

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

October 3, 2012

Via Email and UPS

Enbridge Energy, Limited Partnership
c/o Mr. Rich Adams
Vice President, Operations
Superior City Centre
Second Floor
1409 Hammond Ave.
Superior, Wisconsin 54880

Re: Proposed Order for Recovery of Submerged Oil

Dear Mr. Adams:

On behalf of the United States Environmental Protection Agency ("U.S. EPA"), I am transmitting a new proposed Order requiring continued response efforts to be completed by Enbridge Energy, Limited Partnership and its affiliates ("Enbridge").

U.S. EPA acknowledges receipt of your letter dated August 24, 2012, where you stated that no additional oil recovery upstream of the Ceresco Dam is currently necessary. After carefully considering the points raised in your letter, U.S. EPA believes a proposed Order focusing on three areas of the Kalamazoo River that manifest sheen as a result of submerged oil accumulations is warranted. Those areas are: "Ceresco" which includes the areas upstream of the Ceresco Dam, including but not limited to, the impoundment and adjacent areas which are generally located between Mile Post (MP) 4.5 and the Ceresco Dam; the Battle Creek "Mill Ponds" area (generally between MP 13.9 and 15.7); and the Morrow Lake "Delta" located between MP 36.5 and 38.25.

I. Background

Since the July 25, 2010 Enbridge Line 6B discharge, U.S. EPA has used the accumulations of submerged oil, and the associated sheen (resulting from the submerged oil accumulations) as determining factors in directing active recovery of submerged oil. The active recovery of remaining submerged oil accumulations that U.S. EPA now proposes is consistent with the removal of discharged oil throughout 2010, 2011, and 2012. All three areas identified above have been extensively evaluated for the presence of submerged oil. Between July 2010 and late Summer 2012, U.S. EPA directed Enbridge to perform six formal submerged oil assessments at Ceresco and five formal assessments at the Mill Ponds and Delta. In addition, there have been multiple assessments conducted during recovery operations and other monitoring cycles. The methods and metrics used to classify areas of submerged oil have remained consistent since the inception of the submerged oil assessment and recovery process. These assessments allow comparisons of the locations of submerged oil throughout the two year period and have provided a valuable measure of the progress of ongoing efforts to recover submerged oil from the nearly 40 miles of affected riverine environment impacted by the July 25, 2010 Enbridge Line 6B

discharge. The consistency in assessment methods has also provided comparable data sets with regard to depositional patterns of submerged oil.

In addition to other decision-making processes and tools, U.S. EPA has applied a scientific and systematic review, known as the Net Environmental Benefit Analysis (NEBA), to ensure that ongoing response actions do not result in further ecological degradation beyond that caused by the original Enbridge Line 6B discharge and previous abatement efforts. U.S. EPA sought technical advice from its Scientific Support Coordinators (SSCs) as well as from prominent scientists from the international oil spill response/recovery community, the United States Geological Survey and the U.S. Fish and Wildlife Service. These experts applied the NEBA to known submerged oil locations throughout the entire affected area, including the areas currently identified by U.S. EPA as warranting active recovery of submerged oil via dredging.

Application of the NEBA began in Spring 2012 and continued into August 2012. Although the NEBA recommended sheen management only as the appropriate tool for some sections of the affected waterways, this was not the recommendation for Ceresco, Morrow Delta, and the Mill Ponds. Rather, the NEBA recommends additional monitoring of these areas, followed by consideration of submerged oil recovery action if warranted by the monitoring results. Contrary to your August 24, 2012 letter, the NEBA did not conclude that implementing active recovery practices would result in a negative net benefit. Monitoring consistent with the NEBA recommendations was performed in 2012 between spring and late summer. U.S. EPA has evaluated the monitoring data and believes it currently supports additional active recovery of submerged oil in the three identified areas of the Kalamazoo River.

II. Current Status of Ceresco, the Mill Ponds, and the Delta

The results of the Spring and late Summer 2012 reassessments confirmed that the three major impoundment areas (Ceresco, the Mill Ponds, and the Delta) of the Kalamazoo River are areas that contain recoverable accumulations of Line 6B submerged oil that threaten to migrate further downstream following future high river flow events if the submerged oil is not recovered.

U.S. EPA's review of the data demonstrates that oil sheen and globules observed on surface waters in these areas throughout the Spring and Summer 2012 monitoring period are originating from documented areas of submerged oil accumulations. The repeated manifestation of sheen and globules in these specific areas confirms that the submerged oil is not stable and is capable of migrating further downstream if not contained and recovered.

Ceresco

Assessments performed in 2012 (both spring and late summer) show the increasing accumulation and footprint of submerged oil at Ceresco. The heavy/moderate submerged oil footprint has increased from approximately 20 to 23.5 acres between MP 4.75 to Ceresco Dam during this time. The accumulation of oil in the area upstream of Ceresco Dam includes not only increased quantities of spontaneously produced sheen, but also includes an increased appearance of spontaneously produced oil globules on the water surface. In addition, an increased manifestation of oil sheen and/or globules has been observed when sediment is agitated in the areas upstream of Ceresco Dam. These intensified occurrences of sheen and oil globules correspond to areas where Enbridge identified submerged oil as heavy or moderate in accordance with the poling procedures. The recent assessment results confirm that the submerged oil is not attenuating, but rather is accumulating at Ceresco.

To summarize, submerged oil has accumulated at Ceresco in 2012, just as it did in both 2010 and 2011. Given the highly effective 2010 hydraulic dredge recovery of accumulated submerged oil in the Ceresco area, U.S. EPA believes the submerged oil that has now accumulated at Ceresco is also recoverable. The increased accumulation demonstrates that submerged oil is mobile and migrating, evidencing that submerged oil removal is warranted to prevent downstream migration beyond Ceresco in the future.

Mill Ponds

The Mill Ponds is an impounded area consisting of a complex combination of geomorphologic characteristics, varying degrees of aquatic habitat quality, differing flow patterns, and differing stability/capabilities to retain submerged oil. The Mill Ponds area includes multiple submerged oil target areas between MP 13.9 and 15.7 that were evaluated by the NEBA. The general patterns of heavy/moderate submerged oil accumulations in the Mill Ponds were comparable when evaluating the Spring 2012 and Late Summer 2012 assessment/monitoring results. However, a direct comparison of the areas containing heavy/moderate submerged oil could not be performed due to differences in the monitoring/assessment limitations and data sets for both the Spring 2012 and Late Summer 2012. With the exception of the primary impounded areas (North and South Mill Ponds), many of these target areas have decreased sediment stability, resulting in an increased likelihood of submerged oil migration. In these areas, the NEBA recommended monitoring, followed by active recovery of submerged oil, if warranted. Based on increased submerged oil accumulation observed during the monitoring performed between late Summer 2011 and late Summer 2012, U.S. EPA believes that some of these areas warrant recovery of submerged oil via dredging.

Conversely, the primary impounded areas (North and South Mill Ponds) have slower flow, consist of high-quality aquatic habitat, and, according to the hydrodynamic model, have increased sediment stability resulting in a decreased likelihood of submerged oil migration. Therefore, the NEBA recommended monitoring only for these areas. U.S. EPA agrees that active recovery of submerged oil is not currently warranted.

Delta

Between late Summer 2011 and Spring 2012 reassessment events, the footprint of submerged oil expanded to cover the majority of the 2-mile length of Morrow Lake, downstream of the Delta. This substantial expansion occurred during increased river flow conditions.

The accumulation and footprint of submerged oil in the north and south cove of Morrow Lake fan increased between Spring and late Summer 2012. This expansion confirms migration of submerged oil from the upstream Delta during a period of low river flow. The heavy/moderate submerged oil footprint in the Delta through Late Summer 2012 is approximately 55.5 acres.

Therefore, migration of submerged oil is documented through both low-flow and increased river flow conditions, which confirms the mobility and instability of submerged oil. Unless the submerged oil in the Delta is contained and removed, it is expected that the manifestation of oil sheen and globules caused by submerged oil will increase in Morrow Lake and downstream areas. Containment and removal in the Morrow Lake Delta must occur to stop this documented migration into Morrow Lake.

III. Consideration of Appropriate Further Recovery Tactics

U.S. EPA has reviewed field assessment/monitoring activities and scientific studies, including temperature effects studies and hydrodynamic assessment and modeling conducted to understand the behavior of submerged oil in the Kalamazoo River. Based on the review of this data, U.S. EPA believes that the accumulated submerged oil is the source of surface sheen and oil globules affecting the navigable waterways of the Kalamazoo River system.

U.S. EPA has reviewed the NEBA finalized in August 2012. U.S. EPA has also reviewed and considered a subsequent evaluation of the 2012 migration potential and accumulation patterns of submerged oil using monitoring/assessment results through Late Summer 2012 for Ceresco, the Mill Ponds and the Delta. U. S. EPA has concluded that the NEBA's monitoring recommendation has been satisfied and U.S. EPA believes that accumulated submerged oil and sheen can be rapidly, appropriately and effectively mitigated by active recovery and removal in these three areas.

Removal is the preferred method of oil recovery in these three areas.

The recoverability of submerged oil in all three of these locations is high and argues for immediate implementation. U.S. EPA believes that dredging is the most appropriate method of submerged oil recovery at Ceresco, portions of the Mill Ponds area, and the Delta. It is critical to perform the submerged oil recovery while the submerged oil is located in areas conducive to active recovery and before it becomes dispersed by future increases in river flow.

As evidenced by the 2010 pre-dredge and post-dredge poling (heavy and moderate areas) at Ceresco, removal of submerged oil via dredging resulted in a greatly reduced submerged oil footprint. In addition, fugitive turbidity and sediment migration were controlled during the 2010 hydraulic dredge at Ceresco, providing further confirmation that dredging (as opposed to other options which can generate larger plumes of potentially damaging turbidity) can be performed in a manner that is protective of the surrounding aquatic environment by localizing the effects of sediment removal without causing widespread increases in turbidity.

The results of the NEBA and the advice from SSCs and other experts confirm that recovery of accumulated submerged oil via dredging is appropriate and warranted..

Sheen Management alone is not an effective recovery solution for these three areas.

During the past summer, oil sheen management was implemented as the primary strategy for oil recovery in all three areas. The boat traffic associated with sheen management disturbs submerged oil resulting in increased manifestation of oil sheen and globules.

The location of the remaining oil below the water surface and in the sediments makes sheen management or surface skimming alone an inadequate recovery method. Furthermore the accumulated submerged oil source must be actively recovered to prevent oil sheen and globule manifestation and downstream migration of submerged oil. In fact, such migration of submerged oil from the Enbridge Line 6B discharge into Morrow Lake has already occurred, as discussed above.

Therefore, U.S. EPA considers that sheen management as the sole method of submerged oil recovery in these three areas is inadequate.

IV. Proposed Order

The fundamental principles of containment and recovery of submerged oil to stop the threat of further migration to downstream navigable waters will continue to guide U.S. EPA's ongoing response to the Enbridge Line 6B discharge.

It remains necessary for Enbridge to continue containing and recovering Enbridge Line 6B discharged oil.

In considering this additional oil recovery work on the Kalamazoo River, U.S. EPA has considered the science, its site-specific experience with submerged oil behavior in the Kalamazoo River, the regulations, and the recoverability of the accumulated submerged oil. U.S. EPA has evaluated these independent lines of evidence and believes that active recovery of submerged oil via dredging at Ceresco, Mill Ponds area at Battle Creek and the Morrow Lake Delta is necessary and should be conducted in an expeditious manner. Failure to implement these actions would likely result in the dispersion and migration of Enbridge Line 6B oil to downstream navigable waterways, and thereby increase the challenges of effective recovery of Enbridge's submerged oil.

Based on these considerations, U.S. EPA is attaching a proposed Order for the additional work discussed above. The proposed Order includes a draft Administrative Record Index. U.S. EPA is enclosing the draft Administrative Record in this letter.

Within ten (10) days after receipt of the attached proposed Order, Enbridge may request a conference with U.S. EPA regarding the proposed Order, including its purpose, scope and appropriateness. If requested, this conference shall occur within twenty (20) days of receipt of the proposed Order at U.S. EPA Regional offices in Chicago, Illinois unless otherwise agreed to by the Superfund Division Director.

In addition or in lieu of a conference, Enbridge may submit written comments or other information to U.S. EPA that Enbridge believes U.S. EPA should consider prior to issuing the Order. Such comments or other information must be submitted within thirty (30) days of receipt of the proposed Order. Such information may pertain to the validity or necessity for this proposed Order, and may include any relevant and material information related to Enbridge's liability for response actions at the facility, the proposed Order's consistency with 40 C.F.R. Part 300 (the National Contingency Plan) or the response actions selected for the facility, and any factual or legal determinations, terms or other provisions of the proposed Order. U.S. EPA will consider any relevant information that Enbridge provides regarding the proposed Order. The absence of a response by U.S. EPA shall not be deemed to be acceptance of Enbridge's assertions. U.S. EPA may add to the draft Administrative Record any appropriate information, including, but not limited to, information provided by Enbridge prior to the effective date of the Order.

The proposed Order is not final, and may be modified by U.S. EPA. U.S. EPA is also willing to discuss the possibility of entering into an Administrative Order on Consent with Enbridge in lieu of issuing the Order in this matter.

V. Conclusion

If you have any questions regarding this letter, please contact me immediately at (231) 301-0559 or Leslie A. Kirby-Miles, Associate Regional Counsel, at (312)353-9443.

Sincerely,

A handwritten signature in black ink, appearing to read "Ralph Dollhopf", with a long horizontal stroke extending to the right.

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

Enclosures

cc: L. Kirby-Miles, U.S. EPA, ORC
K. Peaceman, U.S. EPA, ORC
M. DeLong, MDEQ
Records Center, U.S. EPA, Reg. V