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January 4, 2010

Mr. Kevin Houppert, LPG  
Remediation Services Branch  
Indiana Department of Environmental Management  
100 North Senate Ave.  
Indianapolis, IN 46204-2251

**RE: Responses to IDEM Comments on the Further Site Investigation Report  
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana  
MACTEC Project Number 3359-09-2469**

Dear Mr. Houppert:

This letter contains responses to the comments addressed by IDEM in reference to the Further Site Investigation Report and Vapor Monitoring Report review letter dated October 9, 2009.

**Vapor Monitoring Report Specific Comments (page 2 of 6):**

*The QA/QC documentation for the samples listed in Appendix VI of the IDEM Draft Vapor Intrusion Pilot Program Guidance (DVIPPG) was not provided. Please submit this documentation for validation by the IDEM Chemist.*

The QA/QC documentation for the soil gas samples collected in December 2008 is presented in Attachment A.

*The text is not clear as to what size canister was used for sampling the soil gases in this investigation. IDEM recommends the use of a 400 millimeter (mL) or one liter (1 L) canister when sampling sub-slab or soil gas samples. Please clarify what sized canister was used.*

The soil gas samples collected from the vapor monitoring wells in December 2008 were collected using stainless steel 6-Liter Summa<sup>®</sup> canisters.

*In conformance with DVIPPG, with comparisons to the ground water sample results, the Jeffries residence should be investigated with indoor air and sub-slab vapor sample collection.*

MACTEC has contacted Ms. Jeffries to request access to the residence to conduct indoor air and sub-slab vapor samplings. However, at the time of this letter, MACTEC has not heard back from Ms. Jeffries regarding access to her property or residence. MACTEC will continue to pursue access from Ms. Jeffries to perform the indoor air and sub-slab vapor sampling. After access to the property and residence has been granted by Ms. Jeffries, MACTEC will schedule the sampling activities and provide IDEM with proposed sampling date.

**Further Site Investigation General Comments (page 3 of 6):**

*It is appropriate to conduct further source area investigation at the site below the former degreaser, below the former footprint of the pond, and in the septic drain field and tank areas to adequately assess the potential source areas. These efforts need to be included in the next phase of the FSI.*

MACTEC is in the process of preparing a work plan and scheduling additional field work to investigate the potential source areas at the site. The potential source areas to be investigated in early 2010 are the former degreaser, below the former footprint of the pond, in the former septic drain fields and tank areas and in the former dry wells. It should be noted that due to the difficulties accessing drilling locations in the pond, MACTEC is proposing several wells on the down gradient side of the current pond foot print. The proposed soil boring/monitoring wells area shown on Figure 1 in Attachment B.

**Further Site Investigation Specific Comments (page 3 of 6)**

*According to Table 14, no metals were detected at reportable concentrations. However, the QA/QC documentation supporting the data was not sufficient to validate the results. Therefore, IDEM does not accept the determination of the nature and extent of contamination as complete. Please provide full QA/QC documentations for the sample data.*

The QA/QC documentation for the metals analyses performed on the groundwater samples collected during the Nature and Extent Investigation is presented in Attachment C.

**Pond Surface Water and Sediment Sampling (page 4 of 6)**

*The East Pond surface water and sediments were sampled and no contaminants were reported above their RDCLs. However, the QA/QC documentation supporting the data was insufficient to validate the results. Please provide full QA/QC documentations for the sample data.*

The QA/QC documentation for the East Pond surface water and sediments samples collected during the Nature and Extent Investigation is presented in Attachment D.

*Samples were collected to determine the efficiency of the drinking water filters at several of the residences in the area surrounding the property. Samples were collected from the raw water, midpoint, and the finished water sampling locations. Results indicated that the filtration systems were functioning well and were adequately protecting the residents from exposure. However, the results reported in this document were not supported by the full QA/QC documentation that would allow for validation of these data.*

The QA/QC documentation for the residential water system sampling conducted in the investigation area is presented in Attachment E.

*According to Figure 17, it appears that the eastern extend of the contamination has not been defined. IDEM agrees with the contractor's assessment that additional monitoring wells are needed to define the ground water contamination related to the site. As proposed by MACTEC, further delineation of ground water contamination due to chlorinated hydrocarbons east of the locations of monitoring wells MW-31 and MW-32 is justified.*

Please note that MACTEC has proposed additional groundwater investigation activities to the east of monitoring wells MW-32 and MW-34 locations. There is not additional investigation activities scheduled at this time to the east of MW-31 due to the results of the laboratory analyses perform on the groundwater samples collected from the well nest at

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MW-31 being less than the laboratory detection limits. The proposed groundwater monitoring well locations are shown on Figure 2 in Attachment B.

*These is a large triangular area, defined by MW-21, MW-30, and MW-47, that does not have any monitoring wells defining the western extent of the contamination. IDEM suggests the installation of at least one additional monitoring well in this triangular area to define the contamination in this area.*

MACTEC has proposed an additional groundwater monitoring well as part of the additional field work scheduled to begin in early 2010. The groundwater monitoring well is proposed to be installed on the west side of North Old US Highway 31, south of well nest MW-21. The proposed groundwater monitoring well location is shown on Figure 2 in Attachment B.

*Title and Signature Page: The license number for Laura Stirban, LPG should be included here.*

The Licensed Professional Geologist license number for Laura Stirban is 1359.

*Section 4.4, page 4-4: "Based on the drawdown recorded in the background well nest (MW-22), the static water drawdown is 0.35 feet or less." This sentence is obscure and should be clarified. Please clarify the statement.*

MACTEC concurs with the sentence that IDEM suggested in the October 9, 2009 correspondence, "...over the period under discussion the aquifer as a whole was dewatered due to seasonal variation in recharge, and that the amount of drop in static water elevation in MW-22 was taken to be the baseline for the aquifer."

*Section 5.2.2, page 5-3: MACTEC reasons that cessation of use of the water supply well at 4375 Old U.S. 31 is responsible for the non-appearance of vinyl chloride in the nearby monitoring wells. This may be true, but the site hydrology and stratigraphy are complicated enough that other factors may be responsible. All the wells in question should be monitored for several events to provide more data.*

To date, MACTEC has collected three rounds of quarterly groundwater samples from all the existing groundwater monitoring wells. The 4<sup>th</sup> quarterly groundwater sampling event is scheduled for March 2010.

*Appendix B, Figures 6 to 10 (Geologic Cross Sections): IDEM agrees that historic water supply well logs are often inaccurate, but their contents should be noted on these figures where applicable. In some cases they may explain discrepancies, e.g., the presence of vinyl chloride in water supply well number 4375 may be due to a stratigraphic window in the clay layer there compared to the nearby monitoring well.*

MACTEC has revised Figures 6 through 10, Geologic Cross Sections, (from the Further Site Investigation Report), to include information presented on the Record of Water Well on file with the Indiana Department of Natural Resources. The revised Geologic Cross Sections are presented in Attachment F.

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If you have any questions regarding this report, please contact Mr. Paul Stork at 937-859-3600 or Mr. Jamie Schiff at 401-457-2422.

Sincerely,

**MACTEC ENGINEERING AND CONSULTING, INC.**

Paul J. Stork  
Project Manager

Dayne M. Crowley  
Chief Scientist

Enclosures

cc: Mr. Jamie Schiff (Textron, Inc.)  
Ms. Theresa Holz (U.S. EPA Region 5)