

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: Shell-Branded Service Station		Facility/site address:		
Location of facility/site: longitude: 71° 14' 07" latitude: 42° 17' 37"		Facility SIC code (s): 5541	Street: 875 Highland Avenue	
b) Name of facility/site owner: Motiva Enterprises LLC		Town: Needham		
Email address of owner: David.Weeks@Shell.com		State: MA	Zip: 02494	County: Norfolk
Telephone no. of facility/site owner: 845-462-5225		Owner is (check one) 1. Federal <input type="checkbox"/> 2. State/Tribal <input type="checkbox"/> 3. Private <input type="checkbox"/> 4. other, <input checked="" type="checkbox"/> if so, describe: Corporation		
Fax no. of facility/site owner: 845-462-4999				
Address of owner (if different from site):				
Street: 1830 South Road, Unit 24, PMB 301				
Town: Wappingers Falls		State: NY	Zip: 12590	County: Dutchess
c.) Legal name of operator: Motiva Enterprises LLC		Operator telephone no.: 845-462-5225		
		Operator fax no.: 845-462-4999		Operator email: David.Weeks@Shell.com
Operator contact name and title: David Weeks, Senior Environmental Engineer				
Address of operator (if different from owner):		Street: 1830 South Road, Unit 24, PMB 301		
Town: Wappingers Falls		State: NY	Zip: 12590	County: Dutchess
d) Check "yes" or "no" for the following:				
1. Has a prior NPDES permit exclusion been granted for the discharge? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> if "yes," number: Permit Exclusion #00-179				
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> if "yes," date and tracking #: Temporary NPDES Permit #MA-02I-030				
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				
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 <input type="checkbox"/>				

<p>e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>If "yes," please list:</p> <p>1. site identification # assigned by the state of NH or MA:</p> <p>2. permit or license # assigned:</p> <p>3. state agency contact information: name, location, and telephone number:</p>	<p>f) Is the site/facility covered by any other EP A permit, including:</p> <p>1. multi-sector storm water general permit? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> if Y, number:</p> <p>2. phase I or II construction storm water general permit? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> if Y, number:</p> <p>3. individual NPDES permit? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> if Y, number: MA-02I-030</p> <p>4. any other water quality related permit? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> if Y, number:</p>
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2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed) including:

<p>a) Describe the discharge activities for which the owner/applicant is seeking coverage:</p> <p style="text-align: center;">Groundwater remediation project at Shell-Branded Service Station.</p>			
<p>b) Provide the following information about each discharge:</p>	<table border="1" style="width: 100%;"> <tr> <td style="width: 20%;"> <p>1) Number of discharge points:</p> <p>One (1)</p> </td> <td> <p>2) What is the maximum and average flow rate of discharge (in cubic feet per second, W/s)? Max. flow <u>0.0004 ft³/sec</u></p> <p>Average flow <u>2.0E-5 ft³/sec</u> Is maximum flow a design value? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.</p> <p>Average flow <u>2.0E-5 ft³/sec</u> (based on historical operations)</p> </td> </tr> </table>	<p>1) Number of discharge points:</p> <p>One (1)</p>	<p>2) What is the maximum and average flow rate of discharge (in cubic feet per second, W/s)? Max. flow <u>0.0004 ft³/sec</u></p> <p>Average flow <u>2.0E-5 ft³/sec</u> Is maximum flow a design value? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.</p> <p>Average flow <u>2.0E-5 ft³/sec</u> (based on historical operations)</p>
<p>1) Number of discharge points:</p> <p>One (1)</p>	<p>2) What is the maximum and average flow rate of discharge (in cubic feet per second, W/s)? Max. flow <u>0.0004 ft³/sec</u></p> <p>Average flow <u>2.0E-5 ft³/sec</u> Is maximum flow a design value? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.</p> <p>Average flow <u>2.0E-5 ft³/sec</u> (based on historical operations)</p>		
<p>3) Latitude and longitude of each discharge within 100 feet: pt.1: long. <u>71° 14' 16"</u> lat. <u>42° 17' 16"</u>; pt.2: long. ___ lat. ___; pt.3: long. ___ lat. ___;</p> <p>pt.4: long. ___ lat. ___; pt.5: long. ___ lat. ___; pt.6: long. ___ lat. ___; pt.7: long. ___ lat. ___; pt.8: long. ___ lat. ___; etc.</p>			

<p>4) If hydrostatic testing, total volume of the discharge (gals):</p> <p style="text-align: center;">N/A</p>	<p>5) Is the discharge intermittent <input checked="" type="checkbox"/> Or seasonal <input type="checkbox"/> ?</p> <p>Is discharge ongoing Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> ,?</p>
<p>c) Expected dates of discharge (mm/dd/yy): start <u>Jan 2002 (Excl.)</u> end <u>unknown</u></p>	
<p>d) Please attach a line drawing or flow schematic showing water flow through the facility including: <u>See attached.</u></p> <p>1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).</p>	

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 <input checked="" type="checkbox"/>	VOC Only <input type="checkbox"/>	Primarily Metals <input type="checkbox"/>	Urban Fill Sites <input type="checkbox"/>	Contaminated Sumps <input type="checkbox"/>	Mixed Contaminants <input type="checkbox"/>	Aquifer Testing <input type="checkbox"/>
Fuel Oils (and <input type="checkbox"/> Other Oils) only	VOC with Other Contaminants <input type="checkbox"/>	Petroleum with Other Contaminants <input type="checkbox"/>	Listed Contaminated Sites <input type="checkbox"/>	Contaminated Dredge Condensates <input type="checkbox"/>	Hydrostatic Testing of Pipelines/Tanks <input type="checkbox"/>	Well Development or Rehabilitation <input type="checkbox"/>

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 (ug/l)	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg) (kg/day)	concentration (ug/l)	mass (kg) (kg/day)
1. Total Suspended Solids		√	1	GRAB	160.2	1000	16000	0.4367		
2. Total Residual Chlorine	√		1	GRAB	330.5	20	<20	<0.0005		
3. Total Petroleum Hydrocarbons	√		1	GRAB	1664A	2000	<2000	<0.0546		
4. Cyanide	√		1	GRAB	335.3	10	<10	<0.0003		
5. Benzene		√	1	GRAB	8260B	0.5	<0.5	<1.36E-05		
6. Toluene		√	1	GRAB	8260B	1.0	<1.0	<2.73E-05		
7. Ethylbenzene		√	1	GRAB	8260B	1.0	<1.0	<2.73E-05		
8. (m,p,o) Xylenes		√	1	GRAB	8260B	1.0	<1.0	<2.73E-05		
9. Total BTEX ⁴		√	1	GRAB	8260B	—	<1.0	<2.73E-05		

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 (ug/l)	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg) (kg/day)	concentration (ug/l)	mass (kg) (kg/day)
10. Ethylene Dibromide (1,2- Dibromo-methane)	√		1	GRAB	504.1	0.015	<0.015	<4.09E-07		
11. Methyl-tert-Butyl Ether (MtBE)		√	1	GRAB	8260B	10	1490	0.0407		
12. tert-Butyl Alcohol (TBA)		√	1	GRAB	8260B	100	750	0.0205		
13. tert-Amyl Methyl Ether (TAME)		√	1	GRAB	8260B	2.0	12.2	3.33E-04		
14. Naphthalene	√		1	GRAB	8270C SIM	0.10	<0.10	<2.73E-06		
15. Carbon Tetrachloride	√		1	GRAB	8260B	1.0	<1.0	<2.73E-05		
16. 1,4 Dichlorobenzene	√		1	GRAB	8260B	1.0	<1.0	<2.73E-05		
17. 1,2 Dichlorobenzene	√		1	GRAB	8260B	1.0	<1.0	<2.73E-05		
18. 1,3 Dichlorobenzene	√		1	GRAB	8260B	1.0	<1.0	<2.73E-05		
19. 1,1 Dichloroethane	√		1	GRAB	8260B	1.0	<1.0	<2.73E-05		
20. 1,2 Dichloroethane	√		1	GRAB	8260B	1.0	<1.0	<2.73E-05		
21. 1,1 Dichloroethylene	√		1	GRAB	8260B	1.0	<1.0	<2.73E-05		
22. cis-1,2 Dichloroethylene	√		1	GRAB	8260B	1.0	<1.0	<2.73E-05		
23. Dichloromethane (Methylene Chloride)	√		1	GRAB	8260B	2.0	<2.0	<5.46E-05		
24. Tetrachloroethylene	√		1	GRAB	8260B	1.0	<1.0	<2.73E-05		

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							concentration (ug/l)	mass (kg) (kg/day)	concentration (ug/l)	mass (kg) (kg/day)
25. 1,1,1 Trichloroethane	√		1	GRAB	8260B	1.0	<1.0	<2.73E-05		
26. 1,1,2 Trichloroethane	√		1	GRAB	8260B	1.0	<1.0	<2.73E-05		
27. Trichloroethylene	√		1	GRAB	8260B	1.0	<1.0	<2.73E-05		
28. Vinyl Chloride	√		1	GRAB	8260B	1.0	<1.0	<2.73E-05		
29. Acetone	√		1	GRAB	8260B	5.0	<5.0	<1.36E-04		
30. 1,4 Dioxane	√		1	GRAB	8260B	25	<25	<6.82E-04		
31. Total Phenols	√		1	GRAB	8270C	See lab data	See lab data (Not Detected)	-----		
32. Pentachlorophenol	√		1	GRAB	8270C SIM	1.0	<1.0	<2.73E-05		
33. Total Phthalates ⁶ (phthalate esters)	√		1	GRAB	8270C	10	<10	<2.73E-04		
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	√		1	GRAB	8270C	10	<10	<2.73E-04		
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	√		1	GRAB	8270C	See lab data	See lab data (Not Detected)	-----		
a. Benzo(a) Anthracene	√		1	GRAB	8270C	0.050	<0.050	<1.36E-06		
b. Benzo(a) Pyrene	√		1	GRAB	8270C	0.10	<0.10	<2.73E-06		
c. Benzo(b) Fluoranthene	√		1	GRAB	8270C	0.050	<0.050	<1.36E-06		
d. Benzo(k) Fluoranthene	√		1	GRAB	8270C	0.10	<0.10	<2.73E-06		
e. Chrysene	√		1	GRAB	8270C	0.10	<0.10	<2.73E-06		

⁶The sum of individual phthalate compounds.

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							concentration (ug/l)	mass (kg) (kg/day)	concentration (ug/l)	mass (kg) (kg/day)
f. Dibenzo(a,h) anthracene	√		1	GRAB	8270C	0.10	<0.10	<2.73E-06		
g. Indeno(1,2,3-cd) Pyrene	√		1	GRAB	8270C	0.10	<0.10	<2.73E-06		
36. Total Group II Polycyclic Aromatic Hydrocarbons (pAR)	√		1	GRAB	8270C	0.10	<0.10	<2.73E-06		
h. Acenaphthene	√		1	GRAB	8270C	0.10	<0.10	<2.73E-06		
i. Acenaphthylene	√		1	GRAB	8270C	0.10	<0.10	<2.73E-06		
j. Anthracene	√		1	GRAB	8270C	0.10	<0.10	<2.73E-06		
k. Benzo(ghi) Perylene	√		1	GRAB	8270C	0.10	<0.10	<2.73E-06		
l. Fluoranthene	√		1	GRAB	8270C	0.10	<0.10	<2.73E-06		
m. Fluorene	√		1	GRAB	8270C	0.10	<0.10	<2.73E-06		
n. Naphthalene	√		1	GRAB	8270C	0.10	<0.10	<2.73E-06		
o. Phenanthrene	√		1	GRAB	8270C	0.10	<0.10	<2.73E-06		
p. Pyrene	√		1	GRAB	8270C	0.10	<0.10	<2.73E-06		
37. Total Polychlorinated Biphenyls (PCBs)	√		1	GRAB	608	0.2 - 0.4	<0.2 - <0.4	<5.46E-06 - <1.09E-05		
38. Antimony	√		1	GRAB	3113B	0.5	<0.5	<1.36E-05		
39. Arsenic		√	1	GRAB	3010A-6010B	5.0	6.2	1.69E-04		
40. Cadmium		√	1	GRAB	3113B	0.5	0.6	1.664E-05		
41. Chromium III (I)		√	1	GRAB	Calculated	See lab data	7.0	1.91E-04		
42. Chromium VI	√		1	GRAB	7196A	10	<10	<2.73E-04		

NOTES: (1) Chromium III = Total Chromium - Hexavalent Chromium

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							concentration (ug/l)	mass (kg) (kg/day)	concentration (ug/l)	mass (kg) (kg/day)
43. Copper		√	1	GRAB	200.7	20	40	0.0011		
44. Lead		√	1	GRAB	3113B	2.0	10	2.73E-04		
45. Mercury	√		1	GRAB	245.1	0.20	<0.20	<5.46E-06		
46. Nickel		√	1	GRAB	200.7	5.0	7.0	1.91E-04		
47. Selenium	√		1	GRAB	3113B	5.0	<5.0	<1.36E-04		
48. Silver		√	1	GRAB	3113B	0.5	0.7	1.91E-05		
49. Zinc		√	1	GRAB	200.7	20	80	0.0022		
50. Iron		√	1	GRAB	200.7	50	11000	0.3002		
Other (describe):	---	---	---	---	---	---	---	---	---	---

NOTE: All mass loadings calculated using design flow rate of 5 GPM.

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

<p>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 <input checked="" type="checkbox"/> N <input type="checkbox"/></p>	<p>If yes, which metals? <u>Cd, Cu, Pb, Zn, Fe</u></p>
<p>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: <u>Cd, Cu, Pb, Zn, Fe</u> DF: <u>113.11</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: <u>Fe</u></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:
 The remediation system is groundwater with two holding tanks, one low profile air stripper, two bag filters, and two granular activated carbon units.

b) Identify each applicable treatment unit (check all that apply):	Frac. tank <input type="checkbox"/>	Air stripper <input checked="" type="checkbox"/>	Oil/water separator <input type="checkbox"/>	Equalization tanks <input checked="" type="checkbox"/>	Bag filter <input checked="" type="checkbox"/>	GAC filter <input checked="" type="checkbox"/>
	Chlorination <input type="checkbox"/>	Dechlorination <input type="checkbox"/>	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 0.01 GPM Maximum flow rate of treatment system 0.2 GPM Design flow rate of treatment system 5 GPM

d) A description of chemical additives being used or planned to be used (attach MSDS sheets): Not Applicable

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

a) Identify the discharge pathway:	Direct <input type="checkbox"/>	Within facility <input type="checkbox"/>	Storm drain <input checked="" type="checkbox"/>	River/brook <input type="checkbox"/>	Wetlands <input type="checkbox"/>	Other(describe): <input type="checkbox"/>
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b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:
 Discharge to municipal storm system to Rosemary Lake. Rosemary Lake discharges to Rosemary Brook then to Longfellow Pond and finally to Charles River (Class B). Charles River Basin.

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. See Figures

d) Provide the state water quality classification of the receiving water Class B (freshwater)

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 0.05 cfs
 Please attach any calculation sheets used to support stream flow and dilution calculations. See attached.

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Yes No If yes, for which pollutant(s)? State Impairment - Nutrients, organic enrichment/ low DO, pathogens, taste, odor and color, suspended solids, turbidity
 Is there a TMDL? Yes No If yes, for which pollutant(s)? There were no TMDLs reported to EPA by the state.

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? Yes No or is consultation underway? Yes No

What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (check one): Not applicable

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 cover letter.

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: Shell-Branded Service Station, 875 Highland Avenue, Needham, MA

Operator signature: 

Title: David Weeks, Senior Environmental Engineer

Date: 12/29/2009