

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: MIT Cancer Research Center		Facility/site address: 500 Main Street; Cambridge, MA 02142	
Location of facility/site: longitude: 32814 latitude: 46919		Facility SIC code(s): N/A	
b) Name of facility/site owner: Massachusetts Institute of Technology		Town: Cambridge	
Email address of owner:		State: MA	
Telephone no. of facility/site owner: (617) 452-2406		Zip: 02142	
Fax no. of facility/site owner: (617) 452-2406		County: Middlesex	
Address of owner (if different from site):		Owner is (check one): 1. Federal _____ 2. State/Tribal _____ 3. Private _____ 4. other, if so, describe: Higher Education Institute	
Street: 77 Massachusetts Avenue, E49-2100			
Town: Cambridge	State: MA	Zip: 02139	County: Middlesex
c) Legal name of operator: Massachusetts Institute of Technology		Operator telephone no.: (617) 452-2406	
		Operator fax no.: (617) 253-4694	Operator email:
Operator contact name and title: James May, Project Manager			

MA 691030

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 <u> </u> No <u>✓</u> , if "yes," number: 2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes <u> </u> No <u>✓</u> , if "yes," date and tracking #: 3. Is the discharge a "new discharge" as defined by 40 CFR 122.27? Yes <u> </u> No <u>✓</u> 4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes <u>✓</u> No <u> </u>			
e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes <u> </u> No <u>✓</u> 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 <u> </u> N <u>✓</u> , if Y, number: 2. phase I or II construction storm water general permit? Y <u> </u> N <u>✓</u> , if Y, number: 3. individual NPDES permit? Y <u> </u> N <u>✓</u> , if Y, number: 4. any other water quality related permit? Y <u> </u> N <u>✓</u> , 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. Effluent will be treated prior to discharge (see text)	
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>0.08</u> Average flow <u>0.05</u> Is maximum flow a design value? Y <u> </u> N <u>✓</u> 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>32814</u> lat <u>46919</u> ; pt.2: long <u> </u> lat <u> </u> ; pt.3: long <u> </u> lat <u> </u> ; pt.4:long <u> </u> lat <u> </u> ; pt.5: long <u> </u> lat <u> </u> ; pt.6:long <u> </u> lat <u> </u> ; pt.7: long <u> </u> lat <u> </u> ; pt.8:long <u> </u> lat <u> </u> ; etc.	

4) If hydrostatic testing, total volume of the discharge (gals):	5) Is the discharge intermittent _____ or seasonal _____? Is discharge ongoing Yes _____ No _____?
c) Expected dates of discharge (mm/dd/yy): start 04/01/08 end 04/01/09	
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 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		✓	3	Grab	160.2		3.1E3	67.9	17500	38.2
2. Total Residual Chlorine	✓		3	Grab	330.1		ND			
3. Total Petroleum Hydrocarbons	✓		3	grab	MADEP		ND			
4. Cyanide		✓	3	grab	9014		11	0.0024	6.3	0.0014
5. Benzene	✓		3	grab	624,		ND			
6. Toluene	✓		3	grab	624,		ND			
7. Ethylbenzene	✓		3	grab	624,		ND			
8. (m,p,o) Xylenes	✓		3	grab	624,		ND			
9. Total BTEX ⁴	✓		3	grab	624,		ND			

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

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							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide (1,2- Dibromo-methane)	✓		3				ND			
11. Methyl-tert-Butyl Ether (MTBE)	✓		3	grab	624		ND			
12. tert-Butyl Alcohol (TBA)	✓		3		624		ND			
13. tert-Amyl Methyl Ether (TAME)	✓		3	grab	8260		ND			
14. Naphthalene	✓		3	grab	625,		ND			
15. Carbon Tetra-chloride	✓		3	grab	624,		ND			
16. 1,4 Dichlorobenzene	✓		3	grab	624,		ND			
17. 1,2 Dichlorobenzene	✓		3	grab	624		ND			
18. 1,3 Dichlorobenzene	✓		3	grab	624		ND			
19. 1,1 Dichloroethane	✓		3	grab	624		ND			
20. 1,2 Dichloroethane	✓		3	grab	624,		ND			
21. 1,1 Dichloroethylene	✓		3	grab	624		ND			
22. cis-1,2 Dichloro-ethylene	✓		3	grab	624,		ND			
23. Dichloromethane (Methylene Chloride)	✓		3	grab	624,		ND			
24. Tetrachloroethylene	✓		3	grab	624,		ND			

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							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	✓		3	grab	624		ND			
26. 1,1,2 Trichloroethane	✓		3	grab	624		ND			
27. Trichloroethylene	✓		3	grab	624		ND			
28. Vinyl Chloride	✓		3	grab	624		ND			
29. Acetone	✓		3	grab	624		ND			
30. 1,4 Dioxane	✓		3	grab	624		ND			
31. Total Phenols	✓		3	grab	420.1		ND			
32. Pentachlorophenol										
33. Total Phthalates ⁵ (Phthalate esters)	✓		3	grab	8270		ND			
34. Bis (2-Ethylhexyl) Phthalate [D]- (ethylhexyl) Phthalate]	✓		3	grab	8270		ND			
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)										
a. Benzo(a) Anthracene	✓		3	grab	8270		ND			
b. Benzo(a) Pyrene	✓		>4	grab	8270		ND			
c. Benzo(b)Fluoranthene	✓		>4	grab	8270		ND			
d. Benzo(k) Fluoranthene	✓		>4	grab	8270		ND			
e. Chrysene	✓		>4	grab	8270		ND			

⁵ 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	✓		3	grab						
g. Indeno(1,2,3-cd) Pyrene	✓		3	grab	8270		ND			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)										
h. Acenaphthene		✓	3	grab	8270		4.4	0.00096	1.53	3.3E-5
i. Acenaphthylene		✓	3	grab	8270		0.22	0.00005	0.073	1.6E-05
j. Anthracene		✓	3	grab	8270		0.31	0.0007	1.03	2.2E-05
k. Benzo(ghi) Perylene	✓		3	grab	8270		ND			
l. Fluoranthene		✓	3	grab	8270		0.64	0.00014	0.213	4.6E-05
m. Fluorene		✓	3	grab	8270		0.93	0.0002	0.31	6.7E-05
n. Naphthalene-	✓		3	grab	8270		ND			
o. Phenanthrene		✓	3	grab	8270		0.26	0.00006	0.087	1.9E-5
p. Pyrene		✓		grab	8270		0.36	0.00008	0.12	2.6E-5
37. Total Polychlorinated Biphenyls (PCBs)	✓		3	grab			ND			
38. Andimony	✓		3	grab	6010		ND			
39. Arsenic		✓	3	grab	6010		9.9	0.0021	5.97	0.0013
40. Cadmium	✓		3	grab	6010		ND			
41. Chromium III	✓		3	grab	6010		ND			
42. Chromium VI		✓	3	grab	6010		21.6	0.0047	8.7	0.0018

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							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper		✓	3	grab	6010		36.9	0.008	16.7	0.0036
44. Lead		✓	3	grab	6010		57	0.012	29.6	0.0064
45. Mercury		✓	3	grab	6010		0.5	0.0001	0.16	3.4E-05
46. Nickel		✓	3	grab	6010		11	0.0024	6.4	0.0014
47. Selenium		✓	3	grab	6010		4	0.0008	2.67	5.8E-5
48. Silver	✓		3	grab	6010		ND			
49. Zinc	✓		3	grab	6010		55.5	0.012	30.5	0.0066
50. Iron	✓		3	grab	6010		15000	3.27	7233	1.57
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? Iron
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: Appendix IV listed metals	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: Iron

DF: 117

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: Sedimentation tanks and alternative treatment (GAC filter, metals resin) - see text and Figure 4.

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): See text			

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 40 _____ Maximum flow rate of treatment system 60 _____ Design flow rate of treatment system 150 _____

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): _____
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b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:
Effluent will be discharged into a storm drain beneath Ames Street and ultimately 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 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 B _____

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 15.5 _____ 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)?

Is there a TMDL? Yes _____ No ☒ 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 ☒
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 :

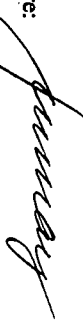
Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.
See enclosed text, figures, tables, laboratory data sheets

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: Massachusetts Institute of Technology

Operator signature:



Title: SR. PROJECT MANAGER

Date: 20 FEB 2008

PERMIT TO DEWATER



Location:	500 Main Street
Owner:	Massachusetts Institute of Technology
Contractor:	WILLIAM BERRY & SON, INC. Massachusetts Institute of Technology

☐ Permanent
☒ Temporary

The property owner, William Berry & Son, Inc., agrees to hold harmless and indemnify the City of Cambridge for any liability on the part of the City directly or indirectly arising out of the dewatering operation.

The issuance of this permit is based in part in the submission packet of the applicant with documentation as follows:

Request for Approval of Construction Dewatering under Remediation General Permit MAG910000 dated February 12, 2008 prepared by McPhail Associates, Inc. on behalf of the property owner.

In addition, the application has been reviewed by the City under third party agreement as documented in the following reports:

All activities conducted in conjunction with the issuance of this permit must be in accordance with the provisions of the aforementioned reports. Any deviations in conditions must be reported to and approved by the Commissioner of Public Works.

This permit is in addition to any other street permit issued by the Department in connection with any street excavation or obstruction; and all conditions as specified in the Discharge Permit for Dewatering. For the entire period of time the groundwater is being discharged to a storm drain, the property owner shall provide copies of each Discharge Monitoring Report Form submitted to the EPA, pursuant to the owner's discharge permit.

If in the future the EPA requires the City of Cambridge to bring existing stormwater drainage into compliance with EPA quality standards, as a condition to the continuation of discharge of that stormwater (also including groundwater) into an EPA regulated system into which the [Massachusetts Inst. of Technology] (property owner) drains, the owner will agree to maintain its water discharge with such EPA water quality standards.

The property owner and contractor shall at all times meet the conditions specified in the requisite legal agreement/affidavits.

All groundwater pumped from the work shall be disposed of without damage to pavements, other surfaces or property.

Where material or debris has washed or flowed into or has been placed in existing gutters, drains, pipes or structures, such material or debris shall be entirely removed and satisfactorily disposed of by the

Contractor during the progress of work as directed by the Public Works Department.

Any flooding or damage of property and possessions caused by siltation of existing gutters, pipes or structures shall be the responsibility of the Contractor.

Provisions shall be made to insure that no material, water or solid, will freeze on any pavement or in any location which will cause inconvenience or hazard to the general public.

Upon completion of the work, existing gutters, drains, pipes and structures shall be (bucket) cleaned and material disposed of satisfactorily prior to release by the Public Works Department.

Any permit issued by the City of Cambridge shall be revoked upon transfer of any ownership interest unless and until subsequent owner(s) or parties of interest agree to the foregoing terms.

This permit shall remain in effect for one year and shall be renewable thereafter at the agreement of the parties.

The following special conditions as set forth below are part of the permit.

City Manager Date City Solicitor Date Commissioner of Public Date Contractor Date Contractor Date	Property Manager: Corporate Entity President, General Partner or Trustee Trustee with Instrument of Authority Date Contractor Date Contractor Date
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CC: Engineering
 Supervisor of Sewer Maintenance and Engineering
 Superintendent of Streets
 Commissioner of Inspectional Services