

APPENDIX A

Notice of Intent (NOI) for Remediation General Permit (RGP)

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: Parcel 18 West Development		Facility/site address: Tremont and Ruggles Boston, MA		
Location of facility/site: longitude: <u>-71.0</u> latitude: <u>42.34</u>	Facility SIC code(s): NA	Street: Tremont and Ruggles		
b) Name of facility/site owner: Northeastern University / Nancy May		Town: Boston		
Email address of owner: n.may@neu.edu		State: MA	Zip: 02120	County: Suffolk
Telephone no. of facility/site owner: (617) 373-2623		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: (617) 373-5700				
Address of owner (if different from site): Street: 288 St. Botolph				
Town: Boston	State: MA	Zip: 02115	County: Suffolk	
c) Legal name of operator: Walsh Brothers, Inc.		Operator telephone no: (617) 878-4859		
		Operator fax no.: (617) 878-4897	Operator email: bsturgis@walshbrothers.com	
Operator contact name and title: Bill Sturgis, Project Manager				

Address of operator (if different from owner):		Street: 210 Commercial Street	
Town: Boston	State: MA	Zip: 02109	County: Suffolk
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 <input checked="" type="checkbox"/> No ___			
e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes ___ No <input checked="" type="checkbox"/> If "yes," please list: 1. site identification # assigned by the state of NH or MA: 2. permit or license # assigned: 3. state agency contact information: name, location, and telephone number:		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: Temporary construction dewatering in support of new below grade construction.		
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>0.17</u> Average flow <u>0.06</u> Is maximum flow a design value ? Y ___ N <input checked="" type="checkbox"/> 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>-71.1</u> lat. <u>42.34</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): NA	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>02/15/07</u> end <u>12/31/07</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 <input checked="" type="checkbox"/>	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 (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids		<input checked="" type="checkbox"/>	1	Grab	160.2	5000	1200			
2. Total Residual Chlorine		<input checked="" type="checkbox"/>	1	Grab	330.1	10	250			
3. Total Petroleum Hydrocarbons	<input checked="" type="checkbox"/>		1	Grab	1664	4000	ND			
4. Cyanide	<input checked="" type="checkbox"/>		1	Grab	335.2	5	ND			
5. Benzene	<input checked="" type="checkbox"/>		1	Grab	624	1	ND			
6. Toluene	<input checked="" type="checkbox"/>		1	Grab	624	1	ND			
7. Ethylbenzene	<input checked="" type="checkbox"/>		1	Grab	624	1	ND			
8. (m,p,o) Xylenes	<input checked="" type="checkbox"/>		1	Grab	624	2	ND			
9. Total BTEX ⁴	<input checked="" type="checkbox"/>		1	Grab	624		ND			

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	Grab	504.1	.02	ND			
11. Methyl-tert-Butyl Ether (MtBE)	✓		1	Grab	624	20	ND			
12. tert-Butyl Alcohol (TBA)	✓		1	Grab	624	100	ND			
13. tert-Amyl Methyl Ether (TAME)	✓		1	Grab	624	20	ND			
14. Naphthalene	✓		1	Grab	8270	5.0	ND			
15. Carbon Tetrachloride	✓		1	Grab	624	1	ND			
16. 1,4 Dichlorobenzene	✓		1	Grab	624	5	ND			
17. 1,2 Dichlorobenzene	✓		1	Grab	624	5	ND			
18. 1,3 Dichlorobenzene	✓		1	Grab	624	5	ND			
19. 1,1 Dichloroethane	✓		1	Grab	624	1	ND			
20. 1,2 Dichloroethane	✓		1	Grab	624	1.5	ND			
21. 1,1 Dichloroethylene	✓		1	Grab	624	1.5	ND			
22. cis-1,2 Dichloroethylene	✓		1	Grab	624	1	ND			
23. Dichloromethane (Methylene Chloride)	✓		1	Grab	624	5	ND			
24. Tetrachloroethylene	✓		1	Grab	624	1.5	ND			

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	Grab	624	2	ND			
26. 1,1,2 Trichloroethane	✓		1	Grab	624	1.5	ND			
27. Trichloroethylene	✓		1	Grab	624	1	ND			
28. Vinyl Chloride	✓		1	Grab	624	2	ND			
29. Acetone	✓		1	Grab	624	10	ND			
30. 1,4 Dioxane	✓		1	Grab	624	2000	ND			
31. Total Phenols	✓		1	Grab	420.1	30	ND			
32. Pentachlorophenol	✓		1	Grab	8270	10	ND			
33. Total Phthalates ⁵ (Phthalate esthers)	✓		1	Grab	8270	5.0	ND			
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✓		1	Grab	8270	5.0	ND			
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)										
a. Benzo(a) Anthracene	✓		1	Grab	8270	1.0	ND			
b. Benzo(a) Pyrene	✓		1	Grab	8270	1.0	ND			
c. Benzo(b)Fluoranthene	✓		1	Grab	8270	1.0	ND			
d. Benzo(k) Fluoranthene	✓		1	Grab	8270	1.0	ND			
e. Chrysene	✓		1	Grab	8270	1.0	ND			

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	Grab	8270	1.0	ND			
g. Indeno(1,2,3-cd) Pyrene	✓		1	Grab	8270	1.0	ND			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)										
h. Acenaphthene	✓		1	Grab	8270	1.0	ND			
i. Acenaphthylene	✓		1	Grab	8270	1.0	ND			
j. Anthracene	✓		1	Grab	8270	1.0	ND			
k. Benzo(ghi) Perylene	✓		1	Grab	8270	1.0	ND			
l. Fluoranthene	✓		1	Grab	8270	1.0	ND			
m. Fluorene	✓		1	Grab	8270	1.0	ND			
n. Naphthalene-	✓		1	Grab	8270	1.0	ND			
o. Phenanthrene	✓		1	Grab	8270	1.0	ND			
p. Pyrene	✓		1	Grab	8270	1.0	ND			
37. Total Polychlorinated Biphenyls (PCBs)	✓		1	Grab	3510	0.263	ND			
38. Antimony	✓		1	Grab	6020	0.5	ND			
39. Arsenic		✓	1	Grab	6020	0.5	12.1			
40. Cadmium	✓		1	Grab	6020	0.2	ND			
41. Chromium III		✓	1	Grab	6020	0.5	1.8			
42. Chromium VI	✓		1	Grab	3500	10	ND			

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	Grab	6020	5	0.8			
44. Lead	✓		1	Grab	6020	0.5	ND			
45. Mercury	✓		1	Grab	245.2	0.2	ND			
46. Nickel		✓	1	Grab	6020	0.5	1.2			
47. Selenium		✓	1	Grab	6020	1	3			
48. Silver	✓		1	Grab	6020	0.4	ND			
49. Zinc	✓		1	Grab	6020	5	ND			
50. Iron		✓	1	Grab	200.7	50	7900			
Other (describe):										

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

<p><i>Step 1:</i> 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 <input checked="" type="checkbox"/> N <input type="checkbox"/></p>	<p>If yes, which metals? Iron, Arsenic</p>
<p><i>Step 2:</i> 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: <u>Iron</u></p> <p>DF: <u>6.1</u></p>	<p>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 <input checked="" type="checkbox"/> N <input type="checkbox"/> If "Yes," list which metals: Iron</p>

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:

System influent --- Franc tank --- Bag filter GAC filter (as needed)---Ion exchange (as needed)---Precipitation System (as needed) --- Effluent

b) Identify each applicable treatment unit (check all that apply):	Frac. tank <input checked="" type="checkbox"/>	Air stripper	Oil/water separator	Equalization tanks	Bag filter <input checked="" type="checkbox"/>	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 0.25 Maximum flow rate of treatment system 0.75 Design flow rate of treatment system 100

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

Please see attached Flocc Log fact sheets and MSDS for ion exchange system for possible chemical additives or treatments.

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 <input checked="" type="checkbox"/>	River/brook _____	Wetlands _____	Other (describe):
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b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:

The dewatering effluent will discharge from the storm drain into the Stony Brook, which discharges into the Charles River.

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 discharges, 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 B,

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 12.1 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, Pathogens.

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

Metals, noxious aquatic plants, nutrients, oil and grease, organic enrichment, pathogens, priority organics. Documented as Category 5 Waters "Waters requiring a TMDL."

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? 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.

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:	PARCEL 18 WEST DEVELOPMENT
Operator signature:	Daniel Bourque
Title:	VICE PRESIDENT - FACILITIES
Date:	1/18/07

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:	Northeastern University Parcel 18 west: Corner of Ruggles Ave & Tremont Street, BOSTON MA.
Operator signature:	
Title:	Senior Project manager
Date:	1/23/07

Parcel 18 West Development
Northeastern University
Boston, MA
Remediation General Permit (RGP) Under the National Pollutant Discharge Elimination System (NPDES)

The 7Q10 (the minimum flow (cfs) for 7 consecutive days with a recurrence interval of 10 years) for the portion of the Stony Brook where discharge is anticipated under the NPDES RGP permit submitted for the Parcel 18 Development, Northeastern University, Boston, MA has been calculated using the average of the 7Q10 recorded at the Charles River Basin, as documented by "Hydrology and Water Resources of the Charles River Drainage Basin, Massachusetts," by E.H. Walker, S.W. Wandle, Jr., and W.W. Caswell, Hydrologic Investigations Atlas HA-554 (Sheet 1 of 3) and published by The Department of the Interior, United States Geological Survey.

The drainage area of the Charles River Basin is documented in the above referenced government publication as 184 square miles. The Stony Brook drainage basin is 8,393 acres (13.1 square miles) as documented by "Water Resources and the Urban Environment, Lower Charles River Watershed, Massachusetts," by Peter K. Weiskel, Lora K. Barlow, and Tomas W. Smieszek and in published by The Department of the Interior, United States Geological Survey.

7Q10 = Inferred from the Low-Flow Frequency graph of the Charles River Basin at River Village = 7.8 MGD or 12.1 cubic feet per second

Calculated 7Q10 for Stony Brook to Charles River Watershed

7Q10 = Area Stony Brook Basin/Area of Charles River Basin * 12.1 cubic feet per second
13.1 square miles/184 square miles*12.1 cubic feet per second =
0.86 cubic feet per second

Qd = 75 gpm = 0.167 cfs

DF = (Qd + Qs)/Qd

Where:

DF	= Dilution Factor
Qd	= Maximum flow rate of the discharge in cubic feet per second (cfs)
Qs	= Receiving water 7Q10 (cfs) where,
7Q10	= The minimum flow (cfs) for 7 consecutive days with a recurrence interval of 10 years

DF = (0.167 + 0.86)/0.167

DF = 6.1

Therefore, with a Dilution Factor of 6.1, utilize column with Dilution Range Concentration of 5 - 10 in Appendix IV in the NPDES RGP.