

3 May 2010
Reference: 0095267

Mr. Michael B. Smith
Vermont Department of Environmental Conservation
Waste Management Division
103 South Main Street – West Office
Waterbury, Vermont 05671-0404



Re: IRM/CAP OM&M Report #9
Energizer Battery Manufacturing, Inc.
401 Gage Street
Bennington, Vermont 05201

Dear Michael:

Environmental Resources Management (ERM) is pleased to submit this letter report to the Vermont Department of Environmental Conservation (VTDEC) documenting the continued Operation Maintenance and Monitoring (OM&M) of the Interim Remedial Measure (IRM) and Corrective Action Plan (CAP) remediation systems on behalf of Energizer Battery Manufacturing, Inc. (Energizer) for the Energizer facility at 401 Gage Street, Bennington, Vermont (the "Site"). The VTDEC Sites Management Section has assigned the Site Number 2006-3509.

The purpose of this letter report is to document the OM&M data collected for the IRM and CAP remediation systems from January through March 2010.

REMEDIATION SYSTEM OPERATION STATUS

The CAP and IRM systems continue to operate as designed and are maintained on an as-needed basis to enable continued system operation. The CAP Steam Injection System was shut down during the previous quarter (20 October 2009).

Due to the shutdown of the steam system and the continuously decreasing PCE and TCE concentrations measured in the SVE system effluent, the SVE system effluent sampling frequency was decreased from weekly to monthly following discussions with and concurrence by the VTDEC.

The attached tables and figures contain operational data for the AS and SVE systems, and continued subsurface temperature monitoring data.

- Tables 1 through 4 – AS/SVE System Data
- Table 5 – General System Parameters
- Figures 1 through 3 – Site Plan and Well Locations
- Figures 5 through 10 – Temperature Data

RESULTS AND RECOMMENDATIONS

The following tables and figures present active soil gas (ASG) sampling, groundwater sampling, and SVE well and effluent sampling results:

- Tables 6 and 7 – SVE System Effluent Concentrations and Individual Well Concentrations
- Tables 8 and 9 – ASG and Groundwater Analytical Results
- Figures 11 through 14 – ASG and Groundwater Analytical Results and Time Series Plots
- Figure 15 – SVE System Individual Well Time Series Plots

Laboratory analytical results are included in Appendices A and B.

Analytical results from active soil gas and groundwater samples collected between January and March 2010 indicate the following:

- PCE concentrations in groundwater continue to exhibit steady or decreasing trends in all monitoring wells with the exception of ERM-12, where PCE concentrations increased slightly;
- TCE concentrations were below detection limits in all eight monitoring wells sampled during March 2010;
- PCE concentrations in soil vapor decreased at ASG-33 compared to the previous month. PCE concentrations have decreased by 86% compared to the maximum concentration detected in December 2008;
- PCE concentrations in soil vapor increased at ASG-32 compared to the previous month. However, PCE concentrations in soil vapor at this location have decreased by 81% compared to the maximum concentration detected in November 2008.

- PCE concentrations continue to be below detection limits at ASG-13;
- TCE concentrations were below laboratory method detection limits in all three soil vapor monitoring locations;
- PCE and TCE concentrations stayed roughly the same or increased slightly in all SVE wells, with the exception of SVE-26 which showed a decreased PCE concentration compared to the previous month. The increases in PCE and TCE concentrations are attributed to the fact that the samples were collected immediately following system maintenance and balancing activities.
- PCE concentrations in all SVE wells are currently below baseline concentrations, with the exception of SVE-1, which is slightly above its baseline concentration;
- Monthly SVE effluent concentrations are consistent with concentrations observed at the end of the previous quarter (December 2010);
- The AS/SVE system was adjusted continuously over the quarter to find the most efficient level of operation after steam shutdown. Readings of different parts of the system were collected multiple times per month but a full round of system parameters was collected only once per month. "NR" was used in Tables 1 through 5 to denote readings that were not collected during the adjustment activities, and;
- Temperature data included in this letter report represents temperature locations that are above 100 degrees F (°F) at one or more monitored depths. All other temperature locations are below 100 °F at all depths and are monitored but not graphed.

Based on the OM&M data collected during this reporting period, ERM has developed the following recommendations regarding operation of the remediation systems:

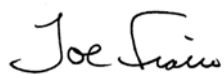
- Continue operation and maintenance of the CAP and IRM SVE system under current operating parameters;
- Continue to collect temperature data using the data logging system until the source area groundwater temperatures decrease to less than 120°F (i.e., the target temperature for safely sampling source area groundwater);

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- Per VTDEC approval, decrease SVE sampling frequency from monthly to quarterly (SVE-1, SVE-22, SVE-23, SVE-24, SVE-25, SVE-26);
- Per VTDEC approval, shut down the IRM and CAP AS systems to facilitate subsurface equilibration in preparation for a series of more comprehensive quarterly groundwater sampling events beginning in June 2010;
- Collect monthly active soil gas samples from ASG-32 and ASG-33 to monitor trends in soil gas concentrations;
- Continue to collect quarterly active soil gas samples from ASG-13, ASG-32, ASG-33;
- Continue to collect quarterly groundwater samples from ERM-12, ERM-13, ERM-14, ERM-15, ERM-16, ERM-17, ERM-19 and ERM-20. In addition, begin collecting groundwater samples from ERM-6, ERM-8, ERM-9S, ERM-10 and ERM-11s on a quarterly basis to monitor Site groundwater quality following source area remediation. In accordance with conversations with VTDEC, ERM will use both low-flow and passive diffusion bag (PDB) sampling methods for these locations in June 2010 to evaluate the potential for a transition to PDB sampling methods. Laboratory analysis of groundwater samples will target chlorinated contaminants of concern by focusing on the 8021c list of analytes, per VTDEC approval, and;
- Continue to collect monthly system effluent air stream samples.

Please call either of the undersigned at (617) 646-7800 if you have any questions or require additional information.

Sincerely,



R. Joseph Fiacco, Jr., P.G.
Principal-in-Charge



Catherine E. Regan
Project Manager

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Cc: Mr. Jeffrey Gipson (Energizer)

Attachments:

Table 1	<i>SVE Wells – Vacuum Gauge Data</i>
Table 2	<i>SVE Wells – Differential Pressure and Flow Data</i>
Table 3	<i>Air Sparge Wells – Pressure Gauge Data</i>
Table 4	<i>Air Sparge Wells – Flow Data</i>
Table 5	<i>General System Parameters</i>
Table 6	<i>SVE System – Effluent Concentrations</i>
Table 7	<i>SVE System – AOC-1 Mass Removal</i>
Table 8	<i>Summary of Active Soil Gas Analytical Results</i>
Table 9	<i>Summary of Groundwater Analytical Results</i>
Figure 1	<i>Site Locus Map</i>
Figure 2	<i>Site Plan</i>
Figure 3	<i>IRM & CAP Well Locations</i>
Figure 4	<i>SVE System – VGAC Cumulative Mass Removal</i>
Figure 5	<i>TMP-1 – Time Series Temperature Plot</i>
Figure 6	<i>TMP-53 – Time Series Temperature Plot</i>
Figure 7	<i>TMP-56 – Time Series Temperature Plot</i>
Figure 8	<i>TMP-57 – Time Series Temperature Plot</i>
Figure 9	<i>TMP-59 – Time Series Temperature Plot</i>
Figure 10	<i>TMP-61 – Time Series Temperature Plot</i>
Figure 11	<i>PCE and TCE Concentrations in Active Soil Gas Samples – January, February, and March 2009</i>
Figure 12	<i>PCE Active Soil Gas Time Series Plots</i>
Figure 13	<i>PCE & TCE in Groundwater Samples – March 2009</i>
Figure 14	<i>PCE Groundwater Time Series Plots (pages 1-3)</i>
Figure 15	<i>SVE Time Series Plots</i>

Appendix A – Air Analytical Results (SVE & Soil Gas)

Appendix B – Groundwater Analytical Results