

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION

IN RE: THE NARRAGANSETT BAY :
COMMISSION – GENERAL RATE : DOCKET NO. 4026
FILING :

COMMISSION THIRD SET OF DATA REQUESTS DIRECTED TO
THE NARRAGANSETT BAY COMMISSION
APRIL 8, 2009

1. Identify the components used to compute the customer charge.

Answer: The cost recovery method was determined in the Report and Order from the Rhode Island Public Utilities Commission (PUC) in Docket 2216 which further directed the “NBC in future filings to present a rate design for flat fees that recovers a proportion of costs similar to that resulting from this docket.” Consequently, rate increases have been proportional since that Docket in 1995.

In that Docket, the PUC accepted the position of the Division’s witness that the fixed fees recover the costs of debt service and customer related costs for account billing and collections. At that time, the allocation resulted “in about 30% of costs being recovered through flat fees.” If that methodology were used today, more than 60% of costs would be recovered through flat fees.

2. Please explain the billing schedule. How often is a customer billed and are they billed on the same dates?

Answer: NBC bills its customers on a quarterly basis and therefore a customer will receive four bills a year. NBC typically bills customers served by the Pawtucket Water Supply Board a few weeks prior to the rest of NBC's customers to help cash flow.

3. Is NBC aware of any water utilities that base its rates entirely on consumption?

Answer: No.

4. How are other companies dealing with the drop in consumption?

Answer: NBC has not researched how other companies are dealing with the drop in consumption.

5. Please discuss the most equitable way of allocating revenues between the base charges and the consumption/variable charge?

Answer: From a traditional ratemaking theory perspective, fixed costs should be recovered through fixed charges and variable costs should be recovered through usage charges. In NBC's case nearly all costs are fixed with debt service and debt service coverage alone comprising nearly 60% of the annual cost of service. NBC must make payments on its bonds, and all required cash deposits in accordance with the Trust Indenture regardless of lower consumption. In addition, the majority of NBC's operating costs is fixed and will not vary directly with consumption. In theory, some might think that lower consumption would result in a reduced amount of flow to be pumped (electricity) and treated (chemical usage), however, NBC has a combined system and a rainfall event may have a greater impact on these costs than consumption. Accordingly, one could argue that all of NBC's costs are fixed and should be recovered through fixed fees.

6. Please provide the analysis, data and/or report on CSO Phase I that justifies CSO Phase II.

Answer: The CSO Phase II Facilities are required per the Consent Agreement with the Rhode Island Department of Environmental Management (see Section 10 beginning on page 2 in the attached Consent Agreement).

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES

IN RE: Narragansett Bay Commission
AAD No. 02-002/WRA

Permit Nos.: RI0100072 &
RI0100315

CONSENT AGREEMENT RIA-330

This Consent Agreement is entered into by and between the Department of Environmental Management (the "DEM") and the Narragansett Bay Commission (the "Respondent" or the "NBC"), which is responsible for the operation and maintenance of the Fields Point Wastewater Treatment Facility (the "FPWWTF"), located in Providence, Rhode Island, and the Bucklin Point Wastewater Treatment Facility (the "BPWWTF"), located in East Providence, Rhode Island, and their associated sewer systems. This Agreement is entered into in accordance with Chapters 46-12 and 42-17.1 of the Rhode Island General Laws ("RIGL").

The DEM issued final permits to the NBC for the FPWWTF and BPWWTF on December 31, 2001 (the "Permits"). By a letter dated January 30, 2002, the NBC requested an administrative hearing and moved to stay certain conditions of the Permit.

In lieu of convening an Administrative Hearing regarding the disputed permit conditions and in order to effect a resolution of all disputed issues in this matter between DEM and the Respondent, the parties agree as follows:

1. The Respondent is subject to the provisions of Chapter 46-12 of the RIGL for purposes of this Agreement.
2. DEM has jurisdiction over the subject matter of this Agreement and has personal jurisdiction over the Respondent for purposes of this Agreement.
3. The provisions of this Agreement shall apply to and be binding upon the Respondent, its agents, servants, employees, successors and assigns, and all persons, firms and corporations acting under, through and for it.
4. The compliance with the terms of this Agreement does not relieve the Respondent from compliance with any other applicable laws or regulations administered by DEM or any other governmental entity. This Agreement shall not operate to shield the Respondent from liability arising from future activities, as of the date of execution of this Agreement.
5. Upon the determination by the Director of the DEM that there is an immediate threat to the public health or the environment, or upon the discovery of new information, the DEM reserves the right to order additional remedial action or other enforcement measures as provided by law or regulations.

6. The Director of the DEM may, for good cause shown, defer any of the compliance dates prescribed herein. In the event that the Respondent believes that good cause exists for extending any such dates, the Respondent may submit a written request to DEM for an extension at least seven (7) days prior to such deadline, together with a complete statement of the reasons why the Respondent believes that such an extension is justified. The Agreement may be amended by mutual agreement of the parties in writing.
7. In the event that the Respondent fails to comply with any of the schedules in paragraph 10, 11, 14 and/or 15 of this Agreement it shall pay a stipulated penalty of one thousand dollars (\$1,000) a day for each and every day it remains in violation of the schedule. The payment of a stipulated penalty in accordance with this paragraph shall not preclude DEM from seeking any other appropriate remedy.
8. In the event the Respondent fails to comply with any of the interim limits of paragraph 11 and/or 14 of this Agreement it may be subject to an administrative penalty as determined by the DEM in accordance with the Rules and Regulations for Assessment of Administrative Penalties. The payment of an administrative penalty in accordance with this paragraph shall not preclude DEM from seeking any other appropriate remedy.
9. This Agreement shall have the full force and effect of a final administrative adjudication, shall be deemed a final administrative decision under the Administrative Procedures Act (RIGL Chapter 42-35) and shall be fully enforceable in the Superior Court of the State of Rhode Island.
10. NBC shall attain compliance with the Combined Sewer Overflow (CSO) permit conditions and the effluent limitations specified in Parts I.D.1 of the FPWWTF and BPWWTF Permits in accordance with the following schedule:
 - (a) By August 29, 2007, NBC shall complete construction and initiate operation of Phase I of the CSO abatement plan identified in the approved Concept Design Report Amendment (CDRA).
 - (b) By August 29, 2008, NBC shall submit preliminary design plans and specifications for Phase II of the selected CSO abatement plan identified in the CDRA. Preliminary design of Phase II shall modify the conceptual design approved in the CDRA, as necessary to meet the Federal Clean Water Act, USEPA CSO control policies and the Rhode Island Water Quality Regulations, and shall include and be consistent with the results of the system evaluation of Phase I, identified in the approved CDRA.

- (c) Within one (1) year of DEM approval of Part 10(b), above, NBC shall submit final design plans and specifications for Phase II of the selected CSO abatement plan approved in the CDRA. The final design shall include but not be limited to a detailed schedule for completion of construction and initiation of operation, not to exceed four (4) years.
- (d) Upon DEM review, modification, and approval of Part 10(c), the NBC shall complete construction and initiate operation of Phase II in accordance with the approved schedules.
- (e) Within one (1) year of the approved deadline for completing construction and initiating operation of Phase II in accordance with Part 10(d) above, NBC shall submit preliminary design plans and specifications for Phase III of the selected CSO abatement plan approved in the CDRA. Preliminary design of Phase III shall modify the conceptual design approved in the CDRA, as necessary to meet the Federal Clean Water Act, USEPA CSO control policies and the Rhode Island Water Quality Regulations, and shall include and be consistent with the results of the system evaluation of Phase II, identified in the approved CDRA.
- (f) Within one (1) year of DEM approval of 10(e), above, NBC shall submit final design plans and specifications for Phase III of the selected CSO abatement plan approved in the CDRA. The final design shall include but not be limited to a detailed schedule for completion of construction and initiation of operation, not to exceed five (5) years.
- (g) Upon DEM review, modification, and approval of 10(f), the NBC shall complete construction and initiate operation of Phase III in accordance with the approved schedules.
- (h) Upon NBC's completion of Part 10(g), above, DEM shall certify completion of the CSO abatement plan. Upon review of the CSO monitoring data, DEM will determine whether NBC is in compliance with the CSO requirements. If compliance with the CSO requirements of the FPWWTF and BPWWTF permits, or any modifications that may have occurred, cannot be achieved after implementation of the approved CDRA, DEM may take appropriate enforcement actions necessary to attain compliance.
- (i) NBC shall submit semi-annual reports summarizing progress with Part 10(a), (d), and (g) to the DEM. These reports shall be due January 15th and July 15th of each year.

11. The Respondent shall attain compliance with the final Maximum Daily effluent limits for BOD, TSS, and Flow (To Plant Headworks) as specified in Part I.A.1 and the Maximum Daily and Average Monthly effluent limits for Total Ammonia (May – October) as specified in Part I.A.3 of the BPWWTF Permit, in accordance with the following schedule:
 - (a) By September 23, 2006, the NBC shall complete construction of the BPWWTF improvements approved under Order of Approval number 1423 and initiate operation of the approved improvements.
 - (b) From the date of execution of this Agreement until three (3) months after completion of construction and initiation of operation, the Respondent shall meet the limitations in *Attachment 1* of this Agreement, which is attached hereto and incorporated herein.
12. Upon the effective date of this Consent Agreement, the Respondent shall attain compliance with the final Maximum Daily and Average Monthly effluent limits for Total Ammonia (May – October) as specified in Part I.A.3 of the FPWWTF Permit.
13. Within thirty (30) days of the effective date of this agreement the DEM shall initiate the enclosed permit modifications to the FPWWTF Permit and the BPWWTF permit (*Attachments 2 and 3*). The NBC agrees not to contest the enclosed permit modification. From the effective date of this agreement until the effective date of the permit modifications, the NBC shall sample the BPWWTF's and the FPWWTF's effluent for Fecal Coliform at a minimum frequency of once/day, sample the FPWWTF's Treated Wet Weather Overflow – South Channel's discharge for Fecal Coliform, TRC, and pH at a minimum frequency of one grab/event, and is not required to account for hydraulic detention time when sampling FPWWTF's influent and effluent BOD5 and TSS.
14. The Respondent shall attain compliance with the final Maximum Daily and Average Monthly effluent limits for Total Copper and Cyanide as specified in Part I.A.4 of the FPWWTF Permit and the Maximum Daily and Average Monthly effluent limits for Total Copper, Total Mercury, Total Nickel, Total Silver, Total Zinc, and Cyanide as specified in Part I.A.4 of the BPWWTF Permit, or the limits as modified in accordance with Paragraph 14(b), in accordance with the following schedule:
 - (a) Within nine (9) months of execution of this agreement, NBC shall submit a Final Metals Compliance Evaluation Report. This report is subject to DEM review, modification, and approval and shall include the following elements:

- (i) A summary of the results of the NBC's metals translator sampling including all data from field metals translator studies and the seasonal surveys of the Providence and Seekonk Rivers. Based on this data, the report shall include a recommendation on the appropriate metals translator to be used in calculating RIPDES limits.
 - (ii) A summary of any additional data collected since the submission of the Interim Metals Compliance Report, including potable water supply sampling, river monitoring, and domestic wastewater characterization sampling.
 - (iii) A calculation of revised RIPDES permit limits using the recommended metals translator from Part 14(a)(i) and the background receiving water concentrations from Part 14(a)(ii).
 - (iv) A new local limits evaluation using the domestic wastewater characterization from Part 14(a)(ii) and the revised RIPDES limits from Part 14(a)(iii).
 - (v) An evaluation of the NBC's ability to comply with the revised RIPDES limits, from Part 14(a)(iii), and a determination on the need to calculate site specific criteria. If site specific criteria development is necessary, NBC shall submit a Scope of Work with the Final Metals Compliance Evaluation Report.
- (b) Upon DEM review and approval of the Final Metals Compliance Evaluation Report, DEM shall initiate a permit modification (as necessary) to reflect any new permit limits based upon the findings of the Final Metals Compliance Report and the DEM shall determine if additional measures are necessary to attain compliance with the final permit requirements for Total Copper and Cyanide as specified in the FPWWTF Permit and with Total Copper, Total Mercury, Total Nickel, Total Silver, Total Zinc, and Cyanide as specified in the BPWWTF Permit.
- (i) If construction or other additional measures are necessary, then DEM will enter into a separate consent agreement with the Respondent to address compliance schedules.
 - (ii) If construction or other additional measures are not necessary, then the Respondent shall meet the final effluent limits for Total Copper and Cyanide as specified in Part I.A.4 of the FPWWTF Permit and for Total Copper, Total Mercury, Total Nickel, Total Silver, Total Zinc, and Cyanide as specified in Part I.A.4 of the BPWWTF Permit.

(c) From the date of execution of this Agreement until three (3) months after the completion of Part 14(b), the Respondent shall meet the interim limits as found in *Attachments 4 and 5*, which is attached hereto and incorporated herein.

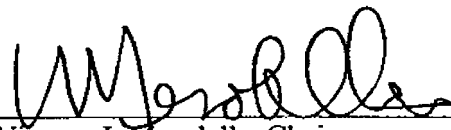
15. Upon DEM review, modification, and approval of the NBC's CSO Floatables Control Program, the NBC shall complete construction and initiate operation of the approved floatables control technologies in accordance with the approved schedule.
16. No later than fourteen (14) calendar days following a date identified in any schedule of compliance, the Respondent shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.
17. All reports and other documentation that the Respondent is required to submit to the DEM by the terms of this Agreement shall be sent to the Office of Water Resources, RIPDES Program, 235 Promenade Street, Providence, RI 02908-5767. Each document shall be subject to DEM review and approval. Upon DEM review of the document, DEM shall provide written notification to the Respondent, either granting approval or stating the deficiencies revealed therein. Within fourteen (14) days (unless a longer time is specified) of receiving a notification of deficiencies, the Respondent shall submit to DEM a revised document consistent with the DEM comments.
18. This Agreement supercedes Consent Agreement RIA-029 and Compliance Order RIO-052.
19. This Agreement shall be deemed effective on January 1, 2004.

Narragansett Bay Commission



Paul Pinault, P.E., Executive Director

12/17/03
Date



Vincent J. Mesolella, Chairman

12/17/03
Date

The individuals signing on behalf of the Narragansett Bay Commission represent that they have the actual authority to enter into this Agreement, and the authority to bind the Narragansett Bay Commission to the requirements contained within.

In Providence, on the 17th day of December 2003, before me personally appeared Paul Pinault and Vincent J. Mesolella, to me known and known by me to be the party executing the foregoing Consent Agreement on behalf of the Narragansett Bay Commission and the acknowledged said instrument executed by them to be their free act and deed.

Rory J. Neenan
Notary Public
My Commission expires: 7-30-05

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
FOR THE DIRECTOR

Angelo S. Liberty
Angelo S. Liberty, P.E.
Chief of Surface Water Protection
Office of Water Resources

1/12/04
Date

ATTACHMENT 1

PART I

Permit No. RI0100072
Page 1 of 1

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 001A (Secondary Treatment Discharge).

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

Effluent Characteristic	Discharge Limitations			Concentration - specify units			Monitoring Requirement	
	Quantity Average Monthly	Maximum Daily	Average Monthly *(Minimum)	Average Weekly *(Average)	Maximum Daily *(Maximum)	Measurement Frequency	Sample Type	
Flow (To Plant Headworks)	--- MGD	60 MGD ¹				Continuous	Recorder	
BOD ₅	7,756	38,364	30 mg/l	45 mg/l	100 mg/l	1/Day	24-Hr. Comp.	
TSS	7,756	38,364	30 mg/l	45 mg/l	100 mg/l	1/Day	24-Hr. Comp.	
Ammonia, Total (as N) May - October			24.5 mg/l		29.2 mg/l	2/Week	24-Hr. Comp.	

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

Sampling for TSS, BOD₅, and Flow (To Plant Headworks) shall be performed Sunday – Saturday. Sampling for Total Ammonia (as N) shall be performed Monday – Friday. All BOD₅ and TSS samples shall be taken on the influent and effluent with appropriate allowances for hydraulic detention (flow-through) time.

¹ Flow to the WWTF's headworks shall be reported. All flows up to 60 MGD shall receive at least primary treatment and disinfection. Up to 46 MGD must receive secondary treatment.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 001A.

ATTACHMENT 2

Permit No. RI0100315
Modification Page 1 of 5

MODIFICATION

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, RIPDES Permit No. RI0100315 issued to the Narragansett Bay Commission on December 31, 2001, for the Fields Point Wastewater Treatment Facility, shall be modified as follows:

Part I.A.1 of the permit, shall be deleted in its entirety and replaced with Part I.A.1 in Attachment A of this Modification.

Part I.A.2 of the permit, shall be deleted in its entirety and replaced with Part I.A.2 in Attachment B of this Modification.

Part I.A.6 of the permit, shall be deleted in its entirety and replaced with Part I.A.6 in Attachment C of this Modification.

Part I.C.7.g of the permit shall be deleted in its entirety and replaced with Part I.C.7.g in Attachment D of this Modification.

The remaining effluent limitations, monitoring requirements and other conditions in the original permit are unchanged and in effect.

This modification shall become effective on the date of signature.

This permit and the authorization to discharge expire at midnight, February 1, 2007.

This change modifies the permit issued on December 31, 2001.

This modification consists of two (2) pages.

Signed this _____ day of _____, 2003.

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

ATTACHMENT A

Permit No. RI0100315
Page 2 of 30

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(s) 001A (Secondary Treatment Discharge).
Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>					<u>Monitoring Requirement</u>	
	Quantity - lbs./day		Concentration - specify units			<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u> <small>*(Minimum)</small>	<u>Average Weekly</u> <small>*(Average)</small>	<u>Maximum Daily</u> <small>*(Maximum)</small>		
Flow (To Plant Headworks)	--- MGD	--- MGD ¹				Continuous	Recorder
Flow (To Secondary Treatment)	65 MGD	77 MGD				Continuous	Recorder
BOD ₅	16,263	32,109	30 mg/l	45 mg/l	50 mg/l	1/Day	24-Hr. Comp.
BOD ₅ -% Removal	85%					1/Month	Calculated
TSS	16,263	32,109	30 mg/l	45 mg/l	50 mg/l	1/Day	24-Hr. Comp.
TSS-% Removal	85%					1/Month	Calculated
Settleable Solids ²				--- 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, BOD₅, Flow, and Settleable Solids shall be performed Sunday-Saturday. All BOD₅ and TSS samples shall be taken on the influent and effluent.

¹Flow to the WWTF's headworks shall be reported. All flows received at the headworks shall receive at least primary treatment and disinfection. Up to 77 MGD must receive secondary treatment. Flows greater than 77 MGD but less than 91 MGD must receive secondary treatment during the first hour of such flows. Flows greater than 77 MGD received after the first hour of such flows shall be diverted to the wet weather treatment facility – Outfall 002A.

²Settleable solids monitoring has been included as a process-control parameter to aid in the assessment of the operation of the plant but no effluent limit has been established.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 001A.

RIA330final

ATTACHMENT B

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(s) 001A (Secondary Treatment Discharge).

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

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>					<u>Monitoring Requirement</u>	
	Quantity - lbs./day		Concentration - specify units			<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u> <i>*(Minimum)</i>	<u>Average Weekly</u> <i>*(Average)</i>	<u>Maximum Daily</u> <i>*(Maximum)</i>		
Fecal Coliform			<u>200 MPN¹</u> 100 ml	<u>400 MPN¹</u> 100 ml	<u>400 MPN¹</u> 100 ml	2/Day	Grab ²
Total Residual Chlorine (TRC)			65.0 ug/l ³		65.0 ug/l ³	6/Day	Grab
pH			(6.0 SU)		(9.0 SU)	1/Day	Grab

¹The Geometric Mean shall be used to obtain the "maximum daily", "weekly average", and the "monthly average" values.

² Compliance with these limitations shall be determined by taking a minimum of two (2) grab samples per day. These samples shall be separated by a minimum of three (3) hours, unless good cause exists for not having the minimum separation. In the event that the permittee believes that good cause exists, written documentation must be submitted to the DEM demonstrating that good cause existed. This documentation shall be in the form of a cover letter to the permittee's Discharge Monitoring Reports.

³ The use of a continuous TRC recorder after chlorination and prior to dechlorination is required to provide a record that proper disinfection was achieved at all times. Compliance with these limitations shall be determined by taking six (6) grab samples per day with a minimum of three (3) hours between grabs. The maximum daily and average monthly values are to be computed from the averaged grab sample results for each day. The following methods may be used to analyze the grab samples: (1) Low Level Amperometric Titration, Standard Methods (18th Edition) No. 4500-Cl E; (2) DPD Spectrophotometric, EPA No. 330.5 or Standard Methods (18th Edition) No. 4500-Cl G.

*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 Fecal Coliform, 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.
RIA330final

ATTACHMENT C

Permit No. RI0100315
Page 7 of 30

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

6. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number(s) 002A (Treated Wet Weather Overflow – South Channel).
Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>					<u>Monitoring Requirement</u>	
	Quantity - lbs./day		Concentration - specify units			<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u> *(Minimum)	<u>Average Weekly</u> *(Average)	<u>Maximum Daily</u> *(Maximum)		
Flow	--- MGD	123 MGD				Continuous	Recorder
BOD ₅			--- mg/l		--- mg/l	When in Use	24-Hr. Comp. (Hourly Grabs)
BOD ₅ -% Removal	35% ¹					When in Use	Calculated
TSS			--- mg/l		--- mg/l	When in Use	24-Hr. Comp. (Hourly Grabs)
TSS-% Removal	50% ¹					When in Use	Calculated
Fecal Coliform			--- MPN 100 ml		--- MPN 100 ml	When in Use	Grab ²
Total Residual Chlorine (TRC)			--- ug/l	--- ug/l	--- ug/l	When in Use	Grab ²
pH			(6.0 SU)		(9.0 SU)	When in Use	Grab

¹Compliance with these requirements shall be evaluated based on combined sewer flows generated by storms less than or equal to the one year six hour storm and treatment received through both the wet weather facility and pump back to the secondary facility.

²The fecal coliform and total residual chlorine samples shall be taken at the same time. The Geometric Mean shall be used to obtain the "monthly average" fecal coliform result.

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

*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 at the following location: Outfall 002A.
RIA330final

- b. A summary list 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 Industrial User Compliance status. The summary shall identify the IUs determined to be in non-compliance, and if applicable, the type of enforcement actions taken and penalty amounts 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 an affidavit of publication, from the newspaper, averring that the names of these violators has been published;
- e. A summary list 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 users sampled by the POTW (include sampling dates for each industrial user);
- f. A summary list of permit issuance/reissuance activities including the name of the industrial user, expiration date of previous permit and issuance date of new permit;
- g. A summary list for each report/notification type required by 40 CFR 403.12 that was not received as required during the reporting year. All other records of notifications received in accordance with 40 CFR 403.12 shall be maintained in each Industrial User's file.
- 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;

ATTACHMENT 3

Permit No. RI0100072
Modification Page 1 of 3

MODIFICATION

**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, RIPDES Permit No. RI0100072 issued to the Narragansett Bay Commission on December 31, 2001, for the Bucklin Point Wastewater Treatment Facility, shall be modified as follows:

Part I.A.2 of the permit, shall be deleted in its entirety and replaced with Part I.A.2 in Attachment A of this Modification.

Part I.C.7.g of the permit shall be deleted in its entirety and replaced with Part I.C.7.g in Attachment B of this Modification.

The remaining effluent limitations, monitoring requirements and other conditions in the original permit are unchanged and in effect.

This modification shall become effective on the date of signature.

This permit and the authorization to discharge expire at midnight, February 1, 2007.

This change modifies the permit issued on December 31, 2001.

This modification consists of two (2) pages.

Signed this _____ day of _____, 2003.

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

ATTACHMENT A

Permit No. RI0100072
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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(s) 001A (Secondary Treatment Discharge).

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

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>					<u>Monitoring Requirement</u>	
	Quantity - lbs./day		Concentration - specify units			<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>		
			*(Minimum)	*(Average)	*(Maximum)		
Fecal Coliform			200 MPN ¹ 100 ml	400 MPN ¹ 100 ml	400 MPN ¹ 100 ml	2/Day	Grab ²
Total Residual Chlorine (TRC)			13.0 ug/l ³		13.0 ug/l ³	6/Day	Grab
pH			(6.0 SU)		(9.0 SU)	1/Day	Grab

¹The Geometric Mean shall be used to obtain the "maximum daily", "weekly average", and the "monthly average" values.

² Compliance with these limitations shall be determined by taking a minimum of two (2) grab samples per day. These samples shall be separated by a minimum of three (3) hours, unless good cause exists for not having the minimum separation. In the event that the permittee believes that good cause exists, written documentation must be submitted to the DEM demonstrating that good cause existed. This documentation shall be in the form of a cover letter to the permittee's Discharge Monitoring Reports.

³ The use of a continuous TRC recorder after chlorination and prior to dechlorination is required to provide a record that proper disinfection was achieved at all times. Compliance with these limitations shall be determined by taking six (6) grab samples per day with a minimum of three (3) hours between grabs. The maximum daily and average monthly values are to be computed from the averaged grab sample results for each day. The following methods may be used to analyze the grab samples: (1) Low Level Amperometric Titration, Standard Methods (18th Edition) No. 4500-Cl E; (2) DPD Spectrophotometric, EPA No. 330.5 or Standard Methods (18th Edition) No. 4500-Cl G. The limit at which compliance/noncompliance determinations will be based is the Quantitation Limit which is defined as 50 ug/l for TRC. These values may be reduced by permit modification as more sensitive methods are approved by EPA and the State.

*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 Fecal Coliform, 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.

- 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 list 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 Industrial User Compliance status. The summary shall identify the IUs determined to be in non-compliance, and if applicable, the type of enforcement actions taken and penalty amounts 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 an affidavit of publication, from the newspaper, averring that the names of these violators has been published;
- e. A summary list 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 users sampled by the POTW (include sampling dates for each industrial user);
- f. A summary list of permit issuance/reissuance activities including the name of the industrial user, expiration date of previous permit and issuance date of new permit;
- g. A summary list for each report/notification type required by 40 CFR 403.12 that was not received as required during the reporting year. All other records of notifications received in accordance with 40 CFR 403.12 shall be maintained in each Industrial User's file.
- 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;

ATTACHMENT 4

PART I

Permit No. RI0100072
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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

4. During the period beginning effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number(s) 001A (Secondary Treatment Discharge).

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

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>					<u>Monitoring Requirement</u>	
	<u>Quantity</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> *(Minimum)	<u>Average Weekly</u> *(Average)	<u>Maximum Daily</u> *(Maximum)		
Copper, Total ¹			29.8 ug/l		86.1 ug/l	2/Week	24-Hr. Comp.
Mercury, Total ¹			0.2 ug/l		1.7 ug/l	2/Week	24-Hr. Comp.
Nickel, Total ¹			53.3 ug/l		67 ug/l	2/Week	24-Hr. Comp.
Silver, Total ¹			--- ug/l		4.5 ug/l	2/Week	24-Hr. Comp.
Zinc, Total ¹			76.0 ug/l		88.0 ug/l	2/Week	24-Hr. Comp.
Cyanide ¹			20.0 ug/l		69.3 ug/l	2/Week	24-Hr. Comp. ²

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

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

² Compliance with these limitations shall be determined by taking three grab samples per eight-hour shift with a minimum of two (2) hours between grabs, and preserved immediately upon collection. All samples shall be composited, then analyzed for available Cyanide.

Samples taken in compliance with the monitoring requirements specified above shall be performed Monday through Friday at the following locations: Outfall 001A.

ATTACHMENT 5

PART I

Permit No. RI0100315
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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

4. During the period beginning effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number(s) 001A (Secondary Treatment Discharge).

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

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>					<u>Monitoring Requirement</u>	
	Quantity		Concentration - specify units			<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u> *(<u>Minimum</u>)	<u>Average Weekly</u> *(<u>Average</u>)	<u>Maximum Daily</u> *(<u>Maximum</u>)		
Copper, Total ¹			35.9 ug/l		86.2 ug/l	2/Week	24-Hr. Comp.
Cyanide ¹			20.0 ug/l		49.6 ug/l	2/Week	24-Hr. Comp. ²

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

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

² Compliance with these limitations shall be determined by taking three grab samples per eight-hour shift with a minimum of two (2) hours between grabs, and preserved immediately upon collection. All samples shall be composited, then analyzed for available Cyanide.

Samples taken in compliance with the monitoring requirements specified above shall be performed Monday through Friday at the following locations: Outfall 001A.