IDEM

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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October 13, 2011

Mr. Andrew Graham, EHS Project Manager-Remediation and Transactions
GE Energy
1 River Road
Building 43, 2*16
Schenectady, New York 12345

Dear Mr. Graham:

Re: RCRA Closure Work Plan Amendment No.1
Contingency Sampling Results-Sept. 7, 2011
GE Energy, Specialty Transformer
Former RCRA Container Storage Unit
1701 College Street, Bldg 26-2
Fort Wayne, Indiana
EPA I.D. No. IND 004 557 815

The Indiana Department of Environmental Management (IDEM) has reviewed your September 7, 2011 letter (VFC #63523934) summarizing ground water, soil, vertical aquifer sampling, and vapor intrusion sampling activities following a scope of work described in your April 19, 2011 letter (VFC #62020962). The letter and contingency sampling results are part of the continuing implementation of contingency provisions of GE's RCRA *Closure Plan Amendment 1,* dated January 12, 2010 (VFC #53670255).

Please note that since quality assurance/quality control (QA/QC) data concerning the samples was not submitted, the results could not be validated. When reporting air sample results, please submit full QA/QC data along with field notes and building survey information for data evaluation. You can find the elements of full QA/QC for air samples in the IDEM Draft Vapor Intrusion Pilot Program Guidance on page VII-1 on IDEM's website at http://www.in.gov/idem/files/la-073-gg.pdf. Additionally, further investigation with intermediate soil and groundwater sample data should include the Minimum Data Documentation Requirements (MDDRs). You can you find the elements of MDDRs at http://www.in.gov/idem/5056.htm. Lastly, when GE requests site closure, final delineation data should include all QA/QC data. The elements of full QA/QC data are located in Appendix 2 of the RISC Technical Guidance Document at http://www.in.gov/idem/files/risctechguidance.pdf.

Field duplicate sample results of the soil, ground water,. and air samples were not reported in the recent correspondence. Additionally, ambient air background sample results were not reported. We recommend the collection of field duplicate samples of each matrix and ambient air background samples in future sampling activities.

Several of the trichloroethene (TCE) groundwater sampling results exceed the 31 ppb RISC Industrial Default Closure Level (IDCL), including results at MW-2, MW-7, MW-8, MW-12, MW-13, and MW-14. The highest concentration was 170 ppb at MW-8. The tetrachloroethene result at MW-12 and cis-1,2-trichloroethene result at MW-7 exceeded the RISC Residential Default Closure Levels (RDCLs). The delineation of TCE is insufficient southwest of offsite monitoring well, MW-14. Additionally, please note in Figure 4, the proposed ground water well locations are located toward the west and south. The narrative indicates the locations are east and south of MW-14.

GE proposes additional soil gas collection near MW-14 and near each of the new monitoring wells located west of MW-14 and in the alley. In general, we agree with your plan to install two ground water monitoring wells for additional delineation of chlorinated contamination at off-site well, MW-14. However, given the high TCE concentration reported in ground water at well MW-14 and the 25 to 30 feet map distance between MW-14 and the nearest residence, the three exterior soil gas sampling locations proposed will not provide definitive evidence for determining ground water vapor intrusion risk to nearby residences. Since MW-14 fails ground water screening for vapor intrusion risk, sub-slab sampling in conjunction with indoor air sampling is the recommended next step for residential properties as it is the best indicator of ground water exposure risk in enclosed building areas. As part of the site investigation, GE should attempt to obtain occupant permission for indoor air and sub-slab sampling for all occupied buildings within 100 feet of high ground water concentrations exceeding Ground Water Screening Levels. The total number of residential buildings needing indoor testing is dependent on the results of the continuing delineation efforts. Additionally, since Buildings 27 and 36 are within 100 feet of the high chlorinated concentrations in ground water, indoor air and subslab air should be sampled in these buildings.

Additional vertical ground water sampling activities, including sampling at VAS-8, VAS-9, and VAS-10 were completed. These locations are to the north, east, and south of Building 26. The concentration of vinyl chloride (5 ppb) exceeds the IDCL (4ppb) at VAS-8. Further delineation of the plume outward to a level that is protective of human health and the environment is necessary. Unless GE can demonstrate no potential risk from the plume, we recommend continuing ground water delineation through a step out sampling procedure outside of Building 26. Please note sample results show the reporting limit for vinyl chloride at 5 ppb. In the future, a lower laboratory reporting limit which is below the closure level should be used to confirm the vinyl chloride concentrations at the site.

GE further investigated contamination in the soil at SP-33 (7 feet), SP-34 (2 feet) and SP-35 (1.5 feet) with hard augers to the depths that could be practically achieved to delineate contamination north of Building 26. The results show no significant contamination in the shallow zones. However, the SP-33, SP-34, and SP-35 results do not define the contamination in the deep zones. Historically, high concentrations of chlorinated contamination have been found exceeding the IDCLs at 16 feet at SP-30. However, since in recent reports soil sample results from offsite SP-31 (11 feet and 16 feet) borings show concentrations below the RDCLs, we consider vertical delineation is sufficient.

The vapor intrusion study was limited to Building 26 with indoor samples paired subslab samples collected at AS-01/SG-01 an AS-02/SG-02. According to the results, concentrations of TCE were detected in the subslab samples with 1,100 ppbv at SG-01 and 310 ppbv at SG-02. These paired indoor air sample results exceed IDEM's TCE Industrial Subslab Screening Levels, but not IDEM's Air Industrial Air Action Levels. However, the list of volatile organic compounds (VOCs) in Table 3 did not include the full list of VOCs. The breakdown products of chlorinated solvents like cis-1,2-dichloroethene and vinyl chloride were missing and the air sampling data could not be validated since full QA/QC was not submitted. Based on the TCE contamination in the subslab, we recommend continued subslab and indoor air sampling to determine seasonal variations between late winter/early spring and summer conditions.

Please incorporate the above noted recommendations in your upcoming Fall 2011 sampling activities. As stated in your letter, we expect to receive a Summary Report by December 31, 2011. Please make sure to include field duplicate sample results, ambient air background sample results, and QA/QC and MDDR documentation for the upcoming sampling activities as well as for the previously collected data in your Summary Report.

If you have any questions, please call Jennifer Reno at 317/232-3264 or e-mail at jreno@idem.in.gov.

Sincerely,

Victor P. Windle, Chief
Hazardous Waste Permit Section
Permits Branch
Office of Land Quality

cc: Sandra Roberts, IDEM
Mike Elliott, IDEM
Bradley R. Toth, MWH Inc.