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December 18, 2006

Mr. Joseph Jones
Bureau of Eastern Remedial Action
NYSDEC - Division of Environmental Remediation
625 Broadway
Albany, NY 12233

Re: Site Number 1-30-053A
45A Sea Cliff Avenue

File: 643.002

Dear Mr. Jones:

This letter report has been prepared based on our meeting of November 8, 2006 at the Photocircuits site to document the status of the Interim Remedial Measure (IRM) at the 45A Sea Cliff Avenue (former Pass & Seymour) site and to request the preparation of a Record of Decision proposing no further remedial action, in accordance with 6 NYCRR Part 375 § 1.11.

Description of the IRM

The design for the IRM was presented in the March 2000 work plan, which was subsequently approved by NYSDEC. The Soil Vapor Extraction (SVE) system was started on November 1, 2000; because the initial contaminant concentrations were relatively high, the Air Sparging (AS) portion of the system was not started until March 28, 2001. The SVE/AS system consisted of a 10 horsepower (hp) regenerative blower and 5 hp compressor, along with electrical controls, filters, moisture separators, and valves; the system is contained within an insulated trailer, which has been located just outside of Building 7. Following delivery, the system components were connected to the piping networks for the AS and SVE wells. Two 1200 lb activated carbon adsorbers were attached in series to the blower outlet to treat recovered vapors. The system was down from April 20-24, 2001 due to an electrical problem. The system was down most of June and July 2001 due to equipment overheating; the system was re-started on July 30, 2001 and shut down on September 20, 2001.

Monitoring data was presented to NYSDEC in a series of quarterly reports. In the 2Q01 report, data was included from sampling of individual SVE wells (March 2001) and sampling of total SVE system effluent over time. Prior to the start of the AS component, the relationship of total contaminant mass removal versus time was clearly becoming asymptotic. The start of the AS component increased contaminant mass recovery somewhat (see the April 2001 sample results). However, the results of the May vapor sample indicated that mass removal versus time relationship became asymptotic. In the 2Q01 Report, we concluded at that time that we demonstrated that there was little or no residual contamination at that location and that further contaminant removal was infeasible. By letter dated September 7, 2001, NYSDEC concurred with this conclusion, but recommended the collection of groundwater samples while continuing to operate the system.

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The recommended groundwater samples were collected in January 2002, and based on results from this groundwater sampling event, Photocircuits proposed extending the SVE/AS system at the 45A Sea Cliff Avenue site from the west side to the east side of Building 7. The basis for the extension of the system and the proposed piping and equipment layout were provided in the February 13, 2002 letter to NYSDEC.

The SVE wells and AS points were installed at the proposed locations on the east side of Building 7 in late February, 2002 in preparation for the extension of the system. After field evaluation, it was decided that it would be more efficient to move the aboveground portions of the system (equipment trailer, carbon vessels) to the east side of Building 7 rather than to extend their operation by piping from the west side to the east side of Building 7, as originally proposed. In April 2002, the trailer and carbon vessels were moved, and electrical service was also provided to the new location. Piping and mechanical connections were completed in early May; the original blower malfunctioned and a smaller replacement blower was installed.

The SVE portion of the system was started on the east side of Building 7 on May 8, 2002, and a sample of the total system effluent, prior to treatment, was collected; tetrachloroethene was detected at a concentration of 5.3 ppmv. Another effluent sample was collected on June 26; tetrachloroethene was detected at a concentration of 142 ppmv and trichloroethene was detected at a concentration of 2 ppmv (note: this was the highest concentration of trichloroethene detected during the operation of the system on the east side of Building 7; trichloroethene was detected periodically in other vapor samples, but at concentrations roughly two orders of magnitude less than tetrachloroethene). Further sampling in 2002 was conducted on October 3, December 12 (tetrachloroethene was detected at 1.2 and 1.1 ppmv in these two samples, respectively). The AS portion of the system on the east side of Building 7 was started on December 11, 2002. On May 1, 2003, the system was modified to also extract vapor from monitoring well MW-4S; the well was fitted with a cap and connected to the SVE portion of the system.

On May 28, 2004, a meeting/conference call was held between Photocircuits and NYSDEC to discuss, among other issues, procedures for documenting completion of remedial activities at the 45A Sea Cliff Avenue site. A work plan was submitted to NYSDEC as a follow-up to this meeting, and approval of the amended work plan was received by letter dated September 9, 2004. One of the tasks in the work plan was pulsing the SVE system to determine whether residual contamination was present in the subsurface. The SVE system was shut down on June 23, 2004 as part of the pulsing task; the system was re-started September 28, 2004 and sampled per the approved work plan. Concentrations of tetrachloroethene in effluent samples for 2003-2004 are provided in the following table:

Concentrations of tetrachloroethene (ppmv) in AS/SVE system effluent (east side Bldg 7 location)						
Jan-03	May-03	May-03	Aug-03	Dec-03	Mar-04	Sep-04
1.0	0.9	1.1	1.1	0.03	0.00049	2.0

Another task in the approved work plan was the collection of four soil vapor samples using summa canisters (two samples from beneath the slab in Building 7 and one sample from under the pavement on the east and west sides of Building 7). The sampling was conducted on September 27-28, 2004 per the approved work plan, and the results were reported in the 3Q04 Report. The concentrations of tetrachloroethene detected in Samples 1 and 2 indicated that there was additional contaminant mass present in the vadose zone in the area of those samples (additional VOCs were detected in these samples, but at concentrations of less than 1 ppmv and roughly two to three orders of magnitude less than tetrachloroethene). To address this contaminant mass, the SVE blower was brought back to the west side of Building 7 (along with activated carbon drums to treat the blower effluent). The blower was connected to two existing SVE wells (located within the area of Samples 1 and 2) by modifying the existing piping; the re-configured system was started on October 27, 2004. A sample of the blower influent (combined influent from both SVE wells) was collected on December 14, 2004; the sample contained 11 ppmv of tetrachloroethene. A sample of the blower influent (combined influent from both SVE wells) was collected on July 21, 2005; the sample contained 1.2 ppmv of tetrachloroethene.

IRM Performance

As described in the March 2000 work plan for the IRM, the specific remedial goal for the IRM was to provide removal of volatile organic compounds (VOCs) from the vadose zone and upper water table zone under and around Building 7. The primary measure of performance against the remedial goal has been the VOC concentrations detected in monitoring well MW-4S (see Figure 1). Tetrachloroethene has been the primary contaminant detected in well MW-4S (trichloroethene has been detected periodically in groundwater samples from well MW-4S, but at concentrations roughly two orders of magnitude less than tetrachloroethene). Concentrations of tetrachloroethene (ug/L) in samples from monitoring well MW-4S over time are summarized in the following table:

Concentrations of tetrachloroethene (ug/L) in MW-4S													
2002				2003				2004				2005	2006
Jan	Apr	Jun	Oct	Jan	Apr	Aug	Dec	Mar	Jun	Sep	Dec	Jul	Nov
1240	1910	2200	2510	3600	1420	118	180	83	29	10	110	47	35

6 NYCRR Part 375 § 1.11 indicates that for an IRM to constitute the complete remediation of a site, the IRM must achieve the goal of a complete program described in 6NYCRR Part 375 § 1.10(b), which reads follows:

"The goal of the program for a specific site is to restore that site to pre-disposal conditions, to the extent feasible and authorized by law. At a minimum, the remedy selected shall eliminate or mitigate all significant threats to the public health and to the environment presented by hazardous waste disposed at the site through proper application of scientific and engineering principles."

The preceding data table demonstrates that the IRM has served to reduce contaminant concentrations in groundwater to the extent feasible; the limited residual contamination exhibits an asymptotic relationship versus time that indicates that continued operation of the remedial system will not provide meaningful remedial value. The IRM has provided significant contaminant mass removal and the limited residual contamination will naturally attenuate.

We believe that the IRM has met the requirements of 6NYCRR Part 375 § 1.10(b) for a complete remedial program. We request pursuant to 6 NYCRR Part 375 § 1.11 that NYSDEC propose that no further remedy is required, solicit public comment on that proposal and issue a Record of Decision.

Should you have any questions, please do not hesitate to contact the undersigned.

Very truly yours,

BARTON & LOGUIDICE, P.C.

Andrew J. Barber
Sr. Managing Environmental Consultant

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Enclosures

cc: Mike Fuggini, Photocircuits
Peter Takach, Photocircuits
Mark Pennington, Esquire