

Highland Plaza  
Tonawanda, New York

Supplemental Phase II Investigation  
215 Highland Parkway  
Tonawanda, New York  
BCP # C915293

## **Supplemental Phase II Investigation**

# **HEALTH AND SAFETY PLAN**

Prepared For:

Highland Plaza  
215 Highland Parkway  
York 14127

Prepared By:

Environmental & Geologic Management Services, LLC

**EGMS**

15 Briar Hill Road  
Orchard Park, New York

**February 2015**

## **Table of Contents**

	<u>Page</u>
SECTION A: GENERAL INFORMATION .....	1
SECTION B: SITE/WASTE CHARACTERISTICS .....	2
SECTION C: HAZARD EVALUATION.....	3
SECTION D: SITE SAFETY WORK PLAN .....	6
SECTION E: EMERGENCY INFORMATION .....	9

### **APPENDICES**

APPENDIX A	HEAT STRESS AND COLD EXPOSURE
APPENDIX B	ADDITIONAL POTENTIAL PHYSICAL AND CHEMICAL HAZARDS
APPENDIX C	HAZARD EVALUATION SHEETS / MSDS
APPENDIX D	EQUIPMENT CHECKLIST

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**EGMS SITE  
SAFETY PLAN**

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**A. GENERAL INFORMATION**

Project Title: Highland Plaza Project No. HP 02 -15 - 1  
Town of Tonawanda  
BCP Program # C915293  
Supplemental Phase II Investigation Work Plan

Project Manager: N. K. Wohlabaugh, PG, CPG Project Director: Same

Location: 215 Highland Parkway  
Tonawanda, Erie County, New York

Prepared by: N. K. Wohlabaugh, PG, CPG Date Prepared: February 2015  
Revised by: \_\_\_\_\_ Date Revised: \_\_\_\_\_

Approved by: \_\_\_\_\_ Date Approved: \_\_\_\_\_

**Scope/Objective of Work:** Investigation activities at the Site include advancing soil borings, installing monitoring wells to sample the groundwater and soil to further delineate the Site and collection of soil vapor and ambient air samples with the Site building to provide sufficient information to adequately evaluate all remedial alternatives. Additional activities may include stabilization and/or disposal of contaminated soil and groundwater.

- Task 1: Site Preparation;
- Task 2: Advance Soil Borings/Collect Soil Samples;
- Task 3: Install Groundwater Monitoring Wells/Collect Groundwater Samples;  
and
- Task 4: Collect Soil Vapor and Ambient Indoor Air Samples

EGMS will provide all necessary labor, equipment, materials, temporary site controls, facilities, and utilities as required to complete the work described in the Supplemental Phase II Investigation Work Plan. It is anticipated that airborne levels of VOCs and dust particulates will be minimal at near surface soil elevations.

Site investigation activities will be managed by EGMS throughout the duration of the field work. The requirements of the HASP shall be in effect from initial site mobilization through final demobilization. The requirements of this HASP including modification to standard operating procedures, engineering controls and levels of personal protective equipment that may be required during this project are based upon changing site conditions, the availability of data, personal sampling results and environmental monitoring. Such changes will be published as a revision to this document and will be distributed to the Owner and affected employees.

Proposed Date of Field Activities: Summer 2015

Background Information:  Complete    \* Preliminary (limited analytical data)  
\* Background information provided by NYSDEC and City of Rochester

Overall Chemical Hazard:     Serious         Moderate  
    Low                 Unknown

Overall Physical Hazard:     Serious         Moderate  
    Low                 Unknown

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**B. SITE/WASTE CHARACTERISTICS**

**Waste Type(s):**

Liquid                     Solid         Sludge                     Gas/Vapor

**Characteristic(s):**

Flammable/Ignitable       Volatile     Corrosive       Acutely Toxic  
 Explosive (moderate)  Reactive     Carcinogen       Radioactive

Other: \_\_\_\_\_

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**Physical Hazards:**

Overhead                       Confined Space     Below Grade             Trip/Fall  
 Puncture                       Burn                       Cut                       Splash  
 Noise                               Other:    Heat Stress/Cold Stress

**Site History/Description and Unusual Features:**

The Site consists of a strip plaza for commercial usage that was built in the 1950's. It has been primarily occupied by commercial businesses since it was built, most of whom have not generated wastes that were considered hazardous, with the exception of a dry cleaner that was located at the eastern end of the building.

**Locations of Chemicals/Wastes:** Soil, and/or groundwater.

**Estimated Volume of Chemicals/Wastes:** Unknown.

**Site Currently in Operation:**  Yes  No  Not Applicable

### C. HAZARD EVALUATION

<b>PHYSICAL HAZARD EVALUATION:</b>		
<b>TASK</b>	<b>HAZARD(S)</b>	<b>HAZARD PREVENTION</b>
<b>Tasks 1-4</b>	General physical hazards associated with drill rig and Geoprobe operations (spinning, augers, overhead equipment, noise, and, drill rig movement). Physical hazards also associated with demolition	Hard hats, eye protection, and steel-toed boots required at all times while working around drill rig. Hearing protection required during sampling (hammering). Keep safe distance from rig and all moving parts.
	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.
	Overhead Hazards/ Falling Objects	<b>See Appendix B</b>
	Back strain and muscle fatigue, ergonomic stress due to lifting.	Use proper lifting techniques and limit load to prevent back strain.
	Heat stress/ cold stress exposure	Implement heat stress management techniques such as shifting work hours, increasing fluid intake, and monitoring employees. <b>See Appendix A.</b>
	Slip/ tripping/ fall	Observe terrain and drilling equipment while walking to minimize slips and falls. Steel-toed boots provide additional support and stability. Use adequate lighting. Inspect Site and mark existing hazards.
	Noise	<b>See Appendix B</b>
	Sunburn	Apply sunscreen, wear appropriate clothing.
	Utility Lines	<b>See Appendix B</b>
	Weather Extremes	Establish Site-specific contingencies for severe weather situations. Discontinue work in severe weather.

**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 WORK PLAN

**Site Control:** Site perimeter is open and not fully secure.

**Perimeter Identified?** [Y]                      **Site Secured?** [N]

**Work Areas Designated?** [Y]                      **Zone(s) of contamination identified?** [Y]

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

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
Tasks 1-4			Available	X

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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 chlorinated solvents contamination. Level C will be available, and used when indicated by photoionization detector (PID) of 5 parts per million (ppm) or greater above ambient air.

#### **Air Monitoring:**

<u>Contaminant</u>	<u>Monitoring Device</u>	<u>Frequency</u>
Organic Vapors	MiniRAE 2000 PID	Continuous

Perimeter air monitoring for VOCs will be performed as described in the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (CAMP) (Appendix B of the RI/IRM Work Plan Addendum).

EGMS will also conduct continuous air monitoring of worker breathing zone air during intrusive investigations. If action levels are exceeded during intrusive investigation, appropriate precautions will be taken, as described below.

#### **Action Levels:**

PID readings of **5 ppm** above background in the breathing zone or greater, sustained for greater than 1 minute

**Action:** Halt work activities and move away from the vapor source. Consider upgrading to Modified Level D protection (air purifying respirator). If PID readings drop to within 5 ppm above background, work may resume with continuous air monitoring.



PID readings of 5 ppm to <25 ppm above background at breathing zone, sustained for greater than 1 minute

**Action:** Upgrade to Modified Level D 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.:**

Disposable sampling equipment will be used where possible. If decon is necessary, distilled or deionized water andalconox will be used.

### **Personnel Decon Protocol:**

Personal protective clothing will be removed in a manner that will minimize the potential of contaminant to skin contact. Visible contamination will be removed from protective clothing prior to the individual doffing the articles. Soap, water and paper towels 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 personal protection equipment (PPE) will be double-bagged and disposed of as non-hazardous waste.

### **Decontamination Solution Monitoring Procedures, if Applicable:**

All decontamination procedures will take place in a well ventilated area. Decontamination solutions will be collected and sampled for proper disposal.

### **Special Site Equipment, Facilities or Procedures:**

All personnel will be required to maintain the Buddy System at all times. A toilet and potable water will be available on Site. All parties will be required to attend an on-Site briefing, which will identify the roles of each organization's personnel and will integrate emergency procedures for all Site participants.

### **Site Entry Procedures and Special Considerations:**

Entry to the Site will be into the parking north of the Site building. The Buddy System should be employed at all times onsite and entering and exiting the Site, along with the work zone areas.

### **Work Limitations (time of day, weather conditions, etc.) and Heat/Cold Stress Requirements:**

All work will be completed during daylight hours. Severe inclement weather may be cause to suspend outdoor activities. Heat stress protocol will dictate work/rest regimen. Heavy

equipment will not be used during electrical storms.

**General Spill Control, if Applicable:**

Absorbent material will be available to control spills during drilling and sampling activities.

**Investigation Derived Material (i.e., Expendables, Decon Waste, Cuttings) Disposal:**

It is not anticipated that Investigation Derived Materials will be generated as part of the proposed activities at the Site.

**Sampling Handling Procedures Including Protective Wear:**

Samples collected from soil and groundwater will be handled with neoprene outer gloves prior to decontamination. At minimum nitrile surgical gloves will be worn while handling samples during labeling, documentation and packaging.

<b>Team Member*</b>	<b>Responsibility</b>
<u>Norm Wohlabaugh</u>	<u>Project Manager</u>
<u>_____</u>	<u>Site Safety Manager</u>
<u>_____</u>	<u>Field Team Leader/Geologist</u>
<u>Peter Tarnawskyj, QEP</u>	<u>Quality Assurance</u>
<u>SJB Services</u>	<u>Drilling Services</u>
<u>_____</u>	<u>_____</u>
<u>_____</u>	<u>_____</u>

\* All entries into the work zone require "Buddy System" use. All EGMS personnel

## E. EMERGENCY INFORMATION

### LOCAL RESOURCES

Ambulance: 911

Hospital Emergency Room: Kenmore Mercy (716) 447-6100  
2950 Elmwood Avenue, Buffalo, New York

Poison Control Center: 911

Police (include local, county sheriff, state): 911

Fire Department: 911

Airport: N/A

Laboratory: Paradigm Environmental Services, Inc.  
(585) 647-2530

UPS/Federal Express: N/A

### SITE RESOURCES

Site Emergency Evaluation Alarm Method: Sound vehicle horn.

Water Supply Source: Gallons of water will be available in vehicles.

Telephone Location, Number: None available

Cellular Phone, if Available: (716) 445-2105

Radio: NA

Other: NA

## EMERGENCY CONTACTS

1. Fire/Police: 911
2. Norm Wohlabough, Project Manager: (716) 445-2105

## EMERGENCY ROUTES

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

### **Directions from the Site to Strong Memorial Hospital (map on following page):**

Turn west on Highland parkway (0.4 miles).

Turn left on Delaware Road (0.03 miles).

Take first right onto Princeton Blvd (0.3 miles).

Take first right onto Delaware Avenue (0.2 miles).

Turn left on Kenview Avenue (0.3 miles).

Turn right Elmwood Avenue, the hospital is at 2950 Elmwood Avenue.

**On-Site Assembly Area:** Corner of Highland Parkway and Colvin Avenue.

**Off-Site Assembly Area:** Same.

**Emergency egress routes to get off-Site:** N/A.

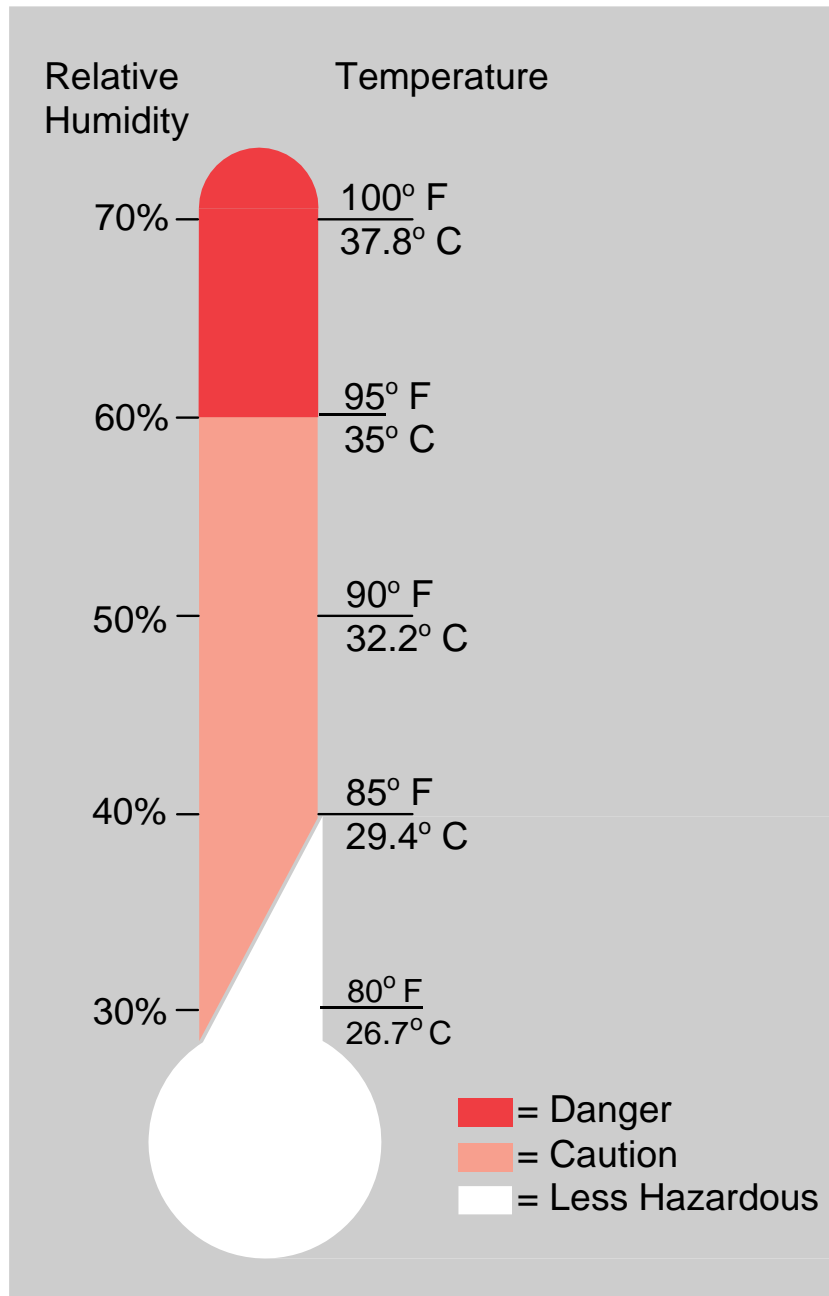
**APPENDIX A**

**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**.



# 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**

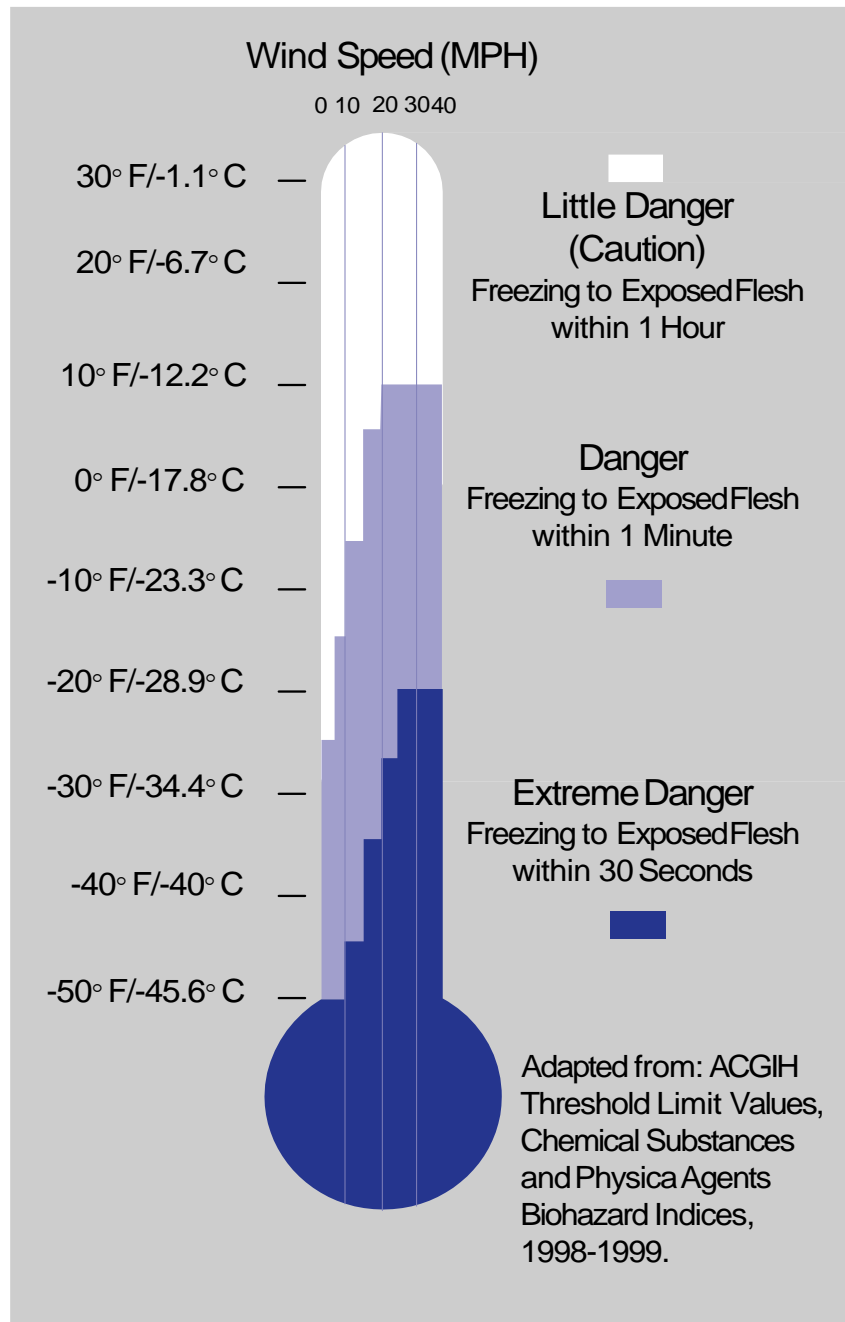
- They take certain medication (check with your doctor, nurse, or pharmacy and ask if any medicines you are taking affect you when working in hot environments).
- They have had a heat-induced illness in the past.
- They wear personal protective equipment (like respirators or suits).

# THE COLD STRESS EQUATION

## LOW TEMPERATURE + WINDSPEED + 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.



# 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 Happen to the Body:*

NORMAL BODY TEMPERATURE (98.6°F/37°C) DROP TO OR BELOW 95°F (35°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 armpits, groin, neck, and head areas. **DONOT** 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. **DONOT** 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.

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**APPENDIX B**

**ADDITIONAL POTENTIAL PHYSICAL AND CHEMICAL HAZARDS**

**ADDITIONAL POTENTIAL PHYSICAL AND CHEMICAL HAZARDS**

<b>POTENTIAL PHYSICAL HAZARDS</b>	<b>CONTROL METHODS</b>
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.
Contaminant Inhalation	Direct reading instruments 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 waste and naturally occurring contaminants (i.e., methane)	Dermal contact with contaminants will be minimized by proper use of the following PPE: <ul style="list-style-type: none"> <li>• Tyvek coveralls</li> <li>• Neoprene gloves</li> <li>• Booties (latex) or over-boots.</li> </ul>
Falls (into slab penetrations and/or excavations)	<ul style="list-style-type: none"> <li>• Unauthorized personnel prohibited</li> <li>• Open holes filled quickly</li> <li>• Existing open holes filled prior to Site Work Task 1 (Preparation)</li> <li>• Construction fencing as appropriate</li> </ul>

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**APPENDIX C**

**HAZARD EVALUATION SHEETS / MSDS**



**CHEMICAL HAZARDEVALUATION**

Task Number	Compound	Exposure Limits			Dermal Hazard (Y/N)	Route(s) of Exposure	Acute Symptoms	Odor Threshold/Description	FID/PID	
		PEL	RE	TLV					Relative Response	Ioniz. Poten. (eV)
1-10	Tetrachloroethylene (PCE)	100 ppm	---	25 ppm	Y	Inh, Abs, Ing, Con	Irritation to eyes, nose, upper respiratory tract,	Colorless liquid, mild	---	9.32
1-10	Trichloroethene* (TCE)	100 ppm (per 6/97 NIOSH)	---	---	Y	Inh, Abs, Ing, Con	Irritation to eyes, skin, mucous membranes and GI, headache, vertigo, fatigue, giddiness, tremors, vomiting,	Colorless liquid, sometimes dyed blue, chloroform	---	9.45

KEY:

PEL = Permissible Exposure Limit Inh = Inhalation

REL = Recommended Exposure Limit

--- = Information not available

TLV = Threshold Limit Value(ACGIH)

Ing = Ingestion

mg/m<sup>3</sup> = Milligrams per cubic meter

\* = Chemical is a known or suspected carcinogen

Abs = Skin Absorption

Con = Skin and/or eye Contact

ppm = Parts per million

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	X	ULTRA-TWIN RESPIRATOR (available)	X
POWER AIR PURIFYING RESPIRATOR		CARTRIDGES (Type GMC-H) (available)	X
CARTRIDGES (Type GMC-H)	X	5-MINUTE ESCAPE MASK (available)	
5-MINUTE ESCAPE MASK		PROTECTIVE COVERALL (Type Tyvek/Saranax)	X
PROTECTIVE COVERALL (Type Tyvek/Saranax)	X	RAIN SUIT (available)	X
RAIN SUIT	X	NEOPRENE SAFETY BOOTS	
BUTYL APRON		BOOTIES (available)	X
SURGICAL GLOVES	X	NITRILE	X
GLOVES (Type: Nitrile/Neoprene)	X	HARD HAT WITH FACE SHIELD (available)	X
OUTER WORK GLOVES		SAFETY GLASSES	X
NEOPRENE SAFETY BOOTS		GLOVES (Type: Surgical)	X
HARD HAT WITH FACE SHIELD	X	WORK GLOVES (Type: Neoprene/Nitrile) (available)	X
BOOTIES	X	SAFETY BOOTS	X
HARD HAT	X	BLAZE ORANGE VEST	X

## EQUIPMENT CHECKLIST

INSTRUMENTATION	NO.	FIRST AID EQUIPMENT	NO.
OVA		FIRST AID KIT	X
THERMAL DESORBER		OXYGEN ADMINISTRATOR	
O <sub>2</sub> /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	X
NITON XL3t 600 Series analyzer(X-rayfluorescence (XRF))		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	X	BUNG WRENCH	
1 LITER AMBER BOTTLES	X	SOIL AUGER	
VOA BOTTLES	X	PICK	
SOIL SAMPLING (CORING) TOOL	X	SHOVEL	X
SOIL VAPOR PROBE		CATALYTIC HEATER	
THIEVING RODS WITH BULBS	X	PROPANE GAS	
SPOONS	X	BANNER TAPE	X
GENERAL TOOL KIT	X	SURVEYING METER STICK	
FILTER PAPER		CHAINING PINS AND RING	
PERSONAL SAMPLING PUMP SUPPLIES		TABLES	
4-OZ JARS	X	WEATHER RADIO	
		BINOCULARS	
<b>VAN EQUIPMENT</b>		MEGAPHONE	
TOOL KIT		PORTABLE RADIOS (4)	
HYDRAULIC JACK		CELL PHONE	X
LUG WRENCH		CAMERA	X
TOW CHAIN		HEARING PROTECTION	X
VAN CHECK OUT			
GAS		<b>SHIPPING EQUIPMENT</b>	
OIL		COOLERS	X
ANTIFREEZE		PAINT CANS WITH LIDS, 7 CMIPS EACH	
BATTERY		VERMICULITE	
WINDSHIELD WASH		SHIPPING LABELS	X
TIRE PRESSURE		DOT LABELS: "DANGER", "UP";	
		"INSIDE CONTAINER COMPLIES...";	
<b>MISCELLANEOUS</b>		"HAZARD GROUP"	
PITCHER PUMP		STRAPPING TAPE	X
SURVEYOR'S TAPE	X	BOTTLE LABELS	X
100 FIBERGLASS TAPE	X	BAGGIES	X
300 NYLON ROPE		CUSTODY SEALS	X
NYLON STRING	X	CHAIN-OF-CUSTODY FORMS	X
SURVEYING FLAGS	X	FEDERAL EXPRESS FORMS	X
FILM		CLEAR PACKING TAPE	X
WHEEL BARROW			

