

January 26, 2006

Project 011069

U.S. Environmental Protection Agency
RGP-NOC Processing
Municipal Assistance Unit (CMU)
1 Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

RE: Remediation General Permit Notice of Intent
Former Millbury Substation No. 1
33 Providence Road
Millbury, Massachusetts
MA DEP Release Tracking Nos. 2-14166 and 2-14312

To Whom It May Concern:

On behalf of New England Power Company (NEP), a National Grid Company, Ransom Environmental Consultants, Inc. (Ransom) has prepared this letter for U.S. Environmental Protection Agency (U.S. EPA) submitting a Notice of Intent (NOI) as an application for coverage under the Remediation General Permit for the former Millbury Substation No.1, the "Site". The NOI permit application is provided as Attachment A. A Site Location Map and a Site Plan are included as Figures 1 and 2.

The Millbury Substation No.1 has been permanently removed from service and will be restored to a vegetated area bordering the Blackstone River. During the course of the substation closure activities, concentrations of petroleum hydrocarbons, polychlorinated biphenyls (PCBs), lead, and arsenic were detected in soils, and petroleum hydrocarbons and arsenic were detected in ground water at the Site. The Site is identified by the Massachusetts Department of Environmental Protection (MA DEP) as Release Tracking Nos. 2-14166 and 2-14312. As part of remediation efforts, which included the excavation of PCB-impacted soil, approximately 20,000 gallons of ground water was recovered. The recovered ground water is currently being stored on site in a fractionation tank awaiting on-site treatment. As shown on the NOI application, laboratory analysis of the recovered ground water indicated the presence of PCBs, cadmium, lead, nickel, zinc and iron at concentrations greater than the laboratory reporting limit. A copy of the laboratory analytical data is provided as Attachment B.

It is anticipated that ground water will be treated on-site using granulated activated carbon. Once treated the ground water will be temporarily stored in a clean fractionation tank, sampled for laboratory analysis and subsequently discharged to the Blackstone River which abuts the site. The proposed discharge location is shown on Figure 2. A schematic of the proposed treatment train is provided as Figure 3. The system is portable and will be operated on site by Clean Harbors, Inc. of Braintree, Massachusetts, with oversight by Ransom. As shown on Figure 3, the system primarily consists of bag filters and granulated activated carbon. Ransom has estimated that while metals, including lead, cadmium and zinc are present in the influent water, no pretreatment of the metals is required. Supporting calculations are provided as Attachment C.

■ **Brown's Wharf, Newburyport, Massachusetts 01950, Tel (978) 465-1822, Fax (978) 465-2986**
200 High Street, Portland, Maine 04101, Tel (207) 772-2891
195 Commerce Way, Suite D, Portsmouth, New Hampshire 03801, Tel (603) 436-1490
2127 Hamilton Avenue, Hamilton, New Jersey 08619, Tel (609) 584-0090
1445 Wampanoag Trail, Suite 108A, East Providence, Rhode Island 02915, Tel (401) 433-2160

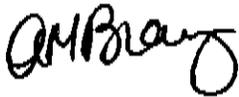
U.S. Environmental Protection Agency
RGP-NOC Processing

As indicated on the NOI application, the intended receiving water is the Blackstone River. The Blackstone is considered an "impaired river"; however a review of the U.S. EPA Section 303(d) List for the Blackstone River indicates that no Total Maximum Daily Load (TMDL) information has been reported by the state of Massachusetts. A Massachusetts Geographic Information System (Mass GIS) map is provided as Figure 4. As shown on the Mass GIS map, the Site is located in a high yielded aquifer, however it is not an area of critical environmental concern, nor has it been identified as a habitat for rare wildlife in wetland areas. There are no endangered species listed for Worcester County which encompasses the Site. Copies of supporting documentation are provided as Attachment D.

If you have any questions regarding this NOI or supporting documents, please do not hesitate to call us at 978-465-1822.

Sincerely,

RANSOM ENVIRONMENTAL CONSULTANTS, INC.



Timothy J. Snay
Licensed Site Professional

AMB/TJS
Attachments

cc: Michael Lotti, National Grid
William King, Clean Harbors
Mr. Raymond Houle, Millbury Town Manager

ATTACHMENT A

Notice of Intent Permit Application

**Remediation General Permit Notice of Intent,
Former Millbury Substation No. 1
33 Providence Road
Millbury, Massachusetts
MA DEP Release Tracking Nos. 2-14166 and 2-14312**

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: Former Millbury Substation No. 1		Facility/site address: 33 Providence Street Millbury, MA		
Location of facility/site: longitude: <u>71° 44' 50"</u> latitude: <u>42° 11' 23"</u>	Facility SIC code(s): 491199	Street: 25 Research Drive		
b) Name of facility/site owner: National Grid		Town: Westborough		
Email address of owner: Michael.Lotti@us.ngrid.com		State: MA	Zip:- 01582	County: Worcester
Telephone no. of facility/site owner: (508) 389-4294		Owner is (check one): 1. Federal ___ 2. State/Tribal ___ 3. Private <input checked="" type="checkbox"/> 4. other, if so, describe:		
Fax no. of facility/site owner: (508) 389-2105				
Address of owner (if different from site):		Street:		
Town:		State:	Zip:	County:
c) Legal name of operator: National Grid		Operator telephone no: (508) 389-4294		
		Operator fax no.: (508) 389-2105	Operator email: Michael.Lotti@us.ngrid.com	
Operator contact name and title: Michael Lotti, National Grid				

Address of operator (if different from owner):		Street:	
Town:	State:	Zip:	County:
d) Check "yes" or "no" for the following: 1. Has a prior NPDES permit exclusion been granted for the discharge? Yes ___ No <input checked="" type="checkbox"/> , if "yes," number: 2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes ___ No <input checked="" type="checkbox"/> , if "yes," date and tracking #: 3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes <input checked="" type="checkbox"/> No ___ 4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes ___ No <input checked="" type="checkbox"/>			
e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes <input checked="" type="checkbox"/> No ___ If "yes," please list: <u>dewatering of soil excavation area</u> 1. site identification # assigned by the state of NH or MA: MA 2-14166, 2-14312 2. permit or license # assigned: NA 3. state agency contact information: name, location, and telephone number: MA DEP, 627 Main St., Worcester, MA 01608 (508) 792-7650		f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y ___ N <input checked="" type="checkbox"/> , if Y, number: 2. phase I or II construction storm water general permit? Y ___ N <input checked="" type="checkbox"/> , if Y, number: 3. individual NPDES permit? Y ___ N <input checked="" type="checkbox"/> , if Y, number: 4. any other water quality related permit? Y ___ N <input checked="" type="checkbox"/> , 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: Discharge of ground water to Blackstone River after treatment by a granular activated carbon (GAC) unit FRAC > GAC(1) > Holding FRAC tank (sample prior to discharge) > Blackstone River		
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, ft ³ /s)? Max. flow <u>0.11 ft³/s</u> Average flow <u>0.11 ft³/s</u> Is maximum flow a design value ? Y <input checked="" type="checkbox"/> N ___ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.
	3) Latitude and longitude of each discharge within 100 feet: pt.1: long. <u>71°44'50"</u> lat. <u>42°11'24"</u> ; 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):	5) Is the discharge intermittent <input checked="" type="checkbox"/> or seasonal _____? Is discharge ongoing Yes _____ No <input checked="" type="checkbox"/> ?
c) Expected dates of discharge (mm/dd/yy): start <u>02/03/06</u> end <u>02/03/06</u>	
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).	

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 <input checked="" type="checkbox"/>	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 minimum)	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	<input checked="" type="checkbox"/>		1	G	160.2	5.0 mg/L				
2. Total Residual Chlorine	<input checked="" type="checkbox"/>		1	G	330.1	0.05 mg/L				
3. Total Petroleum Hydrocarbons	<input checked="" type="checkbox"/>		1	G	74 1664A	4.40 mg/L				
4. Cyanide	<input checked="" type="checkbox"/>		1	G	335.2	0.005 mg/L:				
5. Benzene	<input checked="" type="checkbox"/>		1	G	5 624	1.0 ug/L				
6. Toluene	<input checked="" type="checkbox"/>		1	G	5 624	1.0 ug/L				
7. Ethylbenzene	<input checked="" type="checkbox"/>		1	G	5 624	1.0 ug/L				
8. (m,p,o) Xylenes	<input checked="" type="checkbox"/>		1	G	5 624	2.0 ug/L				
9. Total BTEX ⁴	<input checked="" type="checkbox"/>		1	G	5 624	2.0 ug/L				

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	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 (1,2- Dibromo-methane)	✓		1	G	504	0.019 ug/L				
11. Methyl-tert-Butyl Ether (MtBE)	✓		1	G	624	20 ug/L				
12. tert-Butyl Alcohol (TBA)	✓		1	G	624	100 ug/L				
13. tert-Amyl Methyl Ether (TAME)	✓		1	G	624	20 ug/L				
14. Naphthalene	✓		1	G	8270C	4.8 ug/L				
15. Carbon Tetrachloride	✓		1	G	624	1.0 ug/L				
16. 1,4 Dichlorobenzene	✓		1	G	624	5.0 ug/L				
17. 1,2 Dichlorobenzene	✓		1	G	624	5.0 ug/L				
18. 1,3 Dichlorobenzene	✓		1	G	624	5.0 ug/L				
19. 1,1 Dichloroethane	✓		1	G	624	1.0 ug/L				
20. 1,2 Dichloroethane	✓		1	G	624	1.5 ug/L				
21. 1,1 Dichloroethylene	✓		1	G	624	1.0 ug/L				
22. cis-1,2 Dichloroethylene	✓		1	G	624	1.0 ug/L				
23. Dichloromethane (Methylene Chloride)	✓		1	G	624	1.0 ug/L				
24. Tetrachloroethylene	✓		1	G	623	1.5 ug/L				

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	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	✓		1	G	5 624	2.0 ug/L				
26. 1,1,2 Trichloroethane	✓		1	G	5 624	1.5 ug/L				
27. Trichloroethylene	✓		1	G	5 624	1.0 ug/L				
28. Vinyl Chloride	✓		1	G	5 624	2.0 ug/L				
29. Acetone	✓		1	G	5 624	10 ug/L				
30. 1,4 Dioxane	✓		1	G	5 624	2000 ug/L				
31. Total Phenols	✓		1	G	4 420.1	0.03 ug/L				
32. Pentachlorophenol	✓		1	G	1 8270C	19ug/L				
33. Total Phthalates ⁵ (Phthalate esters)	✓		1	G	1 8270C	4.8 ug/L				
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✓		1	G	1 8270C	9.7 ug/L				
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	✓		1	G	1 8270C-M	0.19 ug/L				
a. Benzo(a) Anthracene	✓		1	G	1 8270C-M	0.19 ug/L				
b. Benzo(a) Pyrene	✓		1	G	1 8270C-M	0.19 ug/L				
c. Benzo(b)Fluoranthene	✓		1	G	1 8270C-M	0.19 ug/L				
d. Benzo(k) Fluoranthene	✓		1	G	1 8270C-M	0.19 ug/L				
e. Chrysene	✓		1	G	1 8270C-M	0.19 ug/L				

⁵The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	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	✓		1	G	1 8270C-M	0.19 ug/L				
g. Indeno(1,2,3-cd) Pyrene	✓		1	G	1 8270C-M	0.19 ug/L				
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	✓		1	G	1 8270C-M	0.19 ug/L				
h. Acenaphthene	✓		1	G	1 8270C-M	0.19 ug/L				
i. Acenaphthylene	✓		1	G	1 8270C-M	0.19 ug/L				
j. Anthracene	✓		1	G	1 8270C-M	0.19 ug/L				
k. Benzo(ghi) Perylene	✓		1	G	1 8270C-M	0.19 ug/L				
l. Fluoranthene	✓		1	G	1 8270C-M	0.19 ug/L				
m. Fluorene	✓		1	G	1 8270C-M	0.19 ug/L				
n. Naphthalene-	✓		1	G	1 8270C-M	0.19 ug/L				
o. Phenanthrene	✓		1	G	1 8270C-M	0.19 ug/L				
p. Pyrene	✓		1	G	1 8270C-M	0.19 ug/L				
37. Total Polychlorinated Biphenyls (PCBs)		✓	1	G	5 608	0.269 mg/L			0.419	.00003
38. Antimony	✓		1	G	3 200.9	0.002 mg/L				
39. Arsenic	✓		1	G	19 200.7	0.005 mg/L				
40. Cadmium		✓	1	G	4 213.2	0.0002 mg/L			5	.00004
41. Chromium III	✓		1	G	19 2007	0.01 mg/L				
42. Chromium VI	✓		1	G	30 3500CR	0.02 mg/L				

PARAMETER	Believe Absent	Believe Present	# of Samples (i minimum)	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	✓		1	G	19 200.7	0.005 mg/L			9	0.005
44. Lead		✓	1	G	3 200.9	0.001 mg/L				
45. Mercury	✓		1	G	4 245.2	0.0002 mg/L			15	0.009
46. Nickel		✓	1	G	19 200.7	0.01 mg/L				
47. Selenium	✓		1	G	19 200.7	0.005 mg/L				
48. Silver	✓		1	G	4 272.2	0.0002 mg/L			70	0.042
49. Zinc		✓	1	G	19 200.7	0.010 mg/L			240	0.144
50. Iron		✓	1	G	19 200.7	0.05 mg/L				
Other (describe):										

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

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?
Cadmium, Lead, Zinc

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 LA.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: Cadmium, Lead, Zinc

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:

DF: 428 (see calculations)

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:
 The influent will be pumped through a 25 micron bag filter to remove particulates and reduce the potential for fouling the carbon unit. The influent will then flow through a 50 GPM carbon treatment unit and then through a 0.5 micron bag filter to remove carbon residue. The effluent will be pumped into a FRAC tank to hold it until a sample can be analyzed. To insure contaminants were reduced to approved levels, once approved the effluent will be discharged.

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): Heater to thaw contents of FRAC tank, pumps.			

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 50 Maximum flow rate of treatment system 50 Design flow rate of treatment system 50

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):
 NONE

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 _____	Wetlands _____	Other (describe): FRAC tank and then to river.
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b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:
 After treatment, water will be temporarily containerized in a fractionization tank.
 After receipt of analytical data, water will be discharged to the Blackstone River that abuts the site.

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 _____,

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 428 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 If yes, for which pollutant(s)?
Priority organics, metals, unionized ammonia, chlorine, nutrients, organic enrichment, Low DO, pathogens, suspended solids, turbidity

Is there a TMDL? Yes No If yes, for which pollutant(s)?
* see attached documentation regarding TMDLs/impairment

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
Has any consultation with the federal services been completed? 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? 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 Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes No

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.

Laboratory analytical data is attached.

Supporting documentation including maps, diagrams, and calculations are also attached.

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:

Operator signature:

Joseph M. Kussuth

Title:

VP- Environment

Date:

01/17/06

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: Former Millbury Substation No. 1		Facility/site address: 33 Providence Street Millbury, MA		
Location of facility/site: longitude: <u>71° 44 ' 50 "</u> latitude: <u>42° 11 ' 23 "</u>	Facility SIC code(s): 491199	Street: 25 Research Drive		
b) Name of facility/site owner: National Grid		Town: Westborough		
Email address of owner: Michael.Lotti@us.ngrid.com		State: MA	Zip: 01582	County: Worcester
Telephone no. of facility/site owner: (508) 389-4294		Owner is (check one): 1. Federal ___ 2. State/Tribal ___ 3. Private <input checked="" type="checkbox"/> 4. other, if so, describe:		
Fax no. of facility/site owner: (508) 389-2105				
Address of owner (if different from site):				
Street:				
Town:		State:	Zip:	County:
c) Legal name of operator: Ransom Environmental Consultants, Inc.		Operator telephone no: (978) 465-1822		
		Operator fax no.: (978) 465-1822	Operator email: tsnay@ransomenv.com	
Operator contact name and title: Timothy J. Snay, LSP				

Address of operator (if different from owner):		Street: Brown's Wharf	
Town: Newburyport	State: MA	Zip: 01950	County: Essex
d) Check "yes" or "no" for the following: 1. Has a prior NPDES permit exclusion been granted for the discharge? Yes ___ No <input checked="" type="checkbox"/> , if "yes," number: 2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes ___ No <input checked="" type="checkbox"/> , if "yes," date and tracking #: 3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes <input checked="" type="checkbox"/> No ___ 4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes ___ No <input checked="" type="checkbox"/>			
e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes <input checked="" type="checkbox"/> No ___ If "yes," please list: dewatering of soil excavation area 1. site identification # assigned by the state of NH or MA: MA 2-14166, 2-14312 2. permit or license # assigned: NA 3. state agency contact information: name, location, and telephone number: MA DEP, 627 Main St., Worcester, MA 01608 (508) 792-7650		f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y ___ N <input checked="" type="checkbox"/> , if Y, number: 2. phase I or II construction storm water general permit? Y ___ N <input checked="" type="checkbox"/> , if Y, number: 3. individual NPDES permit? Y ___ N <input checked="" type="checkbox"/> , if Y, number: 4. any other water quality related permit? Y ___ N <input checked="" type="checkbox"/> , 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: Discharge of ground water to Blackstone River after treatment by a granular activated carbon (GAC) unit FRAC > GAC(1) > Holding FRAC tank (sample prior to discharge) > Blackstone River		
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, ft ³ /s)? Max. flow <u>0.11 ft³/s</u> Average flow <u>0.11 ft³/s</u> Is maximum flow a design value? Y <input checked="" type="checkbox"/> N ___ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.
3) Latitude and longitude of each discharge within 100 feet: pt.1: long. <u>71°44'50"</u> lat. <u>42°11'24"</u> ; 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):	5) Is the discharge intermittent <input checked="" type="checkbox"/> or seasonal _____? Is discharge ongoing Yes _____ No <input checked="" type="checkbox"/> ?
c) Expected dates of discharge (mm/dd/yy): start <u>02/03/06</u> end <u>02/03/06</u>	
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).	

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 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ng/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids	✓		1	G	160.2	5.0 mg/L				
2. Total Residual Chlorine	✓		1	G	330.1	0.05 mg/L				
3. Total Petroleum Hydrocarbons	✓		1	G	74 1664A	4.40 mg/L				
4. Cyanide	✓		1	G	335.2	0.005 mg/L:				
5. Benzene	✓		1	G	5 624	1.0 ug/L				
6. Toluene	✓		1	G	5 624	1.0 ug/L				
7. Ethylbenzene	✓		1	G	5 624	1.0 ug/L				
8. (m,p,o) Xylenes	✓		1	G	5 624	2.0 ug/L				
9. Total BTEX ⁴	✓		1	G	5 624	2.0 ug/L				

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	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 (1,2- Dibromo-methane)	✓		1	G	504	0.019 ug/L				
11. Methyl-tert-Butyl Ether (MtBE)	✓		1	G	624	20 ug/L				
12. tert-Butyl Alcohol (TBA)	✓		1	G	624	100 ug/L				
13. tert-Amyl Methyl Ether (TAME)	✓		1	G	624	20 ug/L				
14. Naphthalene	✓		1	G	8270C	4.8 ug/L				
15. Carbon Tetra-chloride	✓		1	G	624	1.0 ug/L				
16. 1,4 Dichlorobenzene	✓		1	G	624	5.0 ug/L				
17. 1,2 Dichlorobenzene	✓		1	G	624	5.0 ug/L				
18. 1,3 Dichlorobenzene	✓		1	G	624	5.0 ug/L				
19. 1,1 Dichloroethane	✓		1	G	624	1.0 ug/L				
20. 1,2 Dichloroethane	✓		1	G	624	1.5 ug/L				
21. 1,1 Dichloroethylene	✓		1	G	624	1.0 ug/L				
22. cis-1,2 Dichloroethylene	✓		1	G	624	1.0 ug/L				
23. Dichloromethane (Methylene Chloride)	✓		1	G	624	1.0 ug/L				
24. Tetrachloroethylene	✓		1	G	623	1.5 ug/L				

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	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	✓		1	G	5 624	2.0 ug/L				
26. 1,1,2 Trichloroethane	✓		1	G	5 624	1.5 ug/L				
27. Trichloroethylene	✓		1	G	5 624	1.0 ug/L				
28. Vinyl Chloride	✓		1	G	5 624	2.0 ug/L				
29. Acetone	✓		1	G	5 624	10 ug/L				
30. 1,4 Dioxane	✓		1	G	5 624	2000 ug/L				
31. Total Phenols	✓		1	G	4 420.1	0.03 ug/L				
32. Pentachlorophenol	✓		1	G	1 8270C	19ug/L				
33. Total Phthalates ⁵ (Phthalate esters)	✓		1	G	1 8270C	4.8 ug/L				
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✓		1	G	1 8270C	9.7 ug/L				
35. Total Group 1 Polycyclic Aromatic Hydrocarbons (PAH)	✓		1	G	1 8270C-M	0.19 ug/L				
a. Benzo(a) Anthracene	✓		1	G	1 8270C-M	0.19 ug/L				
b. Benzo(a) Pyrene	✓		1	G	1 8270C-M	0.19 ug/L				
c. Benzo(b)Fluoranthene	✓		1	G	1 8270C-M	0.19 ug/L				
d. Benzo(k) Fluoranthene	✓		1	G	1 8270C-M	0.19 ug/L				
e. Chrysene	✓		1	G	1 8270C-M	0.19 ug/L				

⁵The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	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	✓		1	G	1 8270C-M	0.19 ug/L				
g. Indeno(1,2,3-cd) Pyrene	✓		1	G	1 8270C-M	0.19 ug/L				
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	✓		1	G	1 8270C-M	0.19 ug/L				
h. Acenaphthene	✓		1	G	1 8270C-M	0.19 ug/L				
i. Acenaphthylene	✓		1	G	1 8270C-M	0.19 ug/L				
j. Anthracene	✓		1	G	1 8270C-M	0.19 ug/L				
k. Benzo(ghi) Perylene	✓		1	G	1 8270C-M	0.19 ug/L				
l. Fluoranthene	✓		1	G	1 8270C-M	0.19 ug/L				
m. Fluorene	✓		1	G	1 8270C-M	0.19 ug/L				
n. Naphthalene	✓		1	G	1 8270C-M	0.19 ug/L				
o. Phenanthrene	✓		1	G	1 8270C-M	0.19 ug/L				
p. Pyrene	✓		1	G	1 8270C-M	0.19 ug/L				
37. Total Polychlorinated Biphenyls (PCBs)		✓	1	G	5 608	0.269 mg/L			0.419	.00003
38. Antimony	✓		1	G	3 200.9	0.002 mg/L				
39. Arsenic	✓		1	G	19 200.7	0.005 mg/L				
40. Cadmium		✓	1	G	4 213.2	0.0002 mg/L			5	.00004
41. Chromium III	✓		1	G	19 2007	0.01 mg/L				
42. Chromium VI	✓		1	G	30 3500CR	0.02 mg/L				

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	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	✓		1	G	19 200.7	0.005 mg/L			9	0.005
44. Lead		✓	1	G	3 200.9	0.001 mg/L				
45. Mercury	✓		1	G	4 245.2	0.0002 mg/L			15	0.009
46. Nickel		✓	1	G	19 200.7	0.01 mg/L				
47. Selenium	✓		1	G	19 200.7	0.005 mg/L				
48. Silver	✓		1	G	4 272.2	0.0002 mg/L			70	0.042
49. Zinc		✓	1	G	19 200.7	0.010 mg/L			240	0.144
50. Iron		✓	1	G	19 200.7	0.05 mg/L				
Other (describe):										

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

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

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: Cadmium, Lead, Zinc

DF: 428 (see calculations)

If yes, which metals?
Cadmium, Lead, Zinc

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:

The influent will be pumped through a 25 micron bag filter to remove particulates and reduce the potential for fouling the carbon unit. The influent will then flow through a 50 GPM carbon treatment unit and then through a 0.5 micron bag filter to remove carbon residue. The effluent will be pumped into a FRAC tank to hold it until a sample can be analyzed. To insure contaminants were reduced to approved levels, once approved the effluent will be discharged.

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): Heater to thaw contents of FRAC tank, pumps.			

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 50 Maximum flow rate of treatment system 50 Design flow rate of treatment system 50

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

NONE

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 _____	Wetlands _____	Other (describe): FRAC tank and then to river.
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b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:

After treatment, water will be temporarily containerized in a fractionization tank.
 After receipt of analytical data, water will be discharged to the Blackstone River that abuts the site.

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 _____

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 428 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 If yes, for which pollutant(s)?

Priority organics, metals, unionized ammonia, chlorine, nutrients, organic enrichment, Low DO, pathogens, suspended solids, turbidity

Is there a TMDL? Yes No If yes, for which pollutant(s)?

* see attached documentation regarding TMDLs/impairment

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

Has any consultation with the federal services been completed? 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? 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

Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes No

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.

Laboratory analytical data is attached.

Supporting documentation including maps, diagrams, and calculations are also attached.

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:

Operator signature:

Title:

Date:

James J. Gray, VP
Vice President
1/17/06

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: Former Millbury Substation No. 1		Facility/site address: 33 Providence Street Millbury, MA		
Location of facility/site: longitude: <u>71° 44' 50"</u> latitude: <u>42°11' 23"</u>	Facility SIC code(s): 491199	Street: 25 Research Drive		
b) Name of facility/site owner: National Grid		Town: Westborough		
Email address of owner: Michael.Lotti@us.ngrid.com		State: MA	Zip: 01582	County: Worcester
Telephone no. of facility/site owner: (508) 389-4294		Owner is (check one): 1. Federal ___ 2. State/Tribal ___ 3. Private <input checked="" type="checkbox"/> 4. other, if so, describe:		
Fax no. of facility/site owner: (508) 389-2105				
Address of owner (if different from site):				
Street:				
Town:	State:	Zip:	County:	
c) Legal name of operator: Clean Harbors		Operator telephone no: (800) 645-8265		
		Operator fax no.:	Operator email:	
Operator contact name and title: Bill King				

Address of operator (if different from owner):		Street:	
Town:	State:	Zip:	County:
d) Check "yes" or "no" for the following: 1. Has a prior NPDES permit exclusion been granted for the discharge? Yes ___ No <input checked="" type="checkbox"/> , if "yes," number: 2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes ___ No <input checked="" type="checkbox"/> , if "yes," date and tracking #: 3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes <input checked="" type="checkbox"/> No ___ 4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes ___ No <input checked="" type="checkbox"/>			
e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes <input checked="" type="checkbox"/> No ___ If "yes," please list: <u>dewatering of soil excavation area</u> 1. site identification # assigned by the state of NH or MA: MA 2-14166, 2-14312 2. permit or license # assigned: NA 3. state agency contact information: name, location, and telephone number: MA DEP, 627 Main St., Worcester, MA 01608 (508) 792-7650		f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y ___ N <input checked="" type="checkbox"/> , if Y, number: 2. phase I or II construction storm water general permit? Y ___ N <input checked="" type="checkbox"/> , if Y, number: 3. individual NPDES permit? Y ___ N <input checked="" type="checkbox"/> , if Y, number: 4. any other water quality related permit? Y ___ N <input checked="" type="checkbox"/> , 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: Discharge of ground water to Blackstone River after treatment by a granular activated carbon (GAC) unit FRAC > GAC(1) > Holding FRAC tank (sample prior to discharge) > Blackstone River		
b) Provide the following information about each discharge:	1) Number of discharge points: <u>1</u>	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft ³ /s)? Max. flow <u>0.11 ft³/s</u> Average flow <u>0.11 ft³/s</u> Is maximum flow a design value? Y <input checked="" type="checkbox"/> N ___ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.
3) Latitude and longitude of each discharge within 100 feet: pt.1: long. <u>71°44'50"</u> lat. <u>42°11'24"</u> ; 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):	5) Is the discharge intermittent <input checked="" type="checkbox"/> or seasonal _____? Is discharge ongoing Yes _____ No <input checked="" type="checkbox"/> ?
c) Expected dates of discharge (mm/dd/yy): start <u>02/03/06</u> end <u>02/03/06</u>	
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).	

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 <input checked="" type="checkbox"/>	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 minimum)	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	<input checked="" type="checkbox"/>		1	G	160.2	5.0 mg/L				
2. Total Residual Chlorine	<input checked="" type="checkbox"/>		1	G	330.1	0.05 mg/L				
3. Total Petroleum Hydrocarbons	<input checked="" type="checkbox"/>		1	G	74 1664A	4.40 mg/L				
4. Cyanide	<input checked="" type="checkbox"/>		1	G	335.2	0.005 mg/L				
5. Benzene	<input checked="" type="checkbox"/>		1	G	5 624	1.0 ug/L				
6. Toluene	<input checked="" type="checkbox"/>		1	G	5 624	1.0 ug/L				
7. Ethylbenzene	<input checked="" type="checkbox"/>		1	G	5 624	1.0 ug/L				
8. (m,p,o) Xylenes	<input checked="" type="checkbox"/>		1	G	5 624	2.0 ug/L				
9. Total BTEX ⁴	<input checked="" type="checkbox"/>		1	G	5 624	2.0 ug/L				

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	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 (1,2- Dibromo-methane)	✓		1	G	504	0.019 ug/L				
11. Methyl-tert-Butyl Ether (MtBE)	✓		1	G	624	20 ug/L				
12. tert-Butyl Alcohol (TBA)	✓		1	G	624	100 ug/L				
13. tert-Amyl Methyl Ether (TAME)	✓		1	G	624	20 ug/L				
14. Naphthalene	✓		1	G	8270C	4.8 ug/L				
15. Carbon Tetrachloride	✓		1	G	624	1.0 ug/L				
16. 1,4 Dichlorobenzene	✓		1	G	624	5.0 ug/L				
17. 1,2 Dichlorobenzene	✓		1	G	624	5.0 ug/L				
18. 1,3 Dichlorobenzene	✓		1	G	624	5.0 ug/L				
19. 1,1 Dichloroethane	✓		1	G	624	1.0 ug/L				
20. 1,2 Dichloroethane	✓		1	G	624	1.5 ug/L				
21. 1,1 Dichloroethylene	✓		1	G	624	1.0 ug/L				
22. cis-1,2 Dichloroethylene	✓		1	G	624	1.0 ug/L				
23. Dichloromethane (Methylene Chloride)	✓		1	G	624	1.0 ug/L				
24. Tetrachloroethylene	✓		1	G	623	1.5 ug/L				

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	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	✓		1	G	5 624	2.0 ug/L				
26. 1,1,2 Trichloroethane	✓		1	G	5 624	1.5 ug/L				
27. Trichloroethylene	✓		1	G	5 624	1.0 ug/L				
28. Vinyl Chloride	✓		1	G	5 624	2.0 ug/L				
29. Acetone	✓		1	G	5 624	10 ug/L				
30. 1,4 Dioxane	✓		1	G	5 624	2000 ug/L				
31. Total Phenols	✓		1	G	4 420.1	0.03 ug/L				
32. Pentachlorophenol	✓		1	G	1 8270C	190ug/L				
33. Total Phthalates ⁵ (Phthalate esthers)	✓		1	G	1 8270C	4.8 ug/L				
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✓		1	G	1 8270C	9.7 ug/L				
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	✓		1	G	1 8270C-M	0.19 ug/L				
a. Benzo(a) Anthracene	✓		1	G	1 8270C-M	0.19 ug/L				
b. Benzo(a) Pyrene	✓		1	G	1 8270C-M	0.19 ug/L				
c. Benzo(b)Fluoranthene	✓		1	G	1 8270C-M	0.19 ug/L				
d. Benzo(k) Fluoranthene	✓		1	G	1 8270C-M	0.19 ug/L				
e. Chrysene	✓		1	G	1 8270C-M	0.19 ug/L				

⁵The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	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	✓		1	G	1 8270C-M	0.19 ug/L				
g. Indeno(1,2,3-cd) Pyrene	✓		1	G	1 8270C-M	0.19 ug/L				
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	✓		1	G	1 8270C-M	0.19 ug/L				
h. Acenaphthene	✓		1	G	1 8270C-M	0.19 ug/L				
i. Acenaphthylene	✓		1	G	1 8270C-M	0.19 ug/L				
j. Anthracene	✓		1	G	1 8270C-M	0.19 ug/L				
k. Benzo(ghi) Perylene	✓		1	G	1 8270C-M	0.19 ug/L				
l. Fluoranthene	✓		1	G	1 8270C-M	0.19 ug/L				
m. Fluorene	✓		1	G	1 8270C-M	0.19 ug/L				
n. Naphthalene-	✓		1	G	1 8270C-M	0.19 ug/L				
o. Phenanthrene	✓		1	G	1 8270C-M	0.19 ug/L				
p. Pyrene	✓		1	G	1 8270C-M	0.19 ug/L				
37. Total Polychlorinated Biphenyls (PCBs)		✓	1	G	5 608	0.269 mg/L			0.419	.00003
38. Antimony	✓		1	G	3 200.9	0.002 mg/L				
39. Arsenic	✓		1	G	19 200.7	0.005 mg/L				
40. Cadmium		✓	1	G	4 213.2	0.0002 mg/L			5	.00004
41. Chromium III	✓		1	G	19 2007	0.01 mg/L				
42. Chromium VI	✓		1	G	30 3500CR	0.02mg/L				

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	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	✓		1	G	19 200.7	0.005 mg/L			9	0.005
44. Lead		✓	1	G	3 200.9	0.001 mg/L				
45. Mercury	✓		1	G	4 245.2	0.0002 mg/L			15	0.009
46. Nickel		✓	1	G	19 200.7	0.01 mg/L				
47. Selenium	✓		1	G	19 200.7	0.005 mg/L				
48. Silver	✓		1	G	4 272.2	0.0002 mg/L			70	0.042
49. Zinc		✓	1	G	19 200.7	0.010 mg/L			240	0.144
50. Iron		✓	1	G	19 200.7	0.05 mg/L				
Other (describe):										

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

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

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: Cadmium, Lead, Zinc

DF: 428 (see calculations)

If yes, which metals?
Cadmium, Lead, Zinc

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:
 The influent will be pumped through a 25 micron bag filter to remove particulates and reduce the potential for fouling the carbon unit. The influent will then flow through a 50 GPM carbon treatment unit and then through a 0.5 micron bag filter to remove carbon residue. The effluent will be pumped into a FRAC tank to hold it until a sample can be analyzed. To insure contaminants were reduced to approved levels, once approved the effluent will be discharged.

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): Heater to thaw contents of FRAC tank, pumps.			

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 50 Maximum flow rate of treatment system 50 Design flow rate of treatment system 50

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

NONE

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____	Wetlands____	Other (describe): FRAC tank and then to river.
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b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:

After treatment, water will be temporarily containerized in a fractionization tank.
 After receipt of analytical data, water will be discharged to the Blackstone River that abuts the site.

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 _____.

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 428 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 If yes, for which pollutant(s)?
 Priority organics, metals, unionized ammonia, chlorine, nutrients, organic enrichment, Low DO, pathogens, suspended solids, turbidity

Is there a TMDL? Yes No If yes, for which pollutant(s)?
 * see attached documentation regarding TMDLs/impairment

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
 Has any consultation with the federal services been completed? 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? 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 Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes No

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.

Laboratory analytical data is attached.

Supporting documentation including maps, diagrams, and calculations are also attached.

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:

Operator signature:

WILLIAM KING 

Title:

FIELD SPECIALIST

Date:

1-24-06