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November 2, 2012

VIA EMAIL & OVERNIGHT DELIVERY

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VIA EMAIL & HAND DELIVERY

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. SWA 1321-5-10-001

Dear Mr. Karl and Mr. Dollhopf:

Enbridge Energy, Limited Partnership ("Enbridge") sets forth below its response to the Letter and Proposed Order issued by the U.S. Environmental Protection Agency ("EPA") on October 3, 2012 ("Proposed Order"), concerning the Line 6B release near Marshall, Michigan in July, 2010. Although we take issue with the Proposed Order as set forth below, Enbridge will continue to work cooperatively with EPA, the State of Michigan and other stakeholders to address remaining any residual oil and to carry out all appropriate cleanup activities in a manner consistent with the National Contingency Plan ("NCP"), 40 C.F.R. Part 300.

I. Background

EPA issued its initial Administrative Order for this site on July 27, 2010. Since then, Enbridge has worked cooperatively with the Agency to achieve the environmental protection goals set forth under Section 311 of the Clean Water Act ("CWA") through appropriate cleanup and reclamation of areas impacted by the crude release from Line 6B.

In cooperation with EPA, Enbridge has prepared the appropriate work plans and conducted cleanup activities in accordance with the procedures set forth under those plans and as directed by the NCP. Significant recovery operations were completed throughout 2010 and 2011, which we believe removed the vast majority of oil in the environment. EPA's September 2012 Briefing states that "[t]here appears to be much less submerged oil in 2012 as compared to 2011." Administrative Record Item #1060, at pg. 25. According to EPA, one possible explanation for this improvement in conditions is that 2011 oil recovery efforts may have been "very successful." *Id.* [1]

Other signs of progress include the fact that the Public Health Assessment issued by the Michigan Department of Community Health ("MDCH") on August 11, 2011, found no long-lasting health effects or cancer risk to humans, that the fish consumption ban for the River was lifted on June 28, 2012, that sediment studies have shown little to no visible oil observed within cores (even at heaviest poling locations), and that acute toxicity studies have indicated little apparent difference between background sites and impacted sites.

Site-specific measures continue to be implemented to address any residual oil and sheen. Over the past 2 years, significant assessment, sampling and analysis also have been undertaken as directed by EPA to better understand the levels and location of any remaining residual oil and those areas and habitats that may be impacted by any remaining residual oil. Studies and activities are currently ongoing to better understand the extent, if any, of submerged oil transport, containment of oil and recovery of oil-containing sediment related to the Line 6B release.

The existing knowledge-base must be advanced in cooperation with EPA and the State of Michigan to identify appropriate future assessment and recovery plans that are consistent with protection of the public health and welfare and the environment. As in the past, Enbridge remains committed to undertake additional cleanup measures as may be necessary. In determining future steps, however, the risks resulting from any remaining residual oil must be weighed against the environmental consequences of additional recovery actions and the impacts of the proposed recovery actions on stakeholders. Any remaining assessment and removal activities on the Kalamazoo River should be accomplished by working with the local community and Michigan officials to fully assess the impacts to the surrounding communities, and only after on-going scientific studies have been completed.

The River is now safe and open for public use. Therefore, the impacts of active and invasive recovery of any remaining submerged oil must be assessed in light of potentially adverse environmental consequences of the removal actions. As discussed at

[1] The Administrative Record contains no support for the only alternative explanation provided by the EPA Briefing: that "[t]he ability to see the oil in the cores . . . has decreased." *See* Item #1060, at pg. 25.

our October 23 meeting, and as set forth in detail below, Enbridge respectfully requests that EPA consider: (1) postponing any order for immediate active removal pending the completion of scientific studies already under way that now are expected to be completed by year-end; and (2) amending its proposed directive that Enbridge develop plans for the installation of containment structures during winter months, as such work is not only environmentally unnecessary but in winter months is impractical, unsafe, and inherently unlikely to achieve the Agency's environmental goals. Containment measures were not deemed necessary in the previous two winters when the amount of residual oil was shown to be substantially higher. In fact, extreme conditions were experienced during this time and no migration of product was seen beyond Morrow Lake.[2]

Summary of Proposed Order. The Proposed Order would require Enbridge to develop within 15 days of the issuance of a Final Order a Work Plan with a detailed description of immediate steps to install and maintain containment devices and equipment in the Kalamazoo River over the winter of 2012-13. The Proposed Order specifies three general areas of the River in which such devices or equipment will be required, and further states that Enbridge should be prepared to install additional containment at unspecified other areas "at the direction of U.S. EPA."[3]

The Proposed Order would further require Enbridge to develop within 15 days of the issuance of a Final Order a Work Plan for the removal of submerged oil at three specified areas of the River.[4] Under the Proposed Order, Enbridge would be required to remove any remaining residual oil from an as yet undefined number of acres of River bottom.

In addition, the Proposed Order would require further work on the hydrodynamic model submitted on April 20, 2012.[5] That model was the subject of Technical Review Comments dated August 22, 2012. In addition, the Proposed Order would require monitoring and maintenance of containment devices installed at EPA's direction, including the recovery of submerged, oil-contaminated sediment and sludge from sediment traps, performing submerged oil assessment activities, performing air monitoring or sampling, performing water, sediment or soil sampling and collecting and interpreting scientific data for operational support.[6]

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[2] In May 2011, discharges at the Battle Creek gauging station for three days exceeded the discharge at the time of the 2010 release. Flows on those days (May 28, 29 and 30) were 3390, 3350 and 3230 cfs, respectively. River flow at the time of the release (on July 26, 2010) was 2930 cfs.

[3] *See* Proposed Order, at ¶ 41.a.i. to iv.

[4] *See* Proposed Order, at ¶ 41.b.

[5] *See* Proposed Order, at ¶ 41.e.

[6] *See* Proposed Order, at ¶ 41c-g.

II. Detailed Response

A. Proposed Winter Containment

Need for Containment Unproven. EPA appears to be relying on poling data to assist it in quantifying submerged oil volume and to support the proposition that the submerged oil is migrating downstream. However, as concluded in the AECOM Memorandum (October 30, 2012), enclosed as Attachment 1, poling results are not reliable for quantification of submerged oil volume. That Memorandum also demonstrates that differences in poling results over time cannot be equated with migration of submerged oil.

For example, "[s]hifts in the distribution of heavy and moderate poling points likely reflect a correlation with water and sediment temperature rather than a correlation to a significant volume of submerged oil moving into or out of an area." AECOM Memorandum, at 3. Poling is a rough, subjective method to determine the general location of submerged oil without accounting for volume, source of oil, or potential for migration. Further, besides temperature, poling results are affected by weather (wind, rain, sun/clouds), the personnel making the observations, channel velocities, and changes in oil density over time. *See* AECOM Memorandum, at pgs. 3-4.

While poling results could be interpreted to indicate an increase in heavy and moderate accumulation upstream of Ceresco Dam, this increase probably is not attributable to migration. Rather than submerged oil movement, it appears that a significant increase in water and sediment temperatures between Spring and Late Summer 2012 caused an increase to the heavy and moderate poling delineations in this area. These same areas showed a significant decrease in delineated heavy and moderate results as the sediment and water temperatures cooled following the Late Summer delineations. The AECOM Memorandum further explains that ambient temperatures also affect the degree of amount of sheen observed. For all these reasons, available poling results do not support any perceived need for winter containment.

Lack of Feasibility. In 2010, a sharp change in weather in December led to failure of the 35th Street Bridge surface/subsurface containment site and the creation of an ice jam at MP 15.5. *See* Attachment 2 (photograph of ice jam). In 2011, the approved Consolidated Work Plan ("Work Plan") for the site explicitly provided for removal of containment structures during winter 2011-12. *See* Work Plan (as revised and approved Dec. 21, 2011) at §§ 6.0 to 6.2.4. Section 6.2.2 of the Work Plan, for example, provided that Enbridge should remove all surface containment between the 35th Street Bridge and Morrow Lake Dam by November 18, 2011, as requested by STS Utilities (whose property borders this section of the River). In 2012, the application approved by the Michigan Department of Environmental Quality ("MDEQ") for installation of the E 4.0 Boom stated that removal of that boom would occur prior to freeze-up unless determined that the boom could safely remain in place through the winter. *See* Revised Application for Containment Boom Placement at Control Point E 4.0 (June 19, 2012). As set forth

below, it is unlikely that it will be determined that this boom will be able to survive winter conditions in the River.

SWAT Consulting, Inc. ("SWAT") has assessed whether winter containment structures in the River are feasible. SWAT's review of available options concludes that winter-long containment is not feasible for a variety of reasons. *See* SWAT Review Memorandum, at 4 (October 30, 2020), enclosed as Attachment 3.[7] SWAT is a respected consultant with extensive experience with the installation of containment structures. Over the past 22 years it has installed containment for approximately 650 releases. Of the 650 releases addressed by SWAT, over 200 occurred during winter conditions. SWAT is familiar with the current cleanup effort, and has advised regarding remediation of the River since 2010.[8]

SWAT currently concludes that no containment structures should be installed or maintained during winter months in the River. The factors that lead it to recommend against such installation of winter containment include the known presence of frazil ice throughout the River during most winter months, the potential creation of ice jams and associated impacts, the limitations of available containment systems, the navigational hazards posed by winter containment, and risks to worker safety associated with attempts to maintain containment during winter months. In addition, SWAT concludes that use of winter containment is likely to impact winter recreational users of the River (due to the risks of catastrophic failure of containment systems), and to pose a risk of adverse effects to downstream areas and the possibility of River bottom erosion and scouring. SWAT notes that the containment currently in the River was designed to withstand low to moderate flows, and that current design levels are likely to be exceeded during or before spring breakup.

EPA's consultant, Weston Solutions ("Weston"), has prepared a Technical Assessment that suggests possible methods for constructing winter containment. SWAT has reviewed the Technical Assessment as part of its "Containment Report." That Report concludes that the Weston proposal suffers from the same risks and defects discussed in the SWAT Review Memorandum, and that installation of winter containment is not recommended. *See* Attachment 3. Based on the parties' meeting of October 23, the Federal On-Scene Coordinator ("FOSC") seems to have confirmed that Weston has never actually constructed or worked with the structures in question in winter months in a northern stream. SWAT, with its extensive experience, is unaware of the successful use of containment during winter months in any relevant setting.

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[7] The SWAT Review Memorandum is accompanied by SWAT's more detailed analysis, entitled "Containment Report – Winter 2012." Both documents are part of Attachment 3.

[8] In addition, Enbridge itself has extensive engineering experience in constructing pipelines across northern River systems subject to icing. The conclusions by SWAT listed above are consistent with Enbridge's own assessment of the impracticality of containment during winter months.

The potential impacts of a failure of winter containment are particularly serious for other stakeholders. The SWAT Review Memorandum catalogs a number of potential effects on other stakeholders that weigh against attempts at winter containment. Serious effects that can result between the interaction of icing and containment structures include ice jams, flooding, other backwater effects and structural and health risks posed in the event of catastrophic failures of stressed containment systems.

Internal Inconsistency of EPA Assumptions. The key assumption underlying the Proposed Order is that submerged oil is likely to migrate during high-flow events. *See, e.g.*, October 3 Letter, at pgs. 2-3 (identifying the threat that submerged oil will "migrate further downstream following future high River flow events if the submerged oil is not recovered."); *see also* October 1, 2012 Fitzpatrick Letter ("Fitzpatrick Letter"), at pgs. 6, 8, 10-11 (discussing the potential impact of high-flow events).[9]

Thus, the main rationale for winter containment appears to be EPA's belief that high-flow events may occur during winter months that will cause submerged oil migration that will not be managed by reliance on existing sediment traps.

It is unlikely, however, that a winter containment system that is constructed would survive a high-flow event. First, EPA has stated (in the parties' meeting of October 23) that MDEQ (as permitting authority) is likely to find the use of winter containment acceptable based in part on MDEQ's assumption that the containment structure will be removed during high-flow events. This result would be consistent with permitting requirements for existing containment, which provided for release plans to avoid harm at high flows.[10]

If, however, removal of containment devices is required during high-flow events in order to avoid harmful interference, the result will be to defeat the initial purpose of the winter containment proposal; the presence of a barrier to prevent unexpected

[9] Fitzpatrick goes so far as to state that the hydrodynamic model suggests that high flows during the May 2011 event "had the capacity" to transport any submerged oil past Morrow Dam. *See* Fitzpatrick Letter, at pg. 10. In fact, the hydrodynamic model does not support this conclusion. To the contrary, the model suggests that it is highly unlikely that residual oil entrained in silt would leave Morrow Lake under any conditions modeled (including a 100-year flood event).

[10] Under the existing permit for the E 4.0 Boom, for example, releases are required to begin at River elevations equivalent to a flow of approximately 1030 cfs, and to allow unrestricted flows at elevations equivalent to approximately 1120 cfs. In the winter of 2011-12, River elevations twice reached levels that would have required removal of containment under the existing permit.

migration when flows are high.[11] Similarly, based on past permitting practices it is likely that removal of winter containment in order to meet regulatory requirements will be required in the event of the formation of ice dams or of flooding of the type considered likely by SWAT.[12] "Containment" structures that are likely to be removed, however, are by definition unlikely to serve their intended function, even assuming for purposes of argument that such containment is desirable.

Moreover, MDEQ procedures for permitting of new containment devices may require several months, and perhaps as much as six months, to be satisfied. As a result, any containment structures may not be permitted before the onset of winter, even if the process began immediately. Applicable procedures require time to model expected effects during the winter and to prepare an associated hydraulic report, time for required public notice and comment, and time to obtain the consent of all affected property owners. Some affected property owners may oppose winter containment due to the risk of either backwater effects or a catastrophic failure that could affect the owner's property. Based on post-boom permitting experience and in light of the additional complexity of winter icing conditions, it is likely that MDEQ will require that the hydraulic modeling be completed prior to permit issuance, causing the total time needed for permitting to take 120 days or more. It is also possible that winter conditions and the potential for containment structures to catch debris and affect ice movement could result in safety and property damage concerns that could lead MDEQ to deny the needed permits for winter containment.

In summary, the risk related to containment structures must be evaluated in light of the hydrodynamic modeling, which implies that most of any remaining submerged oil should settle in long-term depositional areas and that remobilization is unlikely.[13] Based on the available modeling, only minimal amounts of submerged oil movement are predicted during even the highest flow events such as the 50-year and 100-year flood events.[14]

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[11] Based on available modeling, any unexpected migration (beyond designated sediment traps) is unlikely. The discussion in the text is based on EPA's contrary assumption that unexpected migration may occur.

[12] Current permit requirements, for example, effectively require removal of containment where it is likely to result in flooding or hazards to navigation: "Should it be determined that any portion of the permitted system causes a harmful interference per Part 31, Floodplain/Water Resources Protection of the NREPA, modifications to the structure shall be required."

[13] Kalamazoo River Hydrodynamic and Sediment Transport Model April 2021, at pg. 65 ("Model Report").

[14] *See* Model Report, at pgs. 64-66.

B. Immediate Active Recovery Would Have Negative Environmental Effects Relative to Available Alternatives

Immediate dredging or other active recovery methods would result in a net negative environmental impact relative to other available alternatives. As a result, any order to initiate removal of the submerged oil via active recovery would be inconsistent with the NCP and should not be adopted.

The NCP provides that "[o]f the numerous chemical or physical methods that may be used [to recover oil or mitigate its effects], ***the chosen methods shall be the most consistent with protecting public health and welfare and the environment***." 40 C.F.R. § 300.310(b) (emphasis added). The current Administrative Record, however, makes clear that immediate dredging or other active recovery methods are not the alternatives most consistent with protection of the environment. In fact, the Natural Resource Damage Trustees, including the U.S. Fish & Wildlife Service ("USFWS"), the National Oceanic and Atmospheric Administration ("NOAA"), and the Michigan Department of Natural Resources ("MDNR"), have previously submitted comments to MDEQ in response to an earlier Enbridge permit application raising their concerns with regard to the efficacy of agitation toolbox and containment methods, as well as potential adverse impacts to biota. The Trustees' comments are enclosed as Attachment 4.

The August 8, 2012 Net Environmental Benefit Analysis ("NEBA") prepared by the Scientific Support Coordination Group ("SSCG") for the site directly addressed the potential ecological effects of further oil recovery.[15] The NEBA makes clear that with respect to impounded waters and associated deltas (the areas at issue in EPA's Proposed Order), the "dredging/vacuum truck" recovery option has more severe and longer lasting environmental impacts than the "sheen collection" alternative. *See* NEBA, at pgs. 15-16, 49-51. In fact, the NEBA concluded that "organisms are generally thought to have shorter recovery times and less degree of impact for natural attenuation and sheen collection than for agitation toolbox, dredging, dewater/excavate and sweep and push techniques." *Id*., at pg. 51. According to the NEBA summary, the quicker recovery times and lesser impacts applied to plant life, amphibians and reptiles, fish and invertebrates.[16] NEBA, at pg. 49. The risk of injury to the majority of living resources listed in the preceding sentence as a result of dredging is a rank of 2B on the scaled used by the NEBA. This ranking indicates a high impact (30-60% relative to baseline) with intermediate time to recovery of the River environment (3-7 years). *See* NEBA, at pg. 17. In contrast, the sheen collection alternative was assigned a rank of 4D, which

[15] *See* Administrative Record Item #963, at pg. 1 (August 8, 2012) (purpose of NEBA was to evaluate "the environmental risks associated [with] leaving residual submerged oil in place and allowing for natural attenuation as opposed to varying levels of physical habitat disturbance associated with recovery actions such as agitation and dredging.")

[16] The NEBA concluded that likely impacts on mammals and birds in impounded waters would be the same as sheen collection. *See* NEBA, at pg. 49.

indicates a "low" impact (0 to 10% relative to baseline) and "very short-term" recovery time (less than a year).

The SSCG provided detailed conclusions in the NEBA regarding environmental impacts likely to be suffered by various resources as a result of dredging. The impacts cataloged included physical trauma/removal (for amphibians and reptiles and invertebrates), and severe impacts on food resources for other animals. Mussels in particular are adversely affected by dredging relative to other options, and according to the NEBA are a "resource of concern, especially in deltas, because they will re-colonize areas slowly and only if sediment stability and appropriate flows are restored" following dredging. *See* NEBA, at pg. 17.

The substantial impacts of dredging indicated in the NEBA are in sharp contrast to the low impact (0-10%) and very short-term recovery time (less than 1 year) for the same organisms resulting from sheen collection. *See* NEBA, at pgs. 10, 14-19. Thus, on its face, an order that would require dredging is not consistent with the NCP's requirement to protect the public health and welfare and the environment where the active recovery methods required to be undertaken by Enbridge are more harmful to the organisms and their habitat than other available recovery methods.

EPA has advised that its current proposal relies heavily on the Fitzpatrick Letter. As fully explained in the attached Technical Review Memo (enclosed as Attachment 5), however, the Fitzpatrick Letter does not revise the environmental assessment in the NEBA nor does it represent the findings of the SSCG. The Fitzpatrick Letter discusses in detail Dr. Fitzpatrick's views on migration potential of submerged oil in the impounded sections of the River. Nowhere though does the Fitzpatrick Letter address the <u>environmental</u> impacts of proposed dredging activities on River resources, much less weigh any beneficial impacts of dredging against the environmental costs.[17] Further, the Fitzpatrick Letter does not "constitute a complete monitoring report incorporating that data that is necessary to properly update the NEBA risk matrix tables to correspond to present River conditions." Technical Review Memo, at pg. 4. Thus, the Fitzpatrick Letter certainly does not change the finding of the August 8 NEBA that the net environmental impact of dredging generally is more severe and longer-lasting than sheen management.

While EPA's proposal for dredging looks to the Fitzpatrick Letter for support, any requirement for dredging would go well beyond the conclusions and assertions of that Letter. The Fitzpatrick Letter itself does not recommend dredging, but instead phrases its

[17] This focus, of course, is consistent with the fact that Dr. Fitzpatrick's area of expertise is hydrology and not a biological science. The Fitzpatrick Letter specifically states that her accompanying analysis did <u>not</u> represent a consensus among the SSGC as a whole. Fitzpatrick thus could not meaningfully reassess the environmental impacts detailed in the August 8 NEBA, which Enbridge understands was drafted following consultation with members of the SSGC, whose training does reflect biological expertise.

conclusions in terms of a consideration for recovery of submerged oil. *See* Technical Review Memo, at pg. 4. This point merits reiteration: the Fitzpatrick Letter does not make any specific recommendations for further actions, much less recommend dredging.

EPA generally has not proffered a sufficient basis to demonstrate a substantial benefit to the environment or public health to warrant agitation/dredging. The Agency has therefore not justified the evident risk of injury that would result from agitation and/or dredging, as addressed by the NEBA. This is particularly the case where, as here, the potential both for migration of any submerged oil or contaminated sediments and harm to organisms or their habitat from the submerged oil is low, and there is little or no credible evidence that any residual oil is likely to migrate from its expected depositional areas. EPA has not provided an assessment of risk to public health or the environment if the proposed active recovery stirs up previously contaminated sediment (*i.e.*, contamination existing in the River prior to the Line 6B release) and causes that contamination to migrate.[18]

Another element in the risk assessment is the degree to which any residual oil will biodegrade over time. A preliminary review by independent experts of the biodegradability study on residual oil provided by EPA raises questions about the study, including whether the correct methodology was used, the sufficiency of the volume tested, and whether the tested oil was representative of residual oil. The biodegradability study was conducted to evaluate if residual submerged oil could undergo biodegradation beyond the weathering and in-situ degradation which has already occurred following the July 26, 2010 Line 6B release. However, in accordance with the Biodegradability Review Memo, additional biodegradability work is needed to better gauge the degree to which any remaining residual oil will attenuate naturally without any threat to public health. This is yet another reason to not move forward with a dredging program at this time.

In Enbridge's view, the proper course of action in these circumstances is to continue with active sheen management pending completion of various studies that will better quantify any remaining submerged oil and allow the completion of a revised NEBA that reflects anticipated environmental effects. The CWA requires that an owner or operator taking efforts in response to an oil discharge under Section 311 "shall act in accordance with the National Contingency Plan and ***the applicable response plan***." Section 311(c)(3)(B), 33 U.S.C. § 1321(c)(3)(B) (emphasis added). The EPA-approved Work Plan sets forth activities to be undertaken to assess, contain and recover any oil released as a result of the Line 6B rupture. That Work Plan explicitly provides that

[18] Indeed, the NEBA process is typically employed in cases where (like here) it is acknowledged that no public health threat continues to exist. *See* NEBA, at pg. 1 ("The NEBA is strictly applicable for determining ecological benefits for recovery actions and identifying cleanup endpoints, after the human health and safety factors are accounted for.").

"[a]ctive recovery of submerged oil may occur via the use of approved techniques at select locations as determined by the SOSG, OSCAR, and other advisory groups identified by the U.S EPA." Section 5.2.1. The SSCG prepared the NEBA to advise EPA on the net environmental impact likely to result from the recovery of submerged oil. As explained, the SSCG has concluded that sheen collection is environmentally preferable when compared to agitation or dredging under conditions presently found in the River.

The NEBA was developed to assist EPA in determining appropriate cleanup activities, and EPA has discretion to determine appropriate cleanup based on recommendations made in that document. EPA's discretion, however, is nonetheless confined by the NCP. EPA must, at a minimum, employ methods that protect the public health and environment as required under the NCP. EPA's Proposed Order, however, has not been demonstrated to be consistent with this requirement based on existing evidence. Moreover, there is no evidence that the Proposed Order reflects the views of or input from other affected agencies such as the USFWS, MDEQ, MDNR, or the Calhoun and Kalamazoo County Public Health Departments in order to better assess impacts to wildlife and the public health as a result of agitation and/or dredging.

C. <u>More Data Will Allow EPA to Make a Better Informed Decision</u>

In preparing the NEBA, the SSCG recognized that the NEBA process remained conceptual and incomplete due to the following four main information gaps: (1) additional acute and chronic sediment toxicity data; (2) toxicity and physical smothering associated with agitation toolbox techniques; (3) oil biodegradation rates; and (4) quantification of volume of any remaining oil. *See* NEBA, at pg. 51. To date, studies addressing the above information gaps remain incomplete and the SSCG's recommendation to subsequently review and update the relative risk rankings as more data are generated has not, to Enbridge's knowledge, yet been completely carried out.

Absent new data and analysis of that data by the SSCG, the conclusions of the August 8 NEBA should be respected. If EPA remains interested in pursuing containment and active recovery as proposed, it should await the above studies before making any decision on next steps. Specifically, the Agency should: (1) complete the studies needed to fill in the data gaps identified in the NEBA; (2) develop updated biological risk metrics for the specific areas and species of concern using site-specific data; and (3) re-evaluate the various possible combinations of responses and levels of harm or risk of harm to determine the net benefit of the different potential responses available. This conclusion is confirmed in the Technical Review Memo, which concludes that an updated quantification of harm and evaluation of benefits would be beneficial. *See* Attachment 5.

D. <u>Existing Hydrodynamic Data and Modeling Do Not Support the Conclusion that Migration is Occurring at Rates and Places that Would Justify Immediate Dredging</u>

As directed by EPA and EPA's consultants, two models have been developed, riverine and floodplain, to simulate hydrodynamics and sediment transport in the area of the Kalamazoo River impacted by the Line 6B spill. As noted in the Work Plan, such modeling efforts can provide useful predictions regarding the fate and transport of submerged oil over a range of flow conditions. This information has been useful in balancing the impacts of the oil in the River system and with the consequences of the recovery options.

The submerged oil remobilization Riverine analysis concluded it is likely that there would be only a minimal amount of submerged oil movement even during high flows including 50-year and 100-year flood events.[19] The analysis concluded that most of the remaining submerged oil has settled in long-term depositional areas and that remobilization is unlikely.[20]

The Proposed Order would require further collection and interpretation of data to including hydrodynamic assessment/model. The model has addressed the intent expressed in the Work Plan. Depositional and erosional areas have been identified, delineated, and mapped. The model was used to select the locations of sediment traps in the river and was calibrated using inputs collected from the river. Additional modeling tasks, such as 3-D modeling of Morrow Lake, refinement of sediment transport, modeling of submerged oil, and other variables will not add value to the project goals and is not justified at this time. To date, the administrative record reflects no operational rationale for or benefit from further modeling activities.

E. <u>Extensive Air Monitoring Data Show Future Sampling Not Required At This Time</u>

The Proposed Oder sets forth a requirement for performance of air monitoring or sampling. Immediately after the release and for a significant time thereafter extensive sampling was conducted for both community air monitoring and worker air monitoring. However the extensive data gathered to date provides a well-founded scientific basis to eliminate further community air monitoring and sampling for communities adjacent to the Line 6B release.[21] With regard to worker monitoring the approved site-specific Health and Safety Plan ("HASP") specifically provides that ongoing industrial hygiene monitoring is not required based on industrial hygiene exposure assessments conducted throughout the response, recovery and remediation activities. *See* HASP, at Appendix D. Any future decisions regarding when and how air monitoring is performed should be

[19] *See* Modeling Report, at pgs. 64 – 66.

[20] *See* Modeling Report, at pg. 65.

[21] *See* August 12, 2012 letter from Enbridge to EPA.

made in accordance with the HASP and the approved site specific Sampling and Analysis Plan based on conditions in the field.

III. Conclusion

Enbridge appreciates that EPA has provided an opportunity to express views on the EPA's Proposed Order, both at the October 23 meeting and in these written comments. Enbridge also appreciates EPA's stated interest in reaching an amicable resolution of this matter, a goal that Enbridge shares. Enbridge likewise shares EPA's goal of protecting the public health and welfare and the environment. The current issue is how best to achieve those goals. The NEBA supports continued active sheen management as the means of responding to the current circumstances in the River which has the fewest environmental impacts. Whether additional steps are warranted, including the containment and active removal identified in the Proposed Order, can best be reevaluated once more data is made available from several on-going studies, particularly the quantification study now expected to be completed by year end.

For that reason, and the other reasons set forth above, Enbridge commits to continue its current sheen management efforts and urges that consideration of any further measures be deferred until this additional data is considered. In order to promptly address these and related issues, Enbridge proposes that the parties meet again at the earliest opportunity to discuss the impacts of recently released studies on the on-going River cleanup and to address concerns raised above.[22]

Sincerely,

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

Richard L. Adams
Vice President, U.S. Field Operations

[22] In recent weeks alone, EPA has provided Enbridge with a new biodegradation study and the recently completed "UV- Epifluorescence Microscopy Analysis of Sediments Recovered from the Kalamazoo River." Counsel for EPA has extended the time available to comment on these studies, and Enbridge reserves its right to supplement its current submission in light of the release of these new documents.

cc: Robert Kaplan, U.S. EPA, Region 5 (via email only)
Leslie Kirby-Miles, U.S. EPA, Region 5 (via email only)
Michelle DeLong, MDEQ (via email only)
Mark DuCharme, MDEQ (via email only)
William Creal, MDEQ (via email only)
Polly Synk, MDEQ (via email only)
John Sobojinski, Enbridge (via email only)
David Coburn, Steptoe & Johnson (via email only)

ATTACHMENTS TO
ENBRIDGE ENERGY, LIMITED PARTNERSHIP'S
NOVEMBER 2, 2012 LETTER TO THE
U.S. ENVIRONMENTAL PROTECTION AGENCY