UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

August 23, 2011

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

Re: Disapproval of Enbridge Energy, Limited Partnership's July 27, 2011 submittal as required in the 2011 Air Monitoring and Sampling Addendum to the Sampling and Analysis Plan Submitted June 21, 2011, in response to the Administrative Order issued by U.S. EPA on July 27, 2010 and Supplement to the Administrative Order issued by U.S. EPA on September 23, 2010, pursuant to §311(c) of the Clean Water Act (Docket No. CWA 1321-5-10-001).

Dear Mr. Adams:

U.S. EPA has completed its review of the following document submitted by Enbridge on July 27, 2011:

> *Enbridge Line 6B MP 608, Marshall, MI Pipeline Release,* ***Report of Findings 2011 Air Monitoring and Sampling****, Prepared for United States Environmental Protection Agency, Enbridge Energy, Limited Partnership, Submitted: July 27, 2011*

The following documents, which were previously submitted to U.S. EPA under separate cover and then subsequently included in the above-referenced July 27, 2011 report as attachments, are also included in U.S. EPA's review described herein:

> *Enbridge Line 6B MP 608, Marshall, MI Pipeline Release,* ***Worker Inhalation Exposure Assessment****, Prepared for United States Environmental Protection Agency, Enbridge Energy, Limited Partnership, Submitted: July 21, 2011*
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> *Enbridge Line 6B MP 608, Marshall, MI Pipeline Release,* ***Addendum to The Worker Inhalation Exposure Assessment: Additional Analytical Results (June 18-July 1, 2011)****, Prepared for United States Environmental Protection Agency, Enbridge Energy, Limited Partnership; Submitted: July 25, 2011*
>
> *Enbridge Line 6B MP 608, Marshall, MI Pipeline Release,* ***Report of Findings, Tar Patty Study****, Prepared for United States Environmental Protection Agency, Enbridge Energy, Limited Partnership, Submitted: July 26, 2011*

U.S. EPA also acknowledges receipt of a letter request from Enbridge dated August 8, 2011, whereby Enbridge requested withdrawing the above-referenced report in its entirety and resubmit a revised version.

Pursuant to Paragraph 18 of the July 27, 2010 Order, U.S. EPA disapproves Enbridge's above-referenced *Report of Findings 2011 Air Monitoring and Sampling ("RFAMS")*, including attachments, submitted to U.S. EPA on July 27, 2011. The U.S. EPA also disallows the request to retract the above-referenced reports.

General comments to the RFAMS are presented below and shall be considered and incorporated into a revised RFAMS.

G.1) The RFAMS as submitted provides a summary of air quality data collected , but it does not providethe required evaluation of the data. The RFAMS does not provide sufficient discussion of the technical review and evaluation process to support the determination that Constituent of Potential Concern (COPC) concentrations did not exceed the applicable human health air screening levels, for worker exposure and/or community exposure. Please provide additional evaluation and discussion to support the determination that COPC concentrations did not exceed the applicable human health air screening levels.

G.2) Please submit data identified in the RFAMS in commonly used electronic formats (i.e., SCRIBE, Microsoft Excel, and/or similar software). This includes, but is not limited to, the following types of data: analytical data; real-time readings; worker badge sampling results and data; worker data logged photoionization detector (PID) data; National Weather Service (NWS) weather data; and on-site meteorological station data. All files should be documented as to format and contents.

G.3) The terms "COPC", "target compounds", "Crude Oil Related Chemicals", and possibly others appear to be used interchangeably throughout the RFAMS. Please define all terms used to describe chemical compounds and use the terms consistently throughout the RFAMS, including the attachments.

G.4) The report identified isopropyl alcohol and acetone as lab contaminants and then removed them from consideration as common laboratory contaminants. However, there was no indication of these compounds in the associated method blanks. Therefore, please provide justification for dismissing these compounds from consideration.

Specific comments to the RFAMS are presented below and shall be incorporated into a revised RFAMS.

S.1) Section 2.2: Please include and reference a full list of compounds which were reported by the laboratory (i.e., all compounds which are not Tentatively Identified Compounds) for the modified TO-15 method and include the reporting limits.

S.2) Section 2.3:

a. Second paragraph: please replace "Appendix C" with "Attachment C".

b. Please replace the last sentence of the second paragraph with the following:

"Upon review of this study U.S. EPA representatives provided comments to Enbridge contractors (i.e., CTEH) via e-mail regarding an informal and preliminary review of initial wind roses and data provided by CTEH. The communication indicated that the data could be used to document local conditions if the data were supported by a full evaluation and comparison with airport data."

Insert the following paragraph after the above sentence.

"As stated in previous email communication, U.S. EPA representatives also informed Enbridge contractors of minimum elements that should be included in the RFAMS. Therefore, please add details regarding wind rose data collection, processing, and interpretation."

S.3) Section 3: please discuss derivation of the Community Action Levels used in the report that are not listed in Attachment D.

S.4) Section 4: The purpose of the tar patty study was to assess the potential for emissions from tar patty material, not to "determine the presence and extent" of emissions. Please revise the stated purpose.

S.5) Section 5.1, 5.11 and 5.12: Please revise the text by clarifying that the total numbers of readings are the sum of separate numbers of VOC, benzene, H_2S, and SO2 readings.

S.6) Table 3: The text references data quantities for the following categories: total community, Baker Estates, and the Ceresco community. However, Table 3 only provides detail for total community data and Baker Estates. Please add data for Ceresco community to Table 3.

S.7) Section 5.2.2:

a. The text states work zone monitoring was conducted from June 6, 2011 through July 16, 2011. However, other locations of the text indicate that monitoring was performed from June 6, 2011 through July 1, 2011. Please review the data, and revise if necessary; or provide an explanation for the discrepancy.

b. Contrary to the text, there is no figure of data logged MultiRAE readings in Attachment F. Please provide the data or revise the text.

c. Please provide a date for when MultiRAE logging was terminated.

d. Please provide a discussion of work-zone detections using logging PIDs, and the relationship to the benzene PEL. In the discussion, please also state whether action levels were exceeded and whether work logs ruled out disturbed submerged oil as a source of detection.

S.8) Section 6: Please provide a discussion of upwind and downwind classification of samples.

S.9) Section 6.1 (second paragraph): Please replace "was" with "were".

S.10) Section 6.2: Please change the section title to "Work Zone Air Sampling".

S.11) Table 4:

a. The sample counts shown in the first column of the table do not match with corresponding counts from cumulative summary tables in Attachment G.

b. Please verify that all data in Table 4 with the data in the SCRIBE database, and revise if necessary to ensure consistency between the two.

c. Duplicates and blank samples shall not be included in primary sample counts, or in the summary of detections/exceedences. Duplicate samples shall be summarized alongside the primary samples as a quality assurance comparison.

S.12) Attachment B: Please add the units of measure to the table.

S.13) Attachment C: Please provide a description of the information contained in the wind roses, how to read the graph, and how the data were processed.

S.14) Attachment D: Please provide the second page of the table (as shown in Attachment B).

S.15) Attachment E:

a. Please provide a description of how tar patty samples were transferred from Mylar to Tedlar bags for sampling. Also provide a description of blank samples.

b. Please provide the volume of air collected in samples.

c. Please describe whether ambient air was present in the Mylar bags.

d. Please state whether the Mylar bags were allowed to heat up in the ambient conditions (i.e., sun) for the initial study.

e. Please provide justification for using different labs to analyze tar patty head space samples and ambient air samples.

f. Please describe how tar patty sampling sites were selected and their representativeness with relation to the overall population of tar patty sites.

g. Please define "COPCs" and "VOCs" and ensure consistency in the use of these terms to describe constituents.

h. Please provide a note enabling the distinction between TICs from TO-15 compounds.

i. Please provide photographs of the tar patties and bag sampling process, or explain why there is no photographic documentation.

S.16) Attachment F:

a. Please provide a summary of readings density (i.e., readings per area).

b. Please scale the figures consistent with the general work areas. Also please include the following components on the figures: active work zones, reading density and ensure that all detections areas shown.

S.17) Attachment G:

a. First 3 pages of the Table: please provide subtotals for all work areas and also a grand total.

b. Cumulative Tables:
    i. Please define "Target" and "Non-target" compounds.
    ii. Please provide an explanation of how "SLs" were selected for compounds not included in the list shown in Attachment D.

c. Please identify location names on the figures so they can be cross-referenced with the database.

d. Please ensure that the scale which is used in all figures is appropriate so that the information contained in the figures is visible and clear.

e. Please provide a description as to why samples are not shown for select days (i.e., Sundays).

f. Please adjust the icons/symbols used to identify locations detections on the figures so the icons stand out more and are more readily apparent.

S.18) Attachment J, Pace Project No. 10162819:

a. Samples were collected in Tedlar bags on 7/7/2011 without times of collection noted and they were received at the lab at 1130 on 7/9/2011. Samples were noted to have been transferred to Summa canisters within 48 hours of collection. However, the time of collection is not noted. Therefore, the timing of the transfer is unknown and the validity of the 48 hour requirement cannot be verified with the information provided.

b. Additionally, Method TO-15 is designed and validated for sample collection in specially designed canisters, not Tedlar bags with transfer to Summa canisters. Please justify the use of Tedlar bags and the validity of the samples.

c. These data do not appear to be included in the validation reports provided in Attachment I, please include validation information for these samples.

S.19) Attachments I and J, Galson Lab Project L241901 and eDATApro Report L241901:

a. Sample BEMI0607MC001 was reanalyzed by the laboratory with no mention of the reanalysis in the data validation report. The sample results presented in the laboratory report do not include the reanalysis. The sample results from the data validation report would indicate that the sample was reanalyzed with a dilution for isopropyl alcohol. Please provide justification for these actions.

b. Instrument calibration records were not provided for review in the laboratory data package. This appears to be the case with all lab reports submitted. Also, Initial Instrument Calibration is not included in the data validation parameters for review. Instrument calibration records are required as an evaluation parameter in Section 4.0 Data Validation /Verification in the 2011 Air Monitoring and Sampling Addendum to the SAP. Please provide all required calibration data.

S.20) Attachment J:

a. eDATApro Report L243043: The data validation report notes 3 samples (MAMIWA0622MC213, MAMIWA0622MC217CO and MAMIWA0622MC219) were received at the laboratory under full vacuum, indicating that a sample was not collected. Please explain why this was not detected by vacuum gage observations in the field during reported sample collection.

b. eDATApro report L242623 (as an example): A 6 liter Summa canister was received by the laboratory but the validation report notes that reporting limits were elevated due to limited sample volume. Please provide justification explaining why the sample volume was inadequate and any associated inefficiencies in field protocols/quality assurance.

Comments specific to the ***Worker Inhalation Exposure Assessment*** ("WIEA") are presented below.

W.1) Section 1.0: please add the following to the end of the first sentence in the second paragraph"...and revised/resubmitted to the U.S. EPA on June 21, 2011."

W.2) Section 2.2: please add units of measure for the values included in Table 1 (Occupational Exposure Limits.

W.3) Section 2.3:

a. Please clarify whether exposure samples were collected from all "Remediation Technicians" or just a representative sample population.

W.4) Section 3.0:

a. Please confirm whether NIOSH 1500/1501 (personal protection pump with vapor analysis) or OVM badges (which are passive diffusion samplers) were used for worker exposure monitoring and/or analyses, and revise if necessary.

b. Please clarify whether all concentration calculations were performed in accordance with OVM badge guidance provided by the manufacturer.

W.5) Section 4.1:

a. It appears that the referenced 8% and 4% values are incorrect. Please provide details for the basis used to calculate the percentage of the OSHA PEL-TWA Action Level and the ACGIH TLV-TWA, and revise if necessary.

b. The report references exposure values based on 8 hour days and includes an adjusted value to evaluate compliance. Please consider using the "Brief and Scala" (see http://www.workplace-hygiene.com/articles/OEL-extended-work.html) method of modifying exposure values for longer days (i.e., 10 hour and 12 hour values). This method provides a quantified value by which to evaluate results and reinforces the fact that exposure levels must be modified for longer work days.

W.6) Section 5.0: Please provide a brief narrative text of the analytical results for blank samples.

W.7) Section 6.0:

a. Second paragraph references five samples with detections, however, it appears that only three samples were analyzed. Please verify the number of samples, and revise if necessary.

b. Please discuss if there are any additional observations or conclusions that can be made with the statistics presented in the second paragraph.

W.8) Time-series data was logged using photoionization detectors (PIDs) worn by workers to evaluate short-term exposure limits (STEL). Please provide the data generated from the PID/loggers, including an evaluation of the data.

W.9) Please provide a discussion on the potential effects of non-contamination related work activities (filling gasoline tanks, applying insecticide, etc.) which could affect worker exposure analytical results.

Comments specific to the ***Addendum to The Worker Inhalation Exposure Assessment: Analytical Results (June 18-July 1, 2011)*** ("Addendum") are presented below.

A.1) Section 2.0:

a. Please confirm whether NIOSH 1500/1501 (personal protection pump with vapor analysis) or OVM badges (which are passive diffusion samplers) were used for worker exposure monitoring and/or analyses, and revise if necessary.

b. Please clarify whether all concentration calculations were performed in accordance with OVM badge guidance provided by the manufacturer.

c. The referenced NIOSH methods are not included as Appendix A, as stated. Therefore, please add the referenced NIOSH method or revise the reference to the standard.

d. Occupational Exposure Levels (OELs) are referenced, but values are not presented. Please add a table with the OELs.

A.2) Section 3.0:

a. In the last sentence of the second paragraph, please replace "was" with "of".

A.3) Section 4.0, second paragraph:

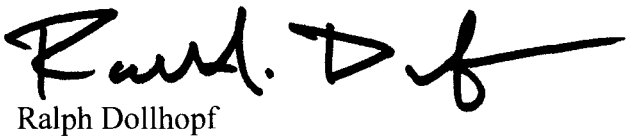
a. Please replace the last sentence with "Based on results of worker breathing zone testing, exposures in excess of occupational regulations/guidelines for TWA concentrations are not occurring in individuals working with or around oil-impacted materials."

Please revise the report (including all attachments are necessary) to provide the required detailed evaluation of results.

The revised report shall be submitted to U.S. EPA no later than 1700 EDT on August 30, 2011. Please submit an electronic copy of the original and final plan in Microsoft Word format concurrent with the hard copy.

If you have any questions regarding this directive, please contact me immediately at (231) 301-0559.

Sincerely,



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
M. Durno, U.S. EPA
T. Edwards, U.S. EPA
S. Wolfe, US. EPA
S.Vega, U.S. EPA
M. Ducharme, MDEQ
L. Dykema, MDCH
M.Alexander, MDEQ
Records Center, U.S. EPA, Reg. V