criteria
NITROBENZENE	98953			No Criteria		690	110400
NNITROSODIMETHYLAMINE	62759			No Criteria		30	4800
NNITROSODINPROPYLAMINE	621647			No Criteria		5.1	816
NNITROSODIPHENYLAMINE	86306			No Criteria		60	9600
PYRENE	129000			No Criteria		4000	640000
1,2,4trichlorobenzene	120821			No Criteria		70	11200
PESTICIDES/PCBs							
ALDRIN	309002		1.3	104		0.0005	0.08
Alpha BHC	319846			No Criteria		0.049	7.84
Beta BHC	319857			No Criteria		0.17	27.2
Gamma BHC (Lindane)	58899		0.16	12.8		1.8	288
CHLORDANE	57749		0.09	7.2	0.004	0.0081	0.64
4,4DDT	50293		0.13	10.4	0.001	0.0022	0.16
4,4DDE	72559			No Criteria		0.0022	0.352
4,4DDD	72548			No Criteria		0.0031	0.496
DIELDRIN	60571		0.71	56.8	0.0019	0.00054	0.0864
ENDOSULFAN (alpha)	959988		0.034	2.72	0.0087	89	1.392
ENDOSULFAN (beta)	33213659		0.034	2.72	0.0087	89	1.392
ENDOSULFAN (sulfate)	1031078			No Criteria		89	14240
ENDRIN	72208		0.037	2.96	0.0023	0.06	0.368
ENDRIN ALDEHYDE	7421934			No Criteria		0.3	48
HEPTACHLOR	76448		0.053	4.24	0.0036	0.00079	0.1264
HEPTACHLOR EPOXIDE	1024573		0.053	4.24	0.0036	0.00039	0.0624
POLYCHLORINATED BIPHENYLS3	1336363			No Criteria	0.03	0.00064	0.1024
2,3,7,8TCDD (Dioxin)	1746016			No Criteria		0.000000051	0.00000816
TOXAPHENE	8001352		0.21	16.8	0.0002	0.0028	0.032
TRIBUTYLTIN			0.42	33.6	0.0074		1.184

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: Quonset WWTF RIPDES PERMIT #: RI0100404

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		17262 | 6000.6	1380960 480048	2548 | 904.2		407712 | 144672
4BROMOPHENYL PHENYL ETHER				No Criteria			No Criteria
CHLORIDE	16887006			No Criteria			No Criteria
CHLORINE	7782505		13	1300	7.5		1500
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: Quonset WWTF RIPDES PERMIT #: RI0100404

CHEMICAL NAME	CAS#	DAILY MAX LIMIT (ug/L)	MONTHLY AVE LIMIT (ug/L)
PRIORITY POLLUTANTS:			
TOXIC METALS AND CYANIDE			
ANTIMONY	7440360	No Criteria	102400.00
ARSENIC, TOTAL	7440382	5520.00	224.00
ASBESTOS	1332214	No Criteria	No Criteria
BERYLLIUM	7440417	No Criteria	No Criteria
CADMIUM, TOTAL	7440439	3618.70	1587.48
CHROMIUM III, TOTAL	16065831	No Criteria	No Criteria
CHROMIUM VI, TOTAL	18540299	99682.90	9033.32
COPPER, TOTAL	7440508	456.31	456.31
CYANIDE	57125	80.00	80.00
LEAD, TOTAL	7439921	19869.51	1524.46
MERCURY, TOTAL	7439976	169.41	24.00
NICKEL, TOTAL	7440020	6640.84	1317.18
SELENIUM, TOTAL	7782492	23246.49	11382.77
SILVER, TOTAL	7440224	200.79	No Criteria
THALLIUM	7440280	No Criteria	75.20
ZINC, TOTAL	7440666	7610.99	7610.99
VOLATILE ORGANIC COMPOUNDS			
ACROLEIN	107028	No Criteria	46400.00
ACRYLONITRILE	107131	No Criteria	400.00
BENZENE	71432	No Criteria	81600.00
BROMOFORM	75252	No Criteria	224000.00
CARBON TETRACHLORIDE	56235	No Criteria	2560.00
CHLOROBENZENE	108907	No Criteria	256000.00
CHLORODIBROMOMETHANE	124481	No Criteria	20800.00
CHLOROFORM	67663	No Criteria	752000.00
DICHLOROBROMOMETHANE	75274	No Criteria	27200.00
1,2DICHLOROETHANE	107062	No Criteria	59200.00
1,1DICHLOROETHYLENE	75354	No Criteria	1136000.00
1,2DICHLOROPROPANE	78875	No Criteria	24000.00
1,3DICHLOROPROPYLENE	542756	No Criteria	3360.00
ETHYLBENZENE	100414	No Criteria	336000.00
BROMOMETHANE (methyl bromide)	74839	No Criteria	240000.00
CHLOROMETHANE (methyl chloride)	74873	No Criteria	No Criteria
METHYLENE CHLORIDE	75092	No Criteria	944000.00
1,1,2,2TETRACHLOROETHANE	79345	No Criteria	6400.00
TETRACHLOROETHYLENE	127184	No Criteria	5280.00
TOLUENE	108883	No Criteria	2400000.00
1,2TRANSDICHLOROETHYLENE	156605	No Criteria	1600000.00
1,1,1TRICHLOROETHANE	71556	No Criteria	No Criteria
1,1,2TRICHLOROETHANE	79005	No Criteria	25600.00
TRICHLOROETHYLENE	79016	No Criteria	48000.00
VINYL CHLORIDE	75014	No Criteria	384.00
ACID ORGANIC COMPOUNDS			
2CHLOROPHENOL	95578	No Criteria	24000.00
2,4DICHLOROPHENOL	120832	No Criteria	46400.00
2,4DIMETHYLPHENOL	105679	No Criteria	136000.00
4,6DINITRO2METHYL PHENOL	534521	No Criteria	44800.00
2,4DINITROPHENOL	51285	No Criteria	848000.00
4NITROPHENOL	88755	No Criteria	No Criteria
PENTACHLOROPHENOL	87865	1040.00	1040.00
PHENOL	108952	No Criteria	272000000.00
2,4,6TRICHLOROPHENOL	88062	No Criteria	3840.00
BASE NEUTRAL COMPUNDS			
ACENAPHTHENE	83329	No Criteria	158400.00
ANTHRACENE	120127	No Criteria	6400000.00
BENZIDINE	92875	No Criteria	0.32
PAHs		No Criteria	28.80
BIS(2CHLOROETHYL)ETHER	111444	No Criteria	848.00
BIS(2CHLOROISOPROPYL)ETHER	108601	No Criteria	10400000.00
BIS(2ETHYLHEXYL)PHTHALATE	117817	No Criteria	3520.00
BUTYL BENZYL PHTHALATE	85687	No Criteria	304000.00
2CHLORONAPHTHALENE	91587	No Criteria	256000.00
1,2DICHLOROBENZENE	95501	No Criteria	208000.00
1,3DICHLOROBENZENE	541731	No Criteria	153600.00
1,4DICHLOROBENZENE	106467	No Criteria	30400.00
3,3DICHLOROBENZIDENE	91941	No Criteria	44.80
DIETHYL PHTHALATE	84662	No Criteria	7040000.00
DIMETHYL PHTHALATE	131113	No Criteria	176000000.00
DI-n-BUTYL PHTHALATE	84742	No Criteria	720000.00
2,4DINITROTOLUENE	121142	No Criteria	5440.00
1,2DIPHENYLHYDRAZINE	122667	No Criteria	320.00
FLUORANTHENE	206440	No Criteria	22400.00

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: Quonset WWTF RIPDES PERMIT #: RI0100404

CHEMICAL NAME	CAS#	DAILY MAX LIMIT (ug/L)	MONTHLY AVE LIMIT (ug/L)
FLUORENE	86737	No Criteria	848000.00
HEXACHLOROBENZENE	118741	No Criteria	0.46
HEXACHLOROBUTADIENE	87683	No Criteria	28800.00
HEXACHLOROCYCLOPENTADIENE	77474	No Criteria	176000.00
HEXACHLOROETHANE	67721	No Criteria	5280.00
ISOPHORONE	78591	No Criteria	1536000.00
NAPHTHALENE	91203	No Criteria	No Criteria
NITROBENZENE	98953	No Criteria	110400.00
N-NITROSODIMETHYLAMINE	62759	No Criteria	4800.00
N-NITROSODI-N-PROPYLAMINE	621647	No Criteria	816.00
N-NITROSODIPHENYLAMINE	86306	No Criteria	9600.00
PYRENE	129000	No Criteria	640000.00
1,2,4trichlorobenzene	120821	No Criteria	11200.00
PESTICIDES/PCBs			
ALDRIN	309002	104.00	0.08
Alpha BHC	319846	No Criteria	7.84
Beta BHC	319857	No Criteria	27.20
Gamma BHC (Lindane)	58899	12.80	12.80
CHLORDANE	57749	7.20	0.64
4,4DDT	50293	10.40	0.16
4,4DDE	72559	No Criteria	0.35
4,4DDD	72548	No Criteria	0.50
DIELDRIN	60571	56.80	0.09
ENDOSULFAN (alpha)	959988	2.72	1.39
ENDOSULFAN (beta)	33213659	2.72	1.39
ENDOSULFAN (sulfate)	1031078	No Criteria	14240.00
ENDRIN	72208	2.96	0.37
ENDRIN ALDEHYDE	7421934	No Criteria	48.00
HEPTACHLOR	76448	4.24	0.13
HEPTACHLOR EPOXIDE	1024573	4.24	0.06
POLYCHLORINATED BIPHENYLS3	1336363	No Criteria	0.10
2,3,7,8TCDD (Dioxin)	1746016	No Criteria	0.0000082
TOXAPHENE	8001352	16.80	0.03
TRIBUTYLTIN		33.60	1.18

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	1380960.00	407712.00
AMMONIA (as N), SUMMER (MAY-OC	7664417	480048.00	144672.00
4BROMOPHENYL PHENYL ETHER		No Criteria	No Criteria
CHLORIDE	16887006	No Criteria	No Criteria
CHLORINE	7782505	1300.00	1300.00
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

ATTACHMENT A-5

Summary of Discharge Monitoring Report Data
April 2012 through March 2017

RIEDC/QUONSET WWTF

DMR Data Summary 6/30/17

***** NOT ICIS CERTIFIED*****

001A

BOD, 5-day, 20 deg. C Location= 1

	MO AVG lb/d	DAILY MX lb/d
Mean	65.6443	111.366
Minimum	24.2	39.08
Maximum	154.38	263.57
Data Count	60	60

	MO AVG mg/L	WKLY AVG mg/L	DAILY MX mg/L
Mean	17.8445	23.5423	29.265
Minimum	6.8	7.73	8.5
Maximum	34.7	51.6	61.
Data Count	60	60	60

Chlorine, total residual Location= 1

	MO AVG mg/L	DAILY MX mg/L
Mean	.9129	1.1896
Minimum	.562	.687
Maximum	1.11	1.25
Data Count	60	60

Coliform, fecal general Location= 1

	MO AVG MPN/100mL	DAILY MX MPN/100mL
Mean	2.9515	38.3833
Minimum	.	2.
Maximum	12.89	900.
Data Count	60	60

Enterococci Location= 1

	MO AVG CFU/100mL	DAILY MX CFU/100mL
Mean	6.2207	60.4827
Minimum	1.	.96
Maximum	51.52	640.
Data Count	60	60

Flow, in conduit or thru treatment plant Loca

	MO AVG MGD	DAILY MX MGD
Mean	.4109	.5399
Minimum	.281	.385
Maximum	.73	1.037
Data Count	60	60

Nitrogen, Kjeldahl, total [as N] Location= 1

	DAILY MX mg/L

Mean	18.6867
Minimum	3.4
Maximum	42.
Data Count	60

Nitrogen, nitrate total [as N] Location= 1

	DAILY MX mg/L
Mean	9.4895
Minimum	.99
Maximum	19.
Data Count	60

Nitrogen, nitrite total [as N] Location= 1

	DAILY MX mg/L
Mean	2.6772
Minimum	.16
Maximum	12.
Data Count	60

Nitrogen, total [as N] Location= 1

	DAILY MX mg/L
Mean	28.9205
Minimum	13.6
Maximum	45.
Data Count	60

Oil & Grease Location= 1

	DAILY MX mg/L
Mean	4.4083
Minimum	.
Maximum	19.
Data Count	60

pH Location= 1

	MINIMUM SU	MAXIMUM SU
Mean	6.7982	7.4547
Minimum	6.25	7.02
Maximum	7.2	7.86
Data Count	60	60

Solids, settleable Location= 1

	WKLY AVG mL/L	DAILY MX mL/L
Mean	.095	.095
Minimum	.	.
Maximum	.1	.1
Data Count	60	60

Solids, total suspended Location= 1

	MO AVG lb/d	DAILY MX lb/d
Mean	45.76	81.9908
Minimum	16.6	23.43
Maximum	119.03	244.49

Data Count	60	60	

	MO AVG mg/L	WKLY AVG mg/L	DAILY MX mg/L
Mean	13.355	17.0248	22.8967
Minimum	5.6	6.13	8.2
Maximum	30.1	39.83	58.
Data Count	60	60	60

BOD, 5-day, 20 deg. C Location= G

	MO AVG lb/d	DAILY MX lb/d
Mean	1025.7945	1609.7178
Minimum	650.81	878.73
Maximum	1493.61	4077.48
Data Count	60	60

	MO AVG mg/L	WKLY AVG mg/L	DAILY MX mg/L
Mean	288.815	360.494	444.2167
Minimum	161.9	210.	233.
Maximum	435.3	557.67	760.
Data Count	60	60	60

Solids, total suspended Location= G

	MO AVG lb/d	DAILY MX lb/d
Mean	1494.2797	2664.7633
Minimum	814.26	1333.53
Maximum	2991.66	8887.68
Data Count	60	60

	MO AVG mg/L	WKLY AVG mg/L	DAILY MX mg/L
Mean	440.0585	551.5517	712.5475
Minimum	252.5	334.67	6.55
Maximum	622.5	891.67	1490.
Data Count	60	60	60

BOD, 5-day, percent removal Location= K

	MINIMUM %
Mean	93.8033
Minimum	87.26
Maximum	97.57
Data Count	60

Solids, suspended percent removal Locatio

	MINIMUM %
Mean	96.9972
Minimum	93.75
Maximum	98.8
Data Count	60

001Q

Aluminum, total [as Al] Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	99.82	101.455

Minimum	52.	52.
Maximum	210.	210.
Data Count	20	20

Cadmium, total [as Cd] Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	1.46	1.42
Minimum	.	.
Maximum	2.2	2.2
Data Count	20	20

Chromium, total [as Cr] Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	1.4	1.36
Minimum	.	.
Maximum	2.	2.
Data Count	20	20

Copper, total [as Cu] Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	27.26	33.15
Minimum	16.	16.
Maximum	62.2	180.
Data Count	20	20

Cyanide, total [as CN] Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	9.9	9.9
Minimum	.	.
Maximum	53.	53.
Data Count	20	20

Lead, total [as Pb] Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	1.842	2.005
Minimum	.	.
Maximum	4.7	5.4
Data Count	20	20

Nickel, total [as Ni] Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	6.439	6.865
Minimum	.	.
Maximum	10.	16.
Data Count	20	20

Zinc, total [as Zn] Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	82.2	92.1
Minimum	14.	14.
Maximum	132.	330.
Data Count	20	20

001T

LC50 Static 48Hr Acute Menidia Location=

	MINIMUM %
Mean	89.24
Minimum	.
Maximum	100.
Data Count	20

LC50 Static 48Hr Acute Mysid. Bahia Locat

	MINIMUM %
Mean	94.025
Minimum	.
Maximum	100.
Data Count	20

ATTACHMENT A-6

Summary of Priority Pollutant Scan Data
December 2012 through June 2017

source	date	parameter	value	units	ave	max
PPS	6/3/2015	Aluminum	52	ug/L		
PPS	6/8/2016	Aluminum	63	ug/L		
PPS	12/3/2014	Aluminum	70	ug/L		
PPS	12/2/2015	Aluminum	77	ug/L		
PPS	3/6/2013	Aluminum	79	ug/L		
PPS	6/14/2017	Aluminum	85.3	ug/L		
PPS	3/4/2015	Aluminum	86	ug/L		
PPS	3/5/2014	Aluminum	92	ug/L		
PPS	6/5/2013	Aluminum	94	ug/L		
PPS	12/7/2016	Aluminum	94	ug/L		
PPS	9/23/2015	Aluminum	100	ug/L		
PPS	3/8/2017	Aluminum	107	ug/L		
PPS	3/9/2016	Aluminum	110	ug/L		
PPS	12/5/2012	Aluminum	130	ug/L		
PPS	6/11/2014	Aluminum	130	ug/L		
PPS	12/11/2013	Aluminum	150	ug/L		
PPS	9/14/2016	Aluminum	210	ug/L	102	210
PPS	3/8/2017	Anitmony	7.4	ug/L		
PPS	6/8/2016	Anitmony	12	ug/L		
PPS	3/4/2015	Anitmony	19	ug/L		
PPS	12/11/2013	Antimony	3.6	ug/L		
PPS	6/3/2015	Antimony	4	ug/L		
PPS	9/23/2015	Antimony	5.5	ug/L		
PPS	9/14/2016	Antimony	7.4	ug/L		
PPS	12/5/2012	Antimony	7.7	ug/l		
PPS	12/3/2014	Antimony	8.8	ug/L		
PPS	3/9/2016	Antimony	9.2	ug/L		
PPS	3/6/2013	Antimony	9.3	ug/L		
PPS	3/5/2014	Antimony	12	ug/L		
PPS	6/11/2014	Antimony	12	ug/L		
PPS	12/2/2015	Antimony	12	ug/L	9	12
PPS	12/11/2013	Arsenic	6.6	ug/L	6.6	6.6
PPS	12/5/2012	Bis(2-ethylhexyl)phthalate	1.6	ug/L	1.6	1.6
PPS	6/3/2015	Copper	16	ug/L		
PPS	12/2/2015	Copper	18	ug/L		
PPS	9/23/2015	Copper	19	ug/L		
PPS	6/8/2016	Copper	19	ug/L		
PPS	6/5/2013	Copper	20	ug/L		
PPS	12/7/2016	Copper	21	ug/L		
PPS	6/14/2017	Copper	21.5	ug/L		
PPS	12/3/2014	Copper	23	ug/L		
PPS	9/14/2016	Copper	23	ug/L		
PPS	3/6/2013	Copper	24	ug/L		
PPS	3/5/2014	Copper	25	ug/L		
PPS	3/8/2017	Copper	27	ug/L		
PPS	3/9/2016	Copper	30	ug/L		
PPS	12/11/2013	Copper	33	ug/L		
PPS	3/4/2015	Copper	38	ug/L		

source	date	parameter	value	units	ave	max
PPS	12/5/2012	Copper	42	ug/l		
PPS	6/11/2014	Copper	44	ug/L	26	44
PPS	12/5/2012	Cyanide	10	ug/L		
PPS	12/2/2015	Cyanide	14	ug/L		
PPS	3/4/2015	Cyanide	53	ug/L	26	53
PPS	3/6/2013	Dibromochloromethane	1	ug/L	1	1
PPS	6/11/2014	Lead	4.7	ug/L	4.7	4.7
PPS	3/6/2013	Nickel	4.4	ug/L		
PPS	3/5/2014	Nickel	5.4	ug/L		
PPS	3/4/2015	Nickel	5.5	ug/L		
PPS	12/3/2014	Nickel	6.1	ug/L		
PPS	3/9/2016	Nickel	6.1	ug/L		
PPS	6/3/2015	Nickel	6.2	ug/L		
PPS	12/11/2013	Nickel	7.6	ug/L		
PPS	6/5/2013	Nickel	7.8	ug/L		
PPS	9/23/2015	Nickel	8.2	ug/L		
PPS	6/11/2014	Nickel	9.7	ug/L		
PPS	12/2/2015	Nickel	10	ug/L	7	10
PPS	12/5/2012	Phenolics	92	ug/L		
PPS	12/11/2013	Phenolics	43	ug/L		
PPS	3/5/2014	Phenolics	590	ug/L	242	590
PPS	12/3/2014	Selenium	8.8	ug/L		
PPS	6/3/2015	Selenium	12	ug/L	10	12
PPS	3/6/2013	Silver	7.7	ug/L		
PPS	6/5/2013	Silver	9.5	ug/L		
PPS	12/5/2012	Silver	21	ug/l	13	21
PPS	3/8/2017	Thallium	8.5	ug/L	8.5	8.5
PPS	6/8/2016	Toluene	1.0	ug/L	1.0	1.0
PPS	9/14/2016	Zinc	57	ug/L		
PPS	6/3/2015	Zinc	67	ug/L		
PPS	6/8/2016	Zinc	68	ug/L		
PPS	12/3/2014	Zinc	69	ug/L		
PPS	3/4/2015	Zinc	74	ug/L		
PPS	6/14/2017	Zinc	74.4	ug/L		
PPS	9/23/2015	Zinc	80	ug/L		
PPS	3/6/2013	Zinc	82	ug/L		
PPS	3/5/2014	Zinc	82	ug/L		
PPS	12/11/2013	Zinc	83	ug/L		
PPS	6/11/2014	Zinc	84	ug/L		
PPS	12/7/2016	Zinc	94	ug/L		
PPS	3/8/2017	Zinc	106	ug/L		
PPS	12/2/2015	Zinc	110	ug/L		
PPS	12/5/2012	Zinc	120	ug/l		
PPS	6/5/2013	Zinc	120	ug/L		
PPS	3/9/2016	Zinc	140	ug/L	89	140

ATTACHMENT A-7

Comparison of Allowable Limits with Discharge Monitoring Report Data and State User Fee Data

Facility Name: *Quonsett WWTF*

RIPDES Permit #: *RI0100404*

Outfall #: *001A*

NOTE: METALS LIMITS ARE TOTAL METALS

Parameter	CAS #	Concentration Limits (ug/L) Based on WQ Criteria		Antideg. Limits (ug/L)	Ave PPS Data (ug/L) Dec. '12-Jun.'17		Ave. DMR Data (ug/L) 4/12-3/17		Potential Permit Limits (ug/L)		Reasonable Potential?	
		Daily Max	Monthly Ave	Monthly Ave	Max	Ave	Daily Max	Mo. Ave	Daily Max	Monthly Ave	Daily Max.	Monthly Ave.
PRIORITY POLLUTANTS												
TOXIC METALS AND CYANIDE												
ANTIMONY	7440360	No Criteria	102400.00	---	12	9	---	---	---	102400	NA	N
ARSENIC (limits are total recoverable)	7440382	5520.00	224.00	---	6.6	6.6	---	---	5520	224	N	N
ASBESTOS	1332214	No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
BERYLLIUM	7440417	No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
CADMIUM (limits are total recoverable)	7440439	3618.70	1587.48	102.09	---	---	1.42	1.46	3618.702616	102.09	N	N
CHROMIUM III (limits are total recoverab	16065831	No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
CHROMIUM VI (limits are total recoverab	18540299	99682.90	9033.32	549.52	---	---	1.36	1.4	99682.9006	549.52	N	N
COPPER (limits are total recoverable)	7440508	456.31	456.31	168.09	44	26	33.15	27.26	456.3108434	168.09	N	N
CYANIDE	57125	80.00	80.00	47.255	53	26	9.9	9.9	80	47.255	Y	Y
LEAD (limits are total recoverable)	7439921	19869.51	1524.46	91.58	4.7	4.7	2.005	1.842	19869.50726	91.58	N	N
MERCURY (limits are total recoverable)	7439976	169.41	24.00	1.35	---	---	---	---	169.4117647	1.35	N	N
NICKEL (limits are total recoverable)	7440020	6640.84	1317.18	94.092	10	7	6.865	6.439	6640.842727	94.092	N	N
SELENIUM (limits are total recoverable)	7782492	23246.49	11382.77	---	12	10	---	---	23246.49299	11382.76553	N	N
SILVER (limits are total recoverable)	7440224	200.79	No Criteria	---	21	13	---	---	200.7921176	200.7921176	N	N
THALLIUM	7440280	No Criteria	75.20	---	8.5	8.5	---	---	---	75.2	NA	N
ZINC (limits are total recoverable)	7440666	7610.99	7610.99	946.39	140	89	92.1	82.2	7610.993658	946.39	N	N
VOLATILE ORGANIC COMPOUNDS												
ACROLEIN	107028	No Criteria	46400.00	---	---	---	---	---	---	46400	NA	NA
ACRYLONITRILE	107131	No Criteria	400.00	---	---	---	---	---	---	400	NA	NA
BENZENE	71432	No Criteria	81600.00	---	---	---	---	---	---	81600	NA	NA
BROMOFORM	75252	No Criteria	224000.00	---	---	---	---	---	---	224000	NA	NA
CARBON TETRACHLORIDE	56235	No Criteria	2560.00	---	---	---	---	---	---	2560	NA	NA
CHLOROBENZENE	108907	No Criteria	256000.00	---	---	---	---	---	---	256000	NA	NA
CHLORODIBROMOMETHANE	124481	No Criteria	20800.00	---	1	1	---	---	---	20800	NA	N
CHLOROFORM	67663	No Criteria	752000.00	---	---	---	---	---	---	752000	NA	NA
DICHLOROBROMOMETHANE	75274	No Criteria	27200.00	---	---	---	---	---	---	27200	NA	NA
1,2DICHLOROETHANE	107062	No Criteria	59200.00	---	---	---	---	---	---	59200	NA	NA
1,1DICHLOROETHYLENE	75354	No Criteria	1136000.00	---	---	---	---	---	---	1136000	NA	NA
1,2DICHLOROPROPANE	78875	No Criteria	24000.00	---	---	---	---	---	---	24000	NA	NA
1,3DICHLOROPROPYLENE	542756	No Criteria	3360.00	---	---	---	---	---	---	3360	NA	NA
ETHYLBENZENE	100414	No Criteria	336000.00	---	---	---	---	---	---	336000	NA	NA
BROMOMETHANE (methyl bromide)	74839	No Criteria	240000.00	---	---	---	---	---	---	240000	NA	NA

CHLOROMETHANE (methyl chloride)	74873	No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
METHYLENE CHLORIDE	75092	No Criteria	944000.00	160001	---	---	---	---	---	160001	NA	NA
1,1,2,2TETRACHLOROETHANE	79345	No Criteria	6400.00	---	---	---	---	---	---	6400	NA	NA
TETRACHLOROETHYLENE	127184	No Criteria	5280.00	886.33	---	---	---	---	---	886.33	NA	NA
TOLUENE	108883	No Criteria	2400000.00	---	1.0	1.0			---	2400000	N	NA
1,2TRANSDICHLOROETHYLENE	156605	No Criteria	1600000.00	---	---	---	---	---	---	1600000	NA	NA
1,1,1TRICHLOROETHANE	71556	No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
1,1,2TRICHLOROETHANE	79005	No Criteria	25600.00	---	---	---	---	---	---	25600	NA	NA
TRICHLOROETHYLENE	79016	No Criteria	48000.00	8114.7	---	---	---	---	---	8114.7	NA	NA
VINYL CHLORIDE	75014	No Criteria	384.00	---	---	---	---	---	---	384	NA	NA
ACID ORGANIC COMPOUNDS												
2CHLOROPHENOL	95578	No Criteria	24000.00	---	---	---	---	---	---	24000	NA	NA
2,4DICHLOROPHENOL	120832	No Criteria	46400.00	---	---	---	---	---	---	46400	NA	NA
2,4DIMETHYLPHENOL	105679	No Criteria	136000.00	---	---	---	---	---	---	136000	NA	NA
4,6DINITRO2METHYL PHENOL	534521	No Criteria	44800.00	---	---	---	---	---	---	44800	NA	NA
2,4DINITROPHENOL	51285	No Criteria	848000.00	---	---	---	---	---	---	848000	NA	NA
4NITROPHENOL	88755	No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
PENTACHLOROPHENOL	87865	1040.00	1040.00	---	---	---	---	---	1040	1040	NA	NA
PHENOL	108952	No Criteria	272000000.00	---	590	242	---	---	---	272000000	N	NA
2,4,6TRICHLOROPHENOL	88062	No Criteria	3840.00	---	---	---	---	---	---	3840	NA	NA
BASE NEUTRAL COMPOUNDS												
ACENAPHTHENE	83329	No Criteria	158400.00	---	---	---	---	---	---	158400	NA	NA
ANTHRACENE	120127	No Criteria	6400000.00	---	---	---	---	---	---	6400000	NA	NA
BENZIDINE	92875	No Criteria	0.32	---	---	---	---	---	---	0.32	NA	NA
POLYCYCLIC AROMATIC HYDROCARBONS		No Criteria	28.80	---	---	---	---	---	---	28.8	NA	NA
BIS(2CHLOROETHYL)ETHER	111444	No Criteria	848.00	---	---	---	---	---	---	848	NA	NA
BIS(2CHLOROISOPROPYL)ETHER	108601	No Criteria	10400000.00	---	---	---	---	---	---	10400000	NA	NA
BIS(2ETHYLHEXYL)PHTHALATE	117817	No Criteria	3520.00	---	1.6	1.6	---	---	---	3520	NA	N
BUTYL BENZYL PHTHALATE	85687	No Criteria	304000.00	---	---	---	---	---	---	304000	NA	NA
2CHLORONAPHTHALENE	91587	No Criteria	256000.00	---	---	---	---	---	---	256000	NA	NA
1,2DICHLOROBENZENE	95501	No Criteria	208000.00	---	---	---	---	---	---	208000	NA	NA
1,3DICHLOROBENZENE	541731	No Criteria	153600.00	---	---	---	---	---	---	153600	NA	NA
1,4DICHLOROBENZENE	106467	No Criteria	30400.00	---	---	---	---	---	---	30400	NA	NA
3,3DICHLOROBENZIDENE	91941	No Criteria	44.80	---	---	---	---	---	---	44.8	NA	NA
DIETHYL PHTHALATE	84662	No Criteria	7040000.00	---	---	---	---	---	---	7040000	NA	NA
DIMETHYL PHTHALATE	131113	No Criteria	176000000.00	---	---	---	---	---	---	176000000	NA	NA
DInBUTYL PHTHALATE	84742	No Criteria	720000.00	---	---	---	---	---	---	720000	NA	NA
2,4DINITROTOLUENE	121142	No Criteria	5440.00	---	---	---	---	---	---	5440	NA	NA
1,2DIPHENYLHYDRAZINE	122667	No Criteria	320.00	---	---	---	---	---	---	320	NA	NA
FLUORANTHENE	206440	No Criteria	22400.00	---	---	---	---	---	---	22400	NA	NA
FLUORENE	86737	No Criteria	848000.00	---	---	---	---	---	---	848000	NA	NA
HEXACHLOROBENZENE	118741	No Criteria	0.46	---	---	---	---	---	---	0.464	NA	NA
HEXACHLOROBUTADIENE	87683	No Criteria	28800.00	---	---	---	---	---	---	28800	NA	NA

HEXACHLOROCYCLOPENTADIENE	77474	No Criteria	176000.00	---	---	---	---	---	---	176000	NA	NA
HEXACHLOROETHANE	67721	No Criteria	5280.00	---	---	---	---	---	---	5280	NA	NA
ISOPHORONE	78591	No Criteria	1536000.00	---	---	---	---	---	---	1536000	NA	NA
NAPHTHALENE	91203	No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
NITROBENZENE	98953	No Criteria	110400.00	---	---	---	---	---	---	110400	NA	NA
NNITROSODIMETHYLAMINE	62759	No Criteria	4800.00	---	---	---	---	---	---	4800	NA	NA
NNITROSODINPROPYLAMINE	621647	No Criteria	816.00	---	---	---	---	---	---	816	NA	NA
NNITROSODIPHENYLAMINE	86306	No Criteria	9600.00	---	---	---	---	---	---	9600	NA	NA
PYRENE	129000	No Criteria	640000.00	---	---	---	---	---	---	640000	NA	NA
1,2,4trichlorobenzene	120821	No Criteria	11200.00	---	---	---	---	---	---	11200	NA	NA
PESTICIDES/PCBs												
ALDRIN	309002	104.00	0.08	---	---	---	---	---	104	0.08	NA	NA
Alpha BHC	319846	No Criteria	7.84	---	---	---	---	---	---	7.84	NA	NA
Beta BHC	319857	No Criteria	27.20	---	---	---	---	---	---	27.2	NA	NA
Gamma BHC (Lindane)	58899	12.80	12.80	---	---	---	---	---	12.8	12.8	NA	NA
CHLORDANE	57749	7.20	0.64	---	---	---	---	---	7.2	0.64	NA	NA
4,4DDT	50293	10.40	0.16	---	---	---	---	---	10.4	0.16	NA	NA
4,4DDE	72559	No Criteria	0.35	---	---	---	---	---	---	0.352	NA	NA
4,4DDD	72548	No Criteria	0.50	---	---	---	---	---	---	0.496	NA	NA
DIELDRIN	60571	56.80	0.09	---	---	---	---	---	56.8	0.0864	NA	NA
ENDOSULFAN (alpha)	959988	2.72	1.39	---	---	---	---	---	2.72	1.392	NA	NA
ENDOSULFAN (beta)	33213659	2.72	1.39	---	---	---	---	---	2.72	1.392	NA	NA
ENDOSULFAN (sulfate)	1031078	No Criteria	14240.00	---	---	---	---	---	---	14240	NA	NA
ENDRIN	72208	2.96	0.37	---	---	---	---	---	2.96	0.368	NA	NA
ENDRIN ALDEHYDE	7421934	No Criteria	48.00	---	---	---	---	---	---	48	NA	NA
HEPTACHLOR	76448	4.24	0.13	---	---	---	---	---	4.24	0.1264	NA	NA
HEPTACHLOR EPOXIDE	1024573	4.24	0.06	---	---	---	---	---	4.24	0.0624	NA	NA
POLYCHLORINATED BIPHENYLS3	1336363	No Criteria	0.10	---	---	---	---	---	---	0.1024	NA	NA
2,3,7,8TCDD (Dioxin)	1746016	No Criteria	0.0000082	---	---	---	---	---	---	0.00000816	NA	NA
TOXAPHENE	8001352	16.80	0.03	---	---	---	---	---	16.8	0.032	NA	NA
TRIBUTYLTIN		33.60	1.18	---					33.6	1.184	NA	NA
NON PRIORITY POLLUTANTS:												
OTHER SUBSTANCES												
ALUMINUM (limits are total recoverable)	7429905	No Criteria	No Criteria	---	210	102	101.5	99.8	---	---	NA	NA
AMMONIA (winter)	7664417	1380960.00	407712.00	---	---	---	---	---	1380960	407712	NA	NA
AMMONIA (summer)		480048.00	144672.00	---	---	---	---	---	480048	144672	NA	NA
4BROMOPHENYL PHENYL ETHER	16887006	No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
CHLORIDE	7782505	No Criteria	No Criteria	---					---	---	NA	NA
CHLORINE		1300.00	1300.00	---	---	---	1190	913	1300	1300	Y	Y
4CHLORO2METHYLPHENOL		No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
1CHLORONAPHTHALENE	106489	No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
4CHLOROPHENOL		No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
2,4DICHLORO6METHYLPHENOL		No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA

1,1DICHLOROPROPANE	142289	No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
1,3DICHLOROPROPANE		No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
2,3DINITROTOLUENE		No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
2,4DINITRO6METHYL PHENOL	7439896	No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
IRON	608935	No Criteria	No Criteria	---						---	NA	NA
pentachlorobenzene		No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
PENTACHLOROETHANE		No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
1,2,3,5tetrachlorobenzene	630206	No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
1,1,1,2TETRACHLOROETHANE	58902	No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
2,3,4,6TETRACHLOROPHENOL		No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
2,3,5,6TETRACHLOROPHENOL	95954	No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
2,4,5TRICHLOROPHENOL	88062	No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
2,4,6TRINITROPHENOL	1330207	No Criteria	No Criteria	---	---	---	---	---	---	---	NA	NA
XYLENE		No Criteria	No Criteria	---						---	NA	NA

PART II
TABLE OF CONTENTS

GENERAL REQUIREMENTS

DEFINITIONS

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) 222-4700 or (401) 222-3070 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