



RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

July 7, 2010

CERTIFIED MAIL

Doug Miller, Managing Director
Precision Park Rhode Island, LLC
c/o ORIX Capital Markets, LLC
1717 Main Street
Suite 1100
Dallas, Texas 75201

**RE: Precision Park
RIPDES No. RI0000051**

Dear Mr. Miller:

Enclosed is the final Rhode Island Pollutant Discharge Elimination System (RIPDES) Permit for the above referenced facility. State regulations, promulgated under Chapter 46-12 of the Rhode Island General Laws of 1956, as amended, require this permit to become effective on the date specified on page 1 of the permit. Prior to this date, the discharge from the above-mentioned facility is authorized under the current permit. Since no comments were received on the draft permit for this facility, a formal "response to comments" was not prepared. Also enclosed is information relative to hearing requests and stays of RIPDES Permits.

The Department appreciates your cooperation throughout the development of this permit. If there are any questions concerning this permit, feel free to contact Joseph Haberek, P.E. of the RIPDES Staff at 401-222-4700, extension 7715.

Sincerely,

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

EAB:JBH/jbh

Enclosures

cc: Annie McFarland, RIDEM-OWR (electronic)
Traci Pena, RIDEM-OWR (electronic)
Jennifer Murphy, CB Richard Ellis (electronic)
Kelly Camp, Woodard and Curran (electronic)



HEARING REQUESTS

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

Bonnie Stewart, Clerk
Department of Environmental Management
Office of Administrative Adjudication
235 Promenade Street, 3rd Floor
Providence, Rhode Island 02908

Any request for a formal hearing must conform to the requirements of Rule 49 of the Regulations for the Rhode Island Pollutant Discharge Elimination System.

STAYS OF RIPDES PERMITS

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

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

All uncontested conditions of the permit will be effective and enforceable in accordance with the provisions of Rule 49 of the Regulations for the Rhode Island Pollutant Discharge Elimination System.

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,

Precision Park Rhode Island, LLC
c/o ORIX Capital Markets, LLC
1717 Main Street, Suite 1100
Dallas, Texas 75201

is authorized to discharge from a facility located at

Precision Park
Frenchtown Road
North Kingstown, Rhode Island 02852

to receiving waters named

Wetland Area Tributary to the Hunt River

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

This permit shall become effective on October 1, 2010.

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

This permit supersedes the permit issued on September 15, 2004.

This permit consists of fifteen (15) pages in Part I including effluent limitations, monitoring requirements, etc. and ten (10) pages in Part II including General Conditions.

Signed this ^{7th} day of July, 2010.



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 of the permit and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 001 (Final Discharge After UV Disinfection). 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			Measurement Frequency	Sample Type
	Average Monthly	Maximum Daily	Average Monthly *(Minimum)	Average Weekly *(Average)	Maximum Daily *(Maximum)		
Flow	0.04 MGD	--- MGD				Continuous	Recorder
BOD ₅ ¹	1.67		5 mg/l	10 mg/l	10 mg/l	1/Week	24-Hr. Comp.
BOD ₅ -% Removal			85 %			1/Month	Calculated
TSS ¹	3.34		10 mg/l	20 mg/l	20 mg/l	1/Week	24-Hr. Comp.
TSS - % Removal			85 %			1/Month	Calculated
Settleable Solids			--- ml/l	--- ml/l	--- ml/l	1/Day	Grab
Fecal Coliform			<u>200 MPN²</u> 100 ml	<u>400 MPN²</u> 100 ml	<u>400 MPN</u> 100 ml	1/Week	Grab
UV Transmittance ³			(--- %)	(--- %)	(--- %)	Continuous	Recorder

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

¹All BOD₅ and TSS samples shall be taken on the influent and effluent with appropriate allowances for hydraulic detention (flow-through) time.

²The Geometric Mean shall be used to obtain the average values.

³UV Transmittance readings shall be recorded continuously to provide a record that proper disinfection was achieved at all times.

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

Samples taken in compliance with the monitoring requirements specified above shall be taken Monday – Friday at the following location: Outfall 001 (Final Discharge After UV Disinfection).

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

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

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

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>			<u>Concentration - specify units</u>		<u>Monitoring Requirement</u>	
	<u>Quantity - lbs./day</u>		<u>Average Monthly</u>	<u>Concentration - specify units</u>		<u>Measurement Frequency</u>	<u>Sample Type</u>
<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Weekly</u>		<u>Maximum Daily</u>			
Phosphorus, Total			1.0 mg/l	---	mg/l	1/Month	24-Hr. Comp.
TKN			---	---	mg/l	1/Quarter	24-Hr. Comp.
Nitrate, Total (as N)			---	---	mg/l	1/Quarter	24-Hr. Comp.
Nitrite, Total (as N)			---	---	mg/l	1/Quarter	24-Hr. Comp.
Nitrogen, Total (TKN + Nitrate + Nitrite, as N)			---	---	mg/l	1/Quarter	Calculated
Ammonia, Total (as N) (May-Oct)			1.66 mg/l		10.6 mg/l	1/Month	24-Hr. Comp.
(Nov-April)			3.38 mg/l		10.6 mg/l	1/Month	24-Hr. Comp.
Toluene			11.2 ug/l		508.0 ug/l	1/Quarter ¹	24-Hr. Comp.

--- 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 – Friday at the following location: Outfall 001 (Final Discharge After UV Disinfection).

¹If the results of four (4) consecutive quarters of Toluene testing do not detect effluent concentrations above the Method Detection Limit in Part I.D of this permit, then the permittee may submit a written request for elimination of the Toluene testing requirements. The permittee is required to continue quarterly Toluene testing until the DEM approves any requests to reduce the sampling frequency in writing.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

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

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

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>					<u>Monitoring Requirement</u>	
	<u>Quantity - lbs./day</u>		<u>Concentration - specify units</u>			<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>		
<u>Ceriodaphnia sp.</u> LC50 ¹					100% or Greater ²	1/Year ⁴	24-Hr. Comp.
C-NOEC ³					100% or Greater ²	1/Year ⁴	24-Hr. Comp.

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

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

³C-NOEC is defined as the highest concentration of toxicant or effluent at which no adverse effects are observed.

⁴Beginning on the effective date of the permit, the permittee shall perform one (1) acute and chronic toxicity test per year on samples collected from discharge outfall 001 in accordance with Part I.B of the permit.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: Outfall 001 (Final Discharge After UV Disinfection) in accordance with I.B of the permit.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

4. During the period beginning on the effective date of the permit and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 002 (Final Non-Contact Cooling Water Discharge Prior to Discharge into Surface Waters). Such discharges shall be monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>			<u>Concentration - specify units</u>		<u>Monitoring Requirement</u>	
	<u>Quantity - lbs./day</u> <u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	0.40 MGD	--- MGD				1/Month	Calculated ¹
pH Influent			--- s.u.		--- s.u.	1/Month	4 Grabs ²
pH Effluent			--- s.u.		--- s.u.	1/Month	4 Grabs ²
pH change ⁴					0.5 s.u. ³	1/Month	Calculated
Temperature					83°F ³	1/Month	4 Grabs ²

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

¹Flow shall be either calculated using a flow totalizer or estimated using the cooling water pumping rate.

²Compliance with these limitations shall be determined by taking a minimum of four (4) grab samples equally spaced over the course of a normal discharge day. The maximum value to be reported is the highest individual measurement obtained during the monitoring period. The minimum value to be reported is the lowest individual measurement obtained during the monitoring period.

³In no case shall the discharge cause the receiving water's temperature to be raised more than 4.0°F or the pH to be outside of the range of 6.5 - 9.0 s.u.

⁴Sampling for influent and effluent shall be conducted using appropriate allowances for hydraulic detention (flow-through) time. These values will then be used to calculate the pH change. The maximum value to be reported is the largest individual pH change calculated for the reporting period.

Samples taken in compliance with the monitoring requirements specified above shall be taken during dry weather periods (no rain within forty-eight (48) hours prior to or during sampling unless approved by DEM) at the following location: Outfall 002 (Final Non-Contact Cooling Water Discharge Prior to Discharge into Surface Waters).

5.
 - a. The pH of the effluent shall not be less than 6.5 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.
6. 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.
7. When the effluent discharged for a period of 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.
8. The permittee shall analyze its effluent for the EPA Priority Pollutants once (1) every five (5) years. The results of these analyses shall be submitted to the Department of Environmental Management one hundred eighty (180) days prior to the expiration date of this permit with the re-application. 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.
9. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:
 - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) One hundred micrograms per liter (100 ug/l);
 - (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitro-phenol; and one milligram per liter (1 mg/l) for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or
 - (4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.
 - b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) Five hundred micrograms per liter (500 ug/l);
 - (2) One milligram per liter (1 mg/l) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or

- (4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.
- c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or by-product any toxic pollutant which was not reported in the permit application.
10. This permit only authorizes discharges of treated sanitary wastewater and non-contact cooling water. Discharges of any other wastewaters are prohibited.
11. This permit serves as the State's Water Quality Certificate for the discharges described herein.
12. This permit authorizes the use of chlorine disinfection only for emergency purposes in accordance with the Bypass and Upset provisions from part II of the permit. Any emergency uses of chlorination shall be in accordance with the facility's Operation and Maintenance Manual and shall be reported on the cover letter to the DMRs required under Part I.E of the permit. The chlorination usage reporting must include the reason why chlorine was used, the duration of its use, and any sampling/analytical data.

B. BIOMONITORING REQUIREMENTS AND INTERPRETATION OF RESULTS

1. General

Beginning on the effective date of the permit, the permittee shall perform one (1) acute and one (1) chronic toxicity test per year on samples collected from discharge outfall 001. Effluent samples shall be collected after UV disinfection during dry weather periods (no rain within forty-eight (48) hours prior to or during sampling unless approved by DEM) according to the following test frequency and protocols. Chronic and acute toxicity data shall be reported as outlined in Parts I.B.8 and I.B.9. The chronic daphnid tests shall be used to calculate the acute LC₅₀ at the forty-eight (48) hour exposure interval. The State may require additional screening, range finding, and definitive acute or chronic bioassays as deemed necessary based on the results of the initial bioassays required herein. Indications of toxicity could result in requiring a Toxicity Reduction Evaluation (TRE) to investigate the causes and to identify corrective actions necessary to eliminate or reduce toxicity to an acceptable level.

2. Test Frequency

Annually the permittee will conduct seven day chronic toxicity tests on the species listed below, for a total of one (1) toxicity test per year. This requirement entails performing one-specie testing as follows:

<u>Species</u>	<u>Test Type</u>	<u>Frequency</u>
Daphnid	Reproduction/Survival	Annually
(<u>Ceriodaphnia sp.</u>)	Acute Static (LC ₅₀)	

A sampling event is defined as three 24-hour composites collected over the seven-day test period (see Part I.B.4).

3. Testing Methods

Chronic toxicity tests shall be conducted in accordance with protocols listed in the latest edition of Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA-600/4-89/011), incorporating any deviations from protocol listed herein, or additional methods if approved by the Director of DEM.

4. Sample Collection

For each sampling event twenty-four- (24) hour flow proportioned composite final effluent samples shall be collected during a dry weather period (no rain 48 hours prior to or during sampling unless approved by DEM) on days 0, 3 and 5 of the 7-day exposure period. The first sample is used for test initiation, Day 1, and for test solution renewal on Day 2. The second sample would be used for test solution renewal on Days 3 and 4. The third sample would be used for test solution renewal on Days 5, 6 and 7.

To eliminate the problem of potential rainfall interference during the five-day sampling period the permittee shall collect enough sample on Day 0 to properly store and use one-third on both Days 3 and 5 if rain has occurred since Day 0. In addition, if no rainfall has occurred since Day 3, enough sample should also be collected on Day 3 to use for Day 5 if necessary.

In the laboratory, the initial sample (Day 0) will be split into two (2) subsamples, after thorough mixing, for the following:

- A: Chemical Analysis
- B: Toxicity Testing

Day 3 and 5 samples will be held until test completion. If either the Day 3 or 5 renewal sample is of sufficient potency to cause lethality to 50% or more test organisms in any of the dilutions for either species, then a chemical analysis shall be performed on the appropriate samples as well. All samples held overnight shall be refrigerated at 4°C.

5. Dilution Water

Dilution water used for freshwater chronic toxicity analyses should be of sufficient quality to meet minimum acceptability of test results (see Part I.B.6). Natural freshwater shall be used as the dilution water. This water shall be collected from the Wood River at the Skunk Hill Road Bridge in Hopkinton, RI. If this natural freshwater diluent is found to be, or suspected to be toxic or unreliable, an alternate or laboratory source of water of known quality with a hardness and pH similar to that of the receiving water may be substituted AFTER RECEIVING WRITTEN APPROVAL FROM DEM

6. Effluent Toxicity Test Conditions for the Daphnid (Ceriodaphnia sp.) Survival and Reproduction Test¹

- | | |
|------------------------------|--|
| a. Test Type | Static Renewal |
| b. Temperature (C) | 25° ± 1° C |
| c. Light Quality | Ambient laboratory illumination |
| d. Photoperiod | 16 hours light, 8 hours dark |
| e. Test Chamber Size | 30 ml |
| f. Test Solution Volume | 15 ml |
| g. Renewal of Test Solutions | Daily, using most recently collected sample. |
| h. Age of Test Organisms | Less than twenty-four (24) hours and all released within an eight (8) hour period of each other. |

i.	Number of Neonates Per Test Chamber	1
j.	Number of Replicate Test Chambers Per Treatment	10
k.	Number of Neonates Per Test Concentration	10
l.	Feeding Regime	Feed 0.1 ml each of YTC and algal suspension per exposure chamber daily.
m.	Aeration	None
n.	Dilution Water	Wood River, see Part I.B.5.
o.	Dilutions	Five (5) dilutions plus a control: 100%, 50%, 25%, 12.5%, 6.25% and 0% effluent.
p.	Test Duration	Until 60% of control females have three (3) broods (may require seven (7) days).
q.	End Points	Survival and reproduction
r.	Test Acceptability	80% or greater survival and an average of fifteen (15) or more young per female in the control solutions. At least 60% of surviving females in controls should have produced third brood.
s.	Sampling Requiriements	A minimum of three (3) samples are collected (i.e., Days 0, 3, & 5) and used for renewal (see Part I.B.4). Off-site samples must be first used Within forty-eight (48) hours of Collection.
t.	Sample Volume Required	Minimum 2 liters/day

¹Adapted from EPA/600/4-90/027

7. Chemical Analysis

The following chemical analysis shall be performed for sampling event.

<u>Parameter</u>	<u>Effluent</u>	<u>Freshwater Diluent</u>	<u>Minimum Detection Limit (mg/l)</u>
Hardness ¹	X	X	0.5
Alkalinity	X	X	2.0
pH	X	X	---
Specific Conductance	X	X	---

Total Solids and Suspended Solids	X	X	---
Ammonia	X	X	0.1
Total Organic Carbon	X		0.5
Cyanide	X		0.010

¹Method 314A (Hardness by Calculation) from APHA (1985) Standard Methods for the Examination of Water and Wastewater. 16th Edition

<u>Total Metals</u>	<u>Effluent</u>	<u>Freshwater Diluent</u>	<u>Minimum Detection Limit (µg/l)</u>
Total Chromium	X	X	1.0
Total Cadmium	X	X	0.1
Total Lead	X	X	1.0
Total Copper	X	X	1.0
Total Aluminum	X	X	20.0
Total Zinc	X	X	5.0
Total Nickel	X	X	1.0

8. 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:

Chronic

- Daily survival of test organisms in the controls and all replicates in each dilution. Survival data should be analyzed by Fisher's Exact Test prior to analysis of reproduction data.

- Young per female for all replicates in each dilution for Ceriodaphnia and weight for minnow larvae.
- Dissolved oxygen, pH, specific conductance and temperature for each dilution.
- Results of Dunnett's Procedure and/or other EPA recommended or approved methods for analyzing the data.
- C-NOEC = Chronic No Observed Effect Concentration
- LOEC = Lowest Observed Effect Concentration
- MATC = Maximum Allowable Toxicant Concentration

Acute - (These data points are to be obtained 48 hours into the chronic test).

- Survival for each concentration and replication at time 24 and 48 hours.
- Dissolved oxygen, pH and specific conductance for each concentration.
- LC₅₀ and 95% confidence limits using one of the following methods in order of preference: Probit, Trimmed Spearman Karber, Moving Average Angle, or the graphical method; printout or copy of these calculations. 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 (% 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), a LC₅₀ may be estimated using the graphical method.

9. Reporting of Bioassay Testing

Bioassay testing following the protocol described herein shall commence on the effective date of this permit, and the first report shall be submitted to DEM no later than January 15th of the year following the effective date of this permit. The results of all bioassay testing events shall be submitted to the DEM by January 15th of each year for the testing event conducted during the previous calendar year. Bioassay reports shall be submitted to:

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

C. **SLUDGE**

The permittee shall conform and adhere to all conditions, practices and regulations as contained in the State of Rhode Island Rules and Regulations for the Treatment, Disposal, Utilization and Transportation of Sewage Sludge.

D. **DETECTION LIMITS**

The permittee shall assure that all wastewater testing required by this permit, is performed in conformance with the method detection limits below (the EPA method is noted for reference, other EPA approved methods found in 40 CFR Part 136 may be utilized). 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 values equal to the MDL, and the average shall be reported as "less than" the calculated value.

For compliance purposes, DEM will replace all data reported less than the MDL with zeroes, provided that DEM determines that all appropriate EPA approved methods were followed. If the recalculated average exceeds the permit limitation it will be considered a violation.

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)	Pesticides-EPA method 608		MDL ug/l (ppb)
1V	acrolein	10.0	18P	PCB-1242	0.289
2V	acrylonitrile	5.0	19P	PCB-1254	0.298
3V	benzene	1.0	20P	PCB-1221	0.723
5V	bromoform	1.0	21P	PCB-1232	0.387
6V	carbon tetrachloride	1.0	22P	PCB-1248	0.283
7V	chlorobenzene	1.0	23P	PCB-1260	0.222
8V	chlorodibromomethane	1.0	24P	PCB-1016	0.494
9V	chloroethane	1.0	25P	toxaphene	1.670
10V	2-chloroethylvinyl ether	5.0			
11V	chloroform	1.0			
12V	dichlorobromomethane	1.0	Base/Neutral-EPA Method 625	MDL ug/l (ppb)	
14V	1,1-dichloroethane	1.0	1B	acenaphthene*	1.0
15V	1,2-dichloroethane	1.0	2B	acenaphthylene*	1.0
16V	1,1-dichloroethylene	1.0	3B	anthracene*	1.0
17V	1,2-dichloropropane	1.0	4B	benzidine	4.0
18V	1,3-dichloropropylene	1.0	5B	benzo(a)anthracene*	2.0
19V	ethylbenzene	1.0	6B	benzo(a)pyrene*	2.0
20V	methyl bromide	1.0	7B	3,4-benzofluoranthene*	1.0
21V	methyl chloride	1.0	8B	benzo(ghi)perylene*	2.0
22V	methylene chloride	1.0	9B	benzo(k)fluoranthene*	2.0
23V	1,1,2,2-tetrachloroethane	1.0	10B	bis(2-chloroethoxy)methane	2.0
24V	tetrachloroethylene	1.0	11B	bis(2-chloroethyl)ether	1.0
25V	toluene	1.0	12B	bis(2-chloroisopropyl)ether	1.0
26V	1,2-trans-dichloroethylene	1.0	13B	bis(2-ethylhexyl)phthalate	1.0
27V	1,1,1-trichloroethane	1.0	14B	4-bromophenyl phenyl ether	1.0
28V	1,1,2-trichloroethane	1.0	15B	butylbenzyl phthalate	1.0
29V	trichloroethylene	1.0	16B	2-chloronaphthalene	1.0
31V	vinyl chloride	1.0	17B	4-chlorophenyl phenyl ether	1.0
			18B	chrysene*	1.0
			19B	dibenzo (a,h)anthracene*	2.0
Acid Compounds-EPA Method 625MDL ug/l (ppb)			20B	1,2-dichlorobenzene	1.0
1A	2-chlorophenol	1.0	21B	1,3-dichlorobenzene	1.0
2A	2,4-dichlorophenol	1.0	22B	1,4-dichlorobenzene	1.0
3A	2,4-dimethylphenol	1.0	23B	3,3' -dichlorobenzidine	2.0
4A	4,6-dinitro-o-cresol	1.0	24B	diethyl phthalate	1.0
5A	2,4-dinitrophenol	2.0	25B	dimethyl phthalate	1.0
6A	2-nitrophenol	1.0	26B	di-n-butyl phthalate	1.0
7A	4-nitrophenol	1.0	27B	2,4-dinitrotoluene	2.0
8A	p-chloro-m-cresol	2.0	28B	2,6-dinitrotoluene	2.0
9A	pentachlorophenol	1.0	29B	di-n-octyl phthalate	1.0
10A	phenol	1.0	30B	1,2-diphenylhydrazine (as azobenzene)	1.0
11A	2,4,6-trichlorophenol	1.0	31B	fluoranthene*	1.0
Pesticides-EPA Method 608	MDL ug/l (ppb)		32B	fluorene*	1.0
1P	aldrin	0.059	33B	hexachlorobenzene	1.0
2P	alpha-BHC	0.058	34B	hexachlorobutadiene	1.0
3P	beta-BHC	0.043	35B	hexachlorocyclopentadiene	2.0
4P	gamma-BHC	0.048	36B	hexachloroethane	1.0
5P	delta-BHC	0.034	37B	indeno(1,2,3-cd)pyrene*	2.0
6P	chlordane	0.211	38B	isophorone	1.0
7P	4,4' -DDT	0.251	39B	naphthalene*	1.0
8P	4,4' -DDE	0.049	40B	nitrobenzene	1.0
9P	4,4' -DDD	0.139	41B	N-nitrosodimethylamine	1.0
10P	dieldrin	0.082	42B	N-nitrosodi-n-propylamine	1.0
11P	alpha-endosulfan	0.031	43B	N-nitrosodiphenylamine	1.0
12P	beta-endosulfan	0.036	44B	phenanthrene*	1.0
13P	endosulfan sulfate	0.109	45B	pyrene*	1.0
14P	endrin	0.050	46B	1,2,4-trichlorobenzene	1.0
15P	endrin aldehyde	0.062			
16P	heptachlor	0.029			
17P	heptachlor epoxide	0.040			

OTHER TOXIC POLLUTANTS

<u>Pollutant</u>	<u>MDL ug/l (ppb)</u>
Antimony, Total	3.0
Arsenic, Total	1.0
Beryllium, Total	0.2
Cadmium, Total	0.1
Chromium, Total	1.0
Chromium, Hexavalent***	20.0
Copper, Total	1.0
Lead, Total	1.0
Mercury, Total	0.2
Nickel, Total	1.0
Selenium, Total	2.0
Silver, Total	0.5
Thallium, Total	1.0
Zinc, Total	5.0
Asbestos	**
Cyanide, Total	10.0
Phenols, Total***	50.0
TCDD	**
MTBE (Methyl Tert Butyl Ether)***	1.0
Aluminum, Total***	1.0

*Polynuclear Aromatic Hydrocarbons

**No Rhode Island Department of Environmental Management (DEM) MDL

***Not a priority pollutant

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.

Method detection limits for metals were determined by the USEPA. They are not contrived values and should be obtainable with any satisfactory atomic absorption spectrophotometer. To insure valid data the analyst must analyze for matrix interference effects and if detected treat accordingly using either successive dilution matrix modification or Standard Additions (Methods for Chemical Analysis of Water and Wastes EPA-600/4-79/020).

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).

E. MONITORING AND REPORTING

1. Monitoring

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

2. Reporting

Monitoring results obtained during the previous month shall be summarized and reported on Discharge Monitoring Report (DMR) Forms, postmarked no later than the 15th day of the month following the completed reporting period. A copy of the analytical laboratory report, specifying analytical methods used, shall be included with each report submission. Signed copies of these, and all other reports required herein, shall be submitted to:

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

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

STATEMENT OF BASIS

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

RIPDES PERMIT NO. **RI0000051**

NAME AND ADDRESS OF APPLICANT:

Precision Park Rhode Island, LLC
c/o ORIX Capital Markets, LLC
1717 Main Street, Suite 1100
Dallas, Texas 75201

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Precision Park
Frenchtown Road
North Kingstown, Rhode Island 02852

RECEIVING WATER: **Wetland Area Tributary to the Hunt River**

CLASSIFICATION: **B1**

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

The Precision Park site is a mixed use facility designed to house commercial and industrial tenants. Sanitary waste from these tenants is collected and treated in the Precision Park Wastewater Treatment Facility (WWTF) prior to discharge into the receiving water. There is no industrial wastewater discharged to the WWTF and this permit does not authorize the discharge of industrial wastewater. The site currently has limited wastewater flow that is insufficient to sustain the WWTF and has been hauling its wastewater off-site. However, since flows may increase in the future, the owner has applied to the Rhode Island Department of Environmental Management (DEM) for reissuance of the RIPDES permit for the site. The permitted discharges consist of treated sanitary wastewater and non-contact cooling water from the tenants located at Precision Park. The current permit expired on November 30, 2009. A timely application was submitted and the permit was administratively continued. The permit will expire five (5) years from the effective date. A flow diagram of the WWTF is presented in Diagram 1.

II. Limitations and Conditions

The proposed effluent limitations and monitoring requirements may be found in the draft permit. Historic discharge data can be found in Attachment A.

III. Permit Basis and Explanation of Effluent Limitation Derivation

Facility

The Precision Park WWTF, which serves tenants at Precision Park in North Kingstown, is a 0.04 million gallon per day (MGD) secondary treatment facility. The WWTF consists of bar racks, aeration, final clarification, sand filtration, and Ultraviolet (UV) disinfection. The discharge from Outfall 001, which flows to a wetland area tributary to the Hunt River, consists of treated sanitary waste. The discharge from Outfall 002 consists of non-contact cooling water and storm water runoff. Process wastewater is not discharged to the WWTF and, therefore, this permit does not authorize the discharge of process wastewater.

Limits

Development of RIPDES permit limitations is a multi-step process consisting of the following steps: identifying applicable technology-based limits; calculating allowable water-quality based discharge levels based on in stream criteria, background data and available dilution; establishing Best Professional Judgment (BPJ) limits in accordance with Section 402 of the Clean Water Act (CWA); and assigning the most stringent as the final discharge limitations.

Following is a discussion of the process used to calculate discharge limitations for Outfall 001, the treated sanitary wastewater. A discussion of the approach used to develop discharge limitations for Outfall 002, the non-contact cooling water, is provided later in this document.

Outfall 001

Technology-Based Effluent Limitations

Since the facility eliminated any discharges of process wastewater, as part of the previous permit reissuance procedure, there are no Federal Effluent Guideline Limitations (ELGs) that apply to this facility. Therefore, in the absence of technology-based ELGs, the DEM established permit limits based on water quality and BPJ.

BPJ-Based Effluent Limitations

The previous permit specified BOD₅ permit limitations of 5mg/L, 10 mg/L, and 10mg/L and TSS permit limitations of 10mg/L, 20 mg/L, and 20 mg/L for the average monthly, weekly average, and maximum daily concentration limitations and BOD₅ and TSS average monthly mass limitations of 1.67 lb/day and 3.34 lb/day, respectively. These limits were established using BPJ because of the facility's having a high degree of treatment and because the discharge is to a wetland with no dilution. In accordance with antibacksliding requirements set forth in 40 CFR 122.44(I)(1) and Section 303(d) of the CWA, the limitations for BOD₅ and TSS have been carried over from the previous permit. The mass limits were calculated using the permitted design flow and the average monthly concentration limits using the following equation:

$$\text{Mass Limit} = (8.34)(\text{Average Monthly Limit in mg/l})(0.04 \text{ MGD})$$

In addition, based on BPJ, the previous permit included minimum percent removal requirement of 85% for BOD₅ and TSS and average weekly and maximum daily fecal coliform limitations of 400mpn/100mL and a maximum daily fecal coliform concentration limitation of 200mpn/100ml. These limits were assigned in accordance with the DEM's requirements for WWTF's that treat sanitary wastewater. In accordance with antibacksliding requirements, these limits have been carried over into this permit.

The DEM feels that Settleable Solids are a "process-control parameter" that can aid in the assessment of the operation of the plant but need not be an effluent limit. Therefore, based on BPJ, the permit requirements for Settleable Solids have been set as monitor only.

The previous permit also specified an average monthly Phosphorus limit of 1.0mg/L. In accordance with antibacksliding requirements, which prohibit the relaxation of parameters that could cause long term water quality changes, the average monthly Phosphorus limitation of 1.0mg/L will be retained in the permit. Similarly, monitoring for Total Nitrite, Total Nitrate, and TKN will be retained in the permit, based on provisions of Section 308 of the CWA. The information submitted by the permittee will continue to establish a database of loadings, which can be used to quantitatively assess the impact of loading and transport of nutrients to the receiving water. This database will provide the basis for future permit limitations.

As part of a recent upgrade to the WWTF, the facility replaced its chlorination disinfection system with ultraviolet (UV) disinfection. To ensure that the WWTF is providing proper disinfection, the permit includes a requirement that the permittee provide continuous monitoring of the UV transmittance. This data will be used to ensure that the UV disinfection system is operating as designed and approved. This permit also authorizes the use of chlorine disinfection only for emergency purposes and in accordance with the facility's Operation and Maintenance Manual.

Water Quality-Based Effluent Limitations

In addition to the BPJ-based limitations established for Outfall 001, water quality-based limits were established for the final discharge based on the non-class A freshwater acute and chronic aquatic life criteria and human health criteria specified in Appendix B of the Rhode Island Water Quality Regulations, as amended, using 80% allocation when no background data was available and 90% allocation when background data was available. 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 allowable effluent limitations were established based on the more stringent of the two criteria. Since the effluent discharges into a wetland area prior to discharging into the Hunt River, dilution is not available at the point of discharge. Therefore, a dilution factor of one (1) was used in the determination of water quality-based effluent limits for Outfall 001 and 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 = 1.0

b) Using available background concentration data.

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

Where: DF = acute or chronic dilution factor, as appropriate = 1.0

For toxicity-based ammonia limitations, the Water Quality Regulations include ammonia criteria that are dependent on both pH and temperature. In the absence of site-specific data on the receiving water, the DEM evaluated USGS data for all freshwater rivers in the state for the 1999 water year to determine an appropriate assumption for the temperature and pH of the receiving water. This evaluation resulted in the conservative assumptions of 7.5 S.U. for pH and winter and summer water temperatures of 15°C and 26°C, respectively. The pH and summer temperature were used to determine the acute and chronic criteria for Total Ammonia Nitrogen of 13.3 mg N/L and 2.08 mg N/L, respectively, which translate into discharge limitations of 10.6 mgN/L and 1.66 mg N/L using no dilution at the point of discharge and an 80% allocation. The pH and winter temperature were used to determine the acute and chronic criteria for Total Ammonia Nitrogen of 13.3 mg N/L and 4.23 mg N/L, respectively, which translate into the winter discharge limitations of 10.6 mg N/L and 3.38 mg N/L with no dilution at the point of discharge and an 80% allocation.

In accordance with 40 CFR 122.4(d)(1)(iii), water quality based effluent limitations are only required for those pollutants in the discharge that have the reasonable potential to cause or contribute to the exceedence of in stream criteria. In order to evaluate the need for permit limits, the allowable monthly average (chronic) and allowable maximum daily (acute) discharge concentrations are compared to the monthly average and maximum daily Discharge Monitoring Report (DMR) data or other monitoring data (i.e., priority pollutant scans). Based on this comparison, the only pollutants with reasonable potential are Total Ammonia, based on monthly DMR data collected under the previous permit, and Toluene, based on a priority pollutant scan conducted by the permittee and submitted as part of the reapplication. Therefore, limits for Total Ammonia and Toluene have been included in the permit. Since Toluene is not a pollutant that is expected to be present in sanitary wastewater, the permit includes a condition that, after submitting four consecutive Toluene test results demonstrating effluent concentrations below the minimum detection limit from the permit (i.e., demonstrating that Toluene is not present in the discharge), the permittee may submit to the DEM a written request for elimination of the Toluene testing requirement. The permittee is required to continue testing at the frequency specified in the permit until the DEM grants any requests to reduce the Toluene testing frequency in writing.

The pH limitations are equivalent to the water quality criteria for freshwater from the RI Water Quality Regulations.

Biomonitoring requirements are set forth in 40 CFR 131.11 and in the State's Water Quality Regulations. Section 101(a) of the CWA specifically prohibits the discharge of toxic pollutants in toxic amounts. In accordance with DEM's toxicity permitting strategy, the frequency and WET limitations are established based on the dilution ratio and risk factor. With a dilution ratio of less than 10:1, acute and chronic testing is required with a LC₅₀ and a C-NOEC limit of ≥100%. As a condition of the previous permit, the quarterly testing requirements could be reduced after four (4) consecutive acceptable toxicity test results demonstrating compliance with the permit limits. A review of the historic effluent data revealed that the discharge always met the LC₅₀ and a C-NOEC limits of ≥100%. Therefore, this permit is being issued with annual toxicity testing requirements.

Outfall 002

As described, the discharge from Outfall 002 consists entirely of non-contact cooling water that does not come into contact with raw materials, intermediate products, finished products or process wastes. Therefore, this discharge does not have a reasonable potential to contain pollutants from these sources. However, the DEM has determined that these discharges do have a reasonable potential to exceed water quality criteria for temperature and pH. Therefore, water quality based temperature limits were established using a dilution factor of 1.0, consistent with the NCCW General Permit for discharges to warm water freshwater habitats. The pH limits are also consistent with the limits from the NCCW General Permit for facilities that use a municipal water supply as the source water for non-contact cooling operations. The previous permit limited the flow from Outfall 002 to 0.40 MGD. This flow limit will be retained in the draft permit in accordance with antibacksliding requirements.

Additional Requirements

The permit contains requirements for the permittee to comply with the State's Sludge Regulations for sludge disposal in accordance with the requirements of Section 405(d) of the 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 effluent monitoring requirements have been specified in accordance with RIPDES regulations as well as 40 CFR 122.41(j), 122.44(l), and 122.48 to yield data representative of the discharge.

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

The Antibacksliding Provision of the CWA (found at Section 402(o) and repeated at 40 CFR 122.44(l)) prohibits reissuing a permit containing less stringent effluent limits than the comparable limits from the previous permit. Section 303(d)(4) of the CWA addresses water quality based antibacksliding in terms of water quality based limits. Since none of the permit limits, both concentration and mass loadings, are less stringent than in the previous permit, antibacksliding regulations are being met. In addition, the draft permit is being reissued with no change to the outfall location or increase in flow. Therefore, as there will be no increase in loadings or flow to the receiving water body, no additional antidegradation review is necessary.

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

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to the Rhode Island Department of Environmental Management, Office of Water Resources, 235 Promenade Street, Providence, Rhode Island, 02908-5767. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to the Rhode Island Department of Environmental Management. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty (30) days public notice whenever the

Director finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit the Director will respond to all significant comments and make these responses available to the public at DEM's Providence Office.

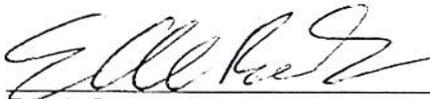
Following the close of the comment period, and after a public hearing, if such hearing is held, the Director will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice. Within thirty (30) days following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

V. 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:

Joseph B. Haberek, P.E.
RIPDES Program
Office of Water Resources
Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908
Telephone: (401) 222-4700, extension 7715
e-mail: joseph.haberek@dem.ri.us

4/5/10
Date


Eric A. Beck, P.E.
Supervising Sanitary Engineer
Department of Environmental Management

ATTACHMENT A

DESCRIPTION OF DISCHARGE: Treated Sanitary Wastewater - Outfall 001

AVERAGE EFFLUENT CHARACTERISTICS AT POINT OF DISCHARGE OF SELECTED POLLUTANTS:

PARAMETER	AVERAGE ¹	MAXIMUM ²
FLOW (MGD)	0.0022 MGD	0.0096 MGD
BOD ₅	5.5 mg/l	14.84 mg/l
BOD ₅ % Removal	52.6 % (Minimum)	
TSS	1.88 mg/l	5.12 mg/l
TSS % Removal	55.31 % (Minimum)	
Settleable Solids	21.28 ml/l	29.36 ml/l
Fecal Coliform	39.75 MPN/100 ml	54.11 MPN/100 ml
pH	6.51 S.U. (Minimum)	8.02 S.U. (Maximum)
Total Phosphorus	0.93 mg/l	
TKN	2.48 mg/l	
Total Nitrate, as N	16.54 mg/l	
Total Nitrite, as N	0.18 mg/l	
Total Nitrogen, as N	19.48 mg/l	
Total Ammonia (May – Oct)	0.52 mg/l	0.52 mg/l
(Nov – April)	5.18 mg/l	5.18 mg/l
Ceriodaphnia LC50	100 % (Minimum)	
C-NOEC	100 % (Minimum)	
UV Transmittance	50.7 %	60.6 %

DESCRIPTION OF DISCHARGE: Non-Contact Cooling Water – Outfall 002

AVERAGE EFFLUENT CHARACTERISTICS AT POINT OF DISCHARGE OF SELECTED POLLUTANTS:

PARAMETER	AVERAGE ¹	MAXIMUM ²
FLOW (MGD)	0.0226 MGD	0.0365 MGD
Temp		52.15 °F (Maximum)
pH	6.75 S.U. (Minimum)	7.27 S.U. (Maximum)

¹Data represents the mean of the monthly average data from January 2005 – December 2009

²Data represents the mean of the daily maximum data from January 2005 – December 2009

*Diagram 1:
WWTF Flow Diagram*

PART II
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- (f) Permit Actions
- (g) Property Rights
- (h) Duty to Provide Information
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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 3 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) 277-3961, (401) 277-6519 or (401) 277-2284 at night.

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

The following information must be reported immediately:

- (i) Any unanticipated bypass which causes a violation of any effluent limitation in the permit; or
- (ii) Any upset which causes a violation of any effluent limitation in the permit; or
- (iii) Any violation of a maximum daily discharge limitation for any of the pollutants specifically listed by the Director in the permit.

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

- (6) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (1), (2), and (5), of this section, at the time monitoring reports are submitted. The reports shall contain the information required in paragraph (1)(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 public 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. °C	temperature in degrees Centigrade
Temp. °F	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