

US EPA ARCHIVE DOCUMENT

Enbridge Energy, Limited Partnership
1601 Pratt Avenue
Marshall, Michigan 49068



March 22, 2012

Mr. Ralph Dollhopf
Federal On-Scene Coordinator and Incident Commander
U.S. Environmental Protection Agency
801 Garfield Avenue, #229
Traverse City, MI 49686

Re: In the Matter of Enbridge Energy Partners, L.P., et al,
Docket No. CWA 1321-5-10-001

Dear Mr. Dollhopf:

Pursuant to the approved 2012 Consolidated Work Plan, Section 4.4 titled Temperature Effects on Submerged Oil, a study was conducted to assess the relationship between liberation of submerged oil from sediment as a function of water temperature. Enbridge Energy, Limited Partnership (Enbridge) prepared and submitted a Report of Findings for Submerged Oil Temperature Effects Study which was delivered on February 20, 2012 to the United States Environmental Protection Agency (U.S. EPA). U.S. EPA has reviewed the aforementioned report and provided comments on March 19, 2012. Enbridge is currently reviewing and addressing the comments. The objective of this study was to assess the relationship between liberation of submerged oil from sediment as a function of water temperature. The study consisted of two components:

- The Temperature Effect Monitoring Station (TEMS) study, completed within the Kalamazoo River itself, was completed at a sediment and water temperature range of approximately 43 °F to 60 °F.
- The Bench Study, completed within a lab controlled environment, was completed at sediment and water temperatures of approximately 35 °F, 45 °F, 55 °F, 65 °F, and 75 °F.

The results of the TEMS study suggest that below approximately 55 °F, the bed temperature significantly affects the submerged oil liberation. The relationship between water temperature and submerged oil liberation below 55 °F remains somewhat stable until about 45 °F. Below 45 °F the maximum sheen percentage and number of globules decreased substantially.

The results of the Bench Study were similar. Based upon the Bench Study results, water temperature has a steadily increasing effect on the liberation of oil from 35 °F to 65 °F. This study suggests that performing submerged oil assessment using poling at water temperatures between 55 °F and 65 °F can be two to four times more effective than at temperatures below 55 °F.

Based on the findings of the aforementioned study, Enbridge requests to the U.S. EPA a firm 55 °F as the minimum go forward water temperature to perform future sediment reassessment activities via poling.

If you have any questions about this letter, please do not hesitate to contact me.

Sincerely,

ENBRIDGE ENERGY, LIMITED
PARTNERSHIP
By Enbridge Pipelines (Lakehead) L.L.C.
Its General Partner

A handwritten signature in black ink, appearing to read 'Richard Adams', with a long horizontal line extending to the right.

Richard Adams
Vice President, U.S. Operations

CC: John Sobojinski, Enbridge
Bob Steede, Enbridge
Christopher Haux, Enbridge
Michelle DeLong, MDEQ
Mark DuCharme, MDEQ