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1	January 15, 2016	5	Former Lockheed Martin French Road Facility, Utica, New York, Solvent Dock Area, "Fourth Quarter 2015, Corrective Action Progress Report"

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**Former Lockheed Martin
French Road Facility
Ulica, New York
Solvent Dock Area
NYSDEC Site #6-20080321-5**

**Fourth Quarter 2015
Corrective Action Progress Report**



Prepared for:
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ACRONYMS

DOW	Division of Water
GAC	granular activated carbon
GCTS	groundwater collection and treatment system
ICM	interim corrective measure
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OM&M	operation, monitoring and maintenance
SGVs	Standards and Guidance Values
SPDES	State Pollutant Discharge Elimination System
SSDS	sub-slab depressurization system
VI	vapor intrusion



Purpose

On behalf of Lockheed Martin Corporation (Lockheed Martin), Stantec Consulting Services Inc. (Stantec) has prepared this *Fourth Quarter 2015 Corrective Action Progress Report* for the Solvent Dock Area at the former Lockheed Martin French Road facility in Utica, New York (the Site). This report is required by the October 3, 2008 New York State Department of Environmental Conservation (NYSDEC) Order on Consent (the Order; CO 6-20080321-5), and in Attachment 3-1 (Corrective Action Requirements), Section B.8, of the Order. The following sections summarize activities and information for the Fourth Quarter (October, November and December) of 2015.

1. Summary of Work Completed During the Reporting Period

The following activities were completed during the reporting period:

- Obtained monthly samples of effluent water from the groundwater collection and treatment system (GCTS) for compliance with the existing State Pollutant Discharge Elimination System (SPDES) permit (NY-012-1894). Results were documented in monthly Discharge Monitoring Reports submitted to NYSDEC.
- Performed ongoing operation, monitoring and maintenance (OM&M) of the interim corrective measure (ICM) for groundwater (i.e., the GCTS).
- Performed ongoing OM&M of the ICM for sub-slab soil gas (i.e., the sub-slab depressurization system, or SSDS).
- Completed, during the period October 5 through 7, 2015 the Fourth Quarter 2015 groundwater sampling in accordance with the *Interim Groundwater Monitoring Program*.
- Performed, on October 8, 2015, field layout of the Excavation Initial Design Investigation areas and sample locations.
- Submitted, on October 12, 2015, the *Third Quarter 2015 Corrective Action Progress Report* to NYSDEC and New York State Department of Health (NYSDOH) and added the document to the public repository at the Utica Library.
- Conducted, on October 14, 2015, a conference call with NYSDEC (S. Saucier) during which the previous NYSDEC requirement that the Draft Environmental Easement package be submitted by December 1, 2015 was rescinded, since some elements of site remediation are incomplete and still under development. Lockheed Martin understands that NYSDEC requires preparation of the easement to continue despite removal of the formal deadline.
- Received, on October 19, 2015, a letter from NYSDEC (S. Saucier) to Lockheed Martin (C. Trione) providing comments on the *Work Plan for Excavation Initial Design Investigation, Former Lockheed Martin French Road Facility, Utica, Oneida County, New York* (dated August 2015).
- Conducted, on October 20 and November 24, 2015, routine monthly project update conference calls with NYSDEC (S. Saucier) and NYSDOH (S. Karpinski). No call took place in December.

- Submitted, on October 27, 2015, a letter to NYSDEC providing notification of finalized locations for six new vapor monitoring points (VMPs) to be installed in the western portion of the ConMed building.
- Received, on October 27, 2015, an email from NYSDEC to Stantec approving the revised locations for the six new proposed VMPs.
- Submitted, on November 3, 2015, to NYSDEC and NYSDOH the *Revised Work Plan for Excavation Initial Design Investigation, Former Lockheed Martin French Road Facility*.
- Conducted inspection of cover system performance on November 4, 2015.
- Received, on November 13, 2015, from NYSDEC a letter approving the November 3, 2015 *Revised Work Plan for Excavation Initial Design Investigation, Former Lockheed Martin French Road Facility*.
- Performed, during the period November 16 through December 15, the Excavation Initial Design Investigation field testing and sampling program. NYSDEC (S. Saucier) visited the site on November 19 to observe progress. The investigation included:
 - 35 Membrane Interface Probe (MIP) borings;
 - 38 Geoprobe® borings for soil sampling;
 - 77 subsurface soil samples (plus QA/QC samples) submitted for laboratory analysis (including QA/QC samples) for volatile organic compounds (VOCs); and
 - 24 surface soil samples (plus QA/QC samples) submitted for laboratory analysis for Polychlorinated Biphenyls (PCBs);
 - 1 Pole Barn sump water sample.Review of the analytical data is in progress.
- Submitted, on November 30, 2015, to NYSDEC and NYSDOH the summary of Fourth Quarter 2015 groundwater monitoring data and findings.
- Submitted, on December 1, 2015, to NYSDEC and NYSDOH preliminary results of Excavation Initial Design Investigation surface soil sampling for PCBs, with a request for determination as to whether additional sampling is needed based on detections of PCBs at levels above the Commercial soil cleanup objectives (SCO) at ten locations.
- Performed, on December 9, 2015, geophysical pre-clearance of proposed VMP locations within the western portion of the ConMed building.
- Received, on December 15, 2015, an email from NYSDEC to Stantec indicating that additional PCB sampling would be required to further investigate the areas where Commercial SCO exceedances were identified.
- Received, on December 22, 2015, an email from NYSDEC to Stantec indicating the December 1, 2015 deadline for submittal of the Draft Environmental Easement was extended (no new specific deadline was given), and requiring that work on the draft package continue, regardless.

- Submitted, on December 23, 2015, to NYSDEC a letter proposing modifications to the groundwater monitoring program (discussed further in Section 2 below).

2. Summary of Findings Made During the Reporting Period

The following findings were made during the reporting period:

- Results of fourth quarter groundwater monitoring indicated that the detected types and distribution of contaminants were similar to those of previous sampling events. Mann-Kendall trend analysis was performed using data from Q4 2015 and the seven previous rounds of sampling. No statistically-significant increasing trends were identified. Statistically-significant decreasing trends were observed in one Objective 2 well and two Objective 3 wells. No historic maxima or sudden increases were observed.
- Groundwater elevations in monitoring wells were relatively consistent with historical measurements at the site; the groundwater elevations indicated a lower water table when compared to the Q3 2015 event but were generally higher than what was observed during the Q4 2014 event. Groundwater flow continues to reflect the influence of the GCTS.
- Seven monitoring wells have now shown four or more consecutive rounds of sampling data that achieve standards and guidance values and therefore demonstrate cleanup goals have been met at those locations. Accordingly, a request was submitted to NYSDEC to remove those wells from the groundwater monitoring program, in accordance with conditions in the *Draft Interim Groundwater Monitoring Plan*.
- Relative to the Excavation Initial Design Investigation:
 - Eight surface soil samples were obtained in each of the three PCB sampling areas (24 samples total). In each area, three to five of the eight samples were found to contain PCB 1254 at levels above the Commercial SCO of 1 milligram per kilogram (mg/Kg; equivalent to parts per million). PCB concentrations in those samples exhibiting exceedance levels ranged from 1.1 to 13 mg/Kg. NYSDEC has indicated that further delineation sampling will be required in the areas of exceedances (see Section 5 below).
 - The MIP probe data provided relative VOC concentrations throughout the study area, and were used as a guide to select subsurface soil sample locations. Several soil samples showed one or more VOCs at concentrations in excess of the NYSDEC Protection of Groundwater SCOs. The analytical results, and lateral and vertical extent of impacts are still under review and will be summarized and presented in a report to NYSDEC and NYSDOH for review and discussion.

3. Summary of Changes Made During the Reporting Period

No significant changes to the *Corrective Measures Implementation Plan* were made during the reporting period.

4. Summary of Contacts Made with Representatives of the Local Community and Public Interest Groups During the Reporting Period

- No interaction occurred with local community or public interest groups during the reporting period.

5. Summary of Problems Encountered During the Reporting Period

- The SSDS blower and motor are showing signs of wear as evidenced by an increase in alarms related to the blower motor and variable frequency drive (VFD) that result in brief system shutdowns. These occurrences and other data have been evaluated and a decision made to procure and install a replacement blower and VFD. An “in-kind” replacement unit and related equipment have been identified and ordered and installation is planned for Q1 2016. The existing blower unit will be evaluated for potential refurbishment and use as a backup. In the meantime, a reconfigured bypass to the VFD has eliminated related alarms with no impairment to performance.

6. Changes in Personnel Conducting or Managing the Corrective Measures During the Reporting Period

- No changes in project personnel were made during the reporting period.

7. Summary of Work Planned for the Next Reporting Period

The following activities are scheduled or anticipated for completion during the next reporting period:

- Continue operation and maintenance of the GCTS, including monthly effluent sampling for compliance with the existing SPDES permit and quarterly sampling and monitoring; data to be provided as part of the monthly Discharge Monitoring Reports, and quarterly system OM&M summaries.
- Continue operation and maintenance of the SSDS, including quarterly SSDS sampling and monitoring; data to be provided as part of the quarterly system OM&M summaries.
- Install a replacement SSDS blower, blower motor and VFD, and initiate refurbishing of the existing unit.
- Continue monthly project status calls with NYSDEC and NYSDOH.
- As needed and appropriate, continue to provide copies of project documents to the project repository (Utica Public Library) and upload electronic versions to the Lockheed Martin Solvent Dock Archive website.
- Conduct the first quarter groundwater sampling event (January 2015) in accordance with the *Draft Interim Groundwater Monitoring Program* and provide a written summary of findings to NYSDEC.
- Submit a proposal to NYSDEC and NYSDOH for additional surface soil sampling for PCBs in areas where SCO exceedances were identified.

- If approved by NYSDEC, perform additional surface soil sampling for PCBs per the proposal described above.
- Submit a Draft Environmental Easement package, including a revised Draft Site Management Plan to NYSDEC, NYSDOH and ConMed for review and comment.
- Provide to NYSDEC a preliminary summary of the results of the Excavation Initial Design Investigation MIP probes, soil sampling and VOC analyses.
- Install the six new VMPs in the western building areas, and perform soil vapor intrusion sampling (sub-slab vapor, and indoor/ambient air).
- Complete the 2015 Site Management Report summarizing results of GCTS and SSDS OMM, groundwater monitoring, and protective cover performance.

End of Report