

Environmental
Resources
Management

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28 January 2008

Mr. Steven M. Scharf, P.E.
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Action, Bureau A
625 Broadway
Albany, NY 12233-7015



Re: Revised Work Plan for Soil Vapor Intrusion Investigation
Interior Building Areas Near Phase II Area Nos. 25 & 46
Former Grumman Plant 2, Bethpage, New York

Dear Mr. Scharf:

On behalf of Steel Los III, LP, (Steel Los III), ERM Consulting & Engineering, Inc. (ERM) is providing this revised Work Plan for a Soil Vapor Intrusion (SVI) Investigation within the former Grumman Plant 2 building near Phase II Area Nos. 25 (Former Paint Storage, Mixing and Stripping Room) & 46 (Machine Pit). The Work Plan has been revised based on comments provided in the NYSDEC's letter dated 20 December 2007.

Background

The New York State Department of Environmental Conservation (NYSDEC) has requested that Steel Los III perform a SVI investigation to evaluate whether there are any potential soil vapor intrusion issues within the former Grumman Plant 2 building that are associated with the former Areas of Concern.

ERM has reviewed historic environmental reports associated with the former Grumman Plant 2 building. The documents include the April 1996 Phase II Site Assessment For Plant 2 and the December 1996 Supplemental Phase II Site Assessment For Plant 2 prepared by Dvirka & Bartalucci, the December 1997 Supplemental Site Investigation Report and Delisting Petition prepared by Eder Associates, and various correspondence from the NYSDEC regarding these documents.

Based on these reviews, there are only two former areas where VOCs were detected in soil at concentrations above the corresponding NYSDEC Soil Cleanup Objectives for those compounds. The former areas, by number, name and corresponding compounds detected in soil at that location are:

Area	Former Area Name	Detected Compounds
25	Paint Storage, Mixing & Stripping Room	Methylene Chloride 1,1-DCA, 1,2-DCE, 1,1,1-TCA
46	Former Machine Pit	TCE, 1,1,1-TCA

1,1-DCA: 1,1-Dichloroethane
1,2-DCE: 1,2-Dichloroethene
1,1,1-TCA: 1,1,1-Trichloroethane

As such, the SVI investigation proposed by Steel Los III in this Work Plan contemplates sampling of sub-slab soil vapor from six (6) locations; two (2) in the vicinity of Area 25 - Former Paint Storage, Mixing and Stripping Room, and four (4) in the vicinity Area 46 - Former Machine Pits. It should be noted the Area 46 - Former Machine Pits have been filled in and a second concrete slab poured over the pits, so the soil vapor sampling locations will be located around the perimeter and near vicinity of this area.

The results of the SVI investigation will be used to evaluate whether there are any potential soil vapor intrusion issues within the former Plant 2 building that are associated with these former Areas of Concern.

Scope of Work

Steel Los III intends to conduct the SVI investigation during the month of February 2008. Proposed sampling locations are shown in Figure 1.

Sub-slab sampling will be performed following the applicable protocols identified in the NYSDOH "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" (October 2006). Prior to collection of samples, ERM will complete the "Indoor Air Quality Questionnaire and Building Inventory, and Product Inventory Forms" contained in Appendix B of the NYSDOH Guidance. This will include activities such as use of a photoionization detector (PID) to identify areas of potential interferences, and removing possible sources of VOCs from the sampling area. All samples will be collected with individually-certified clean Summa® canisters fitted with regulators programmed to collect the sample over an 8-hour period.

All sub-slab soil vapor samples will be collected over the same 8-hour period. At each sample location, all the pertinent data will be recorded in the field notebook and/or data collection forms. This information will include the following items:

- Sampler's name;
- Date, time and PID reading;
- Date and time of sample start and stop;
- Summa® canister serial number;
- Initial and final Summa® canister vacuum
- Sample identification, and descriptive location of the sampling area;
- Sample identification for other corresponding samples at the same property;
- Weather conditions including barometric pressure, and ambient temperature inside and outside the building;
- Sampling depth(s);
- Soil type at sample location, if known;
- Soil vapor purge volumes;
- Apparent moisture content of the air being sampled;
- Description of features that may impact the vapor measurements (e.g., storage areas for materials that may contain VOCs, drainage facilities, utility lines, any contamination noted, floor stains, etc.); and
- All equipment calibrations performed.

Sub-Slab Soil Vapor Samples

Proposed sampling locations are shown in Figure 1, to be verified in the field based on accessibility and positioned to cause minimal disruption to the business activities of the current tenant, the United States Postal Service. It should be noted that Area 46 – Former Machine Pits have been filled in and a second concrete slab poured over the pits so the soil vapor sampling locations will be located around the perimeter and in near vicinity of this area.

After the floor slab has been inspected, the location of subsurface utilities determined, and the ambient air surrounding the proposed sampling screened with a photoionization detector (PID), a hammer drill will be used to advance a one-inch diameter boring to a depth of approximately one-half-inch into the floor slab, a one-half-inch diameter boring will be drilled in the center of the initial one-inch boring to a minimum depth of three (3) inches beneath the floor slab into the sub-slab aggregate.

Dedicated Teflon tubing (approximately 3/8-inch outside diameter) will be inserted two (2) inches into the subsurface through the one-half -inch diameter boring. The annular space between the floor and the tubing will then be sealed with beeswax.

To ensure the sample collected will be representative, one to three volumes of air will be purged from the tubing and the borehole using a dedicated purge pump. Following the purge, a PID will be attached to the sampling tubing and measurements will be monitored and the highest reading recorded. The PID will then be disconnected, and the tubing will be connected to a one-liter Summa® canister regulated for an 8-hour sample collection period. This corresponds to a flow rate of 0.002 liters per minute (L/min), which is less than the maximum 0.2 L/min required by the NYSDOH Guidance. Sampling will be discontinued while the canister still exhibits a slight vacuum. After the sub-slab sample collection is complete, the tubing will be removed and the borehole will be filled to the floor surface with quick drying hydraulic cement. Photographs of the sampling vicinity will be collected.

Laboratory Analysis

At the conclusion of sampling, the canisters will be shipped via overnight delivery to Accutest Laboratories (NYSDOH Certification No. 10983) in Dayton, New Jersey, an Environmental Laboratory Accreditation Program- (ELAP)-certified laboratory. Sub slab vapor samples will be analyzed for VOCs using USEPA Method TO-15, with a target detection limit of 1.0 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) or less for all parameters.

Health & Safety

All site activities will be performed in accordance with ERM's Health & Safety Guidance Manual. In addition, all sampling will be conducted by a two-person team.

Reporting

All laboratory data will be provided in ASP Category B deliverable format and the data validated. A letter report will be prepared and submitted to NYSDEC that include: 1) a summary of the sampling activities performed including any required deviations from this work plan, 2) a summary table of all sampling results reported $\mu\text{g}/\text{m}^3$ with detection limits equal to 1.0 $\mu\text{g}/\text{m}^3$ or less, 3) completed "Indoor Air

Quality Questionnaires, Building Inventory Forms, and Product Inventory Forms", 4) sampling logs, 5) photographs of sampling locations, 6) Data Validation Reports, and 7) Category B Laboratory Data Deliverables.

We anticipate that this work plan will meet the expectations of the NYSDEC and accordingly, ERM plans to conduct the sampling in early February. If you have any additional questions or comments, please do not hesitate to contact me at (631) 756-8900.

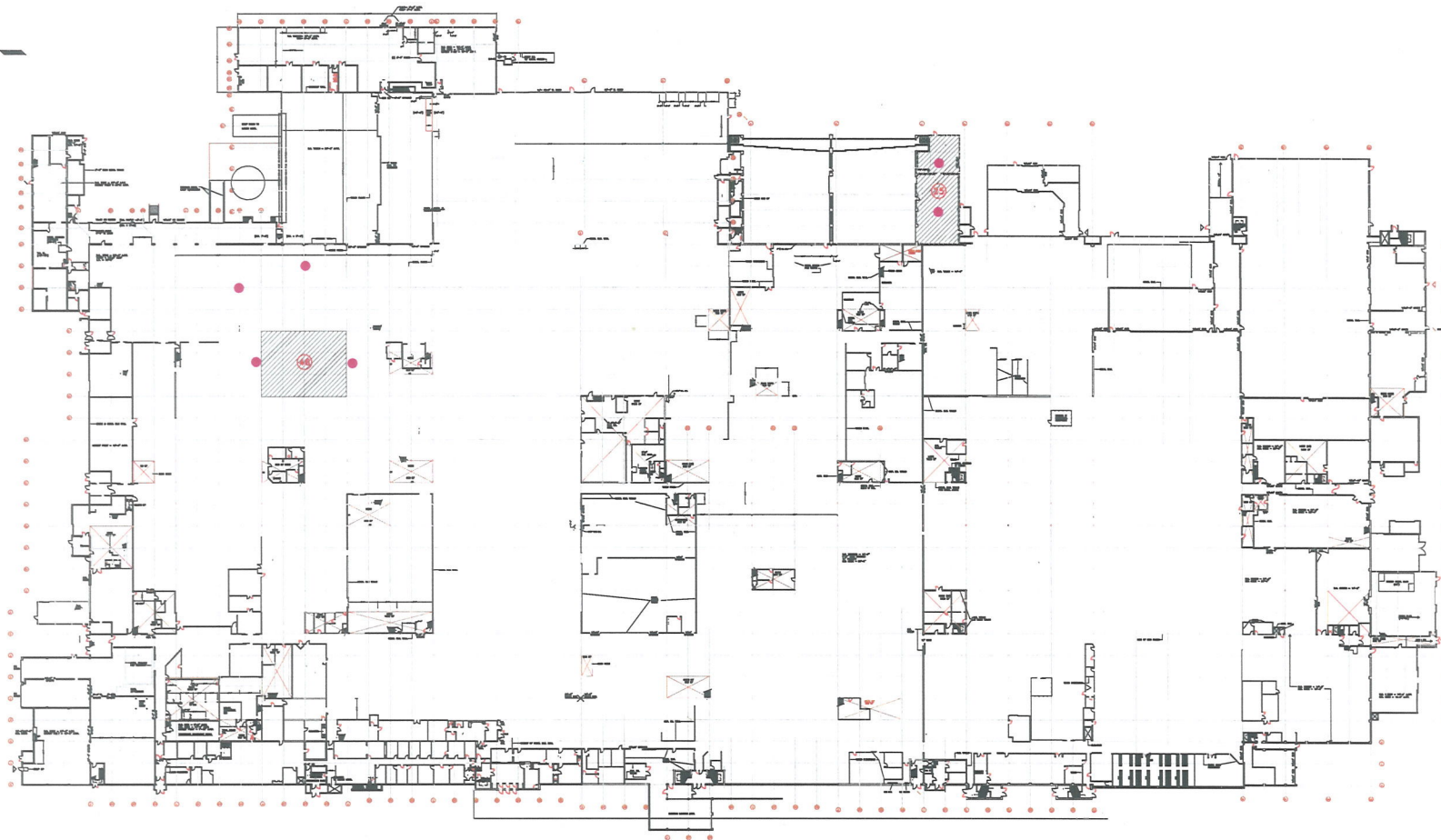
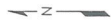
Very truly yours,



Chris W. Wenczel
Senior Consultant

Attachments

cc: Kevin Lumpe, Steel Los III, LP
Manfred Bohms, Steel Los III, LP
John Swartwout, NYSDEC
Walter Parish, NYSDEC



LEGEND

- PROPOSED SOIL VAPOR SAMPLING LOCATION
- ⊗ FORMER AREA OF CONCERN



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