Response Environmental, Inc.

DC
MA6 9/10/05

September 23, 2005

US EPA
RGP-NOC Processing
Municipal Assistance Unit [CMU]
1 Congress Street, Suite 1100
Boston, MA 02114-2023

OCT - 5 2005

RE: NOI for Existing NPDES Permit Exclusion MA-05I-006
Brookwood School
1 Brookwood Road
Manchester, MA

Attached please find a completed Notice of Intent [NOI] form and applicable attachments for coverage of the discharge from an NPDES Permit Exclusion to the RGP. The NOI is for a currently operating groundwater treatment system in response to the need to dewater an interceptor trench required to prevent discharge of oil on the groundwater to Chubb Brook. The oil is the result of a December 31, 2004 release of virgin #2 fuel oil from a return line from the school heating system which migrated to groundwater. This groundwater extraction is necessary to stop ongoing dissolved constituents and sheen from entering Chubb Brook, located 50 feet from the release area. Chubb Brook enters a salt water marsh area and ultimately the Atlantic Ocean. During initial response to the incident, petroleum had migrated to the marsh and US Coast Guard, Fisheries Service as well as MA-DEP have been involved in the response process. The work is being conducted under MADEP Immediate Response Action protocol.

The system has been in operation since February 8, 2005 and is expected to operate into December 2005. Monthly system reports with influent/discharge analytical reports have been submitted to EPA as required. These reports contain numerous influent and discharge analysis events. Per the design specifications to date, all effluent has been non-detectable for petroleum constituents.

If you have any questions please contact me at (508) 795-0110 ext. 202.

Sincerely,

Glenn S. Goral, LSP

Cc: Mr. Paul Giddings
MA DEP NERO BWSC
One Winter Street
Boston, MA 02108
Ref RTN: 3-24524

Town of Manchester
Conservation Commission
Town Hall, 2nd Floor
10 Central Street
Manchester-by-the-Sea, MA 01944
Attn: Lisa Press

Mr. Thomas Murphy
Brookwood School
1 Brookwood Road
Manchester-by-the Sea, MA 01944

Town of Beverly
Conservation Commission
City Hall
191 Cabot Street
Beverly, MA 01915
Attn: Amy Maxner

REI Project File

B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General site information. Please provide the following information about the site:

a) Name of **facility/site**: BROOKWOOD SCHOOL		**Facility/site** address:		
Location of **facility/site**: longitude:_____ latitude:_____	Facility SIC code(s):	Street: 1 BROOKWOOD ROAD		
b) Name of **facility/site owner:** BROOKWOOD SCHOOL		Town: MANCHESTER		
Email address of owner: TMURPHY@		State: MA	Zip: 01944	County: ESSEX
Telephone no.of facility/site **owner**: 978-526-4500				
Fax no. of facility/site **owner**:		**Owner** is (check one): 1. Federal____ 2. State/Tribal_____ 3. Private X 4. other, if so, describe:		
Address of **owner** (if different from site):				
Street: SAME				
Town:	State:	Zip:	County:	
c) Legal name of **operator**: RESPONSE ENVIRONMENTAL, INC	**Operator** telephone no: 508-795-0110			
	Operator fax no.: 508-795-0910	**Operator** email: GGORAL@SPILLMANAGER.COM		
Operator contact name and title: GLENN GORAL				
Address of **operator** (if different from owner):	Street: 563 MAIN STREET SUITE 211			
Town: WORCESTER	State: MA	Zip: 01608	County: WORCESTER	

d) Check "yes" or "no" for the following:
1. Has a prior NPDES permit exclusion been granted for the discharge? Yes X No___, if "yes," number: MA-05I-006
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes___ No X, if "yes," date and tracking #:
3. Is the discharge a "new discharge"as defined by 40 CFR 122.2? Yes___ No X
4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes X No___

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes X No___ If "yes," please list: 1. site identification # assigned by the state of NH or MA: 3-24524 2. permit or license # assigned: 3. state agency contact information: name, location, and telephone number: DEP NERO BWSC PAUL GIDDINGS	f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y___ N X, if Y, number: 2. phase I or II construction storm water general permit? Y___ N X, if Y, number: 3. individual NPDES permit? Y___ N X, if Y, number: 4. any other water quality related permit? Y___ N X, if Y, number:

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage:
TREATMENT OF GROUNDWATER FROM VIRGIN #2 FUEL OIL RELEASE. TREATMENT FROM HOLDING TANK THROUGH CONTACTOR AND 4 2000 LB LGAC UNITS.

b) Provide the following information about each discharge:	1) Number of discharge points: 1	2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft3/s)? Max. flow <0.01 Average flow <.001 Is maximum flow a **design value**? Y___ N X For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. SYSTEM DESIGN MAX IS 10 GPM

3) Latitude and longitude of each discharge within 100 feet: pt.1:long._____ lat._____; pt.2: long._____ lat._____; pt.3: long._____ lat._____; pt.4:long._____ lat._____; pt.5: long._____ lat._____; pt.6:long._____ lat._____; pt.7: long._____ lat._____; pt.8:long._____ lat._____; etc.

4) If hydrostatic testing, total volume of the discharge (gals): NA	5) Is the discharge intermittent X or seasonal_____? Is discharge ongoing Yes X No_____?

c) Expected dates of discharge (mm/dd/yy): start 1/15/05 end 1/1/06

d) Please attach a line drawing or flow schematic showing water flow through the facility including:
1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).

Pt 1: W70° 47, 874'
N 42° 34. 325'

3. Contaminant information. In order to complete this section, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for **all** of the parameters listed in Appendix III. Historical data, (i.e., data taken no more than 2 years prior to the effective date of the permit) may be used if obtained pursuant to: i. Massachusetts' regulations 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E"); ii. New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; or iii. an EPA permit exclusion letter issued pursuant to 40 CFR 122.3, provided the data was analyzed with test methods that meet the requirements of this permit. Otherwise, a new sample shall be taken and analyzed.

a) Based on the analysis of the sample(s) of the untreated influent, the applicant must check the box of the sub-categories that the potential discharge falls within.

~~Gasoline Only~~	VOC Only	Primarily Metals	Urban Fill Sites	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
Fuel Oils (and Other Oils) only ✓	VOC with Other Contaminants	Petroleum with Other Contaminants	Listed Contaminated Sites	Contaminated Dredge Condensates	Hydrostatic Testing of Pipelines/Tanks	Well Development or Rehabilitation

b) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

PARAMETER	**Believe Absent**	**Believe Present**	**# of Samples (1 min-imum)**	**Type of Sample (e.g., grab)**	**Analytical Method Used (method #)**	**Minimum Level (ML) of Test Method**	**Maximum daily value**		**Avg. daily value**	
							concentration (ug/l)	**mass (kg)**	**concentration (ug/l)**	**mass (kg)**
1. Total Suspended Solids		X	10	GRAB	SM2540D	5	20		<5	
2. Total Residual Chlorine	X									
3. Total Petroleum Hydrocarbons		X	10	GRAB	8100	0.2	<0.2		<0.2	
4. Cyanide	X									
5. Benzene	X									
6. Toluene	X									
7. Ethylbenzene	X									
8. (m,p,o) Xylenes	X									
9. Total BTEX[4]	X									

[4]BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide [5] (1,2- Dibromo-methane)	X									
11. Methyl-tert-Butyl Ether (MtBE)	X									
12. tert-Butyl Alcohol (TBA)	X									
13. tert-Amyl Methyl Ether (TAME)	X									
14. Naphthalene		X	10	GRAB	8270	6.0	<6.0		<6.0	
15. Carbon Tetra-chloride	X									
16. 1,4 Dichlorobenzene	X									
17. 1,2 Dichlorobenzene	X									
18. 1,3 Dichlorobenzene	X									
19. 1,1 Dichloroethane	X									
20. 1,2 Dichloroethane	X									
21. 1,1 Dichloroethylene	X									
22. cis-1,2 Dichloro-ethylene	X									
23. Dichloromethane (Methylene Chloride)	X									
24. Tetrachloroethylene	X									

[5] EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	X									
26. 1,1,2 Trichloroethane	X									
27. Trichloroethylene	X									
28. Vinyl Chloride	X									
29. Acetone	X									
30. 1,4 Dioxane	X									
31. Total Phenols	X									
32. Pentachlorophenol	X									
33. Total Phthalates [6] (Phthalate esthers)	X									
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	X									
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		X	10	GRAB	8270	<6.0	<6.0		<6.0	
a. Benzo(a) Anthracene										
b. Benzo(a) Pyrene										
c. Benzo(b)Fluoranthene										
d. Benzo(k) Fluoranthene										
e. Chrysene										

[6] The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene										
g. Indeno(1,2,3-cd) Pyrene										
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		X	10	GRAB	8270	<6.0	<6.0		<6.0	
h. Acenaphthene										
i. Acenaphthylene										
j. Anthracene										
k. Benzo(ghi) Perylene										
l. Fluoranthene										
m. Fluorene										
n. Naphthalene-										
o. Phenanthrene										
p. Pyrene										
37. Total Polychlorinated Biphenyls (PCBs)	X									
38. Antimony	X									
39. Arsenic	X									
40. Cadmium	X									
41. Chromium III	X									
42. Chromium VI	X									

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper	X									
44. Lead	X									
45. Mercury	X									
46. Nickel	X									
47. Selenium	X									
48. Silver	X									
49. Zinc	X									
50. Iron	X									
Other (describe):	X									

c) For discharges where **metals** are believed present, please fill out the following: NA

Step 1: Do any of the metals in the influent have a **reasonable potential** to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y____ N____	If yes, which metals?
Step 2: For any metals which have **reasonable potential** to exceed the **Appendix III** limits, calculate the **dilution factor (DF)** using the formula in Part I.A.3.c) (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metals:_____ DF: _____	Look up the limit calculated at the corresponding dilution factor in **Appendix IV.** Do any of the metals in the **influent** have the potential to exceed the corresponding **effluent** limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y____ N____ If "Yes," list which metals:

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:						
b) Identify each applicable treatment unit (check all that apply):	Frac. tank	Air stripper	Oil/water separator	Equalization tanks	Bag filter	GAC filter
	Chlorination	Dechlorination	Other (please describe):			
c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate**(s) (gallons per minute) of the treatment system: Average flow rate of discharge <1 Maximum flow rate of treatment system 20 Design flow rate of treatment system 10						
d) A description of chemical additives being used or planned to be used (attach MSDS sheets):						

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	Direct____	Within facility__	Storm drain____	River/brook X	Wetlands____	Other (describe):
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters: UNNAMED BROOK DISCHARGING TO CHUBB BROOK						
c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water: 1. For multiple discharges, number the discharges sequentially. 2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.						
d) Provide the state water quality classification of the receiving water SB						
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water_____cfs Please attach any calculation sheets used to support stream flow and dilution calculations.						
f) Is the receiving water a listed 303(d) water quality impaired or limited water? Yes____ No X If yes, for which pollutant(s)? Is there a TMDL? Yes____ No X If yes, for which pollutant(s)?						

6. Results of Consultation with Federal Services: Please provide the following information according to requirements of Part I.B.4 and Appendices II and VII.

a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes____ No X
Has any consultation with the federal services been completed ? X YES No___ or is consultation underway? Yes___ No____
What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (~~check~~ one):
a "no jeopardy" opinion? X or written concurrence____ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?

b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge?
Yes_____ No X Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes_____ No_____

PHYSICAL INSPECTION BY FISHERIES DURING INITIAL SPILL RESPONSE

7. Supplemental information. :

Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility/Site Name: BROOKWOOD SCHOOL

Operator signature: GS Gay

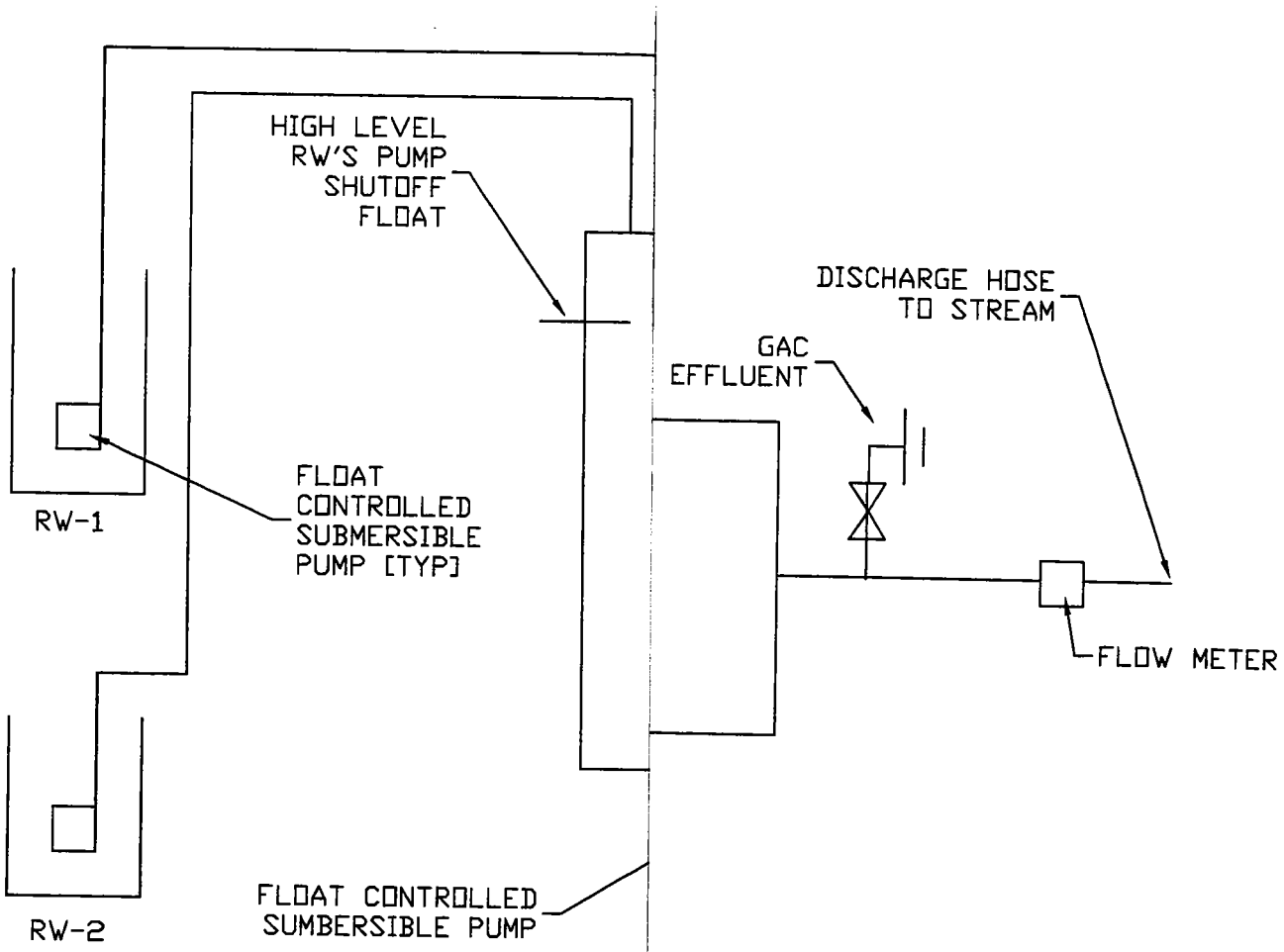
Title: President, LSP

Date: 9/27/05

SUMMARY OF REPORTS AND ANALYTICAL FILED WITH US-EPA
MA-05I-006

- February 2005 Operation Report dated March 11, 2005
- March 2005 Operation Report dated March 28, 2005
- April 2005 Operation Report dated April 25, 2005
- May 2005 Operation Report dated June 8, 2005
- June 2005 Operation Report dated July 8, 2005
- July 2005 Operation Report dated August 9, 2005
- August 2005 Operation Report dated September 20, 2005

350 ft Scale: 1 : 12,300 Detail: 13-0 Datum: NAD27



NSE ENVIRONMENTAL, INC.

ROOKWOOD SCHOOL
BROOKWOOD ROAD
MANCHESTER, MA
RTN 3-24524

PROCESS DIAGRAM LAYOUT

JANUARY 2005

SCALE: NTS