

MA 6910301

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 : IRVIN RESIDENCE		Facility/site address: 66 EAST FOSTER STREET	
Location of facility/site : longitude: <u>71:03</u> latitude: <u>42:27</u>	Facility SIC code(s): NA	Street: 66 EAST FOSTER STREET	
b) Name of facility/site owner : PAMELA IRVIN		Town: MELROSE	
Email address of owner: pamelalee5@aol.com	State: MA	Zip: 02176	County: MIDDLESEX
Telephone no. of facility/site owner : (617) 921-8663			
Fax no. of facility/site owner :		Owner is (check one): 1. Federal ☐ 2. State/Tribal ☐ 3. Private ☒ 4. other, if so, describe:	
Address of owner (if different from site):			
Street:			
Town:	State:	Zip:	County:
c) Legal name of operator : HERMENAU & HERMENAU CONSULTING ENGINEERS	Operator telephone no: (508) 823-7239		
	Operator fax no.: (508) 823-7329	Operator email: whermenau@msn.com	
Operator contact name and title: WALTER B. HERMENAU, P.E., L.S.P.			

Address of operator (if different from owner):		Street: P.O. BOX 909	
Town: ASSONET	State: MA	Zip: 02779	County: BRISTOL
d) Check "yes" or "no" for the following: 1. Has a prior NPDES permit exclusion been granted for the discharge? Yes ___ No ☒ , if "yes," number: 2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes ___ No ☒ , if "yes," date and tracking #: 3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes ☒ No ___ 4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes ☒ No ___			
e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes ☒ No ___ If "yes," please list: 1. site identification # assigned by the state of NH or MA: RTN 3-26414 2. permit or license # assigned: NA 3. state agency contact information: name, location, and telephone number: ANDREW CLARK, NERO, 978-694-3213		f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y ___ N ☒ , if Y, number: 2. phase I or II construction storm water general permit? Y ___ N ☒ , if Y, number: 3. individual NPDES permit? Y ___ N ☒ , if Y, number: 4. any other water quality related permit? Y ___ N ☒ , 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: EMERGENCY REMEDIATION OF A RELEASE OF #2 FUEL OIL. GROUNDWATER WILL BE RECOVERED FROM BENEATH THE HOUSE VIA A SHALLOW RECOVERY WELL AND TREATED ON-SITE WITH ACTIVATED CARBON PRIOR TO DISCHARGE TO STORMWATER CATCH BASIN IN EAST FOSTER STREET.		
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>0.02</u> Average flow <u>0.01</u> Is maximum flow a design value ? Y ☒ N ___ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. AVERAGE FLOW OF 0.01114 CFS (5 GALLONS PER MINUTE) IS AN ESTIMATE.
3) Latitude and longitude of each discharge within 100 feet: pt.1:long. <u>71:03</u> lat. <u>42:27</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 ☒ or seasonal _____? Is discharge ongoing Yes _____ No ☒ ?
c) Expected dates of discharge (mm/dd/yy): start 05/01/07 end 05/01/08	
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 (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids		☒	1	G		3000	5000			
2. Total Residual Chlorine	☒		1	G		200	<200			
3. Total Petroleum Hydrocarbons	☒		1	G	1664	5000	<5000			
4. Cyanide	☒		1	G	9012A	10	<10			
5. Benzene	☒		1	G	8260B	2.5	<2.5			
6. Toluene		☒	1	G	8260B	2.5	4			
7. Ethylbenzene		☒	1	G	8260B	2.5	8			
8. (m,p,o) Xylenes		☒	1	G	8260B	2.5	66			
9. Total BTEX ⁴		☒	1	G	8260B	2.5	78			

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)	✓		1	G	504.1	0.02	<0.02			
11. Methyl-tert-Butyl Ether (MtBE)		✓	1	G	8260B	2.5	61			
12. tert-Butyl Alcohol (TBA)	✓		1	G	504.1	100	<100			
13. tert-Amyl Methyl Ether (TAME)	✓		1	G	504.1	2.5	<2.5			
14. Naphthalene		✓	1	G	504.1	2.5	43			
15. Carbon Tetra-chloride	✓		1	G	504.1	2.5	<2.5			
16. 1,4 Dichlorobenzene	✓		1	G	504.1	2.5	<2.5			
17. 1,2 Dichlorobenzene	✓		1	G	504.1	2.5	<2.5			
18. 1,3 Dichlorobenzene	✓		1	G	504.1	2.5	<2.5			
19. 1,1 Dichloroethane	✓		1	G	504.1	2.5	<2.5			
20. 1,2 Dichloroethane	✓		1	G	504.1	2.5	<2.5			
21. 1,1 Dichloroethylene	✓		1	G	504.1	2.5	<2.5			
22. cis-1,2 Dichloro-ethylene	✓		1	G	504.1	2.5	<2.5			
23. Dichloromethane (Methylene Chloride)	✓		1	G	504.1	13	<13			
24. Tetrachloroethylene	✓		1	G	504.1	2.5	<2.5			

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							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	✓		1	G	504.1	2.5	<2.5			
26. 1,1,2 Trichloroethane	✓		1	G	504.1	2.5	<2.5			
27. Trichloroethylene	✓		1	G	504.1	2.5	<2.5			
28. Vinyl Chloride	✓		1	G	504.1	2.5	<2.5			
29. Acetone	✓		1	G	504.1	50	<50			
30. 1,4 Dioxane	✓		1	G	504.1	2500	<2500			
31. Total Phenols	✓		1	G	9096	200	<200			
32. Pentachlorophenol	✓		1	G	8270C	5	<5			
33. Total Phthalates ⁵ (Phthalate esthers)	✓		1	G	8270C	5	<5			
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✓		1	G	8270C	5	<5			
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	✓		1	G	8270C	0.5	<0.5			
a. Benzo(a) Anthracene	✓		1	G	8270C	0.5	<0.5			
b. Benzo(a) Pyrene	✓		1	G	8270C	0.5	<0.5			
c. Benzo(b)Fluoranthene	✓		1	G	8270C	0.5	<0.5			
d. Benzo(k) Fluoranthene	✓		1	G	8270C	0.5	<0.5			
e. Chrysene	✓		1	G	8270C	0.5	<0.5			

⁵ The sum of individual phthalate compounds.

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							Concentration (ug/L)	mass (kg)	concentration (ug/L)	mass (kg.)
Isopropylbenzene	√		1	G	504.1	2.5	3			
n-Propylbenzene	√		1	G	504.1	2.5	5			
1,2,4-Trimethylbenzene	√		1	G	504.1	2.5	52			
1,3,5-Trimethylbenzene	√		1	G	504.1	2.5	20			
sec-Butylbenzene	√		1	G	504.1	2.5	4			
4-Isopropyltoluene	√		1	G	504.1	2.5	5			
n-Butylbenzene	√		1	G	504.1	2.5	4			

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							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene	✓		1	G	8270C	0.5	<0.5			
g. Indeno(1,2,3-cd) Pyrene	✓		1	G	8270C	0.5	<0.5			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		✓	1	G	8270C	0.5-2.5	1.2			
h. Acenaphthene		✓	1	G	8270C	1.25	1.2			
i. Acenaphthylene	✓		1	G	8270C	2.5	<2.5			
j. Anthracene	✓		1	G	8270C	2.5	<2.5			
k. Benzo(ghi) Perylene	✓		1	G	8270C	0.5	<0.5			
l. Fluoranthene	✓		1	G	8270C	2.5	<2.5			
m. Fluorene		✓	1	G	8270C	1.25	1.2			
n. Naphthalene-		✓	1	G	8270C	1.25	1.2			
o. Phenanthrene	✓		1	G	8270C	2.5	<2.5			
p. Pyrene	✓		1	G	8270C	2.5	<2.5			
37. Total Polychlorinated Biphenyls (PCBs)	✓		1	G	608	0.2	<0.2			
38. Antimony	✓		1	G	6020A	6	<6			
39. Arsenic	✓		1	G	6020A	5	<5			
40. Cadmium	✓		1	G	6010B	4	<4			
41. Chromium III	✓		1	G	6010B	10	<10			
42. Chromium VI	✓		1	G	7196A	10	<10			

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							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper	✓		1	G	6010B	25	<25			
44. Lead	✓		1	G	6020A	5	<5			
45. Mercury	✓		1	G	7470A	0.2	<0.2			
46. Nickel	✓		1	G	6010B	40	<40			
47. Selenium	✓		1	G	6020A	5	<5			
48. Silver	✓		1	G	6010B	7	<7			
49. Zinc	✓		1	G	6010B	200	<200			
50. Iron		✓	1	G	6010B	100	1000			
Other (describe):										

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

<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___ N___ ✓	If yes, which metals?
<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: _____ DF: _____	Look up the limit calculated at the corresponding dilution factor in Appendix IV. Do any of the metals in the influent have the potential to exceed the corresponding effluent limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y___ N___ If "Yes," list which metals:

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

a) A description of the treatment system, including a schematic of the proposed or existing treatment system: RECOVERY PUMP TO 2-55 GALLON GRANULAR ACTIVATED CARBON DRUMS IN SERIES. A BAG FILTER WILL BE ADDED BEFORE THE CARBON DRUMS TO EXTEND THE CARBON AND REMOVE SUSPENDED SOLIDS.						
b) Identify each applicable treatment unit (check all that apply):	Frac. tank	Air stripper	Oil/water separator	Equalization tanks	Bag filter ✓	GAC filter ✓
	Chlorination	Dechlorination	Other (please describe):			
c) Proposed average and maximum flow rates (gallons per minute) for the discharge and the design flow rate(s) (gallons per minute) of the treatment system: Average flow rate of discharge <u>5 GPM</u> Maximum flow rate of treatment system <u>10 GPM</u> Design flow rate of treatment system <u>10 GPM</u>						
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 <u>✓</u>	River/brook____	Wetlands____	Other (describe):
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters: THE CATCH BASIN ON EAST FOSTER STREET IN FRONT OF THE SUBJECT SITE DISCHARGES TO ELL POND BROOK (COVERED) 450+/- FEET WEST, THEN TO SPOT POND AND ELL POND BROOK 1,500 +/- FEET SOUTHWEST (UNCOVERED), AND EVENTUALLY TO THE MALDEN RIVER ABOUT 2 MILES SOUTH ACCORDING TO THE CITY OF MELROSE ENGINEER AND SUPERINTENDENT OF PUBLIC WORKS, ROBERT E. BESHARA, P.E., AND A REVIEW OF AVAILABLE TOPOGRAPHIC MAPS.						

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 0.1 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)?

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.

The complete analytical report prepared by Groundwater Analytical, Inc. for sample RW ("Recovery Well") collected 3-22-07 is attached.

Default 7Q10 value of 0.1 cfs held after consultation with Paul Hogan, MADEP CERO, 508-767-2796 on 4-17-07. Drainage area for Ell Pond Brook appears to be less than 1 square mile.

See attached Figure 1 for Site Locus (USGS Topographical Map).

See attached Figure 2 for location of discharge to indirect conveyance and receiving water (City Engineering Map)

See attached Figure 3 for nearby sensitive receptors (MA DEP Priority Resource Map).

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: MULTI-FAMILY RESIDENTIAL DWELLING, 66 EAST FOSTER STREET, MELROSE, MA

Operator signature:

A handwritten signature in black ink, appearing to read "Walter B. Hennehan", written over a horizontal line.

Title: PRINCIPAL, P.E., L.S.P.

Date: 04/16/07