RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
235 Promenade Street, Providence, RI 02908-5767 TDD 401-222-4462

August 5, 2009

CERTIFIED MAIL

Mr. Alan Blazer
Facilities Manager
Greenwich Mills, LLC
PO Box 1954
East Greenwich, RI 02818

RE: Final RIPDES Permit for Greenwich Mills, LLC, 42 Ladd St., Warwick, RI
RIPDES No. RI0023639

Dear Mr. Blazer:

Enclosed is your final Rhode Island Pollutant Discharge Elimination System (RIPDES) Permit issued pursuant to the referenced application. 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 in the permit.

Also enclosed is information relative to hearing requests and stays of RIPDES Permits.

We appreciate your cooperation throughout the development of this permit. Should you have any questions concerning this permit, feel free to contact Samuel Kaplan of the State Permits Staff at (401) 222-4700, extension 7046.

Sincerely,

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

EAB:sk

Enclosures

cc: David Turin, EPA
Steve Gautie, ATC Lincoln Associates

ecc: Annie McFarland, RIDEM-OWR
Joseph Haberek, RIDEM-OWR

RESPONSE TO COMMENTS

NO SIGNIFICANT COMMENTS WERE RECEIVED ON THE DRAFT PERMIT FOR THIS FACILITY; THEREFORE, NO RESPONSE WAS PREPARED.

HEARING REQUESTS

If you wish to contest any of the provisions of this permit, you may 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 State Regulations.

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, 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.

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,

Greenwich Mills, LLC
P.O. Box 1954
East Greenwich, RI 02818

is authorized to discharge from a facility located at

42 Ladd Street
Warwick, RI 02818

to receiving waters named

Greenwich Cove

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

This permit shall become effective on October 1, 2009.

This permit supersedes the permit issued on March 17, 2004.

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

This permit consists of 9 pages in Part I including effluent limitations, monitoring requirements, etc. and 10 pages in Part II including General Conditions.

Signed this 5th day of August, 2009.

for

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

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) 100 (effluent from elevator sump groundwater treatment system).

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

Effluent Characteristic	Discharge Limitations					Monitoring Requirement	
	Quantity - lbs./day		Concentration - specify units				
	Average Monthly	Maximum Daily	Average Monthly *(Minimum)	Average Weekly *(Average)	Maximum Daily *(Maximum)	Measurement Frequency	Sample Type
Flow	--- gpm	6048 gal/day				Continuous	Recorder
Tetrachloroethylene			--- ug/l		5 ug/l	1/Quarter[1]	Grab
cis-1,2 –Dichloroethene			--- ug/l		5 ug/l	1/Quarter[1]	Grab
pH			(6.5 S.U.)		(8.5 S.U.)	1/Quarter	Grab

() Values in parentheses represent the minimum and maximum values.

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

[1] Midpoint and effluent samples shall be taken at a frequency of once per quarter. Influent samples should be taken annually and analyzed using EPA methods 624 and 625.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Internal Outfall 100 (elevator shaft sump groundwater treatment system midpoint and effluent sample locations).

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) 100 (effluent from elevator sump groundwater treatment system).

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

Effluent Characteristic	Discharge Limitations					Monitoring Requirement	
	Quantity - lbs./day		Concentration - specify units				
	Average Monthly	Maximum Daily	Average Monthly *(Minimum)	Average Weekly *(Average)	Maximum Daily *(Maximum)	Measurement Frequency	Sample Type
Ethylbenzene			--- ug/l		5 ug/l	1/Quarter[1]	Grab
Naphthalene			--- ug/l		5 ug/l	1/Quarter[1]	Grab
n-Propylbenzene			--- ug/l		5 ug/l	1/Quarter[1]	Grab
Toluene			--- ug/l		5 ug/l	1/Quarter[1]	Grab
1,2,4-Trimethylbenzene			--- ug/l		5 ug/l	1/Quarter[1]	Grab
Xylenes			--- ug/l		5 ug/l	1/Quarter[1]	Grab

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

[1] Midpoint and effluent samples shall be taken at a frequency of once per quarter. Influent samples should be taken annually and analyzed using EPA methods 624 and 625.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Internal Outfall 100 (elevator shaft sump groundwater treatment system midpoint and effluent sample locations).

3. a. The pH of the effluent shall not be less than 6.5 nor greater than 8.5 standard units at any time, unless these values are exceeded due to natural causes or as a result of the approved treatment processes.

   b. The discharge shall not cause visible discoloration of the receiving waters.

   c. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.

4. 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.

5. The permittee shall conduct a primary carbon bed change out within 48 hours of detecting breakthrough of pollutants greater than the limits in Parts I.A.1 and I.A.2 at the midfluent sample point (between GAC units) of the elevator shaft sump groundwater treatment system (outfall 100) or at a minimum frequency of once every 12 months.

6. Midpoint (between GAC units) and effluent samples (after GAC units) shall be taken at a frequency of once per quarter and analyzed for the pollutants listed in Part I.A.1 and I.A.2. Influent samples (before the bag filters) shall be taken at a frequency of once per year and should be analyzed using EPA methods 624 and 625. The results of the influent analysis shall be submitted to the Department of Environmental Management with the last DMR for the monitoring year. The first influent report is due January 15, 2010. All sampling and analysis shall be done in accordance with EPA Regulations, including 40 CFR, Part 136.

7. A flow log that includes a summary of total flow, operations and maintenance activities, and a description of all carbon replacement activities performed during the monitoring period must be submitted with the Discharge Monitoring Reports required under Part I.C. of the permit.

8. Discharge shall cease and the Office shall be notified immediately if any of the contaminants listed, are found in the effluent (after the GAC units) above the limits listed in Parts I.A.1 and I.A.2 of the permit. At a minimum, the notification shall include a summary of total flow, operation and maintenance activities, and any laboratory results from the last time the carbon filters were replaced to the present. Also, the notification shall include a description of the steps that have or will be taken to prevent future violations, as well as justification as to the appropriateness of such steps. Written documentation of the immediate notification required above shall be submitted to the Office within five (5) days. The discharge may recommence once steps have been taken to ensure the limits will not be exceeded again, and following approval by DEM. At a minimum, these steps shall include replacement of the first activated carbon filter.

9. This permit serves as the State's Water Quality Certificate for the discharges described herein.

B. DETECTION LIMITS

The permittee shall assure that all wastewater testing required by this permit, is performed in conformance with the method detection limits listed below. 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.

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 as less than the MDL with zeroes, provided that DEM determines that all appropriate EPA approved methods were followed. If the re-calculated 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)
1V	acrolein	10.0
2V	acrylonitrile	5.0
3V	benzene	1.0
5V	bromoform	1.0
6V	carbon tetrachloride	1.0
7V	chlorobenzene	1.0
8V	chlorodibromomethane	1.0
9V	chloroethane	1.0
10V	2-chloroethylvinyl ether	5.0
11V	chloroform	1.0
12V	dichlorobromomethane	1.0
14V	1,1-dichloroethane	1.0
15V	1,2-dichloroethane	1.0
16V	1,1-dichloroethylene	1.0
17V	1,2-dichloropropane	1.0
18V	1,3-dichloropropylene	1.0
19V	ethylbenzene	1.0
20V	methyl bromide	1.0
21V	methyl chloride	1.0
22V	methylene chloride	1.0
23V	1,1,2,2-tetrachloroethane	1.0
24V	tetrachloroethylene	1.0
25V	toluene	1.0
26V	1,2-trans-dichloroethylene	1.0
27V	1,1,1-trichloroethane	1.0
28V	1,1,2-trichloroethane	1.0
29V	trichloroethylene	1.0
31V	vinyl chloride	1.0

Acid Compounds - EPA Method 625		MDL ug/l (ppb)
1A	2-chlorophenol	1.0
2A	2,4-dichlorophenol	1.0
3A	2,4-dimethylphenol	1.0
4A	4,6-dinitro-o-cresol	1.0
5A	2,4-dinitrophenol	2.0
6A	2-nitrophenol	1.0
7A	4-nitrophenol	1.0
8A	p-chloro-m-cresol	2.0
9A	pentachlorophenol	1.0
10A	phenol	1.0
11A	2,4,6-trichlorophenol	1.0

Pesticides - EPA Method 608		MDL ug/l (ppb)
1P	aldrin	0.059
2P	alpha-BHC	0.058
3P	beta-BHC	0.043
4P	gamma-BHC	0.048
5P	delta-BHC	0.034
6P	chlordane	0.211
7P	4,4 ' -DDT	0.251
8P	4,4 ' -DDE	0.049
9P	4,4 ' -DDD	0.139
10P	dieldrin	0.082
11P	alpha-endosulfan	0.031
12P	beta-endosulfan	0.036
13P	endosulfan sulfate	0.109
14P	endrin	0.050
15P	endrin aldehyde	0.062
16P	heptachlor	0.029
17P	heptachlor epoxide	0.040

Pesticides - EPA Method 608		MDL ug/l (ppb)
18P	PCB-1242	0.289
19P	PCB-1254	0.298
20P	PCB-1221	0.723
21P	PCB-1232	0.387
22P	PCB-1248	0.283
23P	PCB-1260	0.222
24P	PCB-1016	0.494
25P	toxaphene	1.670

Base/Neutral - EPA Method 625		MDL ug/l (ppb)
1B	acenaphthene *	1.0
2B	acenaphthylene *	1.0
3B	anthracene *	1.0
4B	benzidine	4.0
5B	benzo(a)anthracene *	2.0
6B	benzo(a)pyrene *	2.0
7B	3,4-benzofluoranthene *	1.0
8B	benzo(ghi)perylene *	2.0
9B	benzo(k)fluoranthene *	2.0
10B	bis(2-chloroethoxy)methane	2.0
11B	bis(2-chloroethyl)ether	1.0
12B	bis(2-chloroisopropyl)ether	1.0
13B	bis(2-ethylhexyl)phthalate	1.0
14B	4-bromophenyl phenyl ether	1.0
15B	butylbenzyl phthalate	1.0
16B	2-chloronaphthalene	1.0
17B	4-chlorophenyl phenyl ether	1.0
18B	chrysene *	1.0
19B	dibenzo (a,h)anthracene *	2.0
20B	1,2-dichlorobenzene	1.0
21B	1,3-dichlorobenzene	1.0
22B	1,4-dichlorobenzene	1.0
23B	3,3 ' -dichlorobenzidine	2.0
24B	diethyl phthalate	1.0
25B	dimethyl phthalate	1.0
26B	di-n-butyl phthalate	1.0
27B	2,4-dinitrotoluene	2.0
28B	2,6-dinitrotoluene	2.0
29B	di-n-octyl phthalate	1.0
30B	1,2-diphenylhydrazine (as azobenzene)	1.0
31B	fluoranthene *	1.0
32B	fluorene *	1.0
33B	hexachlorobenzene	1.0
34B	hexachlorobutadiene	1.0
35B	hexachlorocyclopentadiene	2.0
36B	hexachloroethane	1.0
37B	indeno(1,2,3-cd)pyrene *	2.0
38B	isophorone	1.0
39B	naphthalene *	1.0
40B	nitrobenzene	1.0
41B	N-nitrosodimethylamine	1.0
42B	N-nitrosodi-n-propylamine	1.0
43B	N-nitrosodiphenylamine	1.0
44B	phenanthrene *	1.0
45B	pyrene *	1.0
46B	1,2,4-trichlorobenzene	1.0

OTHER TOXIC POLLUTANTS

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

* Polynuclear Aromatic Hydrocarbons
** No Rhode Island Department of Environmental Management (RIDEM) 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 these metals analyses 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 method of 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).

C. 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 quarter shall be summarized and reported on Discharge Monitoring Report (DMR) Forms, postmarked no later than the 15th day of the month following the completed quarter as follows:

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

The first report is due on the 15th of the month following the calendar quarter in which the permit becomes effective.

A signed copy of these, and all other reports required herein, shall be submitted to:

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.

RI0023639

NAME AND ADDRESS OF APPLICANT:

Greenwich Mills, LLC
P.O. Box 1954
East Greenwich, RI 02818

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

42 Ladd Street
Warwick, RI 02818

RECEIVING WATER:

Greenwich Cove

CLASSIFICATION:

SB1

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

The above named applicant has applied to the Rhode Island Department of Environmental Management (DEM) for reissuance of an individual RIPDES Permit to discharge into the designated receiving water. The applicant's discharge consists of effluent from a groundwater treatment system associated with contaminated groundwater infiltrating into an elevator shaft sump. The primary components of this treatment system include a submersible pump, a bag filter, and two (2) 200-pound granular activated carbon (GAC) vessels in series. The discharge is to an existing catch basin located at 42 Ladd Street, which discharges to Greenwich Cove. The applicant formerly discharged boiler blowdown and boiler condensate, however, these discharges have been redirected to the Warwick Sewer Authority sewer system.

II. Permit and Administrative Compliance Order Limitations and Conditions

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

III. Permit Basis and Explanation of Effluent Limitation Derivation

ATC Lincoln Associates submitted a RIPDES permit reapplication on February 12, 2009, on behalf of Greenwich Mills, LLC, for the discharge of groundwater that collects in an elevator shaft sump at 42 Ladd Street, Warwick, Rhode Island. The RIPDES permit reapplication indicated that pollutants were present in the elevator shaft.

Table 1 lists the pollutants detected and their corresponding concentrations:

Contaminant	max. influent conc., ug/L
cis-1,2-Dichloroethene	5
Tetrachloroethylene	6
Ethylbenzene	1.5
Naphthalene	17
n-Propylbenzene	2.4
Toluene	4.6
1,2,4-Trimethylbenene	17
Xylenes	7.0

Additionally cis-1,2-Dichloroethene is known to be present based on influent testing performed in conjunction with the 2004 permit.

A previous permittee installed an activated carbon treatment system for the elevator sump discharge in conjunction with the permit issued on March 17, 2004. The system includes a submersible pump, a bag filter and two 200 pound carbon vessels arranged in series prior to discharge into Greenwich Cove (see Figure 1A - treatment system layout and Figure 1B - the site location map for details).

RIDEM sent the facility an application deficiency letter dated March 16, 2009 in which RIPDES required the facility to provide RIDEM with updated carbon calculations which demonstrated that the treatment system at the site is capable of treating the contaminants listed on the permit application. In correspondence dated April 14, 2009, ATC Lincoln Associates submitted carbon calculations which stated that at the maximum influent contaminant levels listed in the permit application (see Table 1) and at the maximum observed treatment system flow rate of 2.81 gallons per minute, the treatment system has a breakthrough time of approximately 460 days. Based on the information presented in the permit application, a maximum flow rate limit of 6048 gallons per day was established using a flow rate of 4.2 gallons per minute (which is approximately 150% of 2.81 gallons per minute) and a 24 hour per day discharge, which corresponds to a breakthrough time of 307 days. In addition, based on the data presented in the application and as part of the annual influent monitoring, permit limits have been assigned for all of the pollutants in Table 1.

Development of Rhode Island Pollutant Discharge Elimination System (RIPDES) permit limitations is a multi-step process consisting of the following steps: calculating allowable water quality-based discharge levels based on in-stream criteria, background data and available dilution; identifying applicable technology-based limits; assigning appropriate Best Professional Judgement (BPJ) limits; and setting the most stringent limits as the final limits. The following paragraphs outline the basis for each of the permit limitations.

DEM is required to consider technology and water quality requirements when developing permit effluent limits. Technology based treatment requirements represent the minimum level of control that must be imposed under Section 402 and 301(b) of the Clean Water Act (CWA) (see 40 CFR 125 Subpart A) to meet Best Practicable Control Technology Currently Available (BPT), Best Conventional Control Technology (BCT) for conventional pollutants, and Best Available Technology Economically Achievable (BAT) for toxic pollutants. In the absence of technology based guidelines, DEM is authorized to use Best Professional Judgement (BPJ) to establish effluent limitations, in accordance with Section 402(a)(1) of the CWA. Since the Environmental Protection Agency has not promulgated technology-based standards for this discharge, DEM developed BPJ limits.

The selected granular activated carbon technology is proven to be able to remove VOCs and CVOCs to a concentration below the Method Detection Limit (MDL). However, experience with systems of mixed contaminants has shown that intermittent slugs of more easily retained

contaminants may enter the system and displace less easily adsorbed contaminants like CVOCs. Also, laboratory and field contamination or instrument noise could cause false positives at the method detection limit (MDL). As a result, this analysis based on BPJ indicated that a limit of five (5) times the MDL's for Tetrachloroethylene, cis-1,2-Dichloroethene, N-Propylbenzene, 1,2,4-Trimethylbenzene, total Xylene, ethylbenzene, naphthalene, and toluene would be appropriate, and would help to prevent unnecessary non-compliance due to field and/or laboratory contamination.

Sampling requirements were eliminated for MTBE, Total Petroleum Hyrocarbons (TPH's), and Benzo(a)anthracene because there is no reasonable potential for contamination because these contaminants were not detected at levels above MDL's in conjunction with influent sampling under the permit or in annual scans.

The pH limits for outfall 100, which was the pH limit for outfall 001 in the 2004 permit, are equivalent to the Water Quality Criteria from the Rhode Island Water Quality Regulations Table 2.8.D.(3). Class-Specific Criteria–Sea Waters, Class SB1 adopted in accordance with Chapter 42-35 pursuant to Chapters 46-12 and 42-17.1 of the Rhode Island General Laws of 1956, as amended.

The waste stream of the former internal outfall 002, which consisted of boiler blowdown and condensate discharges from the 2004 permit, has been eliminated because that waste stream has been redirected to the Warwick Sewer Authority sanitary sewer system. The Warwick Sewer Authority has authorized the discharge.

The requirements set forth in this permit are from the State's Water Quality Regulations and the State's Regulations for the Rhode Island Pollutant Discharge Elimination System, both filed pursuant to RIGL Chapter 46-12, as amended. DEM's primary authority over the permit comes from EPA's delegation of the program in September 1984 under the Federal Clean Water Act.

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

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

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:

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

6/12/2007
Date

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

Appendix A: Historical Discharge Levels

Oufall 100A: These values are of quarterly data from 12/31/05 to 12/31/08. Units: ug/L except gallons per minute for flow and mg/L for Petrol hydrocarbons, total recoverable.

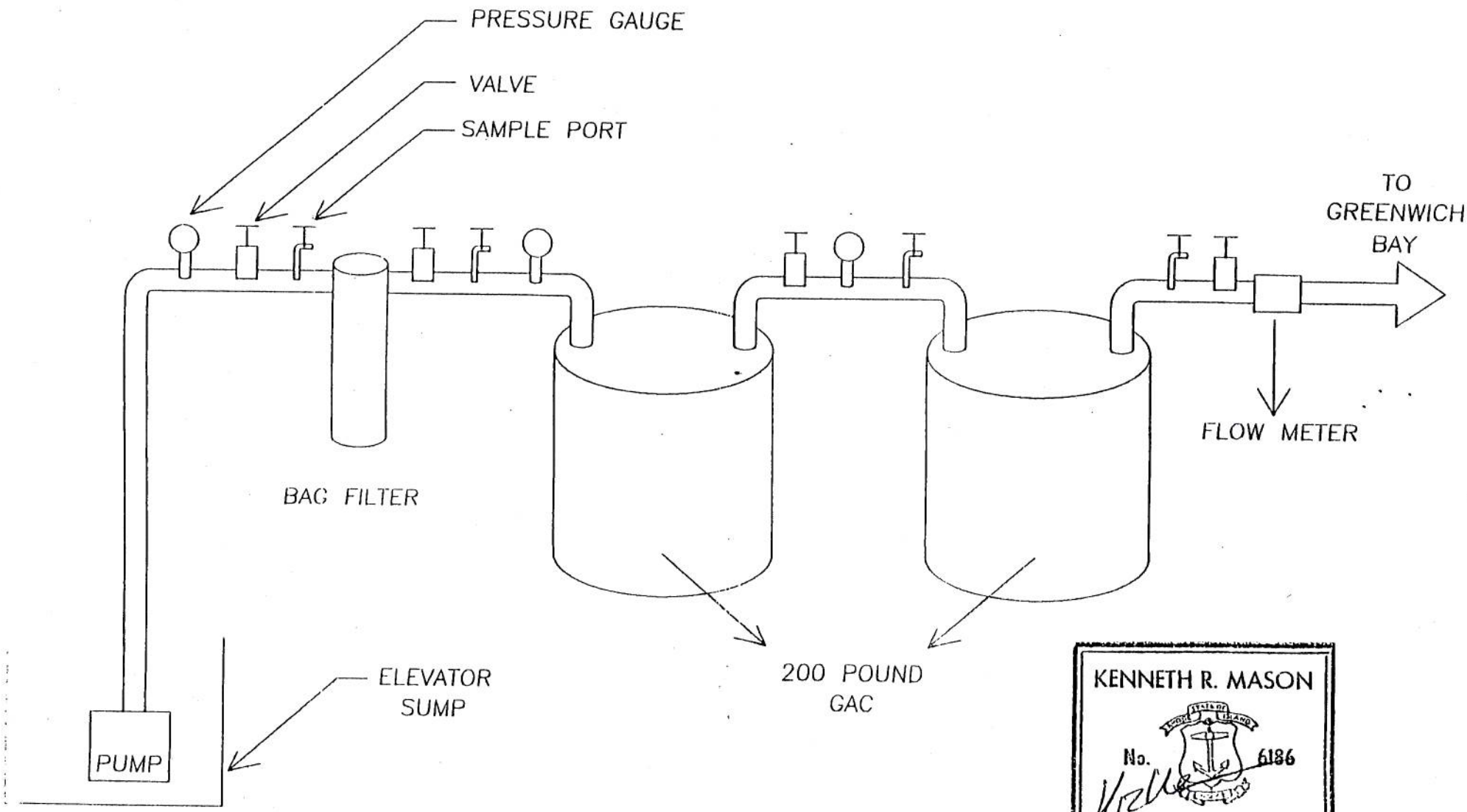
	Average*	Maximum**
Benzo(a)anthracene	<1.05	<1.05
cis-1,2-Dichloroethylene	<2	<2
Flow	2.91	2.91
Methyl tert-butyl ether	<1.8	<1.8
Petrol hydrocarbons, total recoverable	<0.16	<0.17
Tetrachloroethylene	<1.7	<1.7

*average of quarterly average values
**average of quarterly maximum values

Outfall 001A: These values are of quarterly data from 12/31/05 to 12/31/08. Units S.U.

	Minimum	Maximum
pH	6.5	8.5

Figure 1A: Treatment System Layout



KENNETH R. MASON
No. 6186
REGISTERED PROFESSIONAL ENGINEER

NOT TO SCALE

FIGURE 2A

ELEVATOR SUMP DISCHARGE TREATMENT SYSTEM

DATE: 10/18/03
JOB NO. 01652
DWG: 01652C
WK

Lincoln Environmental, Inc.
Smithfield, Rhode Island (401)232-3353

42 LADD STREET
WARWICK, RI

Figure 1B: Site Location Map

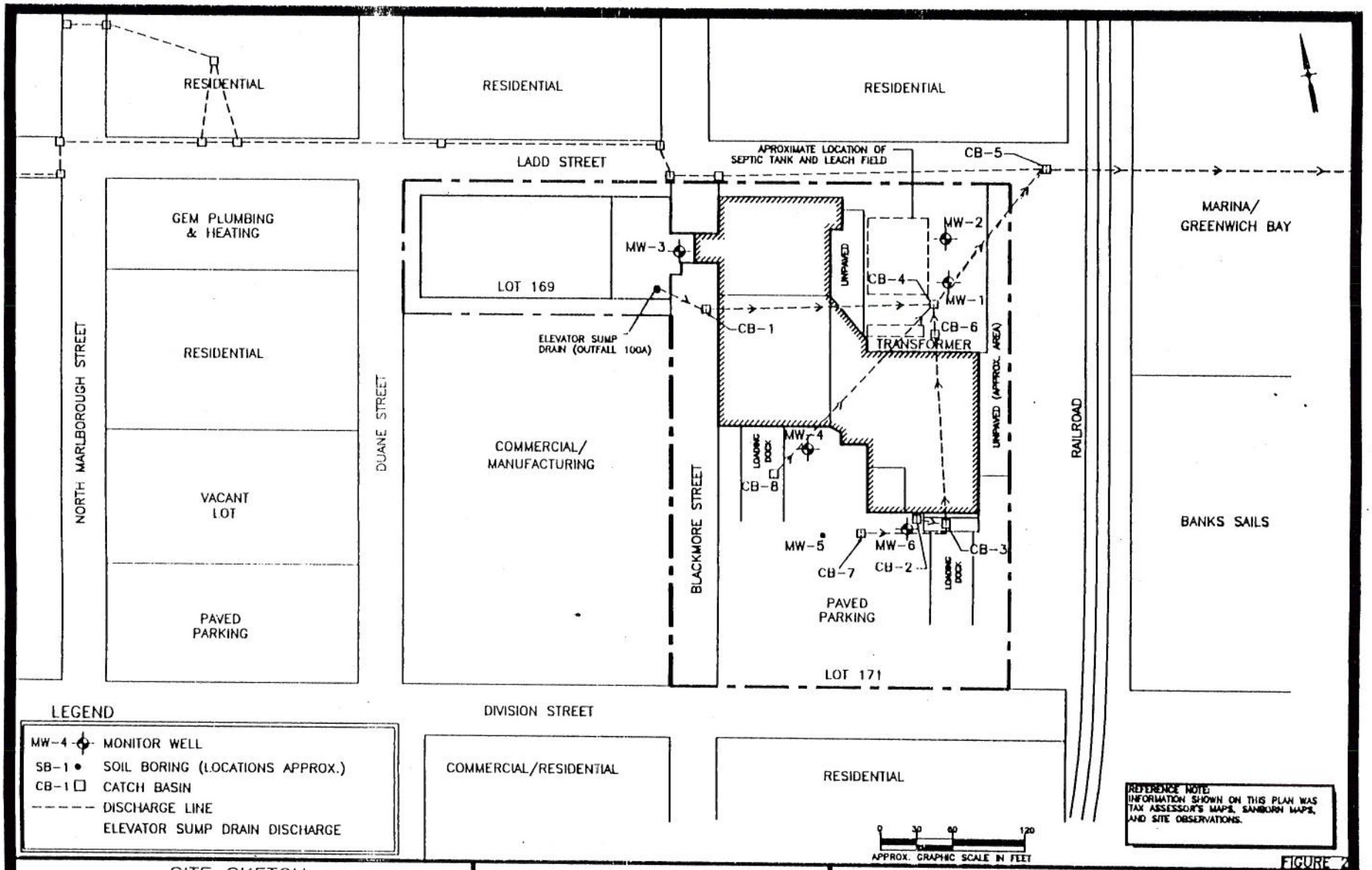


FIGURE 2

SITE SKETCH

ATC JOB NO. 301.36062.0001
DRAWN: 11/2/02
REV: 2/11/09

DWG: SITEPLAN
BY: TM
BY: JAM

ATC Lincoln ASSOCIATES

42 LADD STREET
WARWICK, RI