

From: Langdon, Robert <RLangdon@scsengineers.com>
Sent: Monday, September 30, 2019 1:45 PM
To: Krueger, Sarah E - DNR
Subject: SCS Site Specific Health & Safety Plan for Susie's Restaurant Project
Attachments: SSHSP_Susie's Restaurant.pdf

Hi Sarah, I've attached our health and safety plan for the Susie's Restaurant project for your records.

-Rob

Robert Langdon

Senior Hydrogeologist/Project Manager

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SITE-SPECIFIC HEALTH AND SAFETY PLAN

Susie's Restaurant / Project #25219179.00
 September 27, 2019

Required Approval			
SCS OHSC or designee:	T. Kollasch	Date:	9/27/2019
SCS PM	Robert Langdon	Date:	9/30/2019

Project No.:	25219179.00
Project Name:	Susie's Restaurant
Site Address:	2604 and 2614 Custer Street, Manitowoc, WI
Site Contact:	Sarah Krueger, Wisconsin Department of Natural Resources

Emergency Telephone Numbers	
Fire/Ambulance/Police:	911
Non-Emergency Police:	(920) 686-6500
Hospital	(920) 683-4200
Diggers Hotline:	811 or 800-242-8511
Work Care:	800-449-7787
Directions and information on the nearest hospital are on Page 2 .	

ACKNOWLEDGEMENT PAGE

“I have read the attached Health and Safety Plan for the Susie’s Restaurant project dated September 27, 2019. I have discussed any questions and/or concerns that I have regarding the contents of this document with the designated SCS project safety representative, and I understand its requirements.”

Name	Signature	Company	Date

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1 INTRODUCTION

At SCS, protection of human health and the environment is paramount. This Site-Specific Health and Safety Plan (SSHSP) provides information to identify hazards that may be present and/or introduced by project's activities onto SCS job sites, and details needed precautions that employees should follow to protect themselves. Tasks performed on site or during projects should be analyzed to determine if physical or chemical hazards requiring safeguards or additional Personal Protective Equipment (PPE) exist. This plan will be modified as necessary if any new hazards are identified during the project that require that additional safeguards be put in place.

PROJECT ORGANIZATION

Role	Name	Phone
Project or Site Team Leader:	Robert Langdon	608-216-7329 (office) 608-212-3995 (cell)
Corporate Health and Safety Director	Eric Brown	562-637-4529 (office) 562-822-0121 (cell)
Primary Health and Safety Representative:	Tony Kollasch	608-216-7381 (office) 608-843-3870 (cell)
On-Site Health and Safety Representative	Robert Langdon	608-216-7329 (office) 608-212-3995 (cell)
Project Manager/Director:	Robert Langdon	608-216-7329 (office) 608-212-3995 (cell)
Project Director:	Mark Huber	608-216-7376
Client Representative:	Sarah Krueger, WDNR	920-662-5443 (office)

SCOPE OF WORK

- Oversee installation of vapor mitigation system (VMS) within Golden Flame Restaurant, 2614 Custer Street.
- Install vapor pins and monitor vacuum for VMS pressure field extension testing.
- Collect groundwater sample from Golden Flame sump and sump discharge.
- Perform sub-slab and indoor air sampling for residence at 2604 Custer Street and indoor air (post mitigation) sampling for Golden Flame Restaurant at 2614 Custer Street.
- Manage sub-slab cuttings waste from VMS installation.

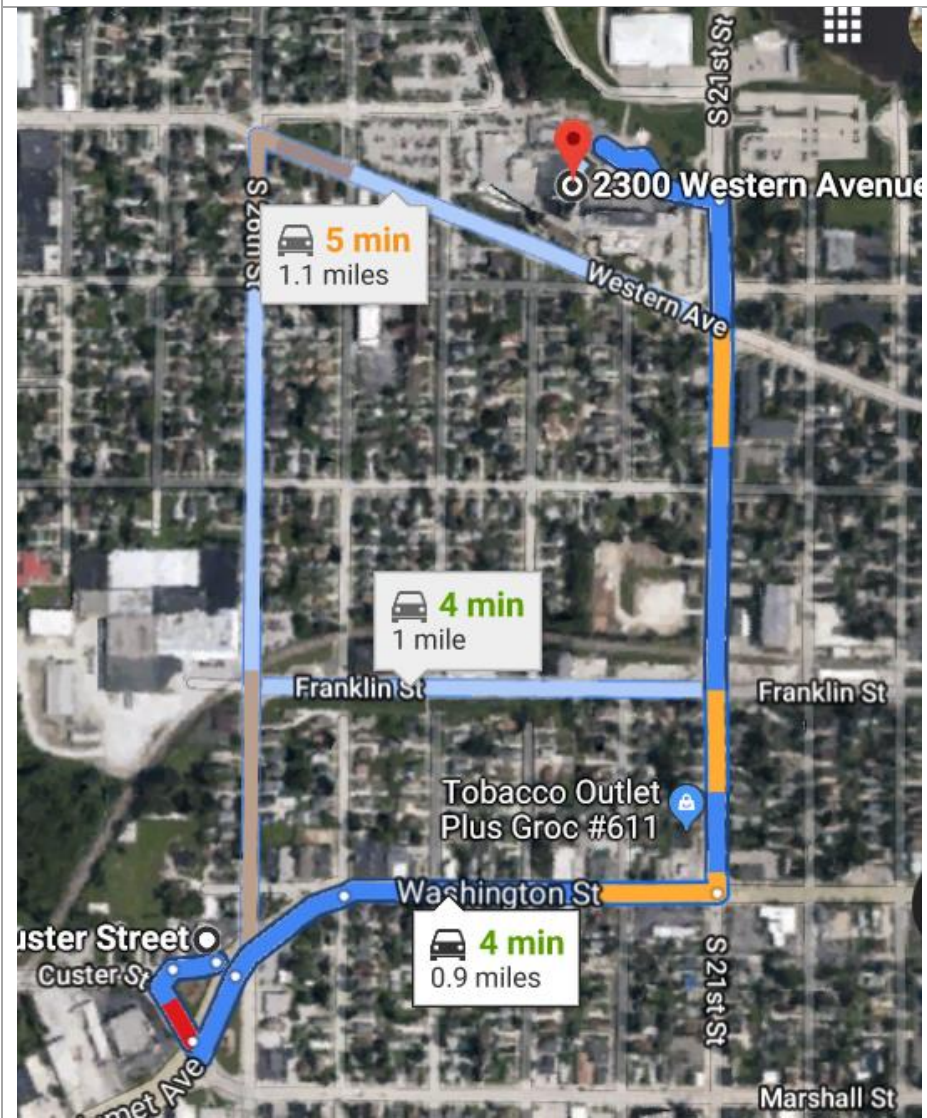
2 EMERGENCY RESPONSE AND MEDICAL TREATMENT PROCEDURES

Figure 1. Map to the Nearest Hospital and Directions

Nearest Hospital Address:

Holy Family Memorial
 2300 Western Avenue
 Manitowoc, WI 54220

From site follow Custer Street northeast
Turn right (east) onto Washington Street
Turn left (north) onto South 21st Street
Cross Western Avenue and follow signs to emergency facility



ACCIDENT OR INCIDENT REPORTING SYSTEM

In the event of an emergency at the site, project personnel should call 911 for emergency assistance. After the immediate emergency situation has been addressed by emergency personnel, SCS project personnel should call the SCS Project Manager and the Client Representative and inform them of the situation. The Project Manager should evaluate the nature of the emergency and direct project personnel actions from that point.

NOTIFICATION PROCEDURES FOR INCIDENTS (CLIENT, LOCAL, STATE, OR FEDERAL)

Site personnel should contact their supervisor immediately when an accident or injury occurs, and provide any needed information so that additional notifications can be determined and completed as needed.

Notification Order	Contact	Phone Numbers
1	Tony Kollasch, Office H&S Coordinator (OHSC)	608-216-7381 (office) 608-843-3870 (cell)
2	Robert Langdon, Project Manager	608-216-7329 (office) 608-212-3995 (cell)
If injury occurs where medical treatment beyond first aid, the supervisor also needs to contact within 24 hours:		
3	Eric Brown, Corporate H&S Director (OHSD)	562-637-4529 (office) 562-822-0121 (cell)
4	Jim Walsh: President	513-236-6044 (cell)
5	Ellen Phillips: HR Manager	786-778-5361 (office)
6	Mark Huber: Office Director	608-216-7376 (office) 608-225-2971 (cell)

METHODS TO SUMMON EMERGENCY RESPONSE TEAM

Emergency services can be summoned through 911, as this service is active in the area.

RESCUE AND MEDICAL TREATMENT REQUIREMENTS

Stop work authority should be exercised when an injury or accident occurs. The appropriate emergency agency should be contacted and first aid administered, if possible. If the injury is not life-threatening and does not require emergency response, contact WorkCare at 800-449-7787. First aid kits and fire extinguishers are available in each SCS work truck.

SITE EMERGENCIES

In the event of an emergency at the site, project personnel should call 911 for emergency assistance. After the immediate emergency situation has been addressed by emergency personnel, SCS project personnel should call the SCS Project Manager and the Client Representative and inform

them of the situation. The Project Manager should evaluate the nature of the emergency and direct project personnel actions from that point.

3 SITE DESCRIPTION

LOCATION DESCRIPTION

The facility is located at 2604 and 2614 Custer Street, Manitowoc, Wisconsin.

4 GENERAL FIELD SAFETY PROCEDURES

General Standard Operating Procedures (SOPs) and additional SCS Health and Safety procedures and requirements are included in the current SCS Injury Illness Protection Program (IIPP) and on the SCS intranet. These documents are considered a part of this plan.

JOB TASK SAFETY ANALYSIS (JTSA) AND PPE ASSESSMENT

JTSAs for activities performed at this site have been completed as indicated below and are included in the **Appendices**. A completed JTSA is required for all work tasks performed at the site. **JTSAs are designed to identify steps which involve potential hazards to employees and should be reviewed and understood (and signed providing evidence of understanding) before performing any task at the site. If additional steps or hazards are present, the JTSA should be revised (and the revision signed by all affected staff) to indicate that all items have been appropriately addressed and are understood before proceeding with the task.**

Unless identified in an attached Job Task Safety Analysis (JTSA) form, all project tasks are anticipated to only require **Level D** PPE, as defined by the Occupational Safety and Health Administration (OSHA). Prior to working in a Level C or B environment, each employee is required to be medically qualified (by an approved SCS medical provider) and properly fit-tested for the needed respiratory protection defined in this plan. The projects designated will ensure that this is completed per SCS policy, with assistance, as needed, from the SCS Corporate Health and Safety Director (CHSD). **IN ADDITION, ANY EMPLOYEE WORKING AT A SITE AS DEFINED IN 29 CFR 1910.120 (or applicable state OSHA standard) OR REQUIRED BY CONTRACT SHALL BE TRAINED IN ACCORDANCE WITH 29 CFR 1910.120(e) (24-hour or 40-hour HAZWOPER, as appropriate).** Each employee will only perform tasks that they have been properly trained to perform. A copy of each employee's training record is available through the SCS OSHC or designee.

Site-Specific JTSA List

JTSA-1 Drain Liquid from Laterals		JTSA-17 Sump or Condensate Sump Pump Repair
JTSA-2 Excavation & Backfilling		JTSA-18 Surface Emissions Monitoring
JTSA-3 Extrusion Welding		JTSA-19 Use of Down-Well Cameras
JTSA-4 Flame Arrestor and Flare Repairs	X	JTSA-20 Vehicle Operations
JTSA-5 Flare System Monitoring		JTSA-21 Well Drilling
JTSA-6 Heavy Equipment Use		JTSA-22 Confined Space Entry
JTSA-7 Leachate Tank Cleaning		JTSA-23 Troubleshoot/Repair Electrical Panels

Site-Specific JTSA List

	JTSA-8 LFG Extraction Well/Probe/ Structure Monitoring	JTSA-24 Flare Installation/Replacement
	JTSA-9 Liquid Measurements in LFG Extraction/Leachate	JTSA-25 Sump Installation/Replacement
	JTSA-10 Non-Routine LFG Collection System Piping Repairs	JTSA-26 Blower Installation/Replacement
X	JTSA-11 Perform Draeger Tube Sampling	JTSA-27 Pump Installation/Replacement
	JTSA-12 Raise/Lower LFG Collection System Extraction Wells	JTSA-28 Header/Lateral Install/Replacement
	JTSA-13 Remove/Install Dewatering Pump in Extraction Well	JTSA-29 Gas Sensor Installation/Repair
	JTSA-14 Repair Dewatering Pumps in LFG Extraction Wells	JTSA-30 Mowing/Landscaping Activities
X	JTSA-15 Sample Collection (Groundwater/ Leachate)	JTSA-32 Leachate Tank Pump Station Monitoring
X	JTSA-16 Sample Collection (Summa Canisters, Tedlar Bags)	JTSA-33 Flare Station SCADA System Precautions

SAFE OBSERVATIONS

The SCS SAFE Observation Checklist will be used by field and project personnel. The goal is to make at least one (1) documented observation per quarter during site activities.

OTHER INSPECTION PROCEDURES

Periodic site inspections may be made by the CHSD, Project Supervisor, Project Manager, and Regional Compliance Auditor or Safety Specialist. There is also the potential for the client or regulatory agencies to visit and inspect the site. SCS personnel are to perform tasks in compliance with all contractual, regulatory, and company requirements at all times.

PPE/SAFETY EQUIPMENT

Type	Material	Additional Information
Minimum PPE:		
Safety Vest	High-visibility	With reflective tape visible from all sides
Boots	Leather	ANSI approved safety toe
Safety Glasses	Metal or plastic	ANSI Approved
Hard Hat	Plastic	ANSI Approved
Hearing Protection	Ear plugs and/ or muffs	In hazardous noise areas
Work Uniform	Varies	Long pants, shirt with sleeves
Leather Gloves	Any	If working with sharp objects or powered equipment.

TAILGATE HEALTH AND SAFETY MEETINGS

If the site work involves subcontractors, brief daily tailgate health and safety meetings should be conducted with all subcontractor personnel on site each morning. Personnel present and topics covered should be noted in the project field book.

SITE CONTROL

Our clients are responsible for providing SCS employees with safe site access, which includes sites that are free of threats from transients or other aggressive people or dogs. If an SCS employee encounters an aggressive person or dog, they should withdraw from the site and contact the Site Representative and their SCS supervisor. The Site Owner is responsible for removing the threats, and SCS employees should not take any affirmative action of their own.

Control of the site should be maintained at all times to limit hazards and exposures to other on-site personnel and the general public. During drilling activities the work zone should be delineated with cones or caution tape. Pedestrian traffic through the area should be redirected with signs and temporary barrier fencing if necessary. Open excavations or other dangerous conditions should be protected with barrier fencing secured to posts or other adequate supports. At no time should other personnel on site or the general public be exposed to airborne contaminant concentrations exceeding OSHA or National Institute for Occupational Safety and Health (NIOSH) exposure limits.

Work zones near vehicular traffic should be delineated with cones, or other approved devices such as barrels, channelizer posts (ducks), etc., and the travel lanes for traffic should be clearly marked in conformance with the Part 6 Manual of Uniform Traffic Control Devices (MUTCD). MUTCD procedures are summarized in the Work Zone Safety pocket guide published by the Transformation Information Center – University of Wisconsin, Madison.

DECONTAMINATION PROCEDURES (RELATED TO HAZARDOUS WASTE)

The amount of decontamination should be based on the degree and type of contaminant exposure. Typically decontamination includes only removal of disposable gloves and hand washing. If dusty or muddy conditions exist or if contamination is present at the ground surface, disposable over-boots should be discarded and disposed following use. Non-disposable over-boots should be brushed and/or washed of gross contamination at the site adjacent to the area of contamination. Contaminated personal clothing may be discarded or washed separately from other laundry if not grossly contaminated. Used PPE may be disposed in plastic bags and disposed with general trash unless otherwise required in this plan.

AIR MONITORING

Monitoring Equipment and Exposure Limits

In general, don't rely on odor as a warning property. Primary air monitoring device will be a photoionization detector (PID). Perform air monitoring in the breathing zone whenever beginning work at a different part of the site, when new contaminants are noted, when a new activity is begun, and periodically during all probing, drilling, excavation, or similar activities.

Otherwise, periodic monitoring with a detector instrument should occur per the monitoring procedures below. The following table specifies the monitoring equipment that will be used for this project.

Instrument	Manufacturer/Model	Substances Detected
Photo Ionization Detectors (PID)	RAE Systems ppb-RAE 3000 (10.6 eV bulb)	Petroleum Hydrocarbons Organic Solvents
Draeger Tubes	Draeger	Vinyl Chloride

Calibrate all monitoring equipment at the beginning and middle of each workday, and during use when obtaining erratic or questionable readings. Stop work if instrument is not functioning. If the PID reads greater than twice the screening threshold described below at any time, immediately remove yourself from the area of contamination, and re-approach from an upwind direction to re-evaluate whether work may continue. Record time and results of monitoring in field notebook and/or on field forms.

Health and Safety Action Levels

An action level is a point at which increased protection is required due to the concentration of contaminants in the work area or other environmental conditions. The concentration level (above background level) and the ability of the PPE to protect against that specific contaminant determine each action level. The action levels are based on concentrations in the breathing zone and are included in **Table 1** below.

If ambient levels are measured which exceed the action levels in areas accessible to unprotected personnel, necessary control measures (barricades, warning signs, and mitigative actions, etc.) must be implemented prior to commencing activities at the specific work area.

Personnel should also be able to upgrade or downgrade their level of protection with the concurrence of OHSC and the Project Manager.

Reasons to upgrade include:

- Known or suspected dermal hazards.
- Presence or likely presence of gas, vapor, or dust hazards.
- Change in work task that could increase exposure to hazardous materials.

Reasons to downgrade include:

- Information indicating less hazardous than was originally suspected.
- Change in site conditions that decrease the hazards.
- Change in work task that reduces exposure to hazardous materials.

Air Monitoring Procedures

Chemical specific-exposure thresholds and other useful data are summarized in the attached **Table 1 - Chemical Hazards**. Although the most common contaminants of concern are listed in the table, the exact chemical composition of compounds at the site is not known.

If PID readings of 1 parts per million (ppm) or greater are present in the breathing zone for a sustained period of 5 minutes or more, take the following steps to reduce the exposure of affected personnel:

1. Move personnel to a location upwind of the contaminant source or use mechanical ventilation (fans) to provide a supply of fresh air. Perform air monitoring in the breathing zone to confirm that concentrations have been reduced to safe levels.
2. Perform air monitoring downwind at potential points of exposure (e.g. the site boundary, building air intakes, or the locations of other personnel, etc.), whichever is closer to the source. Do not continue work if downwind concentrations at the location(s) of potential receptors exceed the screening threshold. Use source control measures to limit the amount of vapors or relocate personnel from downwind areas. Examples of possible source control measures include covering exposed soils with plastic sheeting, closing any open containers of fuel, backfilling as excavation work proceeds, etc.
3. The PID screening level may be raised to 25 ppm if vinyl chloride concentrations do not exceed 0.5 ppm. See the manufacturer's instructions for proper operation of the Draeger pump and detector tubes. Note that approximately 10 to 15 minutes may be required to achieve the minimum detection limit with the Draeger tube.

If steps 1 through 3, above, are insufficient to maintain vapor concentrations below the appropriate threshold screening level, discontinue work and contact the project manager or company health and safety coordinator to discuss other options and additional health and safety procedures.

Table 1. Chemical Hazards and Air Monitoring Plan

Chemical/ Parameter	PEL	TLV	IDLH	Action Level	Monitoring Equipment	Sample Location and Frequency	Procedures When Action Levels Exceeded
Chloroethene (Vinyl Chloride)	1 ppm TWA 5 ppm STEL	1 ppm TWA		1 ppm	PID / Draeger	Start of work at each work location, and periodically	If PID reading is greater than 1, screen with Draeger tube to confirm VC concentration less than 1
Tetrachloroethylene (Perchloroethylene)	100 ppm TWA 200 ppm CEILING 300 ppm maximum peak above ceiling for 5-minute period in any 3 hours)	25 ppm TWA 100 ppm STEL	150 ppm	25 ppm	PID	Start of work at each work location, and periodically	
Trichloroethylene	100 ppm TWA 200 ppm CEILING 300 ppm maximum peak above ceiling for 5-minute period in any 2 hours	10 ppm TWA 25 ppm STEL	1,000 ppm	25 ppm	PID	Start of work at each work location, and periodically	
Trichloromethane (Chloroform)	50 ppm CEILING	10 ppm TWA	500 ppm	50 ppm	PID	Start of work at each work location, and periodically	

Table Key:

PEL: OSHA (most stringent state OSHA value). Permissible Exposure Limits are specified legal employee exposure limits based on specified lengths of time (see Ceiling, TWA, and STEL).

TLV: Threshold Limit Values (TLV's) are guidelines (not standards) prepared by the American Conference of Governmental Industrial Hygienists, Inc. (ACGIH), to assist industrial hygienists in making decisions regarding safe levels of exposure to various hazards found in

Chemical/ Parameter	PEL	TLV	IDLH	Action Level	Monitoring Equipment	Sample Location and Frequency	Procedures When Action Levels Exceeded
IDLH: TWA: STEL: Ceiling: %: % LEL: PPM: Note:							the workplace. An atmosphere that poses an immediate threat to life would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere. Time-Weighted Averages are the upper limit of a toxic material to which an average person in average health may be exposed on a day-to-day basis (40-hour work week, 8-hour work periods) with no adverse health effects. Short-Term Exposure Limit is the maximum average chemical concentration in which an employee can be exposed for up to 15 minutes. At no time can the employee exposure concentration exceed the "Ceiling" limit. The maximum instantaneous chemical concentration in which an employee can be exposed to at any time. Percent gas by volume. Percent of the lower explosive limit. Parts per million. Instrument alarm levels and required responses are defined in TSOP 207.

5 SITE HAZARDS

Chlorinated volatile organic compounds from a historic release of dry cleaning solvent.

CHEMICAL AND PHYSICAL AGENT HAZARDS

The following chemical and physical hazards should be considered before performing any task or work at the site. The analysis will depend on a thorough understanding of the site's physical characteristics and the task(s) being performed.

Toxic Compounds: Non-Methane Organic Compounds (NMOCs), as well as inorganic toxic contaminants such as mercury, and sometimes even radioactive contaminants such as tritium, may be present on a site. NMOCs include such toxic compounds as benzene, toluene, chloroform, vinyl chloride, carbon tetrachloride, and trichloroethane, which, although less than 1 percent by weight, are hazardous. These potential hazards should be evaluated on a case-by-case basis. Additional precautions will be established as needed in this plan.

PHYSICAL HAZARDS

The following physical hazards should be considered before performing any task or work at the landfill. Depending on the task(s) being performed, any or all of these hazards may be present.

Heat-Related Injuries: Elevated body temperatures can cause serious injury or death. Working outdoors or in the sun increases the chance of heat-related injuries. This hazard is especially critical when PPE (such as coveralls or rain gear) is worn, since heat from the body becomes trapped inside clothing. Personnel should drink plenty of liquids and take breaks as needed. The following describes the various **Heat Disorders and Health Effects:**

- **Heat Stroke:** This disorder occurs when the body's system of temperature regulation (e.g., sweating and evaporation) fails and body temperature rises to critical levels. The condition is caused by a combination of highly variable factors, and its occurrence is difficult to predict. Heat stroke is a serious hazard, however. Primary signs and symptoms are confusion, irrational behavior, loss of consciousness, convulsions, a lack of sweating (usually), hot, dry skin, and an abnormally high body temperature. If a worker shows signs of possible heat stroke, call 911 to obtain immediate medical assistance. The worker should be placed in a shady area, and his or her outer clothing should be removed. The worker's skin should also be wetted and air movement around the body increased to improve evaporative cooling until professional methods of cooling are initiated and the seriousness of the condition can be assessed. Fluids should be replaced as soon as possible—by mouth only if the worker is conscious. The medical outcome of an episode of heat stroke depends on the victim's physical fitness and the timing and effectiveness of first aid treatment. Regardless of the worker's protests, no employee suspected of being ill from heat stroke should be sent home or left unattended unless a physician has specifically approved such an order.
- **Heat Exhaustion:** The signs and symptoms of heat exhaustion include clammy skin, headache, nausea, vertigo, weakness, thirst, and giddiness. Fortunately, heat exhaustion responds readily to prompt treatment. This condition, however, should not be dismissed lightly, for several reasons. One is that fainting associated with heat exhaustion can be dangerous because the victim may be operating machinery or controlling an operation that should not be left unattended. The victim could also be injured when he or she faints. While the signs and symptoms associated with heat exhaustion are similar to

those of heat stroke, the notable difference (with heat exhaustion) is clammy skin. Workers suffering from heat exhaustion should be removed from hot environments and given fluid replacement, by mouth only if the workers are conscious. They should also be encouraged to get adequate rest.

- **Heat Rashes:** The most common problem occurring in hot work environments is heat rash. Prickly heat is manifested as red papules and usually appears in areas where the clothing is restrictive. As sweating increases, the papules give rise to a prickling sensation. Prickly heat occurs in skin that is persistently wetted by unevaporated sweat, and papules may become infected if they are not treated. In most cases, heat rash will disappear when the affected individual returns to a cool environment.
- **Heat Fatigue:** One factor that predisposes individuals to heat fatigue is the lack of acclimatization. Use of a program of acclimatization and training for work in hot environments are advisable. The signs and symptoms of heat fatigue include impaired performance of skilled sensorimotor, high-concentration, or high-vigilance activities. The sole treatment available for heat fatigue is to remove heat stress and increase fluid replacement before a more serious heat-related condition develops.

Cold-Related Injuries: In winter weather conditions, there is a potential for injury from cold, including dehydration, frostbite, heavy shivering, excessive fatigue, drowsiness, irritability, and euphoria. If workers show these symptoms, work should cease and affected personnel rest in heated buildings or vehicles.

APPENDICES

JTSA-11 Perform Draeger Tube Sampling

JTSA-16 Sample Collection (Summa Canisters, Tedlar Bags)

JTSA-20 Vehicle Operations

JTSA-ES-01 GW Sampling

Job Task Safety Analysis and PPE Assessment Form

Job Task Safety Analysis Form-11			
Task Type (Check all that apply) <input checked="" type="checkbox"/> OM&M <input type="checkbox"/> Construction <input type="checkbox"/> Energy <input type="checkbox"/> Engineering	Task Description (include estimate of task duration in hours/day): Colorimetric Tube (Draeger®) LFG Well Monitoring; monthly (as needed), 1-2 hours.	Location or Project: Typical SCS-FS Landfill Facility Date Revised: 09/24/08 Project #/Revision #: NA/Rev.0	
Analysis Team Member	Position Title	Reviewed by	Position Title
Dave Fisher	Compliance Auditor		
Craig Cissell	Superintendent		
Steve Cooper	Project Manager		
Special Training/Certification Required (In Addition to IIPP and Site Specific Health & Safety Plan)	1) On-the-job training of LFG sampling using glass colorimetric tubes (e.g. Draeger® Tubes) 2) On-the-job training for operating and calibrating portable LFG monitor (e.g. Landtec GEM 2000®). 3) Training on operating, calibrating and using personal protection air monitoring equipment such as the 4 gas monitor, and associated Gas Alarm Action Levels (e.g. Industrial Scientific M-40®)		
Applicable SAFE Checklist(s): Specify type and category number	OM&M General SAFE Observation Report & Employee Suggestions		

This form is the certification that the hazard assessment has been performed for the workplace as required under 29 CFR 1910.132.

Job Task Safety Analysis and PPE Assessment Form-11 Cont.			
Job Task Step	Potential Environmental and Personnel Hazards ^{1,2}	Critical Actions	PPE Required
1. Review & Sign SSHSP/JTSA	Proper general employee training requirement	None	None
2. Review Colorimetric Sampling Procedure	Reduces field exposure time and the need to re-sample due to improper tool/technique	None	None
3. Drive/Walk to sampling location	Traffic/Heavy Equipment Collision; Poor Road Surface/Traction; Slip/Trip	<ul style="list-style-type: none"> Wear seat belt when driving, avoid muddy conditions, stay on driving path Practice defensive driving Ensure boots are properly laced and in good condition 	Head: Hardhat (outside of vehicle) Body: None Foot: Steel toe - ANSI Rated Hand: None Respiratory: None Hearing: Earplugs are required if blower/compressor noise levels exceed 80 dBA Eye/Face: None
4. Prepare colorimetric tube sampling train & Sample	Laceration hazard due to breaking colorimetric glass tube; Chemical Exposure do connection to LFG sample port	<ul style="list-style-type: none"> Use proper technique and PPE when snapping glass tube end and attaching to sample train 	All the Above <u>plus</u> : Hand: Nitrile Gloves Respiratory: Use of 4-Gas Personal gas exposure monitor, as needed, per general LFG sampling requirement
5. Remove Sample Port Cap	Gas inhalation; possible high H ₂ S; explosive gas present	<ul style="list-style-type: none"> Stay upwind of vapors Monitor for LEL in area Avoid all ignition sources, NO SMOKING! 	Same as above
6. Monitor the gas	Same as above	Same as above	Same as above
7. Replace Sample Port Cap	Same as above	Same as above	Same as above
End of Form-11			

¹ See SCS Injury Illness and Prevention Plan Table SOP 4-1 for examples of Environmental Hazards.

² See SCS Injury Illness and Prevention Plan Table SOP 4-2 for examples of Personal Hazards.

Job Task Safety Analysis and PPE Assessment Form-16

Job Task Safety Analysis Form-16			
Task Type (Check all that apply) <input checked="" type="checkbox"/> FS-OM&M/Construction <input type="checkbox"/> Construction <input type="checkbox"/> Energy <input type="checkbox"/> Engineering	Task Description (include estimate of task duration in hours/day): Sample Collection (Air/Gas); Up to 8 hrs/day	Location or Project: Susie's Restaurant	
		Date Revised: 9/30/2019	
		Project #/Revision #: 25219179.00 & Revision 1 of JTSA 16	
Analysis Team Member	Position Title	Acknowledged by	Position Title
Robert Langdon	Project Manager	Tony Kollasch	Health and Safety Officer
Special Training/Certification Required (In Addition to IIPP and Site Specific Health & Safety Plan)	1) On-the-job training with more experienced employee		
Applicable SAFE Checklist(s): Specify type and category number	OM&M SAFE Observation Report & Employee Suggestions		

This form is certification that the hazard assessment has been performed for the workplace as required under 29 CFR 1910.132. This document is to be used as guidance for the task described and should be modified on an as necessary basis to address site, operational and/or environmental changes.

Job Task Safety Analysis and PPE Assessment Form-16 Cont.			
Job Task Step	Potential Environmental and Personnel Hazards^{1,2}	Critical Actions	PPE Required
1. Review & Sign SSHSP/JTSA	None	None	None
2. Read and familiarize self with instructions from laboratory supplying sample canisters and Tedlar bags	None	<ul style="list-style-type: none"> Take care in unpacking and inventorying materials from lab 	Head: None Body: None Foot: None Hand: None Respiratory: None Hearing: As-needed Eye/Face: None
3. Ensure area that samples are to be taken is well ventilated	<ul style="list-style-type: none"> Slip/trip/fall hazards Biological hazards Sharp corners High temperature or high pressure piping 	<ul style="list-style-type: none"> Observe surroundings and walking surfaces Be aware of all exits and possible escape routes 	Head: Hardhat Body: Hi-vis shirt/vest Foot: ANSI/ASTM-approved Hand: None Respiratory: None Hearing: As-needed Eye/Face: Safety glasses
4. Enter the area with tools necessary to complete task	<ul style="list-style-type: none"> Biological hazards Slip/trip/fall hazards Sharp corners/items High temperature or high pressure piping 	<ul style="list-style-type: none"> Observe surroundings and walking surfaces Be aware of all exits and possible escape routes 	Head: Hardhat Body: Hi-vis shirt/vest Foot: ANSI/ASTM-approved Hand: None Respiratory: None Hearing: As-needed Eye/Face: Safety glasses
5. Locate proper sampling location, ensure valves are closed on sample train and affix sample train to sample port on gas pipeline	<ul style="list-style-type: none"> Pressurized pipeline High temperature gas High surface temperature piping 	<ul style="list-style-type: none"> Use proper gloves if needed to protect hands Use proper sized wrenches to affix sample train and do not over-tighten fittings 	Head: Hardhat Body: Hi-vis shirt/vest Foot: ANSI/ASTM-approved Hand: Nitrile gloves Respiratory: None Hearing: As-needed Eye/Face: Safety glasses

Job Task Safety Analysis and PPE Assessment Form-16 Cont.			
Job Task Step	Potential Environmental and Personnel Hazards ^{1,2}	Critical Actions	PPE Required
6. Purge sample train accordingly; attach summa canister or Tedlar bag	<ul style="list-style-type: none"> Flammable gas High pressure High temperature 	<ul style="list-style-type: none"> Avoid breathing in landfill gas Check gauge pressure Perform continuous air monitoring with 4-gas meter 	Head: Hardhat Body: Hi-vis shirt/vest Foot: ANSI/ASTM-approved Hand: Nitrile gloves Respiratory: None Hearing: As-needed Eye/Face: Safety glasses
7. Fill canister or bag per standard procedures	<ul style="list-style-type: none"> Flammable gas High pressure High temperature 	<ul style="list-style-type: none"> Avoid breathing in landfill gas Check gauge pressure Do not overfill Perform continuous air monitoring with 4-gas meter 	Head: Hardhat Body: Hi-vis shirt/vest Foot: ANSI/ASTM-approved Hand: Nitrile gloves Respiratory: None Hearing: As-needed Eye/Face: Safety glasses
8. Close all valves and remove sample train, seal pipe with plug or close and lock valve at sample location	<ul style="list-style-type: none"> Flammable gas High pressure High temperature 	<ul style="list-style-type: none"> Ensure pipe is properly sealed and not leaking 	Head: Hardhat Body: Hi-vis shirt/vest Foot: ANSI/ASTM-approved Hand: Nitrile gloves Respiratory: None Hearing: As-needed Eye/Face: Safety glasses
9. Exit area in a safe manner	<ul style="list-style-type: none"> Slip/trip/fall hazards Biological hazards Sharp corners/items High pressure High temperature 	<ul style="list-style-type: none"> Observe surroundings and walking surfaces 	Head: Hardhat Body: Hi-vis shirt/vest Foot: ANSI/ASTM-approved Hand: None Respiratory: None Hearing: As-needed Eye/Face: Safety glasses

Job Task Safety Analysis and PPE Assessment Form-16 Cont.			
Job Task Step	Potential Environmental and Personnel Hazards ^{1,2}	Critical Actions	PPE Required
10. Prepare samples to be shipped to lab	None	<ul style="list-style-type: none"> Follow proper guidelines for shipping gasses 	Head: None Body: None Foot: None Hand: None Respiratory: None Hearing: None Eye/Face: None
End of Form-16			

¹ See SCS Injury Illness and Prevention Plan Table SOP 4-1 for examples of Environmental Hazards.

² See SCS Injury Illness and Prevention Plan Table SOP 4-2 for examples of Personal Hazards.

Job Task Safety Analysis Form-20				
Task Type (Check all that apply)	OM&M - X	Task Description: Vehicle Operations (Cars and trucks < 10,000 lbs GVW)	Location or Project: various	
	Construction -		Date: 16 Sep 2008	
	Energy -		Project #/Revision #:	
Engineering Services -				
Analysis Team Member		Position Title	Reviewed by	Position Title
Mike Knox		Compliance Auditor		
Jason Lewallen		Project Manager		
Bill Hartman		Technician		
Michael Richards		Technician		
Pete Kegler		Technician		
Victor Shaffer		Sr. Technician		
Keith Kleckner		Field Technician		
Special Training Required		Valid Drivers License <i>Note – This JTSA does not address the requirements for the operation of vehicles in excess of 10,000 pounds Gross Vehicle Weight (GVW). If the total weight of the vehicle and trailer exceed 10,000 lbs. additional requirements are necessary.</i>		
Applicable SAFE Checklist(s): Specify type and category number		Weekly Vehicle Inspection Form		

Job Task Step	Potential Environmental and Personal Hazards¹	Critical Actions	PPE Required
Perform Vehicle Safety Inspection	Do not pinch fingers/ hands in hood Do not smoke near flammable liquids Use caution/ watch for traffic	Do not have keys in ignition while checking under hood	Head Body Foot Hand Respiratory Hearing
Ensure all equipment & materials are properly secured	Watch for slip, trip and fall hazards Do not contact sharp corners/ items Do not crush hands/ feet under or between moving items	Watch for unstable equipment/ items	Head Body Foot-non slip/ as needed Hand-as needed for sharp items Eyes – safety glasses as needed Hearing
Adjust seat, mirrors, and fasten seat belt	Do not pinch hands or skin in seat belt	Perform these actions before starting and moving vehicle	Head Body Foot Hand Respiratory Hearing
Activate “hand-free” & (cell phone) and GPS devices	Set volume at appropriate level so that driver will not be startled	Perform these actions before starting and moving vehicle	Head Body Foot Hand Respiratory Hearing
Start vehicle	Ensure hood is closed and that no foreign objects are in engine compartment Keep others away from outside of vehicle	Ensure personnel are clear of vehicle and exhaust when starting	Head Body Foot Hand Respiratory Hearing

Job Task Step	Potential Environmental and Personal Hazards ¹	Critical Actions	PPE Required
Drive/operate vehicle	<p>Follow speed limit, road signs and traffic laws. Use directional signals when changing lanes or turning. Be courteous to other drivers.</p> <p>If driving off-road, pay attention to tilt angles and terrain conditions.</p> <p>Drive straight up and down slopes to reduce chances of roll-over.</p> <p>Avoid mud and water.</p> <p>If lost, pull into safe area to ask directions or revise route.</p>	<p>Check blind spots</p> <p>When in doubt get out and look to ensure safe passage is possible</p> <p>Increase following distance as needed for load and road and weather conditions</p>	<p>Head</p> <p>Body- seat belt</p> <p>Foot-non slip/ as needed</p> <p>Hand-as needed for sharp items</p> <p>Eyes – safety glasses as needed</p> <p>Hearing</p>
Stop and park vehicle	<p>Do not park in road or in a manner that blocks other needed access points/ areas (set park brake)</p> <p>Turn off lights and lock all compartments as needed</p>	<p>Park in safe, well lighted and designated area</p>	<p>Head</p> <p>Body</p> <p>Foot</p> <p>Hand</p> <p>Respiratory</p> <p>Hearing</p>
Properly, store valuables (computer, GPS, GEM etc.)	<p>Use proper lifting techniques</p>	<p>Do not carry too much at one time</p> <p>Do not leave items in plain view</p>	<p>Head</p> <p>Body</p> <p>Foot</p> <p>Hand</p> <p>Respiratory</p> <p>Hearing</p>

End of Form-20

² See **Table SOP 4-2** (below) for examples of Personal Hazards.

Job Task Safety Analysis Form (JTSA-ES-01)			
Task Type (Check all that apply)	Engineering Services -	Task Description: Sample Collection – From Groundwater Monitoring Well	Location or Project:
			Date: May 15, 2012
			Project #/Revision #:
Analysis Team Member	Position Title	Reviewed by	Position Title
Special Training Required	On-the-job training with more experienced employee.		
Applicable SAFE Checklist(s): Specify type and category number	Engineering SAFE observation checklist		

Job Task Step	Potential Environmental and Personal Hazards ^{1,2}	Critical Actions	PPE Required
1. Review & Sign SSHSP/SOP/JTSA		Determine potential hazards at sampling locations.	None
2. Unpack lab packs, check inventory, review laboratory instructions.	Sample bottles may contain acid preservative. Any free liquid encountered in a cooler should be considered to be an acid.	Check for leaking containers. Ensure you have everything you need to complete the task.	Hand – Chemical resistant gloves Eyes – Safety glasses
3. Clean and calibrate field sampling equipment.	Splash hazard	Ensure sampling equipment is clean and probes, meters and instruments are calibrated per manufacture's instructions.	Head – Hard hat, if necessary per HASP Body – High visibility vest or shirt Foot- Steel-toe ANSI boots Hand – Chemical resistant gloves Eyes – Safety glasses Hearing protection - None
4. Travel to monitoring well location.	Slip/trip hazards; traffic	Use spike overlays for snow or icing conditions, use boots that are slip resistant. Observe surroundings and use safety vest and cones for visibility.	Head – Hard hat, if necessary per HASP Body – High visibility vest or shirt Foot- Steel-toe ANSI boots Hand – Chemical resistant gloves Eyes – Safety glasses as needed Hearing protection - None
5. Assess and open (unlock) the well or probe.	Well may be under pressure, insects.	Avoid spider webs and avoid sticking hands into dark / blind spaces. Use care in opening wells.	Head – Hard hat, if necessary per HASP Body – High visibility vest or shirt Foot- Steel-toe ANSI boots Hand - Chemical resistant gloves Eyes – Safety glasses Hearing protection – None

Job Task Step	Potential Environmental and Personal Hazards ^{1,2}	Critical Actions	PPE Required
6. Measure the depth to water level.	Splash hazard, overextension.	Decontaminate liquid level probe before and after use. Hold liquid level equipment close to body, not at arms length.	Head – Hard hat, if necessary per HASP Body – High visibility vest or shirt Foot- Steel-toe ANSI boots Hand - Chemical resistant gloves Eyes – Safety glasses Hearing protection - None
7. Purge the well.	Splash hazard, overextension, electrical hazard if pump is used.	Ensure pump or bailer is clean before and after use. Keep arms close to body when lifting. Ensure hose connections are tight and inspect condition of the hose and cable, if used.	Head – Hard hat, if necessary per HASP Body – High visibility vest or shirt Foot- Steel-toe ANSI boots Hand - Chemical resistant gloves Eyes – Safety glasses Hearing protection - None
8. Label containers and collect samples.	Splash hazard, overextension.	Ensure pump or bailer is clean before and after use. Keep arms close to body when lifting. Seal sample containers immediately and store properly. Fill out sample log.	Head – Hard hat, if necessary per HASP Body – High visibility vest or shirt Foot- Steel-toe ANSI boots Hand - Chemical resistant gloves Eyes – Safety glasses Hearing protection - None

Job Task Step	Potential Environmental and Personal Hazards ^{1,2}	Critical Actions	PPE Required
9. Securely reseal, cover, lock well / probe covers.	Be careful not to get fingers pinched.	Clean edges of well cover as needed to allow for proper seal. Ensure cover is secured.	Head – Hard hat, if necessary per HASP Body – High visibility vest or shirt Foot- Steel-toe ANSI boots Hand – As needed. Eyes – Safety glasses Hearing protection - None
10. Transport containerized water, if applicable.	Be careful as water containers are heavy.	Follow proper guidelines for lifting with legs, take care to prevent or reduce splash	Head – Hard hat, if necessary per HASP Body – High visibility vest or shirt Foot- Steel-toe ANSI boots Hand – Chemical resistant gloves Eyes – Safety glasses Hearing protection - None
11. Prepare samples to be shipped to lab.	Take care in handling samples. Lifting hazard.	Follow proper guidelines for lifting with legs, shipping samples.	None
End of JTSA-ES-01			

¹ See SCS Injury Illness and Prevention Plan Table SOP 4-1 for examples of Environmental Hazards.

² See SCS Injury Illness and Prevention Plan Table SOP 4-2 for examples of Personal Hazards.