



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

August 10, 2010

Enbridge Energy, Limited Partnership  
c/o Tom Fridel  
1500 West Main Street  
Griffith, IN 46375

**Re: U.S. EPA Notice of Disapproval of Enbridge Energy, Limited Partnership's August 2, 2010, submission in response to the Removal Administrative Order issued by U.S. EPA on July 27, 2010, pursuant to §311(c) of the Clean Water Act in Docket No. CWA 1321-5-10-001**

Dear Mr. Fridel:

The United States Environmental Protection Agency (U.S. EPA) has completed a review of the following document submitted by Enbridge Energy, Limited Partnership, (Enbridge) on August 2, 2010, pursuant to Paragraph 19 of the above-referenced Order and pursuant to U.S. EPA's request in its July 31, 2010, letter:

### Source Area Remediation Plan

U.S. EPA disapproves Enbridge's Source Area Remediation Plan (the SAR Plan) plan due to deficiencies in content and lack of sufficient technical details. Specific comments are set forth below and shall be incorporated into a revised plan pursuant to Paragraph 20 of the U.S. EPA Order. As set out below, U.S. EPA technical staff has been designated to direct Enbridge's revision of the plan. In addition, the Incident Commander (IC), Ralph Dollhopf, has directed Enbridge to work with U.S. EPA to address a lack of information in the plan.

The final plan, as amended, shall be submitted to U.S. EPA by no later than 1200 hours Eastern, on August 12, 2010. The U.S. EPA IC will then complete a final review. Any additional corrections of, or modifications to, the plan will be made by Enbridge as directed by the IC. Enbridge is directed to submit the plan in Microsoft Word format to allow for corrections or modifications to the electronic documents.

### General Comments

The U.S. EPA notes that it was unable to provide comments on certain sections and/or parts of the SAR Plan in their entirety because of significant deficiencies in those sections or parts. The U.S. EPA reserves the right to disapprove, comment, or modify, as appropriate, the SAR Plan upon its resubmission. As set out below, the final SAR Plan must be comprehensive, detailed, and must include standard operating procedures and specifics on types, sizes, and volumes of materials, equipment, supplies, and procedures to be used and implemented.

The primary objective of this SAR Plan shall be to describe, in detail, the response actions that Enbridge will perform in the short-term to remove and/or abate visible oil and/or sheen that is currently affecting navigable water ways and/or poses the threat of release of a visible oil or sheen discharge to navigable waterways. For purposes of the SAR Plan, the response area is divided into the following sections:

Source Area – the spill source area and Talmadge Creek. Specifically, this includes the spill location and all downstream areas including the Talmadge Creek and all associated affected navigable waterways and their shorelines/adjacent affected areas up to the confluence of Talmadge Creek with the Kalamazoo River

Downstream Area - downstream of the spill Source Area. Specifically, this includes Kalamazoo River located downstream of the confluence of Talmadge Creek with the Kalamazoo River and all subsequent downstream affected navigable waterways and their shorelines/adjacent affected areas.

Accordingly, in the context of the SAR plan, “remediation” shall be defined to include the interim response action of removal of visible oil and petroleum products from media affected by the spill and located downstream of the spill source area. Specifically, this includes response actions to remove and/or abate visible oil and/or sheen that is either currently affecting navigable water ways and/or poses the threat of release of a visible oil or sheen discharge to navigable waterways.

Future longer-term actions, beyond those described in the response plan, to address residual effects from the spill will be governed by regulations and regulatory agencies with the appropriate jurisdiction. Enbridge may desire to consider these future requirements for actions which will be required for remediation and/or closure as secondary objectives in the current response plan. To the extent feasible, Enbridge may elect to perform response actions supportive of the secondary objective during the current response action.

Part 201 (Environmental Remediation) of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended) administered by the Michigan Department of Natural Resources and Environment (DNRE) may govern issues related to residual contaminant compound concentrations after the current response actions to remove/abate visible oil are completed. Enbridge may consider the Part 201 regulations and others that may apply in the future while preparing the current response action plan for the areas downstream of the spill source area. Other regulatory agencies that may have jurisdiction over future actions, after the visible oil has been removed, include, but are not limited to: U.S. EPA; U.S. Coast Guard; U.S. Army Corps of Engineers; DNRE; U.S. Fish & Wildlife Service (U.S. FWS); Michigan Department of Agriculture (MDA); Michigan Department of Community Health (MDCH); Calhoun County Public Health Department (CCPHD); Kalamazoo County Health and Community Services Department (KCHCSD); and/or others.

Approval of the SAR Plan by the U.S. EPA, once granted, does not imply approval of the SAR Plan by any other regulatory agencies. Approval of the SAR Plan by U.S. EPA, once granted, also does not represent assurance that activities undertaken consistent with SAR Plan are in

compliance with laws and regulations outside the purview of the U.S. EPA during these initial response actions to remove visible oil. Among the laws and regulations that are outside the purview of U.S. EPA and the laws and regulations of the State of Michigan. Citations to Michigan laws and regulations in these comments are not meant to be all inclusive, and Enbridge is not relieved of its obligation to comply with other laws and regulations if omitted in these comments. Finally, undertaking activities consistent with the SAR Plan, once it is approved by U.S. EPA, does not obviate the need for Enbridge to acquire all necessary permits and comply with other applicable regulatory requirements including, but not limited to: NREPA and other Michigan law (specifically) Part 201; Part 31, Water Resources Protection (Part 31); Part 55, Air Pollution Control (Part 55); Part 91, Soil, Erosion, and Sedimentation Control (Part 91); Part 111, Hazardous Waste Management (Part 111); Part 121, Liquid Industrial Wastes (Part 121); Part 115, Solid Waste Management (Part 115); Part 301, Inland Lakes and Streams (Part 301); Part 303, Wetlands Protection (Part 303); and Michigan's floodplain regulatory authority found in Part 31. Additionally, permits from the County Drain Commissioner and other local authorities may be required.

### **SAR Plan-Specific Comments**

1. The title of the document shall reference a “response” plan, not a “remediation” plan. The actions described in the SAR Plan are intended to address the actions necessary to remove and abate all visible oil and petroleum from the referenced spill source area.
2. All references to “remediation” within the SAR Plan which are intended to address the interim response action of removal of visible oil and petroleum products from media affected by the spill shall be referred to as “response” actions. The term “remediation” shall be used in reference to long-term actions/objectives which will be decided by the appropriate regulatory agency.
3. The SAR Plan shall be amended to include a section for definitions of terms used in the SAR Plan, such as “response” and “remediation”. The SAR Plan shall be amended to include a section for definitions of terms used in the SAR Plan, such as “response” and “remediation”. Additionally, terms used and defined by the SCAT program shall be used as much as possible to increase consistency between the actions proposed in the SAR Plan and results of the previous/ongoing SCAT effort.
4. The SAR Plan shall provide a detailed description of the methods and metrics that will be employed to confirm that the response actions have removed all visible oil from each affected media in the source areas. These endpoints shall be well-defined and include sufficient explanation of the measurement metrics to improve consistency in implementation of the SAR Plan.
5. The SAR Plan does not address detailed short-term restoration activities required for shorelines and other non-aquatic areas. As an example, the SAR Plan shall address, in detail, the application of vegetative cover required to minimize erosion until long term restoration is performed by Enbridge.

6. The SAR Plan shall describe the detailed visual and/or analytical assessment that will be used to determine the extent of the source area impacts during the response action.
7. The SAR Plan shall establish detailed baseline conditions of the response area including, but not limited to: fluvial geomorphology within the Source Area; baseline topographic conditions and fluid flow channel physical dimensions/survey; and ecological habitats. The County Commissioner may have existing topographic maps or cross-section surveys of the waterway(s) which Enbridge could use to facilitate the production of physical baseline conditions of the waterway(s).
8. A large section of Talmadge Creek, including the affected section of the creek, is a legally established drain. Please provide details about how Enbridge will consult with the Calhoun County Drain Commissioner (CCDC) concerning work on the creek as well as the restoration of the drain to original hydraulic capacity and drainage function.
9. The SAR Plan shall address the detailed process that will be used to determine if sediments in Talmadge Creek contain the presence of oil and, if oil is found, the process that will be used to address the contaminated sediments during the preliminary response. If oil in sediment is not addressed, discharge to a navigable waterway could occur.
10. The SAR Plan shall provide a detailed process description for determining if visible oil is comprised of dense non-aqueous phase liquid (DNAPL), light non-aqueous phase liquid (LNAPL), or both.
11. The SAR Plan shall include a detailed description of removal processes that will be used if the oils are determined to be DNAPL and/or LNAPL.
12. Do not use the term “practical” when describing the actions planned for removal of visible oil. The SAR Plan shall be a firm plan of action. The IC will maintain a sufficient technical staff throughout the response action to consider situations that may arise which will work with Enbridge to review and approve alterations to the planned course of action, if required.
13. The SAR Plan shall provide a detailed description of how Enbridge will balance the need to invasively remove oil and simultaneously minimize adverse impacts to and preserve natural environments and/or sensitive habitats. This should be incorporated into SCAT recommendations.
14. The SAR plan shall include a detailed contingency plan to address actions that will be performed by Enbridge if visible oil resulting from the spill affects or threatens navigable waterways after the initial oil removal actions are complete,.
15. Please provide a detailed contingency plan specifying how Enbridge, through its provision of pumps and dams to maintain low flow conditions, will provide a “drainage contingency” to provide landowners in the drainage district with relief shall a significant rainfall event occur during oil removal operations.

16. Please provide details regarding the fate of discharge water and any necessary permits. Please provide details regarding proposed pumping and water diversion of the Talmadge Creek flows during oil removal. Flow rates and volumes for a 50-year flood shall be the minimum design volume.
17. Section 2.1.5, 5th Paragraph, “Air Monitoring” lacks specificity. Separate consideration must be given to (a) on-site monitoring for worker safety and to (b) perimeter monitoring for protection of public health. If worker safety is explicitly addressed in the HASP, then specific reference to the approved document and section must be made in the SAR Plan, otherwise it must be addressed in detail in the SAR Plan. This section shall specify the number and location of monitoring stations, what monitoring equipment will be used, and the numeric values of the exposure limits to be used. Also, please provide a figure showing the “perimeter” and location of sampling stations.
18. Section 2.1 of the SAR Plan references that “Berming of the Source Area wetland to preclude flow of oil to Talmadge Creek”. Please address, in detail, how the berms will be created in a manner so as not to induce subsurface water flow by creating different water levels across the berm. Please provide any information known or obtained from response actions performed about groundwater flow patterns in the wetland system.
19. Please provide details about water discharges that may occur during oil removal operations and contingencies for preventing or responding to any releases.
20. Storm water run-off from contaminated soil piles must be properly managed to prevent further discharge to **surface waters**. Please provide details regarding planned storm water controls related to soil erosion controls and berming of the source area.
21. The earth disturbance is subject to Michigan’s Permit-by-Rule for construction storm water. If the disturbance area exceeds 5 acres, a Notice of Coverage is required. Part 303 requires wetland mitigation for any impacts to regulated wetland that exceed 1/3 acre. Since it is obvious that Talmadge Creek will be significantly impacted during the oil removal process, a detailed stream restoration plan may be required pursuant to Part 301.
22. Please provide additional details regarding planned decontamination activities including potential locations, setup, and management of material.
23. Please provide the definition of and difference between “oil impacted soil” (Section 2.1.5) and “residual impacts” (Section 2.1.6).
24. To the extent that mature trees are being felled as part of the oil removal actions, consultation with the U.S. Fish and Wildlife Service must be made prior to the felling due to the potential to affect Indiana bats. See the “Inter-agency Memorandum of Agreement Regarding Oil Spill Planning and Response Activities Under the Federal Water Pollution Control Act’s National Oil and Hazardous Substances Pollution Contingency Plan and the Endangered Species Act” of 2001. Please contact Jack Dingledine, U.S. Fish and

Wildlife Service, 2651 Coolidge Road, Suite 101, East Lansing, MI 48823, 517-351-6320, jack\_dingledine@fws.gov.

25. Please provide details for the disposition of wildlife carcasses. All oiled carcasses found during removal activities shall be photographed in place, documented with lat/long coordinates, and shall be reported immediately to the U.S. Fish and Wildlife Service (migratory birds) or the MDNRE (other species), and to the UC. If spill response is still underway, this can be accomplished through the spill hotline: 800-306-6837. Reports of live oiled wildlife shall also be reported to the hotline.

26. Please make the following modifications to Section 2.1.4:

- a. Please provide specific details about erosion control provisions.
- b. Making piles of shredded vegetation on-site will have adverse impacts on habitat that may increase the areal extent of natural resource damages. Please add a statement prohibiting this action.
- c. Clean parts of mature trees may be able to be used on-site as part of stream restoration efforts once all response actions are complete. Large woody debris is an important component of rivers and stream structure for turtles, fish, other organisms as well as stream stabilization. Please modify the plan to include this possibility.

27. Please make the following modifications to Section 2.1.5:

Wooded habitats take longer to return to baseline conditions than emergent marshes or grasslands, so careful consideration shall be made as to whether using techniques that are slower than excavation would ultimately be more beneficial to the environment. Release or threatened release of oil must be addressed, but risks from residual staining on tree trunks shall be considered. If soils in the trees' root zones are saturated with oil, as may be the case for most parts of the Source Area, then tree removal and excavation may be the only acceptable option. Please provide a clear decision tree with evaluation metrics and considerations to effectively make these determinations.

28. Please make the following modifications to Section 2.1.6:

- a. The sentence "Additional final remediation measures required for the Source Area will be determined via this investigation" shall be changed to "Results of this investigation will be provided to U.S. EPA for use in evaluating further response actions required, if any".
- b. Post-removal site controls shall include, but not be limited to, restoring the original contours of the site by backfilling with appropriate soil types as necessary, erosion control, re-vegetation with native plant species along with non-invasive temporary cover crops, and access controls as necessary until risk assessments and final remediation is completed. Operation and

monitoring plans with performance criteria (e.g. erosion, establishment of vegetation, absence of invasive species) and contingencies and commitments to action if they are not met shall also be included.

29. Please make the following modifications to Section 2.3:

- a. The last sentence of this section includes the phrase “final cover is installed”. This phrase is to be a removal action and encapsulation is not approved. Please modify the statements to accurately reflect the planned action.
- b. The last sentence of this section includes the phrase “site drainage will generally be returned to pre-existing flow pattern”. The word “generally” shall be removed from this sentence.

30. Because at least some of the product released may have sunk to the river bottom, additional investigations beyond SCAT must be conducted and shall also include Morrow Lake (as it is the first significant depositional area of the river and because intermittent sheen observations in the lake may be because of submerged oil). Please include in your SAR Plan a section that details an investigation of the bottoms of Talmadge Creek, the Kalamazoo River and Morrow Lake.

31. Please identify Priority Areas for both Talmadge Creek and Kalamazoo River. Also, provide details regarding how priority area designations are to be used and which designations will be addressed by oil removal response actions.

The nature of this emergency response effort demands an expedited and efficient review and approval process. U.S. EPA is providing competent and technical resources to ensure that a final comprehensive and functional SAR Plan for this project can be in place by no later than 1200 hours on August 12, 2010.

U.S. EPA appreciates Enbridge's continued desire to conduct response efforts to the release from its 6B Pipeline, but requires that these efforts be conducted safely, promptly, and with appropriate resources and best technical practices. U.S. EPA will not accept further submissions of deficient plans.

Sincerely,

A handwritten signature in blue ink, appearing to read 'R. Dollhopf', with a long horizontal flourish extending to the right.

Ralph Dollhopf  
Federal On-Scene Coordinator and Incident Commander  
U.S. EPA, Region 5

cc: L. Kirby-Miles, U.S. EPA, ORC  
J. Cahn, U.S. EPA, ORC  
J. Kimble, U.S. EPA, Dep. IC, FOOSC  
M. Durno, U.S. EPA, Dep. IC, Section Chief  
Records Center, U.S. EPA, Reg. V