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 May 1, 2004.

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 26th day of April, 2004.

[Signature]

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

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:

<table>
<thead>
<tr>
<th>Effluent Characteristic</th>
<th>Quantity - lbs./day</th>
<th>Discharge Limitations</th>
<th>Monitoring Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average Monthly</td>
<td>Maximum Daily</td>
<td>Average Monthly</td>
</tr>
<tr>
<td>Flow (To Plant Headworks)</td>
<td>--- MGD</td>
<td>--- MGD¹</td>
<td></td>
</tr>
<tr>
<td>Flow (To Secondary Treatment)</td>
<td>65 MGD</td>
<td>77 MGD</td>
<td>32,109</td>
</tr>
<tr>
<td>BOD₅</td>
<td>16,263</td>
<td>32,109</td>
<td>30 mg/l</td>
</tr>
<tr>
<td>BOD₅-% Removal</td>
<td>85%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSS</td>
<td>16,263</td>
<td>32,109</td>
<td>30 mg/l</td>
</tr>
<tr>
<td>TSS-% Removal</td>
<td>85%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Settleable Solids²</td>
<td>--- ml/l</td>
<td>--- ml/l</td>
<td></td>
</tr>
</tbody>
</table>

--- 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 WWTP'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.
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:

<table>
<thead>
<tr>
<th>Effluent Characteristic</th>
<th>Discharge Limitations</th>
<th>Monitoring Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quantity - lbs/day</td>
<td>Concentration - specify units</td>
</tr>
<tr>
<td></td>
<td>Average Monthly</td>
<td>Average Monthly *(Minimum)</td>
</tr>
<tr>
<td></td>
<td>Maximum Daily</td>
<td>*(Average)</td>
</tr>
<tr>
<td>Fecal Coliform</td>
<td>200 MPN(^1)</td>
<td>400 MPN(^1)</td>
</tr>
<tr>
<td></td>
<td>100 ml</td>
<td>100 ml</td>
</tr>
<tr>
<td>Total Residual Chlorine (TRC)</td>
<td>65.0 µg/l(^3)</td>
<td>65.0 µg/l(^3)</td>
</tr>
<tr>
<td>pH</td>
<td>(6.0 SU)</td>
<td>(9.0 SU)</td>
</tr>
</tbody>
</table>

\(^1\) The 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 or 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.
**ATTACHMENT C**

**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:

<table>
<thead>
<tr>
<th>Effluent Characteristic</th>
<th>Discharge Limitations</th>
<th>Monitoring Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average Monthly</td>
<td><em>Minimum</em></td>
</tr>
<tr>
<td></td>
<td>Maximum Monthly</td>
<td><em>Average</em></td>
</tr>
<tr>
<td></td>
<td>Daily</td>
<td><em>Maximum</em></td>
</tr>
<tr>
<td><strong>Flow</strong></td>
<td>--- MGD</td>
<td>123 MGD</td>
</tr>
<tr>
<td><strong>BOD&lt;sub&gt;5&lt;/sub&gt;</strong></td>
<td>--- mg/l</td>
<td>--- mg/l</td>
</tr>
<tr>
<td><strong>BOD&lt;sub&gt;5&lt;/sub&gt;-% Removal</strong></td>
<td>35%&lt;sup&gt;1&lt;/sup&gt;</td>
<td>--- mg/l</td>
</tr>
<tr>
<td><strong>TSS</strong></td>
<td>--- mg/l</td>
<td>--- mg/l</td>
</tr>
<tr>
<td><strong>TSS-% Removal</strong></td>
<td>50%&lt;sup&gt;1&lt;/sup&gt;</td>
<td>--- mg/l</td>
</tr>
<tr>
<td><strong>Fecal Coliform</strong></td>
<td>--- MPN</td>
<td>--- MPN</td>
</tr>
<tr>
<td><strong>Total Residual Chlorine (TRC)</strong></td>
<td>100 ug/l</td>
<td>100 ug/l</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>(6.0 SU)</td>
<td>(9.0 SU)</td>
</tr>
</tbody>
</table>

*Compliance 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.

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

The Rhode Island Department of Environmental Management proposes to issuance a modification to the Narragansett Bay Commission's (NBC's) RIPDES Permit to discharge into the designated receiving waters. The facility is engaged in the treatment of domestic and industrial sewage. The discharge is from the Field's Point Wastewater Treatment Facility's outfall.

II. Limitations and Conditions

The effluent limitations, monitoring requirements, and any implementation schedule (if required) may be found in the permit.

III. Permit Basis and Explanation of Effluent Limitation Derivation

The NBC owns and operates the Field's Point Wastewater Treatment Facility (WWTF) located on Ernest Street, Providence, Rhode Island and several associated Combined Sewer Overflows (CSOs). The discharge from the WWTF to the Providence River consists of treated sanitary, commercial, and industrial wastewater. Treatment consists of Screening, Grit Removal, Pre-aeration, Primary Settling, Activated Sludge, Secondary Settling, Chlorination, and Dechlorination.

The requirements set forth in this permit are from the State's Water Quality Regulations and the State's Regulations for the Rhode Island Pollutant Discharge Elimination System (RIPDES Regulations), both filed pursuant to Chapter 46-12, as amended. DEM's primary authority over the permit comes from EPA's delegation of the program in September 1984 under the Federal Clean Water Act (CWA).
Based on an evaluation of comments that were made by the NBC during an appeal of the final permit for the WWTF, the DEM has determined that it would be appropriate to modify the NBC's permit. The modification concerns changes to the sampling and pretreatment reporting requirements. The changes consist of eliminating the need to account for hydraulic detention time for influent BOD and TSS sampling, decreasing the minimum fecal coliform sampling frequency from 3/day to 2/day, clarification of the sampling requirements for outfall 002 (the treated wet weather overflow), and clarification of the pretreatment program's reporting requirements.

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

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
Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908
Telephone: (401) 222-4700, Extension: 7715

Date: 3-15-04

Eric A. Beck, P.E.
Supervising Engineer
RIPDES Permitting Section
Office of Water Resources
Department of Environmental Management