



ENVIRONMENTAL STRATEGIES CONSULTING LLC

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February 13, 2006

Ms. Henriette Hamel
Regional Coordinator
Environmental Health Assessment
New York State Department of Health
217 S. Salina Street, 3rd floor
Syracuse, NY 13202

Re: Indoor Air Testing Results for EPT Facility Buildings
Emerson Power Transmission Facility, Ithaca, New York
Order on Consent #A7-0125-87-09

Dear Ms. Hamel:

Environmental Strategies Consulting LLC, on behalf of Emerson, is submitting the results for indoor air and subslab soil gas testing conducted within the Emerson Power Transmission (EPT) facility buildings in Ithaca, New York, on December 12 and 13, 2005. The objective of the indoor air assessment was to evaluate whether volatile organic compounds (VOCs) previously detected in site groundwater are potentially affecting subslab soil gas and indoor air quality within the onsite buildings. The testing activities were conducted in accordance with Environmental Strategies' revised work plan, dated November 8, 2005, which was approved by the New York State Department of Health (NYSDOH).

Indoor air and subslab testing was conducted in Building 21 (R&D Building) during previous investigations in September 2005 and January 2006. The results for the September sampling event were submitted to the NYSDOH and the New York State Department of Environmental conservation (NYSDEC) in October 2005. The results of the January sampling event are currently being evaluated and the results will be submitted to the NYSDOH and NYSDEC under separate cover.

Scope of Work

The scope of work involved collecting concurrent indoor air and subslab soil gas samples at 21 locations within the EPT facility buildings and outdoor air samples at locations selected in the field. The indoor air and subslab soil gas samples were collected from areas that are slab-on-grade, which are highlighted in yellow on Figure 1.

Indoor Air Sampling

Indoor air samples were collected on three levels of the main facility buildings where the lowest level is slab-on-grade construction, including Building 24. The sample locations and the

corresponding building numbers are shown on Figure 1. Indoor air samples were collected using evacuated 1-liter Entech Instruments, Inc., (Entech) canisters positioned approximately 3 feet above the floor to be representative of the breathing zone. Physical and visual barriers were placed around the canisters, if deemed appropriate, so that they would not be disturbed during sample collection. The flow regulator was pre-set by the laboratory to collect the samples over 24 hours. The flow regulator was connected to the canister to initiate sample collection. After 24 hours, the flow regulator was removed from the canister to complete the sample collection and the canister was labeled with the sample name. The sample name, location, time and date of sample collection, canister and regulator number, and analytical method was recorded on the chain-of-custody form and in the field log book.

Subslab Soil Gas Sampling

At each sampling location, soil gas samples were collected using a probe constructed of 3/8-inch outside-diameter Teflon[®]-lined tubing, a hydrated bentonite seal, and a surface seal consisting of non-hardening modeling clay. To install the probe, an electric core drill was used to drill a single 2-inch diameter hole through the slab. A 3-foot-long section of Teflon-lined tubing was placed in the hole and approximately 1 inch of coarse sand was placed in the bottom of the hole around the tubing. A hydrated bentonite seal was placed from the top of the sand layer to a level even with the top of the concrete slab. A layer of non-hardening modeling clay was placed on top of the bentonite to prevent the surface from drying and cracking.

Before the subslab soil gas sample was collected, a pre-sample purge was conducted to remove dilution air from the tubing and probe assembly. One to three probe volumes of air were evacuated from each sample location at a rate not exceeding 0.2 liter per minute using a hand pump. The purged air was collected in a Tedlar[®] bag. Following the pre-sample purge, vapor samples were collected using evacuated 1-liter Entech canisters and dedicated flow controllers that were pre-set by the laboratory to collect the soil gas sample over 24-hours. After 24 hours, the regulator was disconnected from the canister to complete the sample collection. The sample name, location, time and date of sample collection, sample regulator and canister number, and the analytical method to be used was recorded on the chain of custody form and in the field log book. The subslab sampling probes were left in place pending receipt of the sample results. However, Environmental Strategies intends to remove the subslab soil gas probes in the near future and patch the holes with concrete.

Outdoor Air Sampling

Outdoor air samples were collected at two locations upwind of the facility buildings on each day that indoor air samples were collected to assist in evaluating site-specific background outdoor air quality. The outdoor air sample locations were selected in the field and are shown on Figure 1. In accordance with NYSDOH guidance, each outdoor sample was collected approximately 3 to 5 feet above the ground and away from wind obstructions, if possible (e.g., trees, brush, wooden fences). The outdoor air sample collection began within approximately 1 hour of initiating the indoor air sample collection activities. The outdoor air samples were collected with evacuated 1-liter Entech canisters over 24 hours using the same procedures and analytical methods described

above for the indoor air samples. Outdoor conditions were documented during the sampling activities in accordance with Section 2.7.4 of the NYSDOH guidance.

Sample Analysis

All samples containers were shipped, or transported by courier, under ambient conditions to a NYSDOH Environmental Laboratory Approval Program-approved laboratory under strict chain-of-custody procedures. The samples were analyzed for the complete list of VOCs specified in U.S. Environmental Protection Agency (EPA) Method TO-15. Analytical results for all VOCs detected by EPA Method TO-15 are reported in Tables 1 through 14. The minimum detection limits using EPA Method TO-15 for all sample types was $0.25 \mu\text{g}/\text{m}^3$ for trichloroethene and $1 \mu\text{g}/\text{m}^3$ for all other VOCs.

Quality Assurance/Quality Control

The Entech canisters used for the sampling activities were certified-clean by the selected laboratory. This certification involves analyzing the ambient air inside a clean canister by EPA Method TO-15. If no target compounds are detected at concentrations above the reporting limits, then the canister is evacuated again and all canisters from that lot are available for sampling. If target compounds are detected at concentrations above the reporting limits, then all canisters from that lot must be recleaned and a single canister is reanalyzed for the target compounds. A duplicate indoor air sample was collected from the basement of Building 24, and a duplicate subslab soil gas sample was collected from the main level of Building 6A. In addition, a laboratory-prepared trip blank accompanied the sample canister for one of the indoor air samples from the laboratory to the field and from the field to the laboratory. The trip blank was used to evaluate the potential for sample cross-contamination during shipment or during sample collection.

Sample Results

The sample results for all VOCs analyzed are provided in Tables 1 and 2, which list the eight site-related compounds first. Of the eight site-related compounds, 1,1,1-trichloroethane (1,1,1-TCA), tetrachloroethylene (PCE), and trichloroethene (TCE) were detected most frequently, and the results are shown for each sample location in Figures 2 and 3. Vinyl chloride and 1,2-dichloroethane were not detected in any of the subslab soil gas or indoor air samples.

Of the two outdoor (ambient) air samples collected, one contained an estimated concentration of $0.552 \mu\text{g}/\text{m}^3$ of PCE and $0.819 \mu\text{g}/\text{m}^3$ of TCE, while both samples contained methylene chloride at concentrations of $1.66 \mu\text{g}/\text{m}^3$ and $3.71 \mu\text{g}/\text{m}^3$.

Methylene chloride was detected in all subslab soil gas samples at concentrations between $1.27 \mu\text{g}/\text{m}^3$ (basement, Building 3) and $21.2 \mu\text{g}/\text{m}^3$ (upper level, Building 13A) and in all indoor air samples at levels between $2.01 \mu\text{g}/\text{m}^3$ (basement, Building 4) and $67.1 \mu\text{g}/\text{m}^3$ (basement, Building 24). The duplicate indoor air sample collected from the basement of Building 24 contained $5.33 \mu\text{g}/\text{m}^3$ of methylene chloride.

TCE was detected in subslab soil gas samples at concentrations between $3.5\mu\text{g}/\text{m}^3$ (main level Building 6A) and $3,800\mu\text{g}/\text{m}^3$ (basement, Building 34). Indoor air samples contained between $0.328\mu\text{g}/\text{m}^3$ (main level, Building 34) and $12.8\mu\text{g}/\text{m}^3$ (basement, Building 4) of TCE. PCE was detected in subslab soil gas samples between $2.96\mu\text{g}/\text{m}^3$ (basement, Building 24) and $1,700\mu\text{g}/\text{m}^3$ (basement, Building 34). No PCE was detected in indoor air samples from Buildings 13B, 34 (main level), and 35, while levels in the remaining buildings ranged from an estimated concentration of $0.689\mu\text{g}/\text{m}^3$ (Buildings 33 and 34) to $1,200\mu\text{g}/\text{m}^3$ in Building 3. Levels of 1,1,1-TCA detected in subslab soil gas samples ranged from an estimated concentration of $0.61\mu\text{g}/\text{m}^3$ (Building 24) to $680\mu\text{g}/\text{m}^3$ (Building 10), while detectable concentrations in indoor air samples ranged from an estimated concentration of $0.555\mu\text{g}/\text{m}^3$ (Building 11A) to $5.38\mu\text{g}/\text{m}^3$ (Building 6A).

The concentrations of cis-1,2-dichloroethene in subslab gas samples ranged from $1.17\mu\text{g}/\text{m}^3$ (Building 3) to $172\mu\text{g}/\text{m}^3$ (Building 4). It was only detected in three indoor air basement samples at levels from 0.927 to $2.66\mu\text{g}/\text{m}^3$. Only one sample contained trans-1,2-dichloroethene at $1.33\mu\text{g}/\text{m}^3$ (subslab, Building 3). Other non-site related compounds were detected in the subslab and indoor air samples as shown in Tables 1 and 2.

Conclusions

Based on the results of the subslab soil gas and indoor air sampling conducted in the main EPT facility buildings, Emerson will collect additional subslab soil gas and indoor air samples in Buildings 3, 4 (two sample locations), 24 (one location), and 33 (one location) to verify the initial sampling results. This sampling, which is being conducted the week of February 13, 2006, will follow the previously approved work plan, dated November 8, 2005.

Please contact us if you have any questions or comments regarding these sample results.

Sincerely yours,



James P. Bulman
Executive Partner

JPB:lkb:rmb

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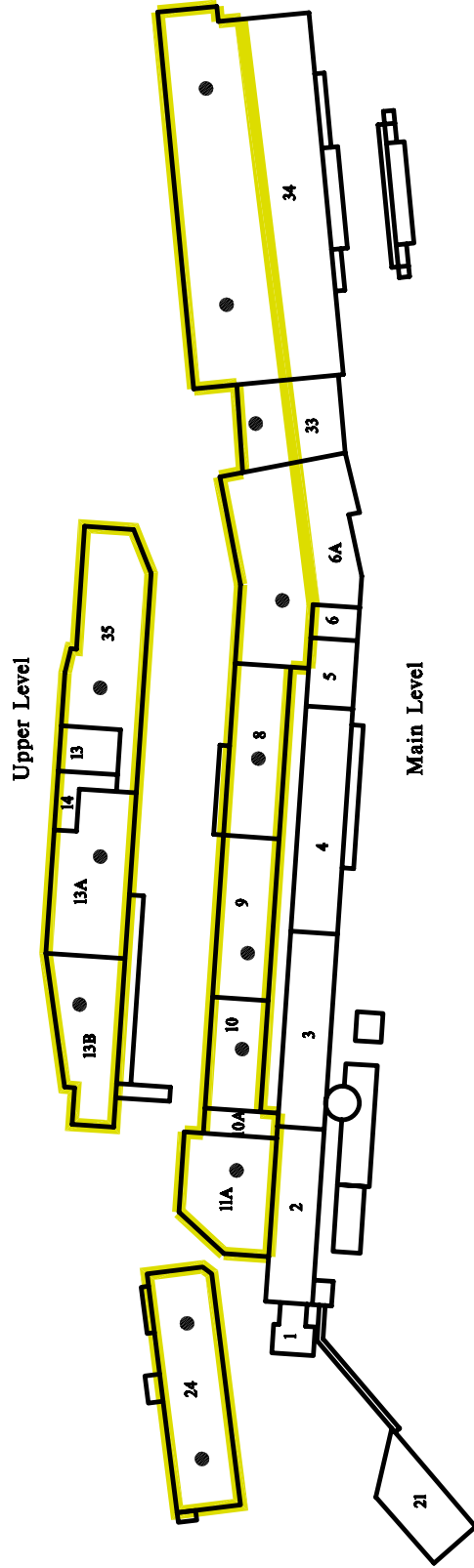
Enclosure

cc\encl: Derek Chase, Emerson
 James E. Burke, NYSDEC

Legend

- Indoor Air and Subslab Soil Gas Sample Location
- ▭ Slab on Grade

11A Facility Building Number

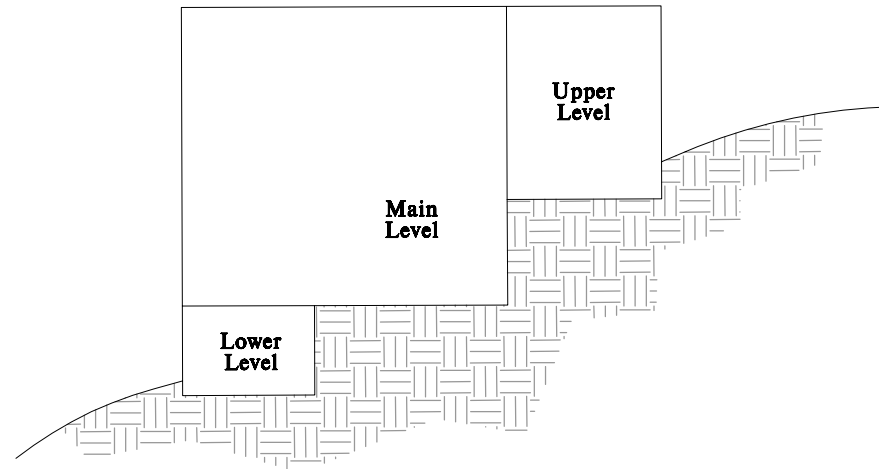


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Figure 1
Indoor Air Sampling Locations
Emerson Power Transmission
Ithaca, New York

(West)

(East)



Section - Conceptual View

Legend

- Indoor Air and Subslab Soil Gas Sample Location
- ▭ Slab on Grade

11A Facility Building Number

1,1,1-TCA 1,1,1-Trichloroethane
PCE Trichloroethene
TCE Tetrachloroethylene

ND Not Detected
Compound
Results (ug/m³)

I Associated Internal Standard Criteria Not Met. Estimated Result
J Analyte Detected at or Below Quantitation
D Results From Secondary Dilution

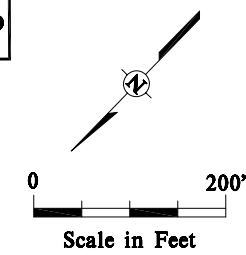
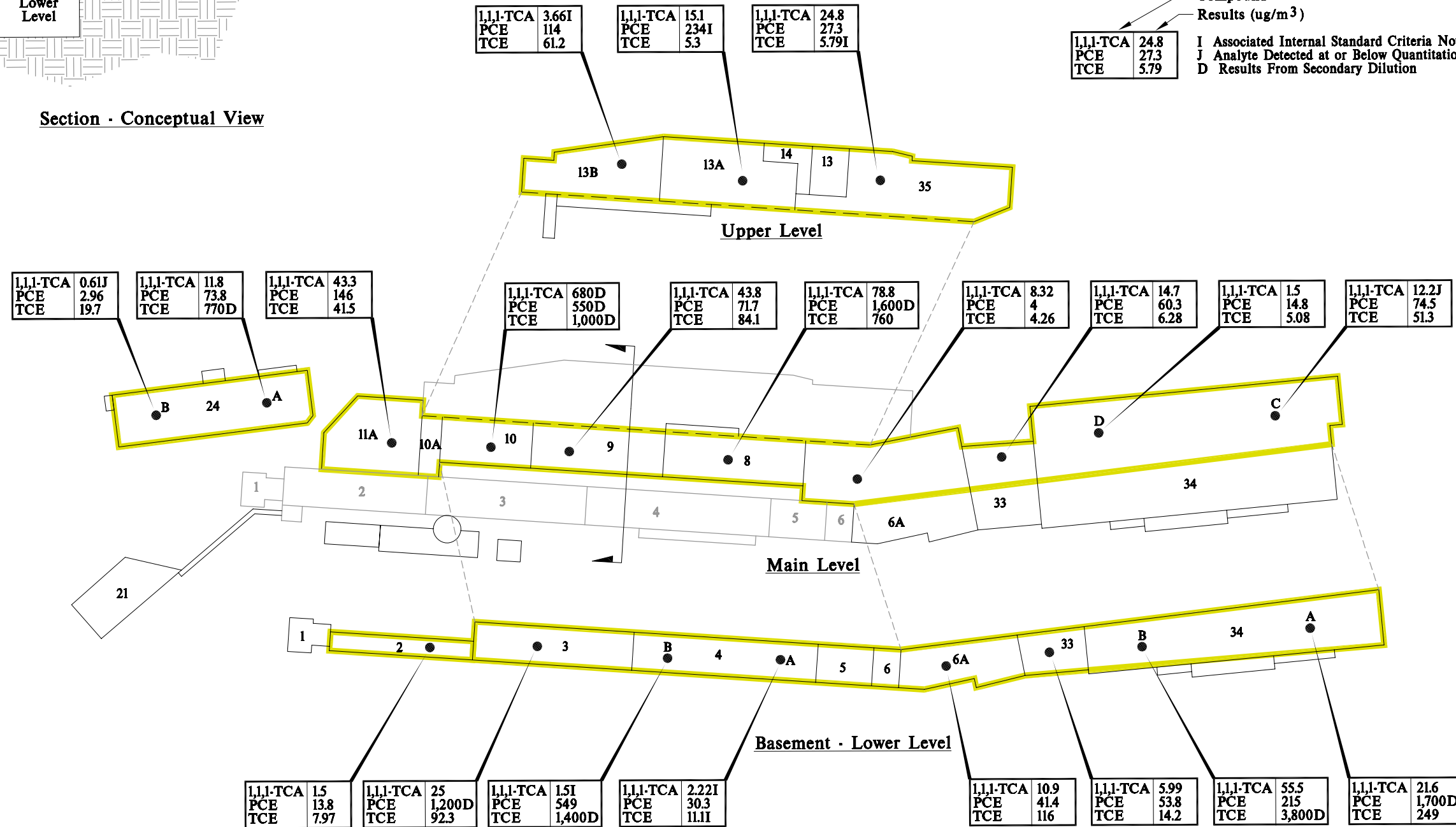
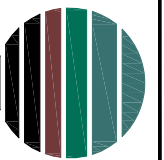


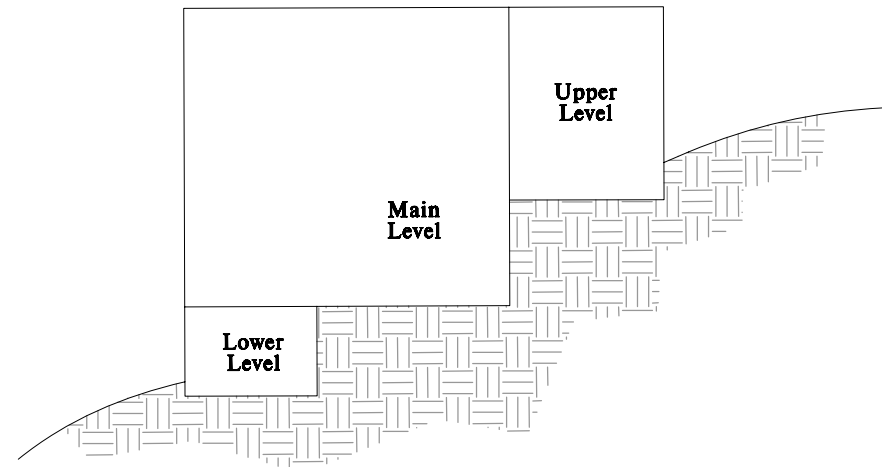
Figure 2
Subslab Soil Gas Results for Plant Buildings
Emerson Power Transmission
Ithaca, New York

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(West)

(East)



Legend

- Indoor Air and Subslab Soil Gas Sample Location
- ▭ Slab on Grade
- 11A Facility Building Number
- 1,1,1-TCA 1,1,1-Trichloroethane
- PCE Trichloroethene
- TCE Tetrachloroethylene
- ND Not Detected
- Compound
- Results (ug/m³)
- J Analyte Detected at or Below Quantitation
- D Results From Secondary Dilution

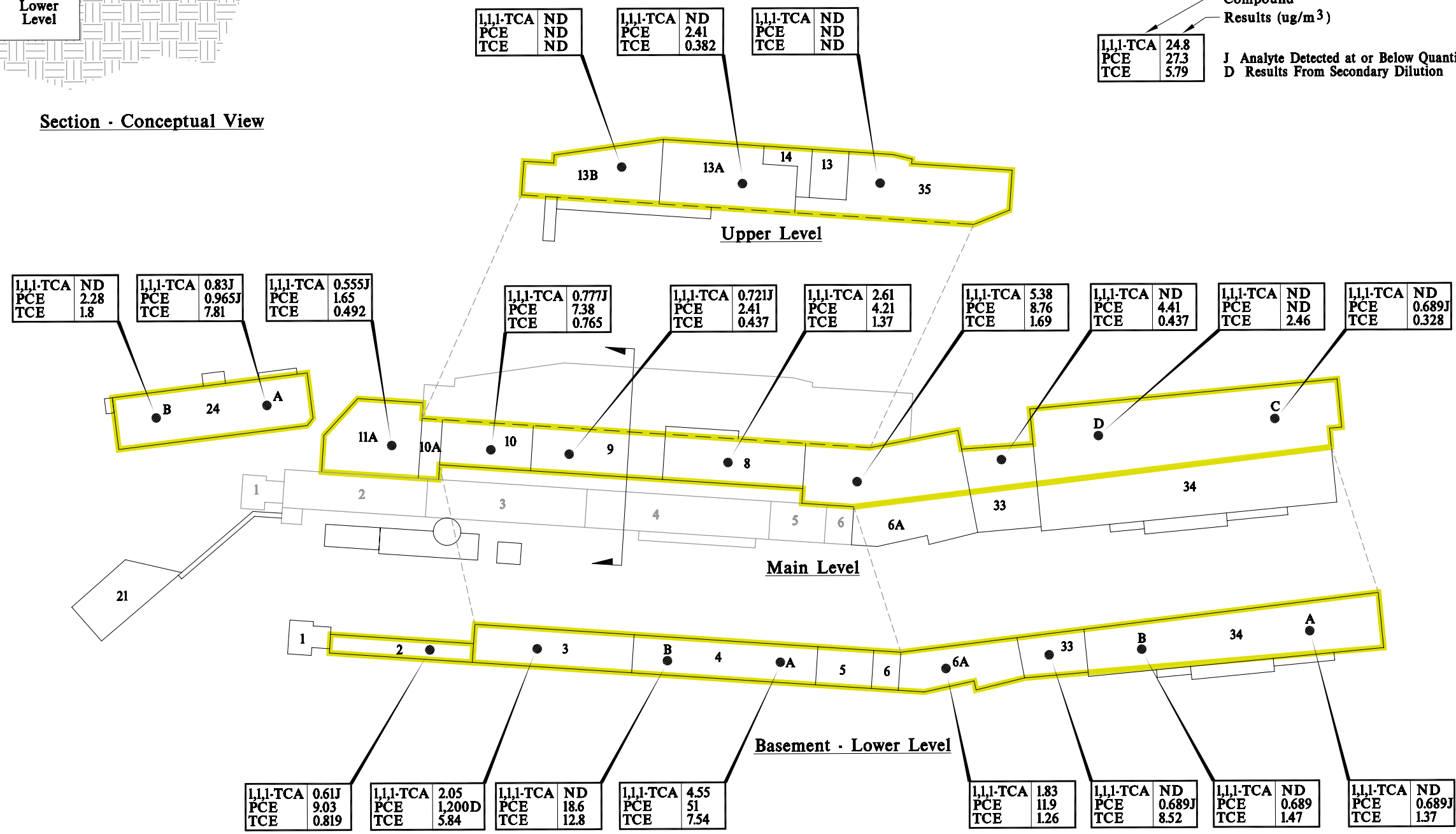


Figure 3
Indoor Air Results for Plant Buildings
Emerson Power Transmission
Ithaca, New York

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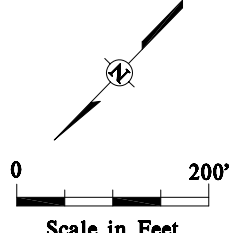


Table 1

Subslab Soil Gas Sample Results
Emerson Power Transmission Facility
December 12-13, 2005 (a)

Building ID	2	3	4		6A		8	9	10	11A	13A	13B	24		33		34				35	
Building Level	Basement	Basement	Basement		Basement	Main		Main	Main	Main	Main	Upper	Upper	Basement	Main	Basement	Main	Basement		Main		Upper
			A	B		A	B	A	B	A	B	A	B	C	D							
Sample Type	SSB	SSB	SSB	SSB	SSB	SSF	SSFR	SSF	SSF	SSF	SSF	SSS	SSS	SSB	SSF	SSB	SSF	SSB	SSB	SSF	SSF	SSS
Sample Date	December 12-13, 2005																					
VOCs by EPA Method TO-15 (ug/m3)																						
Hexane	0.537 UC	50.9 C	5.98 CI	0.537 UC	3.69	2.97	2.83	1.79	15	6.05 I	1.36 I	8.02	4.19 I	1.07	4.8 I	0.537 U	0.537 U	4.3	0.537 U	0.537 U	0.537 U	6.27 I
Isopropyl alcohol	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U
m-Xylene	1.77	99.7	9.8 I	36.2	4.1	9.49	12.8	1.28	28.2	2000 D (b)	6.93 I	129 I	10.2	9.75	8.39	1.85	8.96	70.6	4.5	3.09	4.94	12.4
Methyl butyl ketone	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U
Methyl ethyl ketone	0.899 U	0.899 U	0.899 U	0.899 U	0.899 U	0.899 UC	0.899 UC	5.91 C	5.91 C	0.899 UC	0.899 UC	5.34	0.899 UC	5.49	0.899 UC	0.899 U	0.899 UC	0.899 U	0.899 U	0.899 U	0.899 UC	0.899 UC
Methyl isobutyl ketone	1.25 U	1.25 U	1.25 U	6.75 I	1.25 U	3.79 C	4.25 C	1.25 UC	1.25 UC	1.25 UC	1.25 UC	1.25 U	1.25 UC	1.25 U	4.66 C	1.25 U	1.25 UC	1.25 U	1.25 U	1.25 U	1.25 UC	1.25 UC
Methyl tert-butyl ether	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 UC	0.55 UC	0.55 UC	0.55 UC	0.55 UC	0.55 UC	0.55 U	0.55 UC	0.55 U	0.55 UC	0.55 U	0.55 UC	0.55 U	0.55 U	0.55 U	0.55 UC	0.55 UC
o-Xylene	0.75	46.3	4.24 I	15.4	2.74	7.59	8.69	0.75	7.94	540 D	3.35 I	74.1 I	6.62	4.33	5.74 J	1.1	4.9	63.1	2.69	1.99	3.13	9.18 I
p-Xylene	0.662 U	45.5	4.41 I	12.8	1.99	8.52 C	7.77 C	0.75 C	16.3	2000 D (b)	4.02 CI	50.3 I	8.92 CI	5.83	8.52 C	0.927	3.13 C	35.3	1.59	1.1	2.3 C	4.94 CI
Propylene	0.262 UC	0.262 UC	0.262 UC	0.262 UC	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U
Styrene	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U
Tetrahydrofuran	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
Toluene	2.26	290 D	49.8	11.5	13.8	103	93.5	4.48	44.4	630 D	6.17 I	51.3 I	16.7	3.91	17.6	6.13 J	4.79	9.96	11.9	4.83	8.5	13.5
trans-1,3-Dichloropropene	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U
Vinyl acetate	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 UC	0.537 UC	0.537 UC	0.537 UC	0.537 UC	0.537 UC	0.537 UC	0.537 UC	0.537 U	0.537 UC	0.537 U	0.537 UC	0.537 U	0.537 U	0.537 U	0.537 UC	0.537 UC
Vinyl bromide	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U

a/ SSB = subslab soil gas sample collected from basement level of building;
 SSF = subslab soil gas sample collected from main level of building;
 SSFR = duplicate subslab soil gas sample collected from main level of building;
 SSS = subslab soil gas sample collected from upper level of building;
 U = not detected at the reporting limit;
 J = analyte detected at or below quantitation limit;
 D = results from a secondary dilution;
 C = analyte exceeds calibration criteria. Quantitation estimated;
 I = associated internal standard criteria not met, estimated result.
 b/ Result is for m&p-xylene.

Table 2

Air Sample Results
Emerson Power Transmission Facility
December 12-13, 2005 (a)

Building ID	Indoor																				Outdoor (b)				
	2	3	4		6A		8	9	10	11A	13A	13B	24		33		34				35	1	2		
	Basement	Basement	Basement		Basement	Main	Main	Main	Main	Main	Upper	Upper	Basement		Main	Basement	Main	Basement		Main		Upper	1	2	
			A	B									B					A	A	B	C				D
Sample Type	IAB	IAB	IAB	IAB	IAB	IAF	IAF	IAF	IAF	IAF	IAS	IAS	IAB	IABR	IAF	IAB	IAF	IAB	IAB	IAF	IAF	IAS	AA	AA	
Sample Date	December 12-13, 2005																								
VOCs by EPA Method TO-15 (ug/m3)																									
1,1,1-Trichloroethane	0.61 J	2.05	4.55	0.832 U	1.83	5.38	2.61	0.721 J	0.777 J	0.555 J	0.832 U	0.832 U	0.832 U	0.832 U	0.832 J	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	
1,2-Dichloroethane	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	
cis-1,2-Dichloroethene	0.604 U	1.45	0.927	2.66	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	1.01	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	
Methylene chloride	13.1	2.4	2.01	2.58	2.61	2.15	3.85	4.73	2.65	3.07	3.11	3.39	67.1	5.33	2.37	2.9	2.51	3.5	2.4	3.71	3.21	2.08	3.71	1.66	
Tetrachloroethylene	9.03	1200 D	51	18.6	11.9	8.76	4.21	2.41	7.38	1.65	2.41	1.03 U	2.28	0.827 J	0.965 J	0.689 J	4.41	0.689 J	0.689 J	0.689 J	1.03 U	1.03 U	0.552 J	1.03 U	
trans-1,2-Dichloroethene	0.604 U	0.604 UC	0.604 U	0.604 UC	0.604 UC	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 U	0.604 UC	0.604 UC	
Trichloroethene	0.819	5.84	7.54	12.8	1.26	1.69	1.37	0.437	0.765	0.492	0.382	0.218 U	1.8	5.63	7.81	8.52	0.437	1.37	1.47	0.328	2.46	0.218 U	0.819	0.218 U	
Vinyl chloride	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	
1,1,2,2-Tetrachloroethane	1.05 U	1.05 UC	1.05 U	1.05 UC	1.05 UC	1.05 U	1.05 U	1.05 U	1.05 U	1.05 U	1.05 U	1.05 U	1.05 U	1.05 U	1.05 U	1.05 U	1.05 U	1.05 U	1.05 U	1.05 U	1.05 U	1.05 U	1.05 UC	1.05 UC	
1,1,2-Trichloroethane	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	0.832 U	
1,1-Dichloroethane	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	0.617 U	
1,1-Dichloroethene	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	0.605 U	
1,2,4-Trichlorobenzene	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	
1,2,4-Trimethylbenzene	8.29	24.5	5.85	3.55	3.4	4.2	5	10.4	8.99	11	10.6	22.5	15 U	15 U	1.6	2.45	1.7	3.3	1.45	3	6.15	0.999	1.05	0.799	
1,2-Dibromoethane	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	
1,2-Dichlorobenzene	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	
1,2-Dichloropropane	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	0.705 U	
1,3,5-Trimethylbenzene	2.35	7.5 J	2.25	1.05	1.65	3.3	5.7	4.75	4.7	4.35	6.1	9.79	8.24	5.95	1.25	2.35	1.45	3.35	0.75 U	2.55	3.6	0.75 U	0.75 U	0.75 U	
1,3-Butadiene	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	0.337 U	
1,3-Dichlorobenzene	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	
1,4-Dichlorobenzene	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	0.917 U	
1,4-Dioxane	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	
2,2,4-Trimethylpentane	1.71	8.07 C	3.42	0.712 UC	0.712 UC	0.475 J	0.427 J	0.712 U	0.475 J	0.712 U	0.712 U	0.712 U	1.14	2.52	0.712 U	0.712 U	0.712 U	0.712 U	0.712 U	0.332 J	0.712 U	0.712 UC	0.712 UC	0.712 UC	
4-Ethyltoluene	2.05	7 JC	1.55	1.05 C	1.05 C	0.8	0.999	1.7	1.5	1.75	1.55	3.7	4.55	4.45	0.3 J	0.5 J	0.75 U	0.75 J	0.75 U	0.55 J	1.1	0.75 U	0.75 UC	0.75 UC	
Acetone	0.724 U	230 D	209	0.724 U	908	229	127	115	54.1	0.724 U	0.724 U	0.724 U	0.724 U	0.724 U	0.724 U	610 D	265	1100 D	620 D	92.7	101	0.724 U	0.724 U	0.724 U	
Allyl chloride	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	0.477 U	
Benzene	6.92	32.8	7.08	1.95	3.15	3.6	4.29	5.03	16.2	6.01	2.14	2.47	7.31	16.9	1.36	3.51	2.5	3.38	3.18	2.95	4.29	1.79	0.779	1.1	
Benzyl chloride	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	0.877 U	
Bromodichloromethane	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	1.02 U	
Bromoform	1.58 U	1.58 U	1.58 U	1.58 U	1.58 U	10.6	2.42	1.58 U	7.78	1.58 U	1.58 U	1.58 U	1.58 U	2.63	1.58 U	1.58 U	1.58 U	1.58 U	1.58 U	1.58 U	1.58 U	1.79	1.58 U	1.58 U	
Bromomethane	0.592 U	0.592 UC	0.592 U	0.592 UC	0.592 UC	0.592 U	0.592 U	0.592 U	0.592 U	0.592 U	0.592 U	0.592 U	0.592 U	0.592 U	0.592 U	0.592 U	0.592 U	0.592 U	0.592 U	0.592 U	0.592 U	0.592 UC	0.592 UC	0.592 UC	
Carbon disulfide	0.475 U	0.475 U	0.475 U	0.475 U	0.475 U	0.475 U	0.475 U	0.475 U	0.475 U	0.475 U	0.475 U	0.475 U	0.475 U	0.475 U	0.475 U	0.475 U	0.475 U	0.475 U	0.475 U	0.348 J	0.475 U	0.475 U	0.475 U	0.475 U	
Carbon tetrachloride	0.959 U	0.576 J	0.959 J	0.64 J	0.959 U	0.959 U	0.959 U	0.959 U	0.959 U	0.959 U	0.959 U	0.959 U	0.959 U	0.959 U	0.959 U	0.959 U	0.959 U	0.959 U	0.959 U	0.959 U	0.959 U	0.959 U	0.767 J	0.64 J	
Chlorobenzene	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	0.702 U	
Chloroethane	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	0.402 U	
Chloroform	0.546 J	2.63	4.22	1.79	0.893	1.74	3.18	0.794	1.29	1.24	0.744 U	0.744 U	0.744 U	0.744 U	0.744 U	0.744 U	0.744 U	0.744 U	0.744 U	0.744 U	0.744 U	0.744 U	0.744 U	0.744 U	
Chloromethane	0.315 U	0.315 U	0.315 U	1.34	0.315 U	0.315 U	0.315 U	0.315 U	1.62	0.315 U	0.315 U	0.315 U	1.3	1.49	1.45	0.315 U	0.315 U	0.315 U	0.315 U	0.315 U	0.315 U	0.315 U	0.315 U	0.315 U	
cis-1,3-Dichloropropene	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	
Cyclohexane	1.61	0.525 UC	2.2	0.525 UC	4.86 C	1.85	1.5	1.19	1.43	0.84	0.77	0.945	2.38	1.54	0.525 U	5.11	1.64	14	5.11	0.735	1.12	0.595	0.525 UC	0.525 UC	
Dibromochloromethane	1.3 U	1.3 UC	1.3 U	1.3 UC	1.3 UC	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 UC	1.3 UC	1.3 UC	
Ethyl acetate	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	0.916 U	
Ethylbenzene	4.02	17.7	20.3	2.25	1.77	2.21	2.82	5.25	2.91	1.72	1.68	2.43	7.06 J	7.94 J	0.574 J	1.32	0.927	1.81	1.1	1.06	1.06	0.618 J	0.574 J	0.485 J	
Freon 11	3.26	1.6	2.51	1.83	1.66	2.57	2.97	3.03	3.14	2.74	2.46	2.57	4.17	3.77	3.2	2.97	2.91								

Table 2

Air Sample Results
Emerson Power Transmission Facility
December 12-13, 2005 (a)

Building ID	Indoor																				Outdoor (b)			
	2	3	4		6A		8	9	10	11A	13A	13B	24		33		34				35	1	2	
	Basement	Basement	Basement		Basement	Main	Main	Main	Main	Main	Upper	Upper	Basement		Main	Basement	Main	Basement		Main		Upper	1	2
			A	B									B	A				A	B	C	D			
Sample Type	IAB	IAB	IAB	IAB	IAB	IAF	IAF	IAF	IAF	IAF	IAS	IAS	IAB	IABR	IAF	IAB	IAF	IAB	IAB	IAF	IAF	IAS	AA	AA
Sample Date	December 12-13, 2005																							
VOCs by EPA Method TO-15 (ug/m3)																								
Hexane	6.09	22.9 C	5.98	3.58 C	0.537 UC	1.97	3.26	2.26	2.33	1.29	1.54	1.54	6.3	4.73	0.752	0.537 U	1.22	0.537 U	0.537 U	1.97	2.33	2.47	1.79 C	0.537 UC
Isopropyl alcohol	0.375 U	0.375 U	85.4	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U	0.375 U
m-Xylene	5.74 J	43.3	54.7	6.97	4.55	5.08	5.56	12.6	6.8	5.03	4.37	8.69	15	21.2	1.5	2.96	2.21	3.84	2.65	2.74	2.65	1.28	1.1	0.971
Methyl butyl ketone	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U
Methyl ethyl ketone	0.899 U	0.899 U	51	0.899 U	102	0.899 U	0.899 U	0.899 U	0.899 U	0.899 U	0.899 U	0.899 U	0.899 U	45.6	0.899 U	106	0.899 U	270 D	150	0.899 U	6.62	0.899 U	0.899 U	0.899 U
Methyl isobutyl ketone	1.25 U	1.25 U	17.5 J	1.25 U	1.25 U	6	3.41	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	25	6.54	42.3	20.8	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U
Methyl tert-butyl ether	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U
o-Xylene	5.34	23.4	22.1	2.38	1.72	2.74	2.87	6.31	3.62	2.82	2.56	4.99	7.94 J	7.94 J	0.839	1.41	0.927	1.68	1.15	1.63	1.59	0.706	0.485 J	0.574 J
p-Xylene	4.94	19.4	19.4	2.21	1.59	2.43	2.91	4.94	2.87	1.81	1.81	3.49	13.2 U	8.83 J	0.618 J	1.28	1.1	2.12	1.15	1.24	1.1	0.574 J	0.441 J	0.441 J
Propylene	0.262 U	0.262 UC	0.262 U	0.262 UC	0.262 UC	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 UC	0.262 UC
Styrene	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	2.03	0.649 U	0.649 U	0.649 U	8.83	4.89	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U	0.649 U
Tetrahydrofuran	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
Toluene	19.2	138	95	11.7	679	175	56.7	29.3	47.1	8.54	32.7	8.47	38.3	70.5	3.91	930 D	167	680 D	390 D	20.7	32.9	15.5	2.68	3.72
trans-1,3-Dichloropropene	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U	0.692 U
Vinyl acetate	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U	0.537 U
Vinyl bromide	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U	0.667 U

a/ IAB = indoor air sample collected from basement level of building;
 IABR = duplicate indoor air sample collected from basement level of building;
 IAF = indoor air sample collected from main level of building;
 IAS = indoor air sample collected from upper level of building;
 AA = ambient (outdoor) air sample;
 U = not detected at the reporting limit;
 J = analyte detected at or below quantitation limit;
 D = results from a secondary dilution;
 C = analyte exceeds calibration criteria. Quantitation estimated.

b/ Background concentrations represent ambient (outdoor) air concentrations for all air samples collected on December 12-13, 2005.