New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 8
6274 East Avon-Lima Road, Avon, New York 14414-9519
Phone: (585) 226-5353 • **Fax:** (585) 226-8139
Website: www.dec.ny.gov

Joe Martens
Commissioner

May 31, 2011

Mr. Antonio Gabrielle
1214 Lake Road
Webster, New York 14580

Mr. Joseph Ognibene
5875 North Byron Road
Byron, New York 14422

Dear Messrs. Gabriele and Ognibene:

Re: Churchville Ford Site # V00658-8
Sub-Slab Depressurization System Design; May 27, 2011
Village of Churchville, Monroe County

The New York State Department of Environmental Conservation (NYSDEC) has completed its review of the document entitled "Sub-Slab Depressurization System Design" dated May 27, 2011 (the Design Plan) prepared by Lu Engineers for the Churchville Ford site. Based on this review, NYSDEC has determined that the Design Plan, with a modification, substantially addresses the requirements of the Brownfield Cleanup Agreement. The modification is as follows:

- Employees of Mark's Truck and Boat Center are part of the community and community air monitoring is needed to monitor potential exposures for these employees, especially those working in the vicinity of the suction pits. However, the work zone monitoring discussed in the Health and Safety Plan appears to be sufficient for this monitoring for this project. The work zone monitoring results will be recorded and compared to the action levels in the Community Air Monitoring Plan (CAMP) provided in Attachment B and appropriate actions taken per the CAMP.

With the understanding that the above noted modification is agreed to, the Design Plan is hereby approved. If you choose not to accept the modification proposed by NYSDEC, you are required to notify this office within 20 days after receipt of this letter.

Thank you for your cooperation in this matter. Please notify me at least 5 days in advance of the start of field activities and please contact me at 585-226-5357 if you have any questions.

Sincerely,

Frank Sowers

Frank Sowers, P.E.
Environmental Engineer 2

ec:
Benjamin Bonarigo - Bonarigo & McCutcheon
Bart Putzig
Jeff Kosmala
Jim Charles
Katie Fish
Gregory Andrus
Eric Detweiler

Lu Engineers
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PASSION
EXPERIENCE
RESULTS
luengineers.com

May 27, 2011

Frank Sowers, P.E.
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 8
6274 East Avon-Lima Road
Avon, New York 14414

Subject: **Churchville Ford Site #V00658-8**
Sub-Slab Depressurization System Design

Dear Mr. Sowers,

This letter details the proposed design plan for installation of a sub-slab depressurization system (SSDS) at the Former Churchville Ford Site. Installation of a mitigation system was selected as the appropriate action to address remaining soil vapor intrusion concerns for the western portion of the shop building.

Background
Soil vapor intrusion sampling was performed by Lu Engineers on March 17, 2010. Results of this sampling indicated elevated levels of trichloroethene (TCE) and related compounds in soil vapor beneath the floor slab at location SVS-JCL-03b, as shown on the attached plan (Figure 1). The 'Volunteers' have elected to install a SSDS to mitigate concerns with soil vapor intrusion in the western portion of the shop building (a.k.a. 1989 addition). The 1989 shop addition consists of a steel frame building with a concrete slab on grade foundation. The slab is in good condition with a thickness of approximately 6- inches.

Communication Testing
On February 16, 2011, Lu Engineers teamed with Mitigation Tech, vapor intrusion specialists, to perform communication testing. The objective of the sub-slab air communication testing was to identify the number and location of suction points and determine fan requirements. The test procedure consisted of drilling a 4-inch diameter suction point along the south wall of the building (proposed suction point #1 - Figure 2) and installing small diameter test holes into the slab at typical vacuum monitoring points. Using a radon fan, a vacuum was applied at the suction point while differential pressure measurements were obtained at various test points across the slab to estimate the expected radius of influence.

Communication test point locations are shown on the attached plan. Results are summarized below.

Test point	Distance	Pressure reading (in. H_20)
1	30 ft.	-0.040
2	43 ft.	-0.013
3	60 ft.	-0.001
4	37 ft.	-0.012
5	53 ft.	0.000

The general finding was that sub-slab depressurization is a viable strategy to mitigate potential soil vapor intrusion at this Site. The sub-slab material was moderately permeable and included void spaces at the southern perimeter conducive to air flow. The trench drain located in the center of the shop appeared to be limiting communication to the northern portion of the sub-slab. Trench drain depth is unknown. Based on these observations, it was determined that two (2) suction fans, each connected to two (2) suction points (four (4) suction points total) along the north and south perimeter of the shop building (see attached Figure 2) will provide adequate sub-slab depressurization.

SSDS Specifications

Installation shall be performed in accordance with the New York State Department of Health (NYSDOH) "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" (October 2006) by Mitigation Tech, a National Environmental Health Association (NEHA) certified mitigation contractor. The proposed system performance objective is to provide a minimum negative air pressure differential of -0.002 inches water column to all areas of the sub-slab within the 1989 addition portion of the shop building. It is estimated that a total of four (4) suction points will be required to achieve adequate depressurization, as shown on the attached floor plan. Actual quantity and location of suction points may vary during construction, based on field measurements and site conditions.

1. Floor Slab Preparation

Small gaps and cracks in the floor slab shall be filled with an elastomeric joint sealant, as defined in American Society for Testing and Materials (ASTM) C920-87.

2. Suction Point Installation

A total of four (4) suction points are proposed, as shown on Figure 2. Suction points shall be installed by drilling a 5-inch diameter core hole through the slab and excavating a cavity of up to 1 cubic foot of sub-slab material. The cavity shall be backfilled with pea stone (or equivalent material).

All suction points shall be constructed of 4-inch diameter Schedule 40 PVC with a screened or slotted opening beneath the floor slab. Suction points shall be sealed at the floor surface with a non-shrink grout. Suction points will be installed along the north and south perimeter walls so as not to interfere with shop operations.

3. **Piping Installation**

Interior vapor collection piping shall consist of 4-inch diameter Schedule 40 PVC. Vertical pipes from each extraction point shall be connected to a horizontal header pipe hung on pipe hangers, spaced at least every six (6) feet, from the ceiling and run along the existing steel ceiling beams. Horizontal piping runs will be sloped back to the first suction point to allow condensate to drain back to the sub-slab. All pipe joints and connections to be permanently sealed with adhesives as specified by the manufacturer of the pipe material so as to be gas tight, except for connections at the fan housings. Vertical piping shall be secured to the walls.

Header pipes shall exit the building through two (2) roof penetrations as depicted on Figure 2. Suction fans will be installed above the roof and the exhaust pipes shall terminate at least 12-inches above the roof and meet the following requirements:

1. be at least 10-feet above the ground;
2. at least 10-feet away from any opening that is less than 2-feet below the exhaust point; and
3. at least 10-feet from any air intakes, windows, or other building openings.

A rain cap will be installed at the top of each exhaust pipe to prevent infiltration of precipitation.

4. Fans

Two (2) in-line exhaust fans will be installed in the vertical exhaust pipes, as shown on Figure 2. The fans shall be of type RadonAway RP-265. The building owner will provide an electrical service of adequate capacity (i.e., minimum of 20 A/110 V) to be run to each fan housing. Individual shut-off switches will be installed near each of the fans.

System Labeling and Indicator Devices

The SSDS piping and components will be clearly labeled to prevent accidental changes that could disrupt the system. The system will be equipped with U-shaped manometers installed on vertical pipe runs in the shop area to monitor system performance. Proper operation of the manometers will be verified by the contractor and communicated to the building owner and/or manager. A telephone number will be provided next to the manometer to call Mitigation Tech for service if the device indicates a system malfunction.

Waste Management

Excavation of contaminated sub-slab material is not anticipated during the SSDS installation. If material is removal is necessary, it will be screened with a MiniRAE 2000 photoionization detector (PID) for the presence of volatile organic compounds (VOCs). If elevated PID readings are observed, the material will be containerized, sampled, and sent for laboratory analysis to determine proper disposal. Waste containers will be stored in a secure on-Site location pending disposal. Lu Engineers will work closely with the NYSDEC to evaluate disposal options, if necessary. Other waste materials generated (i.e., scrap PVC, concrete, etc.) will be disposed of as solid waste by Mitigation Tech.

Health and Safety Plan

A site-specific Health and Safety Plan (HASP) has been prepared for this project and is included as Attachment A. The HASP also includes provisions for work zone air monitoring using a MiniRAE 2000 PID, or equivalent.

Lu Engineers' employees and subcontracted personnel will have completed the OSHA 40-hour HAZWOPER training with current refresher courses. A copy of the HASP will be available on-Site at all times during remedial activities.

Community Air Monitoring

The NYSDOH Community Air Monitoring Plan (CAMP) is included in Attachment B. It should be noted, however that community air monitoring is not anticipated during the SSDS installation due to the fact that any intrusive work will performed within the service building. Intrusive work is limited to drilling/coring through the floor slab at extraction point locations. Removal of sub-slab material is not anticipated due to the presence of a large void space adjacent to the exterior column footer. Therefore, no handling or disruption of subsurface material is expected. Provisions for handling sub-slab material is discussed above in the event sub-slab materials will require removal.

Post Mitigation Testing

Upon completion, a pressure field extension test shall be conducted to confirm a pressure differential of at least -0.002" w.c. has been established across the slab. A minimum of four (4) test points shall be installed to verify adequate depressurization of the 1989 building addition portion of the building. The test will be performed similar to the pre-construction communication testing, by installing small diameter penetrations in the slab and

monitoring the pressure differential using a digital micromanometer. Pressure field extension test results will be documented by Lu Engineers.

If the contractor has concerns about backdrafting potential in the building, the contractor shall recommend that a qualified person inspect the natural draft combustion appliances and venting systems for compliance with local codes and regulations.

Reporting and Schedule

Upon receipt and review of all necessary data, the Final Engineering Report (FER) and Site Management Plan (SMP) will be revised to include the required documentation of the SSDS installation and on-going monitoring requirements.

In accordance with Section 5.6 of the NYSDOH Guidance of Evaluating Soil Vapor Intrusion in New York State, all applicable information relative to the SSDS will be provided to the building owner and tenants as part of the SMP. The SMP will include necessary details regarding the long-term operation maintenance and monitoring of the SSDS.

A project schedule, including all anticipated fieldwork and report submission, is included in Attachment C.

Periodic progress reports will be submitted to NYSDEC and include a description of work completed during the reporting period, problems encountered, sampling results, and any changes to the scope of work. These reports will be submitted electronically in portable document format (PDF) with searchable text, by the 10th day of each month, until the FER is approved.

If you have any questions regarding the proposed system design, please contact me at (585) 385-7417 ext. 215.

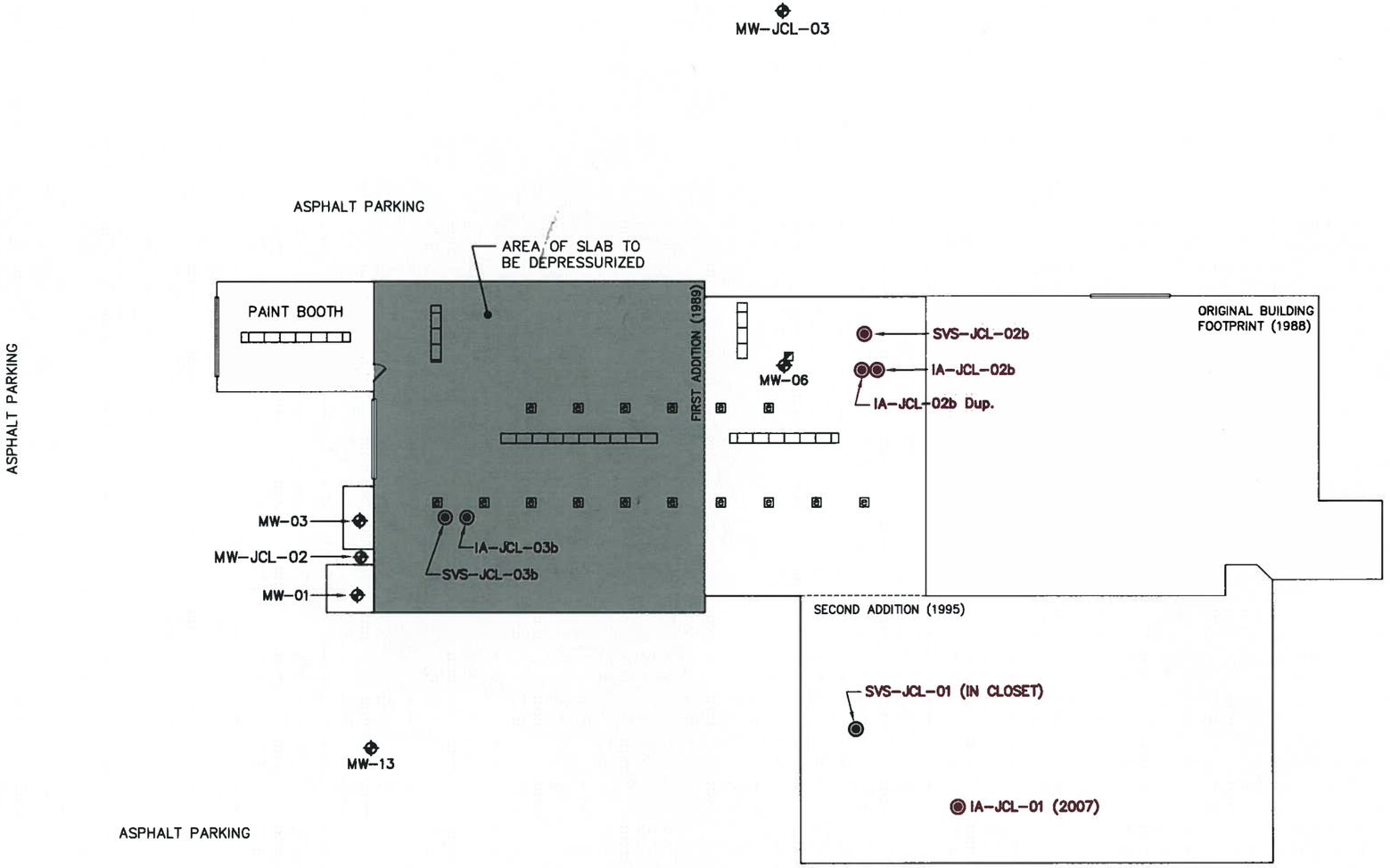
Sincerely,

Gregory L. Andrus, CHMM
Investigation/Remediation Group Leader

"I, Susan A. Hilton, certify that I am currently a NYS registered professional engineer and that this Supplemental Remedial Action Work Plan was prepared in accordance with all applicable statues and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10)."

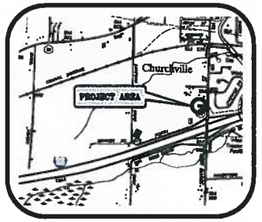
Susan A. Hilton, P.E.
Asbestos, Water, and Wastewater Group Leader
Associate

Enclosure(s): Figure 1 – Site Plan
Figure 2 – Proposed SSDS
Attachment A- Health and Safety Plan
Attachment B- Community Air Monitoring Plan
Attachment C- Schedule



LEGEND

- FLOOR TRENCH DRAIN
- OIL/WATER SEPARATOR
- APPROX. LOCATION OF EXHAUST COLLECTION PORT IN FLOOR
- MW-13 MONITORING WELL



DATE	REVISIONS	BY

DRAWING ALTERATION

WARNING: It is a violation of the New York State Education Law, Article 145, Section 7209, Special Provision 2, for any person unless he is acting under the direction of a Licensed Professional Engineer or Land Surveyor to alter an item in any way. If an item bearing the seal of an engineer or land surveyor is altered, the altering engineer or land surveyor shall affix to the item his seal and notation "altered by" followed by his signature and date of such alteration, and a specific description of the alteration.

BY: _____

DATE: _____

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL
175 Sully's Trail, Suite 202
Corporate Crossings Office Park
Pittsford, NY 14534
Ph: 385.7417 | Fax: 385.3741
luengineers.com

PROJECT:

FORMER CHURCHVILLE FORD
PROPOSED SSDS DESIGN

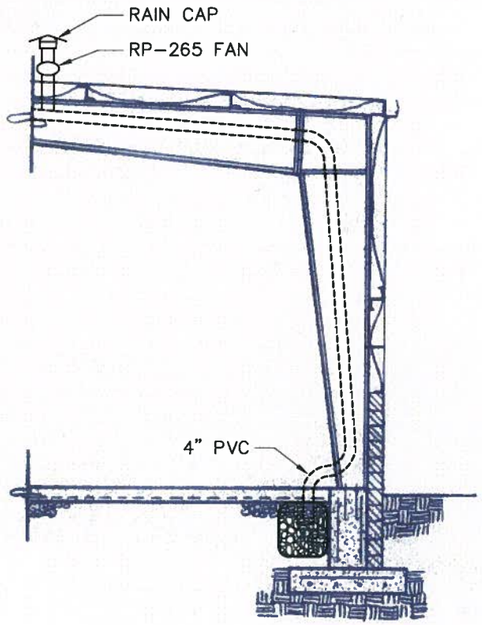
CLIENT:

Bonarigo and McCutcheon, Attorneys at Law

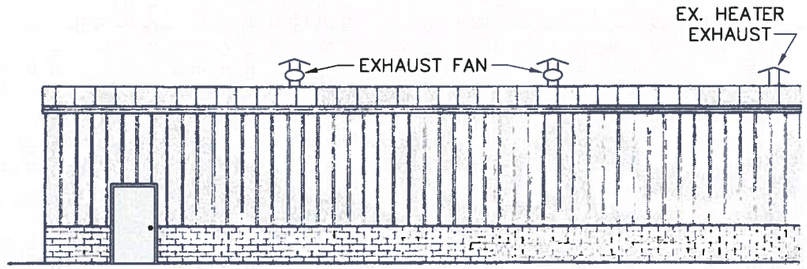
DRAWING TITLE:

FIG. 1
SITE PLAN

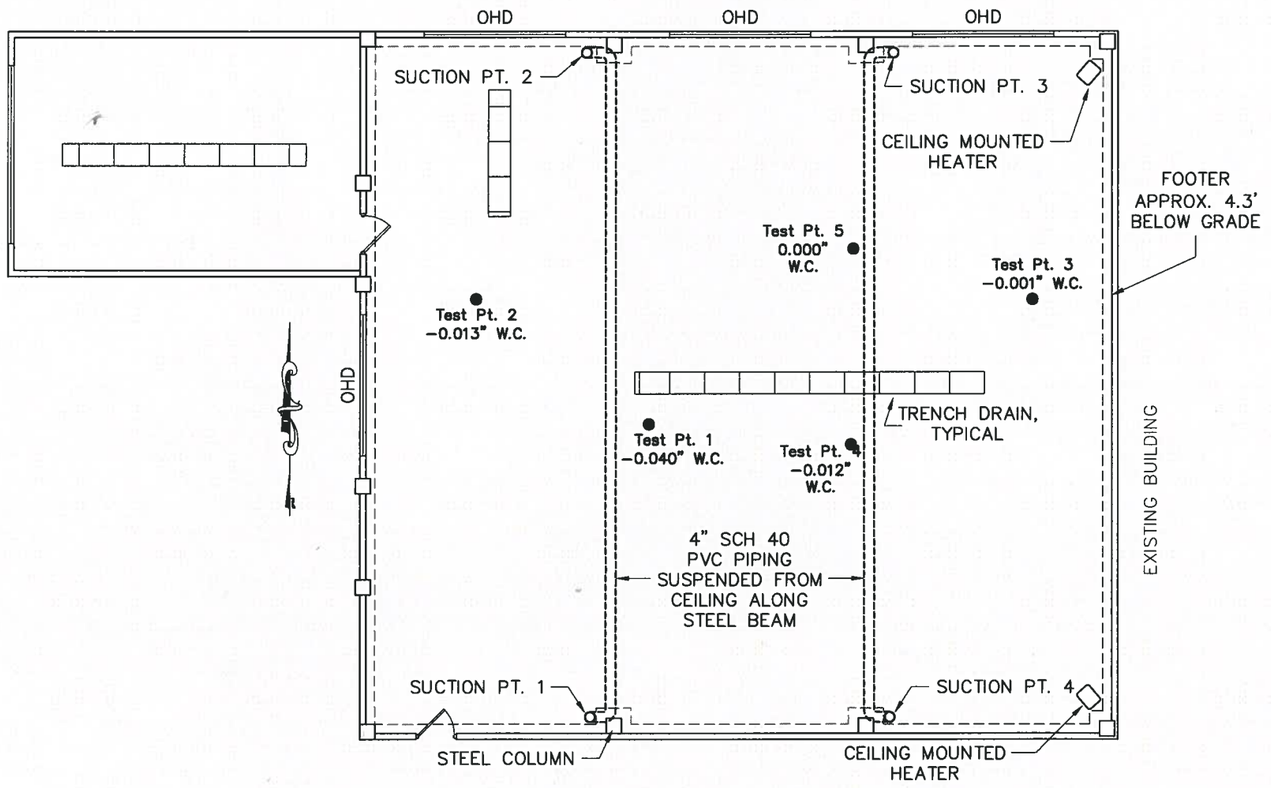
DESIGNED BY: LMS	SCALE: 1" = 30'
DRAWN BY: DLS	DATE: April 2011
CHECKED BY: SAH	PROJECT No. 5701-11
SHEET OF	DRAWING No.



ROOF EXHAUST POINT DETAIL
N.T.S.



SOUTH ELEVATION
N.T.S.

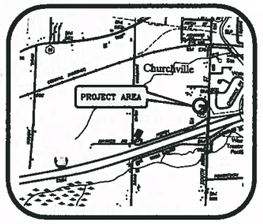


FOUNDATION PLAN – 1989 ADDITION
APPROX. SCALE: 1" = 15'

● COMMUNICATION TEST POINTS

NOTES:

1. SYSTEM TO BE INSTALLED WITH SPECIFICATIONS IN DESIGN PLAN LETTER DATED MAY 10, 2011. SYSTEM PERFORMANCE OBJECTIVE IS TO PROVIDE A MINIMUM −0.002" W.C. PRESSURE DIFFERENTIAL.
2. SUCTION POINTS 1 AND 2 WILL BE PIPED TO A RadonAway® RP−265 FAN LOCATED ABOVE THE ROOF.
3. SUCTION POINTS 3 AND 4 WILL BE PIPED TO A SEPARATE RadonAway® RP−265 FAN LOCATED ABOVE THE ROOF.



DATE	REVISIONS	BY

DRAWING ALTERATION

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STATE OF NEW YORK · SUSAN ADELAIDE HARTON · 079943 · LICENSED PROFESSIONAL ENGINEER

BY: Susan Harton
DATE: 5/26/2011

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luengineers.com

PROJECT:
FORMER CHURCHVILLE FORD
PROPOSED SSDS DESIGN

CLIENT:
Bonarigo and McCutcheon, Attorneys at Law

DRAWING TITLE:
FIG. 2
PROPOSED SSDS DESIGN

DESIGNED BY: LMS	SCALE: 1" = 15'
DRAWN BY: DLS	DATE: April 2011
CHECKED BY: SAH	PROJECT No. 5701-11
SHEET OF	DRAWING No.

Former Churchville Ford
Town of Churchville
Monroe County, New York
NYSDEC Site # V00658-8

Health and Safety Plan
Sub-Slab Depressurization System

Prepared For:

Bonarigo & McCutcheon, Attorneys at Law
18 Ellicot Street
Batavia, New York 14020

Prepared By:

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL

175 Sully's Trail, Suite 202
Pittsford, New York 14534

May 2011

Project No. 5701-11

Table of Contents

Lu Engineers
Health & Safety Plan

A. GENERAL INFORMATION

Project Title:	Churchville Ford Sub-Slab Depressurization System	Project No.	5701-11
Project Manager:	Gregory L. Andrus, CHMM	Project Director:	Steven A. Campbell, CHMM
Location:	111 South Main Street Village of Churchville, Monroe County, New York		
Prepared by:	Janet M. Bissi, CHMM	Date Prepared:	May 2011
Revised by:		Date Revised:	
Approved by:	Gregory L. Andrus, CHMM	Date Approved:	5/26/11

Scope/Objective of Work: Installation of a Sub-Slab Depressurization System.

- Task 1: Floor slab preparation
- Task 2: Installation of four (4) extraction points through the floor slab
- Task 3: Installation of 4-inch diameter Schedule 40 PVC piping
- Task 4: Installation of two (2) in-line fans
- Task 5: Post-mitigation testing

Proposed Date of Field Activities: Summer 2011

Background Information: [X] Complete [ ] Preliminary

Overall Chemical Hazard: [ ] Serious [ ] Moderate [X] Low [ ] Unknown

Overall Physical Hazard: [ ] Serious [ ] Moderate [X]Low [ ] Unknown

B. SITE/WASTE CHARACTERISTICS

Waste Type(s):

[ ] Liquid [ ] Solid [ ] Sludge [X] Gas/Vapor

Characteristic(s):

[ ] Flammable/Ignitable [X] Volatile [ ] Corrosive [ ] Acutely Toxic

[ ] Explosive (moderate) [ ] Reactive [ ] Carcinogen [ ] Radioactive

Physical Hazards:

[X] Overhead [ ] Confined Space [ ] Below Grade [X] Trip/Fall

[X] Puncture [ ] Burn [X] Cut [ ] Splash

[X] Noise [X] Other: Heat Stress/Cold Stress

Site History/Description and Unusual Features:
The Churchville Ford Site is located at 111 South Main Street in the Village of Churchville, Town of Riga, Monroe County, New York (see Sub-Slab Depressurization System (SSDS) Letter Figure1). The Site consists of three (3) parcels totaling 10.28 acres that contain a truck and boat dealership building, a wooden storage shed, paved parking areas, an access road (Sanford Road North), and a stormwater retention basin.

Mark's Truck and Boat Center currently operates a truck and boat sales and service center on property. The facility was previously utilized as Churchville Ford. Contamination was discovered at the Site in 2002 during an environmental investigation conducted for Meyer's Campers, as part of a property transfer. Concentrations of chlorinated solvents (trichloroethene (TCE), tetrachloroethene (PCE), and cis-1,2-dichloroethene) were detected in subsurface soils and groundwater at the Site. The source area of contaminated groundwater was located near the southwestern portion of the building, where solvents and fuels were previously stored.

A Remedial Investigation (RI) was conducted by Entrix Environmental and Lu Engineers between 2004 and 2008. Two rounds of pre-remedial soil vapor intrusion (SVI) sampling were conducted in 2004 and 2007. Elevated levels of TCE, PCE, and associated breakdown compounds were also detected in sub-slab soil vapor and/or indoor air samples located near the southwest corner of the building. Volatilization to indoor air was identified as a potential exposure route, as elevated levels of TCE were identified in two (2) of the three(3) Lu Engineers' indoor air sampling locations.

Based on the findings of the RI, remedial action was recommended to address chlorinated solvents detected in groundwater at levels exceeding NYS Groundwater Standards and NYSDEC guidance (TOGS 1.1.1). This remedial action includes the installation of a SSDS.

Locations of Chemicals/Wastes: Saturated soil and groundwater.

Estimated Volume of Chemicals/Wastes: The proposed remedy is designed to treat a source area of 3,600 ft^2 over a seven-foot depth interval.

Site Currently in Operation: Yes

C. HAZARD EVALUATION

PHYSICAL HAZARD EVALUATION:		
TASK	**HAZARD(S)**	**HAZARD PREVENTION**
Tasks 1-4	General physical hazards associated with drilling and using a scissor lift.	Hard hats, eye protection, and steel-toed boots required at all times. Keep safe distance from machines and all moving parts. Only operator and helper are to be in "work zone".
	Contact with or inhalation of contaminants, potentially in high concentration in sampling media and/or fire and explosion.	To minimize exposure to chemical contaminants, a thorough review of suspected contaminants should be completed and implementation of an adequate protection program. Under-ground vaults to be ventilated during inspections.
	Contact with or inhalation of decontamination solutions.	Material Safety Data Sheets for all decon solutions. First aid equipment available. **See Appendix C.**
	Slip/ tripping/ fall	Observe flooring and equipment while walking to minimize slips and falls. Steel-toed boots provide additional support and stability. Use adequate lighting. Wear hard hat. Inspect all lifting equipment prior to use.
	Back strain and muscle fatigue, ergonomic stress due to lifting.	Use proper lifting techniques and limit load to prevent back strain.
	Noise	Areas of potentially high sound pressure levels (>85 dBA) will be restricted to authorized personnel only. Engineering controls will be used to the extent possible. Hearing protection will be made available to all workers on site. Exposure to time-weighted average levels in excess of 85 dBA is not anticipated.
	Heat stress/ cold stress exposure	Implement heat stress management techniques such as shifting work hours, increasing fluid intake, and monitoring employees**. See Appendix A.**
	Sunburn	Apply sunscreen, wear appropriate clothing.
	Weather Extremes	Establish site-specific contingencies for severe weather situations. Discontinue work in severe weather.
	Native wildlife presents the possibility of insect bites and associated diseases.	Avoid wildlife when possible. Use insect repellant.

Physical Hazard Evaluation: Basic health and safety protection (steel-toed boots, work clothes, and safety glasses or goggles) will be worn by all personnel at all times. Any allergies should be reported to the Site Safety Officer prior to the start of the project.

D. SITE SAFETY PLAN

Perimeter Identified?	**[Y]**	**Site Secured?**	**[N]**
Work Areas Designated?	**[Y]**	**Zone(s) of contamination identified?**	**[Y]**

Site Control: Specific work areas will be delineated relative to the location of the work activity. Designated work areas will be set up inside the main building during extraction point and PVC piping installation. Exclusion Zones will be established surrounding each of locations where work will be performed. The Exclusion Zone will be designated by the use of cones and warning tape, as necessary to prevent building personnel from entering the work area.

In addition, all sub-slab penetrations and soil vapor conduits will be capped to reduce soil vapor infiltration into the building during the system installation.

Anticipated Level of Protection (cross-reference task numbers in Section C):

A	B	C	D
		Available	X

All Site work will be performed at Level D (steel-toed boots, work clothes, eye protection, gloves and hard hats) unless monitoring indicates otherwise. Gloves will be worn if contact with Site soil, sediment or water is anticipated, due to concerns of contamination. Level C will be available, and used when indicated by elevated PID readings.

Air Monitoring:

Contaminant	Monitoring Device	Frequency
Organic Vapors	MiniRAE 2000 PID	As Necessary

Action Level:
PID readings of **>5 ppm to 10 ppm** above background in the breathing zone, sustained for greater than 1 minute,
Action: Hault work activities and move away from the vapor source. Consider vapor suppression actions. If PID readings drop to within 5 ppm above background, work may resume with continuous air monitoring.

PID readings of **10 ppm to <25 ppm** above background at breathing zone, sustained for greater than 1 minute,
Action: Stop work and consider upgrade to Level C protection.

PID readings of **>25 ppm** above background at breathing zone, sustained for greater than 1 minute,
Action: Stop work.

All air monitoring results as well as wind direction and speed (estimates) will be documented in the site-specific log book.

Decontamination Solutions and Procedures for Equipment, Sampling Gear, etc.
Specified in work plan.

Personnel Decon Protocol: Soap, water, and paper towels or baby wipes will be available for all personnel and will be used before eating, drinking or leaving the site. Personnel will shower upon return to home or hotel. Disposable PPE will be rendered unusable and disposed of as stated in work plan.

Decon Solution Monitoring Procedures, if Applicable: Contractor's controlled/ decon waste container.

Special Site Equipment, Facilities or Procedures (Sanitary Facilities and Lighting Must Meet 29CFR 1910.120):
Restrooms and potable water are available for use in Mark's Truck and Boat Center.

Site Entry Procedures and Special Considerations: Level D/D^{+} will be used based on the results of previous investigations.

Work Limitations (time of day, weather conditions, etc.) and Heat/Cold Stress Requirements:
All work will be completed during daylights hours. Heavy equipment will not be used during electrical storms.

General Spill Control, if Applicable: N/A

Investigation Derived Material (i.e., Expendables, Decon Waste, Cuttings) Disposal:
Will be disposed of according to applicable regulations, as specified in the SSDS Letter.

Sampling Handling Procedures Including Protective Wear: All sample handling will be performed while wearing chemically-resistant gloves. To minimize hazards to lab personnel, sample volumes will be no larger than necessary, and the outside of all sample containers will be wiped clean prior to shipment.

Accident and Injury Reporting: Any work-related incident, accident, injury, illness, exposure, or property loss must be reported to the Lu Engineers project manager. This includes:

- Accident, injury, illness, or exposure of an employee;
- Injury of a subcontractor;
- Damage, loss, or theft of property, and/or
- Any motor vehicle accident regardless of fault, which involves a company vehicle, rental vehicle, or personal vehicle while employee is acting in the course of employment.

E. TRAINING REQUIREMENTS

All personnel conducting field activities on site are required to have completed training sessions in accordance with Occupational Safety and Health Administration (OSHA) for Parts 1926 and 1910 (Title 29 Code of Federal Regulations [CFR] Part 1926.65 and Part 1910.120 - Hazardous Waste Operations and Emergency Response- 'HazWOPER'). This training shall consist of a minimum of 40 hours of instruction off-site and three days of actual field experience under the direct supervision of a trained, experienced supervisor. Each employer will maintain documentation stating that its on-site personnel have complied with this regulation.

In addition, all personnel will have reviewed this HASP and received a site-specific health and safety briefing prior to participating in field work.

All visitors entering the work area must review the HASP and be equipped with the proper PPE. All site personnel and visitors shall sign the last page of the HASP as an acknowledgement that they have read and understand the Site health and safety requirements.

Medical Surveillance Requirements: All Lu Engineers' field staff who engage in on-Site activities for 30 days or more per year participate in a medical monitoring program and have completed applicable training per 29CFR 1910.120. Respiratory protection program meets requirements of 29CFR 1910.134.

Team Member*	**Responsibility**
Susan Hilton, P.E.	Project Director
Greg Andrus	Project Manager
Eric Detweiler	Field Geologist
Laura Neubauer	Environmental Specialist

* All entries into the work zone require "Buddy System" use. All Lu Engineers' field staff participated in a medical monitoring program and have completed applicable training per 29CFR 1910.120. Respiratory protection program meets requirements of 29CFR 1910.134.

F. EMERGENCY INFORMATION

LOCAL RESOURCES

Ambulance	911
Hospital Emergency Room	Lakeside Memorial Hospital (585) 637-3131 156 West Avenue Brockport, New York 14420
Poison Control Center	911 or 1-800-222-1222
Police (include local, county sheriff, state)	911
Fire Department	911
Airport	N/A
Local Laboratory	Paradigm Environmental Services (585) 647-2530 Upstate Laboratories (716) 472-2071
UPS/Federal Express	Federal Express 2580 Manitou Rd. Rochester, NY 14624 Hours: Mon – Fri. 8:30am-8:30pm

SITE RESOURCES

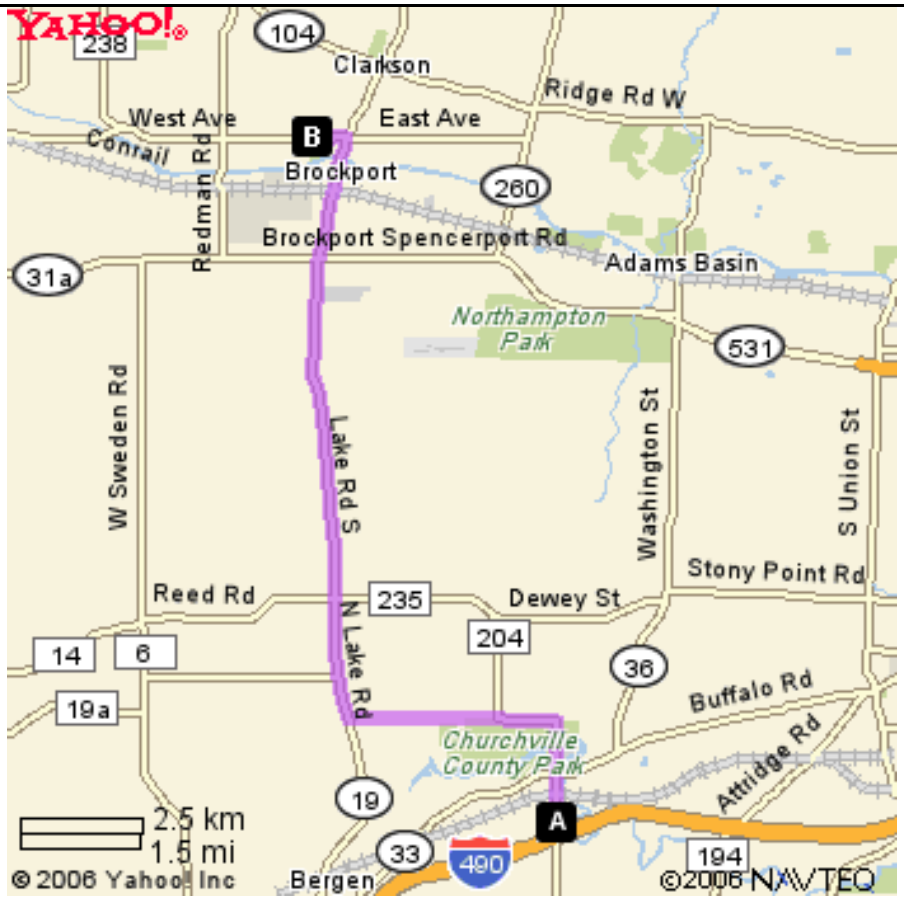
Site Emergency Evaluation Alarm Method	• One long blast: Evacuate the area by nearest emergency exit. • Two short blasts: Localized problem (not dangerous to workers. • Two long blasts: All clear
Water Supply Source	Located in Mark's Truck & Boat Center
Telephone Location, Number	TBD
Cellular Phone, if Available	TBD
Radio	N/A

EMERGENCY ROUTES

(Note: Field team must know route(s) prior to start of work.)

Directions from the site to LAKESIDE MEMORIAL HOSPITAL:

Go north on Main St. 1.3 miles; turn left on Kendall Rd., go 2.6 miles; turn right on Lake Rd. (Rte. 19), go 7.3 miles; turn left on West Ave., go 0.4 miles, hospital is on right



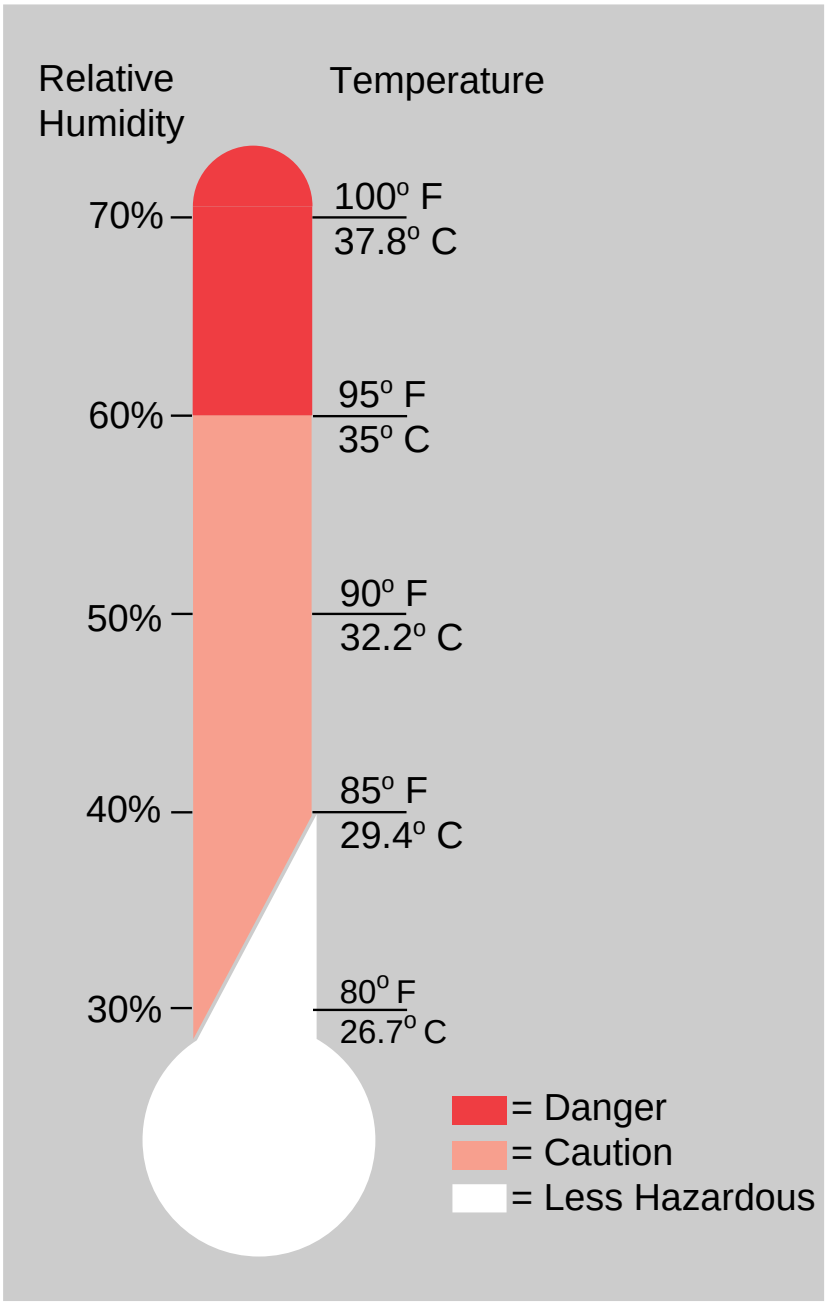
APPENDIX A

HEAT STRESS AND COLD EXPOSURE

THE HEAT EQUATION

HIGH TEMPERATURE + HIGH HUMIDITY + PHYSICAL WORK = HEAT ILLNESS

When the body is unable to cool itself through sweating, **serious** heat illnesses may occur. The most severe heat-induced illnesses are **heat exhaustion** and **heat stroke**. If actions are not taken to treat heat exhaustion, the illness could progress to heat stroke and possible **death**.



U.S. Department of Labor
Occupational Safety and Health Administration

OSHA 3154
1998

HEAT EXHAUSTION

What Happens to the Body:

HEADACHES, DIZZINESS/LIGHT HEADEDNESS, WEAKNESS, MOOD CHANGES (irritable, or confused/can't think straight), FEELING SICK TO YOUR STOMACH, VOMITING/THROWING UP, DECREASED and DARK COLORED URINE, FAINTING/PASSING OUT, and PALE CLAMMY SKIN.

What Should Be Done:

- Move the person to a cool shaded area to rest. Don't leave the person alone. If the person is dizzy or light headed, lay them on their back and raise their legs about 6-8 inches. If the person is sick to their stomach lay them on their side.
- Loosen and remove any heavy clothing.
- Have the person drink some cool water (a small cup every 15 minutes) if they are not feeling sick to their stomach.
- Try to cool the person by fanning them. Cool the skin with a cool spray mist of water or wet cloth.
- If the person does not feel better in a few minutes call for emergency help (Ambulance or Call 911).

(If heat exhaustion is not treated, the illness may advance to heat stroke.)

HEAT STROKE—A MEDICAL EMERGENCY

What Happens to the Body:

DRY PALE SKIN (no sweating), HOT RED SKIN (looks like a sunburn), MOOD CHANGES (irritable, confused/not making any sense), SEIZURES/FITS, and COLLAPSE/PASSED OUT (will not respond).

What Should Be Done:

- Call for emergency help (Ambulance or Call 911).
- Move the person to a cool shaded area. Don't leave the person alone. Lay them on their back and if the person is having seizures/fits remove any objects close to them so they won't strike against them. If the person is sick to their stomach lay them on their side.
- Remove any heavy and outer clothing.
- Have the person drink some cool water (a small cup every 15 minutes) if they are alert enough to drink anything and not feeling sick to their stomach.
- Try to cool the person by fanning them. Cool the skin with a cool spray mist of water, wet cloth, or wet sheet.
- If ice is available, place ice packs under the arm pits and groin area.

How to Protect Workers

- Learn the signs and symptoms of heat-induced illnesses and what to do to help the worker.
- Train the workforce about heat-induced illnesses.
- Perform the heaviest work in the coolest part of the day.
- Slowly build up tolerance to the heat and the work activity (usually takes up to 2 weeks).
- Use the buddy system (work in pairs).
- Drink plenty of cool water (one small cup every 15-20 minutes)
- Wear light, loose-fitting, breathable (like cotton) clothing.
- . Take frequent short breaks in cool shaded areas (allow your body to cool down).
- Avoid eating large meals before working in hot environments.
- Avoid caffeine and alcoholic beverages (these beverages make the body lose water and increase the risk for heat illnesses).

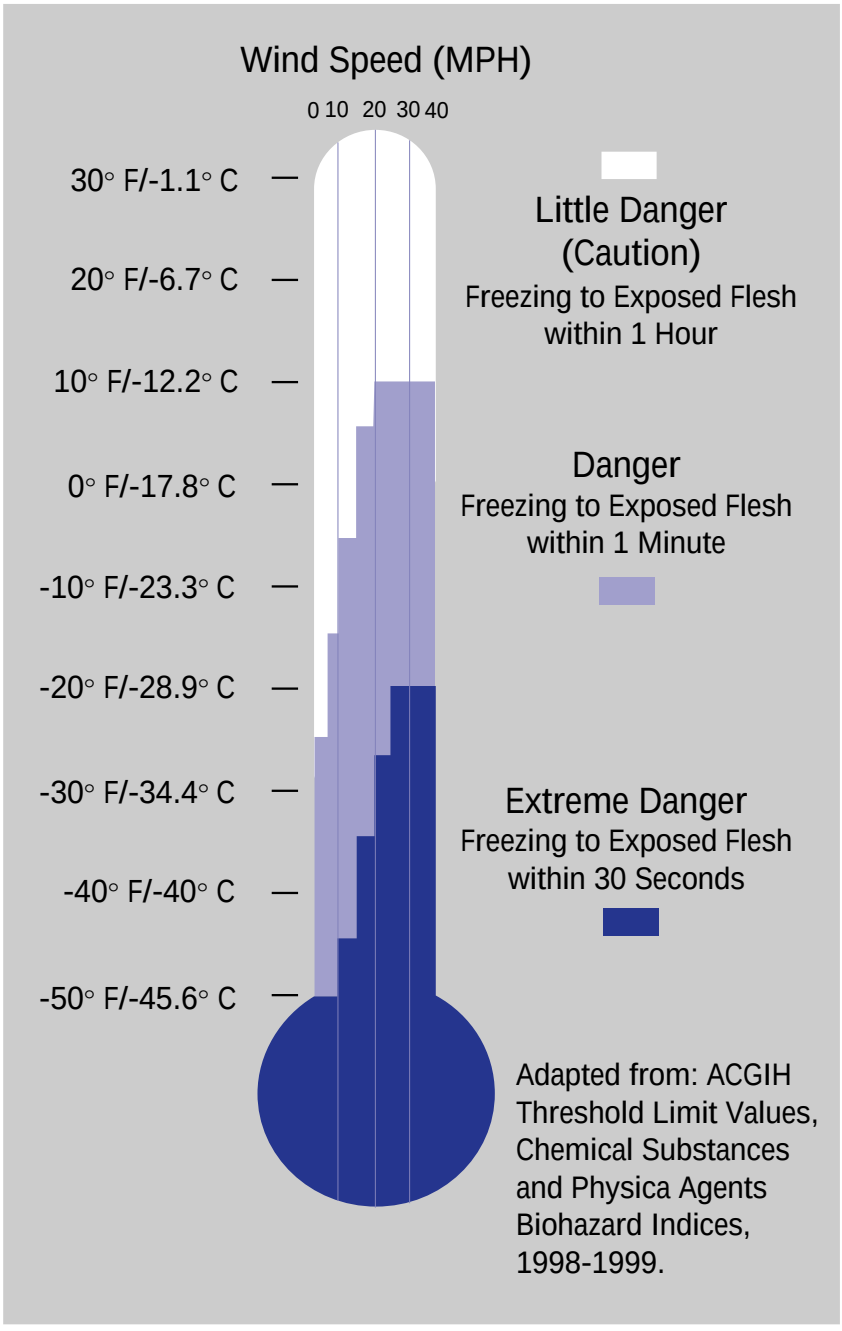
Workers Are at Increased Risk When

- They take certain medication (check with your doctor, nurse, or pharmacy and ask if any medicines you are taking affect you when working in hot environments).
- They have had a heat-induced illness in the past.
- They wear personal protective equipment (like respirators or suits).

THE COLD STRESS EQUATION

LOW TEMPERATURE + WIND SPEED + WETNESS = INJURIES & ILLNESS

When the body is unable to warm itself, serious cold-related illnesses and injuries may occur, and permanent tissue damage and death may result. **Hypothermia** can occur when *land temperatures* are **above** freezing or *water temperatures* are below 98.6°F/ 37°C. Cold-related illnesses can slowly overcome a person who has been chilled by low temperatures, brisk winds, or wet clothing.



U.S. Department of Labor
Occupational Safety and Health Administration

OSHA 3156
1998

FROST BITE

What Happens to the Body:

FREEZING IN DEEP LAYERS OF SKIN AND TISSUE; PALE, WAXY-WHITE SKIN COLOR; SKIN BECOMES HARD and NUMB; USUALLY AFFECTS THE FINGERS, HANDS, TOES, FEET, EARS, and NOSE.

What Should Be Done: (land temperatures)

- Move the person to a warm dry area. Don't leave the person alone.
- Remove any wet or tight clothing that may cut off blood flow to the affected area.
- **DO NOT** rub the affected area, because rubbing causes damage to the skin and tissue.
- **Gently** place the affected area in a warm (105°F) water bath and monitor the water temperature to **slowly** warm the tissue. Don't pour warm water directly on the affected area because it will warm the tissue too fast causing tissue damage. Warming takes about 25-40 minutes.
- After the affected area has been warmed, it may become puffy and blister. The affected area may have a burning feeling or numbness. When normal feeling, movement, and skin color have returned, the affected area should be dried and wrapped to keep it warm. **NOTE:** If there is a chance the affected area may get cold again, do not warm the skin. If the skin is warmed and then becomes cold again, it will cause severe tissue damage.
- Seek medical attention as soon as possible.

HYPOTHERMIA - (Medical Emergency)

What Happens to the Body:

NORMAL BODY TEMPERATURE (98.6° F/37°C) DROPS TO OR BELOW 95°F (35^0 C); FATIGUE OR DROWSINESS; UNCONTROLLED SHIVERING; COOL BLUISH SKIN; SLURRED SPEECH; CLUMSY MOVEMENTS; IRRITABLE, IRRATIONAL OR CONFUSED BEHAVIOR.

What Should Be Done: (land temperatures)

- Call for emergency help (i.e., Ambulance or Call 911).
- Move the person to a warm, dry area. Don't leave the person alone. Remove any wet clothing and replace with warm, dry clothing or wrap the person in blankets.
- Have the person drink warm, sweet drinks (sugar water or sports-type drinks) if they are alert. **Avoid drinks with caffeine** (coffee, tea, or hot chocolate) or alcohol.
- Have the person move their arms and legs to create muscle heat. If they are unable to do this, place warm bottles or hot packs in the arm pits, groin, neck, and head areas. **DO NOT** rub the person's body or place them in warm water bath. This may stop their heart.

What Should Be Done: (water temperatures)

- Call for emergency help (Ambulance or Call 911). Body heat is lost up to 25 times faster in water.
- **DO NOT** remove any clothing. Button, buckle, zip, and tighten any collars, cuffs, shoes, and hoods because the layer of trapped water closest to the body provides a layer of insulation that slows the loss of heat. Keep the head out of the water and put on a hat or hood.
- Get out of the water as quickly as possible or climb on anything floating. **DO NOT** attempt to swim unless a floating object or another person can be reached because swimming or other physical activity uses the body's heat and reduces survival time by about 50 percent.
- If getting out of the water is not possible, wait quietly and conserve body heat by folding arms across the chest, keeping thighs together, bending knees, and crossing ankles. If another person is in the water, huddle together with chests held closely.

How to Protect Workers

- Recognize the environmental and workplace conditions that lead to potential cold-induced illnesses and injuries.
- Learn the signs and symptoms of cold-induced illnesses/injuries and what to do to help the worker.
- Train the workforce about cold-induced illnesses and injuries.
- Select proper clothing for cold, wet, and windy conditions. Layer clothing to adjust to changing environmental temperatures. Wear a hat and gloves, in addition to underwear that will keep water away from the skin (polypropylene).
- Take frequent short breaks in warm dry shelters to allow the body to warm up.
- Perform work during the warmest part of the day.
- Avoid exhaustion or fatigue because energy is needed to keep muscles warm.
- Use the buddy system (work in pairs).
- Drink warm, sweet beverages (sugar water, sports-type drinks). Avoid drinks with caffeine (coffee, tea, or hot chocolate) or alcohol.
- Eat warm, high-calorie foods like hot pasta dishes.

Workers Are at Increased Risk When…

- They have predisposing health conditions such as cardiovascular disease, diabetes, and hypertension.
- They take certain medication (check with your doctor, nurse, or pharmacy and ask if any medicines you are taking affect you while working in cold environments).
- They are in poor physical condition, have a poor diet, or are older.

APPENDIX B

ADDITIONAL POTENTIAL PHYSICAL AND CHEMICAL HAZARDS

ADDITIONAL POTENTIAL PHYSICAL AND CHEMICAL HAZARDS	
POTENTIAL PHYSICAL HAZARDS	**CONTROL METHODS**
Overhead Hazards/Falling Objects	Overhead hazards will be identified prior to each task (i.e., inspecting drill rig mast, building structure). Hard hats will be required for each task that poses an overhead hazard.
Contact with Utilities	Prior to initiating site activities, all utilities will be located by the appropriate utility company and will be marked and/or barricaded to minimize the potential of accidental contact. A minimum distance of 25 feet between the derrick and overhead power lines must be maintained at all times.
Noise Exposure	Areas of potentially high sound pressure levels (>85 dBA) will be restricted to authorized personnel only. Engineering controls will be used to the extent possible. Hearing protection will be made available to all workers on site. Exposure to time-weighted average levels in excess of 85 dBA is not anticipated.
POTENTIAL CHEMICAL HAZARDS	**GENERAL CONTROL METHODS**
Contaminant Inhalation	Direct reading instruments (Op-Tech) and/or olfactory indications will be used to monitor airborne contaminants. Established Lu Engineers' action levels will limit exposure to safe levels. Respiratory protection will be used as appropriate.
Contaminant Ingestion	Standard safety procedures such as restricting eating, drinking, and smoking to the support zone and utilizing proper personal decontamination procedures will minimize ingestion as a potential route of exposure.
Dermal Contaminant Contact	The proper selection and use of personal protective clothing and decontamination procedures will minimize dermal contaminant contact.
Potential contact with lower concentration waste and naturally occurring contaminants (i.e., methane)	Dermal contact with contaminants will be minimized by proper use of the following PPE: • Tyvex coveralls • Neoprene gloves • Booties (latex) or over-boots.

APPENDIX C

HAZARD EVALUATION SHEETS / MSDS

CHEMICAL HAZARD EVALUATION

Task Number	Compound	Exposure Limits (TWA)			Dermal Hazard (Y/N)	Route(s) of Exposure	Acute Symptoms	Odor Threshold/ Description	FID/PID	
		PEL	REL	TLV					Relative Response	Ioniz. Poten. (eV)
1-5	Trichloroethene (TCE)	100 ppm (per 6/97 NIOSH Pocket Guide)			Y	Inh, Abs, Ing, Con	Irritation to eyes, skin, mucous membranes and GI, headache, vertigo, fatigue, giddiness, tremors, vomiting, nausea, may burn skin, visual disturbance, paresthesia, cardiac arrhythmias	Colorless liquid, sometimes dyed blue, chloroform odor	---	9.45
1-5	Tetrachloroethylene (PCE)	100 ppm	---	25 ppm	Y	Inh, Abs, Ing, Con	Irritation to eyes, nose, upper respiratory tract, throat; skin, flush face, dizziness, giddiness, headache, intoxication, nausea, vomiting, abdominal pain, diarrhea, systemic effects	Colorless liquid, mild chloroform odor	---	9.32
1-5	Cis-1,2-Dichloroethene	260 ppm	---	262 ppm	Y	Inh, Abs, Ing, Con	Irritation to eyes, skin, mucous membranes and GI, headache, vertigo, fatigue, giddiness, tremors, vomiting, nausea, may burn skin, visual disturbance, paresthesia, cardiac arrhythmias	Colorless liquid, aromatic odor	0.5	9.25

KEY:

PEL = Permissible Exposure Limit Inh = Inhalation Abs = Skin Absorption
REL = Recommended Exposure Limit Ing = Ingestion Con = Skin and/or eye Contact
--- = Information not available mg/m^3 = Milligrams per cubic meter ppm = Parts per million
TLV = Threshold Limit Value(ACGIH) * = Chemical is a known or suspected carcinogen sk = Skin notation

APPENDIX D

EQUIPMENT CHECKLIST

EQUIPMENT CHECKLIST

PROTECTIVE GEAR			
LEVEL A	**N/A**	**LEVEL B**	**N/A**
SCBA		SCBA	
SPARE AIR TANKS		SPARE AIR TANKS	
ENCAPSULATING SUITE (Type)		PROTECTIVE COVERALL (Type)	
SURGICAL GLOVES		RAIN SUIT	
NEOPRENE SAFETY BOOTS		BUTYL APRON	
BOOTIES		SURGICAL GLOVES	
GLOVES (Type)		GLOVES (Type)	
OUTER WORK GLOVES		OUTER WORK GLOVES	
HARD HAT		NEOPRENE SAFETY BOOTS	
CASCADE SYSTEM		BOOTIES	
5-MINUTE COOLING VEST		HARD HAT WITH FACE SHIELD	
		CASCADE SYSTEM	
		MANIFOLD SYSTEM	
LEVEL C		**LEVEL D**	
ULTRA-TWIN RESPIRATOR		ULTRA-TWIN RESPIRATOR (available)	
POWER AIR PURIFYING RESPIRATOR		CARTRIDGES (Type GMC-H)(available)	
CARTRIDGES (Type GMC-H)		5-MINUTE ESCAPE MASK (available)	
5-MINUTE ESCAPE MASK		PROTECTIVE COVERALL (Type Tyvek/Saranax)	
PROTECTIVE COVERALL (Type Tyvek/Saranax)		RAIN SUIT (available)	X
RAIN SUIT		NEOPRENE SAFETY BOOTS	
BUTYL APRON		BOOTIES (available)	
SURGICAL GLOVES		NITRILE	
GLOVES (Type: Nitrite/Neoprene)		HARD HAT (available)	X
OUTER WORK GLOVES		SAFETY GLASSES	X
NEOPRENE SAFETY BOOTS		GLOVES (Type: Surgical)	X
HARD HAT WITH FACE SHIELD		WORK GLOVES (Type: Leather, Neoprene/Nitrile)(available)	X
BOOTIES		SAFETY BOOTS	X
HARD HAT		SAFETY VEST (Green and yellow with reflective stripes)	

EQUIPMENT CHECKLIST

INSTRUMENTATION	NO.	FIRST AID EQUIPMENT	NO.
OVA		FIRST AID KIT	X
THERMAL DESORBER		OXYGEN ADMINISTRATOR	
O_2/EXPLOSIMETER W/CAL.KIT (Drilling)		STRETCHER	
PHOTOVAC TIP		PORTABLE EYE WASH	
PID	X	BLOOD PRESSURE MONITOR	
MAGNETOMETER		FIRE EXTINGUISHER	X
PIPE LOCATOR			
WEATHER STATION		**DECON EQUIPMENT**	
DRAEGER PUMP, TUBES ( )		WASH TUBS	
BRUNTON COMPASS		BUCKETS	X
MONITOX CYANIDE		SCRUB BRUSHES	X
HEAT STRESS MONITOR		PRESSURIZED SPRAYER	
NOISE EQUIPMENT		DETERGENT (Type: Alconox) = TSP	X
PERSONAL SAMPLING PUMPS		SOLVENT (HEXANE)	
MINI-RAM (Particulates) (Drilling)		PLASTIC SHEETING	
		TARPS AND POLES	
		TRASH BAGS	X
RADIATION EQUIPMENT		TRASH CANS	
DOCUMENTATION FORMS		MASKING TAPE	
PORTABLE RATEMETER		DUCT TAPE	X
SCALER/RATEMETER		PAPER TOWELS	X
NaI Probe		FACE MASK	
ZnS Probe		FACE MASK SANITIZER	
GM Pancake Probe		FOLDING CHAIRS	
GM Side Window Probe		STEP LADDERS	
MICRO R METER		DISTILLED WATER	X
ION CHAMBER			
ALERT DOSIMETER			
MINI-RAD			

EQUIPMENT CHECKLIST

SAMPLING EQUIPMENT	NO.	MISCELLANEOUS (cont.)	NO.
4-OZ BOTTLES		BUNG WRENCH	
1 LITER AMBER BOTTLES		SOIL AUGER	
VOA BOTTLES		PICK	
SOIL SAMPLING (CORING) TOOL		SHOVEL	X
SOIL VAPOR PROBE		CATALYTIC HEATER	
THIEVING RODS WITH BULBS		PROPANE GAS	
SPOONS		BANNER TAPE	
GENERAL TOOL KIT		SURVEYING METER STICK	
FILTER PAPER		CHAINING PINS AND RING	
PERSONAL SAMPLING PUMP SUPPLIES		TABLES	
4-OZ JARS		WEATHER RADIO	
Micronanometer	X	BINOCULARS	
VAN EQUIPMENT		MEGAPHONE	
TOOL KIT		PORTABLE RADIOS (2)	
HYDRAULIC JACK		CELL PHONE	X
LUG WRENCH		CAMERA	
TOW CHAIN		HEARING PROTECTION	X
VAN CHECK OUT			
GAS		**SHIPPING EQUIPMENT**	
OIL		COOLERS	
ANTIFREEZE		PAINT CANS WITH LIDS, 7 CMIPS EACH	
BATTERY		VERMICULITE	
WINDSHIELD WASH		SHIPPING LABELS	
TIRE PRESSURE		DOT LABELS: “DANGER”, “UP”;	
		“INSIDE CONTAINER COMPLIES...”;	
MISCELLANEOUS		“HAZARD GROUP”	
PITCHER PUMP		STRAPPING TAPE	
SURVEYOR’S TAPE		BOTTLE LABELS	
100 FIBERGLASS TAPE		BAGGIES	
300 NYLON ROPE		CUSTODY SEALS	
NYLON STRING		CHAIN-OF-CUSTODY FORMS	
SURVEYING FLAGS		FEDERAL EXPRESS FORMS	
FILM		CLEAR PACKING TAPE	
WHEEL BARROW			

Attachment B- Community Air Monitoring Plan

New York State Department of Health
Generic Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for volatile organic compounds (VOCs) and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate NYSDEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings must be recorded and be available for State (DEC and DOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

All readings must be recorded and be available for State (DEC and DOH) personnel to review.

Source: DRAFT DER-10 Technical Guidance for Site Investigation and Remediation, December 2002- Appendix 1A

Sub-Slab Depressurization System Schedule

Former Churchville Ford Site # V00658-8

Remedial Action	**Month**															
Task/ Milestone	May				June				July				August			
Work Plan Review & Approval																
Final WorkPlan Approval																
Remedial Measures																
Install Sub-Slab Depressurizaton System																
Testing																
Submissions & Deliverables																
Revised FER submission																
Revised SMP submission																
Agency Review & Approval																
Final FER Submission																
Record deed restrictions																
Final SMP Submission																
Release & Covenant Not to Sue issued																