

**Site Specific Health and Safety Plan
Groundwater Monitoring
Rockwool Industries, Inc.
Superfund Site
1741 Taylors Valley Rd
Belton, Texas 76513**

Prepared for

**Texas Commission on
Environmental Quality**

November 18, 2010

**Contract No.
582-10-91051
Work Order No.
248-0019**





Daniel B. Stephens & Associates, Inc.

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APPROVAL PAGE

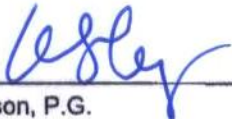
This Table identifies the parties responsible for implementing the HASP and provides approval signatures from each party.

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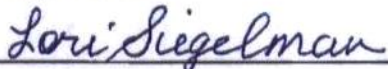
HEALTH AND SAFETY PLAN
PREPARED FOR

Texas Commission on Environmental Quality (TCEQ)
12100 Park 35 Circle Bldg. D, MC-221
Austin, TX 78753
For
Rockwool Industries, Inc., Site #0605009
1741 Taylors Valley Rd
Belton, TX 76513

November 12, 2010



Kevin Hopson, P.G.
Program Director

 CIH # 9340 CP

Lori Siegelman, CIH
Health and Safety Representative

The information in this HASP has been designed for the methods presently planned by Daniel B. Stephens & Associates for execution of the proposed work. Therefore, this HASP may not be appropriate if the work is not performed by or using the methods presently planned. In addition, as the work is performed, conditions different from those anticipated may be encountered and the HASP may have to be modified. Therefore, Daniel B. Stephens & Associates only makes representations or warranties as to the adequacy of the HASP for currently anticipated activities and conditions.



organized to improve the practice of industrial hygiene
proclaims that

Lori Goodwin Siegelman

having met all requirements through
education, experience and examination,
is hereby certified in the

**COMPREHENSIVE PRACTICE
of
INDUSTRIAL HYGIENE**

and has the right to use the designations

CERTIFIED INDUSTRIAL HYGIENIST

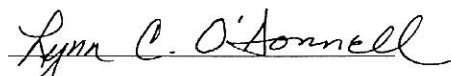
CIH

Certificate Number: 9340 CP

Awarded: May 30, 2007

Expiration Date: June 1, 2013


Chairman ABIH


Executive Director ABIH



Site Health and Safety Plan Summary

This summary provides critical, site-specific health and safety information that all site workers should be familiar with. This summary is an integral part of the site-specific health and safety plan (HASP) and must be attached to the complete plan.

Site Name and Location

Rockwool Industries, Inc. Superfund Site, Belton, Bell County, Texas, 76513

Project Personnel *(refer to Section 3 for description of duties)*

Project Manager	William Gamblin, P.E.
Site Safety Officer	Olin Bud Shirley
Site Supervisor	William Gamblin, P.E.

Emergency Response

Table S-1 lists the Emergency Contacts that might be needed in the event of a site emergency. The complete Emergency Response Plan is contained in Appendix B of this plan.

Site Activities and Hazard Assessment

Table S-2 identifies each of the tasks that will be performed during the field program and the hazards associated with each task. Table S-3 identifies the appropriate personal protective equipment (PPE) to be used for each task, including respiratory protection, and the air monitoring equipment that will be used. Air monitoring is further discussed in Section 7.1 of this plan. In the event that new tasks become necessary or new hazards are encountered, the Site Safety Officer will revise Tables S-2 and S-3 accordingly, and notify all site workers of the changes.

Contaminants of Concern

Tables S-4 and S-5 identify the contaminants of concern that might reasonably be encountered during site activities and respectively provide summaries of the chemical properties and worker exposure/health information.



Hospital Route

Figure S-1 depicts the route and provides written instructions from the site to the hospital.

Medical Monitoring *(refer to Section 12 of the DBS&A Health and Safety Manual)*

All site workers must be currently participating in a medical monitoring program that includes baseline and annual medical evaluation and testing. Additionally, potential exposures to COCs require that workers at this site who are involved in drilling or soil/groundwater sampling activities obtain baseline screening before participating in those activities.

Site Control Plan *(refer to Section 9 of this plan)*

Site control measures will be implemented during any activity that presents a hazard to workers outside the immediate work area or to unauthorized personnel in the vicinity. These measures can range from erecting barricades or barriers to prevent unauthorized entry, to establishing and enforcing work zones to mitigate the spread of contaminants beyond the work site.

Traffic control plans may be required for all sites where work activities may impact traffic flow on adjacent roadways. These plans must be submitted to and approved by the local traffic control authority. The Project Manager or their designee shall be responsible for ensuring that the necessary site control measures and plans are prepared and implemented.

Confined Spaces *(refer to Section 10 of this plan)*

No confined space entries will be performed during this investigation. In the event that confined space entries become necessary, the entries will be performed by trained personnel in accordance with the DBS&A Confined Space Entry Program.



Table S-1: Emergency Resources

Location and Number of Nearest Telephone: DBS&A and Contractor Vehicles

In Case of Fire or Explosion (Telephone Number):

Call Fire Dept: _____ 911

Call Police/Sheriff: _____ 911

In Case of Personal Injury or Exposure (Telephone Number):

Call Hospital: _____ (254) 724-2111

Call Poison Control Center: _____ (800) 432-6866

Call Ambulance: _____ 911

Call Air Ambulance: _____ 911

DBS&A and Other Contacts

DBS&A (Albuquerque): _____ (505) 822-9400

DBS&A Project Manager: _____ William Gamblin (cell) (512) 484-2033

DBS&A H&S Officer: _____ Doug Reaber (cell) (505) 235-7490

DBS&A H&S Coordinator: _____ Bill Casadevall (residence) (505) 280-2406

DBS&A Personnel Department: _____ Theresa Michael (505) 822-9400

Medical Contact: _____ WorkCare, Dr. Peter Greaney (Anaheim, CA) (800) 455-6155

Client Contact (TCEQ): _____ Alvie Nichols (512) 239-2439

Regulatory Contact (TCEQ): _____ Alvie Nichols (512) 239-2439

Emergency Response Telephone Numbers

Local Chemical Emergency Response Team: _____ 911

National Response Center, Oil & Toxic Chemical Spills: _____ (800) 424-8802

CHEMTREC (24-hour): _____ (800) 424-9300

Other Contacts: _____



Table S-2: Proposed Tasks and Hazard Assessment

<i>Potential Hazards</i>	<i>Proposed Tasks</i>				
	Site Inspection & Maintenance	Groundwater Sampling			
Heavy equipment					
Hazardous energy					
Pinch points					
Unstable ground	X				
Noise hazards (>85 dbA)					
Eye hazards	X	X			
Head hazards	X				
Dermal contact	X	X			
Slips, trips, and/or falls	X	X			
Heavy lifting	X	X			
Vehicle traffic	X	X			
Unauthorized site entry					
Buried utilities					
Overhead utilities	X				
Respiratory Concerns					
Particulates	X				
Vapors and/or gases		X			
Oxygen depletion					
Asbestos					
Contaminated soil or liquids		X			
Explosive atmospheres					
Heat/cold stress	X	X			
Sunburn	X	X			
Electrical hazards					
Compressed air or gases		X			
Fire hazards (hot work)					
Chemical hazards (other than COCs)		X			
Insects and vermin	X	X			
Confined spaces					
Ionizing Radiation					
HAZARD RANKING (Low, Medium, High)	Low	Low			

Definitions:

COCs Contaminants of concern



Table S-3: Requirements for Personal Protective Equipment and Air Monitoring

<i>Personal Protective Equipment</i>	<i>Proposed Tasks</i>				
	Site Inspection & Maintenance	Groundwater Sampling			
<i>Level D</i> (Long pants, shirt, steel-toed boots, and safety glasses)	Minimum required for all site activities				
Hard hat	X				
Hearing Protection					
Faceshield					
<i>Respiratory Protection</i>	(Selection matrix and cartridge change schedule in Project Files)				
Half-mask with organic vapor/HEPA cartridge					
Full-face with organic vapor/HEPA cartridge					
Cartridge Change Schedule					
<i>Air Monitoring Equipment</i>					
Photo-ionization detector					
Flame-ionization detector					
Combustible Gas Indicator					
O ₂ Monitor					
Colorimetric tubes					
H ₂ S Detector					
Methane Gas Monitor					
Other _____					



Daniel B. Stephens & Associates, Inc.

Table S-4. Chemical and Physical Properties for Primary Contaminants of Concern

Compound	Vapor Pressure (mm Hg)	Vapor Density ^a (air=1)	Specific Gravity	Odor Threshold ^b (ppm)	LEL (%)	Ionization Potential (eV)	Physical Description
Arsenic (As) [Ca]	0	NA	5.73	NA	NA	NA	Silver-gray or tin-white, brittle, odorless solid.
Antimony (Sb)	0	NA	6.69	NA	NA	NA	Silver-white, lustrous, hard, brittle solid; scale-like crystals; or a dark-gray, lustrous powder.
Lead (Pb)	0	NA	11.34	NA	NA	NA	A heavy, ductile, soft, gray solid.

[Ca] = Known or suspected carcinogen

NA = Not Available

^a Vapor density @ 25°C data from *Groundwater Chemicals Desk Reference* by Montgomery and Welkom (1990) and product material safety data sheets.

^b Odor threshold data from 3M *1999 Respirator Selection Guide*.



Table S-5. Hazard Information for Primary Contaminants of Concern
Page 1 of 1

Compound	Permissible Exposure Limit (PEL) (mg/m ³)	IDLH (mg/m ³)	Primary Acute Symptoms from Inhalation and Dermal Exposures	Target Organs	First Aid
Arsenic (As) [Ca]	0.010 ^a	5	Ulceration of nasal septum, dermatitis, gastrointestinal disturbances, peripheral neuropathy, resp irritation, hyperpigmentation of skin, [potential occupational carcinogen]	Liver, kidneys, skin, lungs, lymphatic system	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately
Antimony (Sb)	0.5 ^{ab}	50	Irritation eyes, skin, nose, throat, mouth; cough; dizziness; headache; nausea, vomiting, diarrhea; stomach cramps; insomnia; anorexia; unable to smell properly	Eyes, skin, respiratory system, cardiovascular system	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately
Lead (Pb)	0.050 ^{ab}	100	Lassitude (weakness, exhaustion), insomnia; facial pallor; anorexia, weight loss, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; paralysis wrist, ankles; encephalopathy; kidney disease; irritation eyes; hypertension	Eyes, gastrointestinal tract, central nervous system, kidneys, blood, gingival tissue	Eye: Irrigate immediately Skin: Soap flush promptly Breathing: Respiratory support Swallow: Medical attention immediately

Sources: NIOSH *Pocket Guide to Chemical Hazards* (1997) and manufacturer's material safety data sheets (MSDS).

^a Occupational Safety and Health Administration permissible exposure limit (OSHA PEL).

^b National Institute of Safety and Health recommended exposure limit (NIOSH REL).

^c OSHA Short-term exposure limit (STEL); PEL not established

^d No OSHA PEL established; limits for Stoddard solvent presented as a guide only.

TWA = Eight-hour time-weighted average

ppm = parts per million

[Ca] = Known or suspected carcinogen

CNS = Central nervous system

CVS = Cardiovascular system

N.D. = Not Yet Determined

NE = None established

Hospital Route

Bing Maps

**1741 Taylors Valley Rd, Belton, TX 76513-9630****2401 S 31st St, Temple, TX**
Scott & White Memorial Hospital (254) 724-2111Route: **6.6 mi, 10 min**

Driving directions from Rockwool Industries Superfund Site, Belton, TX to Scott & White Memorial Hospital, Temple, TX.

**FREE!** Use **Bing 411** to find movies, businesses & more: **800-BING-411**

	1741 Taylors Valley Rd, Belton, TX 76513-9630	A-B: 6.6 mi 10 min
1.	Depart Taylors Valley Rd toward FM-93 / E 6th Ave	0.1 mi
	2. Turn right onto FM-93 / E 6th Ave	0.1 mi
	3. Turn right onto N Ih 35	0.2 mi
	4. Take ramp left and follow signs for I-35 North / US-190 East	3.5 mi
	5. At exit 299 , take ramp right for S General Bruce Dr / N Ih 35 toward Gatesville / Cameron	0.6 mi
	6. Turn right onto SW H K Dodgen Loop	0.5 mi
	7. Take ramp left and follow signs for US-190 East / SR-36 East / SR-363 Loop East / SW H K Dodgen Loop / HK Dodgen Loop SW	0.6 mi
	8. Bear right and then turn left onto SW H K Dodgen Loop / Thornton Ln	0.8 mi
	9. Turn left onto FM-1741 / S 31st St	0.3 mi
	10. Arrive at 2401 S 31st St, Temple, TX <i>The last intersection is South Loop</i> <i>If you reach Scott Blvd / W Scott Blvd, you've gone too far</i>	0.0 mi

These directions are subject to the Microsoft® Service Agreement and for informational purposes only. No guarantee is made regarding their completeness or accuracy. Construction projects, traffic, or other events may cause actual conditions to differ from these results. Map and traffic data © 2009 NAVTEQ™, AND™.



 **Figure S-1. Hospital Route Map.** Route from (A.) Rockwood Industries Superfund Site, 1741 Taylors Valley Road, Belton, Texas to (B.) Scott & White Memorial Hospital, 2401 S 31st Street, Temple, Texas.



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 - Health and Safety Plan Acceptance Form
 - Tailgate Safety Meeting Form
 - Accident/Incident Reporting Form
 - Chemical Exposure Report form
- B Emergency Response Plan



Site-Specific Health and Safety Plan

Project Name: Rockwool Industries, Inc. Superfund Site

Project Location: 1741 Taylors Valley Road, Belton, Bell County, Texas, 76513

DBS&A Project Manager: William Gamblin, P.E.

1. Introduction

1.1 Site Background

The site covered by this health and safety plan (HASP) is the Rockwool Industries, Inc. Superfund Site, Belton, Bell County, Texas. The Rockwool Industries, Inc. Superfund Site (the Site) is a 100-acre tract of land in a primarily industrial area located one quarter mile east of I-35 in Belton, Texas. It is bounded on the north by the Leon River and to the south and south-west by Nolan Creek. The Site is broadly divided into three areas; the North property, the Central property, and the non-process areas by Taylors Valley Road and FM-93. Rockwool Industries, Inc. manufactured household mineral wool insulation material by melting copper and antimony slag from metallurgical operations from the mid-1950s until February 1987.

1.2 Project Description

Daniel B. Stephens & Associates (DBS&A) is providing support for this project to the TCEQ under the assessment, investigation, and remediation services (AIRS) contract. Under this contract, DBS&A will perform field activities associated with the inspection, monitoring and corrective action, if necessary, of the Site to ensure that the final constructed remedy continues to be effective in protecting human health and the environment.

Site inspections are required in accordance with Texas Administrative Code (TAC) for post-closure care of commercial/industrial non-hazardous waste landfill facilities per 30 TAC 335.593 and the applicable provisions of 30 TAC 330.254(b). Semi-annual inspections will be performed by DBS&A staff to ensure that the previously constructed earthen covers and drainage installations at the Site are performing as designed and to conduct any necessary maintenance and/or repairs at the Site as needed. In addition, groundwater monitoring activities will be conducted on a semi-annual basis in order to determine groundwater elevation and water quality parameters and to evaluate the effectiveness of the remedial action in reducing the concentration of the contaminants of concern (COCs) in the subsurface saturated zone.

This HASP was designed to support the stated site activities and will be updated prior to conducting any further remedial activities which may identify additional safety concerns. This



HASP establishes the responsibilities, requirements, and procedures for DBS&A personnel while performing the indicated site activities activities.

The objective of this HASP is to establish a safe work environment for all site personnel, provide a uniform and concise plan of action in an emergency, and furnish the necessary guidance to adhere to these policies. This HASP meets the requirements set forth by the Occupational Safety and Health Administration (OSHA) in 29 Code of Federal Regulations (CFR), Part 1910.120 (Hazardous Waste Operations and Emergency Response, Occupational Safety and Health Standards) and 29 CFR, Part 1926 (Safety and Health Regulations for Construction). This HASP is designed to augment the health and safety policies and procedures established in the DBS&A Health and Safety Program Manual (H&S Manual).

Safety is considered a priority during all field activities. Field personnel will not perform any task for which they have not received adequate training, or which they personally feel jeopardizes their safety or the safety of another individual.

2. Description of Site Activities

The primary objectives of the planned site activities are to perform Operation and Maintenance (O&M) activities in accordance with the revised O&M plan including field inspections of landfill components and the collection of groundwater samples from existing monitoring wells.

Special Site Entry Procedures

- Due to the nature of the contaminants of concern at the Site, all workers and visitors are subject to the OSHA requirements for hazardous waste workers in 29 CFR 1910.120.
- The Site is a residential area and access to the properties will be handled by the TCEQ.

Nearest telephone: DBS&A/Contractor cell phones

Nearest water: Potable water will be supplied

Nearest fire extinguisher: DBS&A/Contractor vehicles

Nearest first aid kit: DBS&A/Contractor vehicles

Warning method/signal for site evacuation: Verbal

3. Project Personnel

The following DBS&A personnel are responsible for the activities at the site:



DBS&A Personnel	Responsibility
1. William Gamblin, P.E.	Project Manager/Site Supervisor
2. Olin Bud Shirley	Field Technician/Site Safety Officer
3. Bill Casadevall	DBS&A H&S Coordinator

Additional workers and visitors may be authorized to enter the Site under the direction of the Project Manager (PM) or the Site Safety Officer (SSO). All workers will be familiar with the contents of this site HASP and will sign the plan acceptance form (Appendix A). Constructive comments regarding the HASP should be directed to the SSO or to the DBS&A Health and Safety (H&S) Program Coordinator.

Technical services and construction services subcontractors are obligated to conform to standard industry safety practices for their profession, including OSHA regulations. If a subcontractor proposes changes in the HASP, the SSO shall obtain permission from the H&S Program Coordinator and the DBS&A PM, and this authorization shall be documented in the project site log.

The DBS&A Health and Safety Manual establishes the roles and responsibilities for health and safety at various levels within the company. The DBS&A personnel responsible for the activities at the site are listed in the site HASP summary. Their roles are described below.

3.1 Project Manager

The Project Manager is responsible for implementing the DBS&A H&S Program at the site and designating the Site Safety Officer. The PM will oversee the preparation of this site-specific HASP, ensuring that the hazards associated with each task have been identified and that appropriate protective measures have been established.

3.2 Responsibilities of the Site Safety Officer

The SSO will be responsible for ensuring that all personnel entering an active work area comply with this HASP, meet appropriate OSHA medical and safety training requirements, and utilize the required level of personal protective equipment (PPE). The SSO will conduct site safety meetings prior to the start of work and before the start of each new activity. Workers will acknowledge their attendance by signing the safety meeting sign-off sheet (Appendix A). Accidents or incidents at the job site that affect or could potentially affect worker safety will be documented using the DBS&A accident/incident report form (Appendix A).

In accordance with the Hazard Communication standard (29 CFR 1910.1200), the SSO will coordinate with contractor representatives to identify hazardous materials being used on the site and to ensure that material safety data sheets (MSDSs) are available for each material. Site workers will be briefed on hazardous materials at the job site. The SSO will maintain MSDSs



for the hazardous chemicals routinely used on site; the contractor will maintain MSDSs for the hazardous chemicals it brings to the site.

In order to maintain a safe job site, all potentially dangerous conditions or practices must be corrected before proceeding with field work. The SSO will notify contractors and the PM of any unsafe work practices, and will reserve the right to stop all work on DBS&A projects if contractors do not abide by this plan.

The SSO will establish the initial level of PPE and respiratory protection and shall have the authority to upgrade or downgrade levels of protection at any time in response to field conditions. Information and guidance concerning the PPE Program and the Respiratory Protection Program are found in the DBS&A H&S Manual.

The SSO will establish the physical limits of the work areas at the site and shall instruct all personnel and visitors on the boundaries of the exclusion zones. Only authorized personnel will be allowed in active work areas. It is also the responsibility of the SSO to ensure that all personnel enter and leave active work areas through the decontamination station, if necessary. Specific site control measures are addressed in Section 9 of this plan.

3.3 Site Supervisor

The Site Supervisor is responsible for directing all field activities at the site and ensuring that the scope of work is completed.

3.4 Site Workers and Visitors

Additional workers and visitors may be authorized to enter the site under the direction of the PM or the SSO. All workers must be properly trained in their assigned duties, including standard safety procedures. All workers and visitors entering the work zone will be familiar with the contents of this site HASP and will sign the Health and Safety Plan Acceptance form (Appendix A). Constructive comments regarding the HASP should be directed to the PM, the SSO or the DBS&A Health and Safety (H&S) Program Coordinator.

3.5 Contractors

Contractors to DBS&A are obligated to conform to OSHA regulations and standard industry safety practices for their profession. If a subcontractor proposes changes in the HASP, the SSO shall obtain permission from the H&S Program Coordinator and the DBS&A PM, and this authorization shall be documented in the project site log. A modification to the HASP will be issued reflecting the changes. Additional contractor responsibilities are described in Section 14 of the DBS&A H&S Manual.



4. General Hazard Review and Assessment

The hazard review for the Site is based on extensive experience conducting similar field operations at other sites. Table S-2 summarizes hazards at the site. Table S-3 presents the requirements for PPE during site activities.

4.1 Chemical Hazards

The primary chemicals of concern (COCs) at this site include arsenic, antimony and lead with inhalation and dermal exposure as the primary exposure pathways. Chemical and physical properties for these COCs are provided in Table S-4.

The Occupational Safety and Health Administration (OSHA) permissible exposure limits (PELs) and the American Conference of Governmental Industrial Hygienists (ACGIH) permissible exposure limits (PELs) for compounds known or suspected to be present at the Site are presented in Table S-5. The PEL exposure levels whereby workers may be exposed for 8 hours per day, 5 days per week for one's working lifetime without resulting in adverse health effects.

Personnel should approach the site activities with an awareness of the potential hazards associated with dermal contact and ingestion of contaminated soils, and inhalation of dusts and containing the COCs. Engineering controls, air monitoring, safe work practices, and appropriate PPE will prevent contact with or inhalation of contaminated material.

4.2 Physical Hazards

Physical hazards at the site include the typical hazards associated with work around heavy equipment, vehicular traffic, heat stress, and trips, falls and slips. Site workers must be aware of all machinery and vehicles operating at the site and in the general vicinity. Mechanical hazards must be avoided to the greatest extent possible, and all driving must be performed in a safe manner. Personal awareness, appropriate PPE, and standard safety procedures will minimize the risk of exposure and physical injury.

4.3 Sunburn and Temperature Hazards

Sunburn is perhaps the most common hazard for field site workers. Sunburn is caused by overexposure to ultraviolet (UV) radiation from the sun. Chronic overexposure to sunlight, especially the UV-B component, accelerates skin aging and increases the risk of skin cancer. The following guidelines can be used to avoid overexposure to UV rays from the sun:

- Wear protective clothing (long sleeves, hats with protective brims, and long pants) that provide the most coverage, and are consistent with the job to be performed.
- Protect eyes with UV-absorbing sunglasses or tinted safety glasses.



- Use a commercial sunscreen with a skin protection factor (SPF) of at least 15 and protection against both UV-A and UV-B rays. Sunscreen should be applied 15 to 30 minutes before exposure and reapplied at 60 to 90 minute intervals. If possible, avoid exposure to the sun between 10:00 a.m. and 2:00 p.m., because rays are the most powerful during this period.

Heat stress is often the most critical hazard for field site workers. The effects can range from transient heat fatigue to serious illness and even death. Heat stress is caused by a number of interacting factors including environmental conditions, clothing, workload, and the individual characteristics of the worker. Because heat stress is fairly common during the summer and fall, preventive measures and alertness are especially important during these seasons.

Protective clothing and equipment affect the way the body controls its temperature. A previous heat injury (including sunburn) can also increase an individual's susceptibility to further heat injury. Workers who have suffered a previous heat injury or who have sunburn must be especially vigilant in preventing heat stress and injury.

In order to ensure against heat stress-related problems, personnel will take frequent breaks in shaded areas. Workers will wear loose fitting clothing (except around rotating equipment) and will unzip or remove coveralls during breaks. Cool drinking water with added electrolytes will be made available and sufficient amounts of fluids will be consumed to avoid dehydration.

During hot weather, heat stress monitoring will be part of the daily regimen. DBS&A personnel will count their pulse rate for 30 seconds as early as possible in the rest period. If the pulse rate exceeds 110 beats per minute, the length of the next work period shall be reduced to 20 minutes and the heat stress parameters will be observed again at that time. If the pulse rate at the beginning of the next test period exceeds 100 and the last reading was over 110, the work cycle shall be reduced by one-third. Whenever the pulse rate is elevated, work should not be resumed until the pulse rate is below 100 beats per minute. These heat stress indicators shall be observed at least once every hour.

During cold weather, DBS&A personnel will wear multilayer, wind-resistant outfits and drink warm fluids. Warm shelter will be available during breaks.

4.4 Biological Hazards

Venomous snakes and arthropods (e.g., insects, spiders, ticks, scorpions, and centipedes) create a hazard when their habitats are disturbed. Awareness and avoidance are the best defenses. Fieldwork shall be performed in a manner that minimizes disturbances of these creatures. Should a bite or sting occur, first aid shall be immediately applied and medical treatment sought as soon as possible.

Important Note: If an individual has a history of allergic reactions to insect bites or is subject to attacks of hay fever or asthma, or if they are not promptly relieved of symptoms after first aid is administered, a physician will be called or immediate emergency medical treatment will be sought. In a highly sensitive person, do not wait for symptoms to appear,



since delay can be fatal. Any individual with a known allergy to wasps and bees must notify the SSO and/or Project Manager/task leader prior to working at the project site.

4.5 Emergency Response

Table S-1 in the site HASP summary lists the names and telephone numbers of people and agencies that might be contacted in the event of an emergency. The Emergency Response (ER) Plan is included as Appendix C. The ER Plan includes instructions and procedures for emergency vehicular access, evacuation procedures for personnel, methods of containing a fire, and instructions on how to handle a variety of specific medical emergencies.

5. Task-Specific Hazard Analysis

This section identifies each major task to be performed at the site, the health and safety hazards associated with the task, and the measures that will be taken to eliminate or minimize potential exposures to site workers.

5.1 Site Inspection & Maintenance

The tasks associated with the site inspection and maintenance activities may include the use of manual and powered hand tools, pouring and working with cement, fitting of high-density polyethylene (HDPE) and polyvinyl chloride (PVC) pipe, heavy lifting, and the use of cranes to position various equipment. The hazards associated with maintenance and repair activities are mainly physical in nature, including work around heavy equipment, use of electrical hand tools, electrical hazards, heat stress, and slips, trips and falls. Workers are reminded to always be aware of their surroundings when conducting site inspections, as site conditions may change rapidly and hazards may present themselves without notice.

Workers should be familiar with standard safe work practices and Section 8 of the DBS&A H&S Manual, Safe Equipment Operation. Level D PPE, including steel-toed boots and safety glasses, shall be used for all general construction activities. Hard hats are required whenever overhead hazards are present. Appropriate hearing protection will be worn whenever the noise levels approach 85 decibels.

5.2 Groundwater Monitoring

Groundwater samples will be collected from on-site monitoring wells. Prior to sampling, water level measurements will be collected using a water level indicator. Chemical hazards associated with well groundwater monitoring activities include potential skin and eye contact with contaminated groundwater and sample preservatives. Physical hazards include slips, trips, and falls; heat stress; and hazards associated with drum handling. Appropriate PPE for groundwater sampling will include that described in Table S-2. Standard safety procedures will minimize the physical hazards.



6. Standard Safe Work Practices

The following guidelines are meant to cover operations by the DBS&A field staff and DBS&A contractors (e.g., the drill crew, excavation crew and support personnel) during field activities at the site. DBS&A contractors may choose to establish and enforce more stringent safety guidelines for personnel under their employ. Health and safety issues for other personnel working or visiting on site *and not involved in the site activities* are the responsibility of the Client and their respective contractors, not DBS&A.

Prior to the initiation of any on-site activities, the SSO will conduct a safety meeting to discuss the contents of this site-specific HASP, describe the field activities, identify any high-risk activities, and familiarize personnel with emergency procedures, including the route to the hospital. The DBS&A field supervisor will establish that all equipment is in good condition. The DBS&A supervisor should properly and thoroughly instruct the subcontractor on exactly what results are to be accomplished and point out all known safety hazards.

During the field activities, all participants will be expected to follow standard safe work practices as outlined below:

- Do not eat, drink, smoke, or chew tobacco in the work area.
- Avoid contact with potentially contaminated substances.
- Report any unsafe conditions to the SSO.
- Be aware of the physical characteristics of investigations, including:
 - Wind direction in relation to the ground zero area
 - Accessibility to associates, equipment, vehicles, etc.
 - Communication
 - Hot zones (areas of known or suspected contamination)
 - Site access
 - Nearest water sources
 - Nearest first aid equipment
- Dispose of all wastes generated during field activities as directed by the PM.



7. Air and Noise Monitoring

7.1 Air Monitoring

Table S-3 in the site HSP summary identifies each of the tasks to be performed at the site and the air monitoring requirements for each task. It is not anticipated that air monitoring equipment will be required during site inspection/maintenance and groundwater monitoring activities. Should site conditions require that air monitoring equipment be utilized; this HASP will be amended to incorporate the guidelines associated with such requirements.

Workers using respiratory protection should be familiar with guidelines to determine that the equipment being used is providing adequate protection. The Maximum Use Limit (MUL) of the respirator must not be exceeded for the contaminant of concern. The MUL for a given chemical compound is obtained by multiplying the exposure limit for that compound times the protection factors (PF) for the type of respirator being used. Generally, the PF for half- and full-face air-purifying respirators (APRs) are 10x and 50x, respectively. Thus, the MUL for benzene using a full-face APR is $1 \text{ ppm} \times 50 = 50 \text{ ppm}$.

Contractor personnel will be notified of all readings. Subcontractor personnel will be required to comply with all applicable OSHA regulations, including those for workers at hazardous waste sites and those related to the use of appropriate PPE. Direct evidence of contamination, such as visible staining of soils or strong odors, should be used to further evaluate these quantitative instrument readings.

7.2 Noise Monitoring

All site personnel who are exposed to noise levels approaching 85 decibels must participate in their company's Hearing Protection Program and must use appropriate hearing protection. The DBS&A H&S Program Coordinator has used a noise meter to survey a variety of equipment that may be used during the site activities and found that work around heavy equipment is most likely to require hearing protection. Noise levels are highest near engines and compressors, but generally do not exceed 85 decibels in the typical operator locations (e.g., behind a drill rig). When a noise meter is not available, the following rule of thumb should be used: if it seems loud or you cannot carry on a normal conversation, hearing protection should be worn.

8. Protective Equipment

PPE requirements for each task are described in Table S-3. At a minimum, the following PPE shall be used by personnel while working at the site:

- Steel-toed/steel-shanked work boots
- Long pants (with UV sun protection recommended)



- Shirt (with UV sun protection recommended)
- Protective eyewear (personal safety glasses at all times; full face shield when required)
- Hard hat (when required)
- Hearing protection (when required)

Tyvek™ coveralls and/or chemical-resistant gloves will be worn whenever conditions require DBS&A field personnel to come in direct contact with potentially contaminated materials.

Level C PPE will include Level D equipment plus a full- or half-face air-purifying respirator with P100 cartridges.

8.1 Disposal of Contaminated Clothing or Equipment

All potentially contaminated clothing, Tyvek coveralls, gloves, paper towels, and other expendable items will be placed in garbage bags for disposal. Fresh Tyvek coveralls and work gloves should be donned at the start of each workday or when otherwise required.

8.2 Decontamination Procedures

Specific personnel decontamination procedures are based on the personal level of protection. When using Level D protection, a personnel decontamination system (PDS) is not required. However, because project personnel wearing Level D protection may need to upgrade to Level C if site conditions change, a PDS may be established based on specific site characteristics.

The decontamination stations for Level C decontamination may include: (1) a segregated equipment drop for hand tools and monitoring equipment; (2) a boot and glove wash and rinse; (3) a removal station for gloves and disposable booties (if worn); (4) a removal station for respiratory protection, hard hat, safety glasses, and Tyvek suits; and (5) a station to wash and rinse hands and face. Specific procedures and the sequence of events will be determined based on the potential hazards identified at the specific site. The stations listed are a guide to the selection of adequate decontamination procedures.

When a PDS is set up, the SSO or their designee has the responsibility for operating the decontamination station. This person will make sure that all personnel enter and leave active work areas through the PDS, that all personnel decontaminate properly, and that disposable items are bagged. The SSO will assist on-site workers in changing cartridges, masks, gloves, or other pieces of safety equipment, and monitor the length of work periods. Disposable items will be placed in plastic bags and be properly disposed of. Non-disposable items will be properly cleaned and dried according to manufacturer's specifications and stored for future use.

Decontamination procedures, which are based on guidelines appropriate for low-level contamination, will be required for all reusable equipment used for drilling, sampling, personal



protection, and field monitoring. Drilling equipment will be decontaminated prior to leaving the site. Sampling equipment will be decontaminated between each sample. High-pressure steam cleaners,alconox detergent solution, and deionized water rinses may be used. If necessary, personnel will decontaminate equipment at a specified decontamination area before leaving the site. Field monitoring equipment will be cleaned daily; additional cleaning and recalibration will be performed if contamination affects operation.

9. Site Control

Barricades, caution tape, or other necessary means shall be used when necessary to prevent unauthorized access into the work area. The SSO will establish the physical limits of the work areas at the site and instruct all personnel and visitors concerning the boundaries of the exclusion zones.

Traffic control plans may be required for all sites where work activities may impact traffic flow on adjacent roadways. These plans must be submitted to and approved by the local traffic control authority. The Project Manager or their designee shall be responsible for ensuring that the necessary site control measures and plans are prepared and implemented.

10. Confined Space Entry

No confined space entries are anticipated during the field activities. However, any confined spaces identified as the work progresses shall be properly marked and managed accordingly. DBS&A has developed and implemented a Confined Space Entry Program Plan that provides policies and procedures to be followed for confined space entries, including air monitoring, participant training and duties, and authorizing and permitting confined space entries.

If confined space entries become necessary, the SSO will contact the PM and ensure that entries are performed in accordance with the DBS&A Confined Space Entry Program Plan. If necessary, the SSO will contact the local fire department to coordinate the entry and rescue requirements.

11. Spill Prevention

Minor spills of potentially contaminated soil, residual free product, or groundwater may occur during site work. The area beneath the drill rig may be lined with plastic sheeting to control fluid leaks from the equipment. If a spill occurs, site personnel will use best judgement and available materials to contain and prevent it from spreading. All contained soil and liquids will be disposed of in compliance with federal, state, and local requirements.

12. Safety Meetings

A site safety or "tailgate" safety meeting will be held before the start of work for the project and before the start of each new activity. All personnel directly involved in the work are required to



attend. This HASP and all pertinent health and safety issues will be discussed during the initial briefing or meetings. The tailgate meeting will also address specific issues regarding on-site health and safety, such as the proposed work and associated hazards, recent problems, and near-misses. All personnel will acknowledge their attendance by signing the safety meeting form (Appendix A).

13. Training Requirements

Before entering the site, workers will have received the necessary training required by OSHA for workers at potentially hazardous waste sites [29 CFR 1910.120(e)], including 40 hours of formal instruction, and a minimum of 3 days of field experience under the supervision of a trained and experienced worker. Additionally, site supervisors will have completed an 8-hour health and safety supervisor training course. Before starting work, each worker will receive site-specific hazard recognition and emergency response training.

In the event that contaminant concentrations in the work zone require an upgrade to Level C PPE, only workers who are trained and medically cleared to wear a respirator will be allowed in the work zone.

DBS&A's contractors will certify, by name, that each of their employees who will perform field work at a hazardous waste project site has received the applicable health and safety training listed above.

14. Medical Monitoring Requirements

All medical monitoring will be performed in accordance with 29 CFR 1910.120(f) and 29 CFR 1910.95 (Occupational Noise Exposure). The PM must identify any chemicals of concern that might require monitoring (e.g., lead or PCBs) before and after the site activities.

The DBS&A medical monitoring program is directed by ADP Screening and Selection Services (ADP) in Norcross, Georgia. In the event of a chemical exposure resulting in symptoms or illness, the SSO may contact Dr. Elaine Thereault at Continuum (800-229-3674) to obtain guidance for recommended testing protocols.

15. Hospital And Evacuation Route

The attached hospital route map shows the location of the medical facility closest to the site and includes directions for reaching the facility from the site. All workers should be familiar with the location of this facility.



Emergency Resources

Location and Number of Nearest Telephone:

DBS&A and Contractor Vehicles

In Case of Fire or Explosion (Telephone Number):

Call Fire Dept: _____ 911

Call Police/Sheriff: _____ 911

In Case of Personal Injury or Exposure (Telephone Number):

Call Hospital: _____ (254) 724-2111

Call Poison Control Center: _____ (800) 432-6866

Call Ambulance: _____ 911

Call Air Ambulance: _____ 911

DBS&A and Other Contacts

DBS&A (Albuquerque): _____ (505) 822-9400

DBS&A Project Manager: _____ William Gamblin (cell) (512) 484-2033

DBS&A H&S Officer: _____ Doug Reaber (cell) (505) 235-7490

DBS&A H&S Coordinator: _____ Bill Casadevall (residence) (505) 280-2406

DBS&A Personnel Department: _____ Theresa Michael (505) 822-9400

Medical Contact: _____ WorkCare, Dr. Peter Greaney (Anaheim, CA) (800) 455-6155

Client Contact (TCEQ): _____ Alvie Nichols (512) 239-2439

Regulatory Contact (TCEQ): _____ Alvie Nichols (512) 239-2439

Emergency Response Telephone Numbers

Local Chemical Emergency Response Team: _____ 911

National Response Center, Oil & Toxic Chemical Spills: _____ (800) 424-8802

CHEMTREC (24-hour): _____ (800) 424-9300

Other Contacts: _____

Appendix A

Health and Safety Forms



Project ID: Rockwool Industries, Inc. Day: _____
Location: Belton, TX Date: _____
Project Manager: William Gamblin Team Leader: _____
Health & Safety Officer: _____ No. of Personnel Present: _____

Check Topics Discussed

Scheduled Activities: _____

Chemical/Physical Hazards

Contaminants of Concern
Material Safety Data Sheets
Overhead & Underground Utilities
Extraordinary Site Conditions
Lifting/Slips/Trips/Falls
Heat/Cold Stress (Inc. Sunburn)
Other: _____

Vehicle/Heavy Equipment

Drill Rig "KILL" Switches
Operation & Inspection
Preventive Maintenance
Rotating Augers/Moving Parts

First Aid

Facilities/Kits/Eyewashes

Sanitation & Hygiene

Drinking Water/Fluids
Restrooms
Personal Cleanliness

Personal Protective Equipment - Level D

Hard Hats/Hearing Protection
Steel-Toed Boots
Glasses/Goggles/Shields
Gloves

Housekeeping

Waste Containers
Waste Materials
Waste Water/Decon. Water

Contingency: Level C

Respirators & Tyvek/Saranex

Fire Prevention

Locations of Extinguishers
Smoking
Hot Work
Explosive & Flammable Liquids
Other: _____

Emergency Procedures/Site Safety

"Buddy System"
Communication
Facility-Specific Regulations
Rally Point

Emergency Facilities

Name: Scott & White Memorial Hospital

Address: 2401 S 31st St, Temple TX

Tel. No.: (254) 7242111 or Call 911

Safety Meeting Attendees:

Name	Signature	Name	Signature
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____



Project ID: Rockwool Industries, Inc. Day: _____
Location: Belton, TX Date: _____
Project Manager: William Gamblin Team Leader: _____
Health & Safety Officer: _____ No. of Personnel Present: _____

Check Topics Discussed

Scheduled Activities: _____

Chemical/Physical Hazards

Contaminants of Concern
Material Safety Data Sheets
Overhead & Underground Utilities
Extraordinary Site Conditions
Lifting/Slips/Trips/Falls
Heat/Cold Stress (Inc. Sunburn)
Other: _____

Vehicle/Heavy Equipment

Drill Rig "KILL" Switches
Operation & Inspection
Preventive Maintenance
Rotating Augers/Moving Parts

First Aid

Facilities/Kits/Eyewashes

Sanitation & Hygiene

Drinking Water/Fluids
Restrooms
Personal Cleanliness

Personal Protective Equipment - Level D

Hard Hats/Hearing Protection
Steel-Toed Boots
Glasses/Goggles/Shields
Gloves

Housekeeping

Waste Containers
Waste Materials
Waste Water/Decon. Water

Contingency: Level C

Respirators & Tyvek/Saranex

Fire Prevention

Locations of Extinguishers
Smoking
Hot Work
Explosive & Flammable Liquids
Other: _____

Emergency Procedures/Site Safety

"Buddy System"
Communication
Facility-Specific Regulations
Rally Point

Emergency Facilities

Name: Scott & White Memorial Hospital

Address: 2401 S 31st St, Temple TX

Tel. No.: (254) 7242111 or Call 911

Safety Meeting Attendees:

Name	Signature	Name	Signature
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____



Daniel B. Stephens & Associates, Inc.

Daily Site Safety Checklist

Effective: 01/23/03 ♦ Supercedes: n/a

Job Name and Number: Rockwool Industries, Inc./ES11.AIRS.11

Person Completing Form: _____ **Date(s):** _____

Instructions: Use form for up to five consecutive days. Write in date, place checkmark to indicate item has been completed.
Completed form to be maintained with the Project files.

Checklist Item	Date				
The HASP (including emergency phone numbers) has been reviewed and signed by DBS&A staff, subcontractors, & visitors and is available on site					
Tailgate Safety Meeting has been conducted for all site workers and visitors (and updated as necessary)					
Copies of Hospital Route map and emergency phone numbers are available in all vehicles					
An operating, fully-charged cell phone is available on site					
A fully-stocked first aid kit and eye wash bottle are readily available					
Fire extinguishers are available for use and are fully charged					
All workers and visitors have training and medical monitoring appropriate for assigned tasks					
DBS&A personnel and subcontractors have discussed hazards associated with Site-specific work					
Any potential slips, trips, or fall hazards have been identified and mitigated where possible					
Site control measures have been established for present conditions (e.g., safety cones or caution tape)					
Proper PPE has been identified and is being used for present conditions					
Personnel monitoring is being conducted for present conditions					
Equipment on-site is noted and is in safe working order					
Electrical power operated tools are properly grounded and used with a GFCI					
Excavated soils are properly stored and labeled					
Excavations are properly shored/sloped and barricaded					
Used disposable PPE and garbage are bagged for proper disposal					
All Health and Safety concerns have been communicated to the Site H&S Officer and the Project Manager					



Daniel B. Stephens & Associates, Inc.

Daily Site Safety Checklist

Effective: 01/23/03 ♦ Supercedes: n/a

Job Name and Number: Rockwool Industries, Inc./ES11.AIRS.11

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An operating, fully-charged cell phone is available on site					
A fully-stocked first aid kit and eye wash bottle are readily available					
Fire extinguishers are available for use and are fully charged					
All workers and visitors have training and medical monitoring appropriate for assigned tasks					
DBS&A personnel and subcontractors have discussed hazards associated with Site-specific work					
Any potential slips, trips, or fall hazards have been identified and mitigated where possible					
Site control measures have been established for present conditions (e.g., safety cones or caution tape)					
Proper PPE has been identified and is being used for present conditions					
Personnel monitoring is being conducted for present conditions					
Equipment on-site is noted and is in safe working order					
Electrical power operated tools are properly grounded and used with a GFCI					
Excavated soils are properly stored and labeled					
Excavations are properly shored/sloped and barricaded					
Used disposable PPE and garbage are bagged for proper disposal					
All Health and Safety concerns have been communicated to the Site H&S Officer and the Project Manager					



Daniel B. Stephens & Associates, Inc.

ACCIDENT/INCIDENT REPORT

This is a supplemental document to the E-1 or TWCC-1 report that needs to be initiated by the employee's supervisor. Please answer all questions completely. This report must be forwarded to the Human Resources office within 24 hours of the injury.

Employee Name _____ Job Title _____

Supervisor _____

Date of Accident ____/____/____ Time _____

Location of accident _____

Nature of injuries _____

Cause of accident _____

If employee left work, time of leaving _____

Did employee return to work ☐ yes ☐ no If yes, at what time? _____

What is being done to avoid such accidents in the future **[MANDATORY]** _____

Supervisor _____ Date ____/____/____

Comments on incident and corrective action _____

Manager _____ Date ____/____/____

Concur with action taken? ☐ yes ☐ no Remarks _____

Health & Safety Coordinator _____ Date ____/____/____



Daniel B. Stephens & Associates, Inc.

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This is a supplemental document to the E-1 or TWCC-1 report that needs to be initiated by the employee's supervisor. Please answer all questions completely. This report must be forwarded to the Human Resources office within 24 hours of the injury.

Employee Name _____ Job Title _____

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Cause of accident _____

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Did employee return to work ☐ yes ☐ no If yes, at what time? _____

What is being done to avoid such accidents in the future **[MANDATORY]** _____

Supervisor _____ Date ____/____/____

Comments on incident and corrective action _____

Manager _____ Date ____/____/____

Concur with action taken? ☐ yes ☐ no Remarks _____

Health & Safety Coordinator _____ Date ____/____/____



Daniel B. Stephens & Associates, Inc.

Chemical Exposure Report

Effective: 08/22/00 ♦ Supersedes: 08/93

Employee Name: _____ Employee Number _____

I believe that I have received or may have received a reportable exposure* to hazardous chemicals:

Date: _____ Project No. _____ Site _____

Details of the Incident: _____

Do chemical hazards exist at the above site which are not properly addressed in the site-specific Health and Safety Plan? Explain.

What corrective action has been taken to avoid the potential hazard? _____

Employee Signature/Date

Project Manager Signature/Date

* The determination that an incident constitutes a reportable exposure" is based on the informed judgement of the individual, and includes any exposure to chemical substances beyond which would normally occur during proper use of appropriate personal protective equipment (PPE). Examples of reportable exposures would include:

- Dermal contact with free product or contaminated groundwater
- Inhalation of organic vapors in concentrations above the exposure limit
- Eye splash with acids or organic solvents

If in doubt whether a reportable exposure has occurred, discuss the incident with the Project Manager or the DBS&A



Daniel B. Stephens & Associates, Inc.

Chemical Exposure Report

Effective: 08/22/00 ♦ Supercedes: 08/93

Health and Safety Officer.



Daniel B. Stephens & Associates, Inc.

Chemical Exposure Report

Effective: 08/22/00 ♦ Supercedes: 08/93

Employee Name: _____ Employee Number _____

I believe that I have received or may have received a reportable exposure* to hazardous chemicals:

Date: _____ Project No. _____ Site _____

Details of the Incident: _____

Do chemical hazards exist at the above site which are not properly addressed in the site-specific Health and Safety Plan? Explain.

What corrective action has been taken to avoid the potential hazard? _____

Employee Signature/Date

Project Manager Signature/Date

* The determination that an incident constitutes a reportable exposure" is based on the informed judgement of the individual, and includes any exposure to chemical substances beyond which would normally occur during proper use of appropriate personal protective equipment (PPE). Examples of reportable exposures would include:

- Dermal contact with free product or contaminated groundwater
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- Eye splash with acids or organic solvents

If in doubt whether a reportable exposure has occurred, discuss the incident with the Project Manager or the DBS&A



Daniel B. Stephens & Associates, Inc.

Chemical Exposure Report

Effective: 08/22/00 ♦ Supercedes: 08/93

Health and Safety Officer.

Appendix B

Emergency Response Plan



Appendix B. Emergency Response Plan

B.1 Purpose and Scope

The following Emergency Response Plan has been developed to include instruction and procedures for emergency vehicular access, evacuation procedures for personnel, methods of containing a fire, and medical emergencies. All extraordinary conditions that require concise and timely action must be dealt with in a manner that minimizes the health and safety risks to the immediate site personnel and the general public.

B.2 General Response Considerations

All on-site personnel shall be familiar with the Emergency Response Plan described herein. This section will be maintained in the field office.

Due to the nature of the "site", the emergencies or extraordinary conditions that may arise are more than likely limited to personnel accidents requiring first aid, exposure to contaminated sediments, and potential fire near mechanical equipment. The following procedures shall be implemented in the event of an emergency:

- First aid or other appropriate initial action will be administered by those closest to the accident/event. This assistance will be coordinated by the Site Safety Officer (SSO) and will be conducted in a manner so that those rendering assistance are not placed in a situation of unacceptable risk. The primary concern is to avoid placing a greater number of workers in jeopardy;
- Personnel shall report all accidents and unusual events to the SSO, the subcontractor Health and Safety representative, and the Project Manager (PM);

The SSO and other on-site personnel are responsible for conducting the emergency response in an efficient, rapid, and safe manner. The SSO will decide if off-site assistance and/or medical



treatment is required and shall be responsible for alerting off-site authorities and arranging for their assistance. The SSO, in coordination with the contractor Health and Safety representative, will provide to the PM, an Accident/Incident Report that includes the following:

- A description of the emergency (including date, time and duration);
- Date, time and names of all persons/agencies notified and their response;
- Date, time and names of all persons/agencies notified and their response; and
- A description of corrective actions implemented or other resolution of the incident.

All workers on site are responsible for conducting themselves in a mature, calm manner in the event of an accident/unusual event. All personnel must conduct themselves in a manner to avoid spreading the danger to themselves and to surrounding workers.

B.3 Responsibilities

The SSO shall have responsibility for directing response activities in the event of an emergency. He or she will:

- Assess the situation;
- Determine required response measures;
- Notify appropriate response teams; and
- Determine and direct on-site personnel during the emergency.

The SSO shall coordinate the response activities of on-site personnel with those of public agencies.



B.4 Public Response Agencies

A list of public response agencies to be contacted and who may, depending on the nature of the situation, assume authority for emergency response is included in the site-specific HSP. The HSP presents local emergency numbers, including local hospitals (which includes the poison control center), ambulance service, fire and police departments, and others. In addition, nationwide hotline numbers for emergency assistance are listed. These phone lists should be retained by all field personnel and posted by the phone in all field trailers.

The hospital location is outlined in the HSP. The SSO will provide directions and/or maps to these facilities to all field personnel.

Prior to the initiation of all on-site work, the local police and fire department will be notified, if deemed necessary. This notification will take the form of a letter describing both on-site and off-site activities. If requested, a briefing will be held to further explain the type of activities and equipment that are associated with each project. Emergency procedures also will be discussed.

B.5 Accidents And Non-Routine Events

Several types of emergencies are outlined in the following subsections. These are not intended to cover all potential situations, and the corresponding response procedures should be followed using common sense. Every accident is a unique event that must be dealt with by trained personnel working in a calm, controlled manner. In the event of an accident/unusual event, the prime consideration is to provide the appropriate initial response to assist those in jeopardy without placing additional personnel at an unnecessary risk. Employees shall be instructed to report all injuries and illnesses to the SSO.

B.5.1 Worker Injury

If a person working on the site is physically injured, appropriate first aid procedures shall be followed. Depending on the severity of the injury, emergency medical response may be sought. If the employee can be moved, he/she will be taken to the edge of the work area where



contaminated clothing (if any) will be removed, and emergency first aid administered. If necessary, transportation to local emergency medical facility will be provided as soon as possible.

If a worker can only be moved by emergency medical personnel, the SSO will decide what protective equipment, if any, is required to be worn by emergency personnel. Each work area will have extra equipment available for emergencies.

If the injury to the worker involves chemical exposure, the following first aid procedures should generally be initiated as soon as possible.

B.5.1.1 Eye Exposure

If contaminated solid or liquid gets into the eyes, wash eyes immediately at the emergency eyewash station using water and lifting the lower and upper lids occasionally. Obtain medical attention immediately if symptoms warrant.

B.5.1.2 Skin Exposure

If contaminated solid or liquid gets on the skin, wash skin immediately at the decontamination station using soap and water. Obtain medical attention immediately if symptoms warrant.

B.5.1.3 Inhalation

If a person inhales large amounts of organic vapor, move him/her to fresh air at once. If breathing has stopped, perform cardiopulmonary resuscitation (CPR), as per American Red Cross standard first aid instruction. Keep the affected person warm and at rest. Obtain medical attention as soon as possible.

B.5.1.4 Ingestion

If contaminated solid or liquid is swallowed, medical attention shall be obtained immediately by consulting the Poison Control Center as outlined in the site-specific HSP.



B.5.2 Temperature-related Problems

Adverse weather conditions are important considerations in planning and conducting site operations. Hot or cold weather can cause physical discomfort, loss of efficiency, and personal injury. One or more of the following control measures shall be employed to help control heat stress:

- Provision for adequate non-alcoholic liquids to replace lost body fluids. Employees must replace water and salt lost through perspiration. Employees will be encouraged to drink more than the amount required to satisfy thirst, since thirst satisfaction is not an accurate indicator of adequate salt and fluid replacement;
- Replacement fluids can be a 0.1 percent salt solution, commercial mixes such as Gatorade™ or Quick Kick™, or a combination of these with fresh water;
- Establishment of a work regimen that will provide adequate rest periods for cooling down;
- Rest breaks are to be taken in a cool, shaded area during hot periods;
- Employees shall not be assigned other tasks during rest periods; and
- All employees shall be informed of the importance of adequate rest, acclimation, and proper diet in the prevention of heat stress.

B.5.3 Fires

The potential for fires involving hazardous chemicals must be addressed during the preliminary site-specific evaluation of all hazards. Personnel in each work group will be knowledgeable in fire extinguishing techniques. They shall be instructed in proper use and maintenance of the appropriate fire extinguishers supplied at the work site.



B.5.4 Vehicle Accidents

Posted speed limits will be observed. All vehicles will be required to meet applicable state inspection standards. All drivers will be required to have a good driving record and must have all necessary licenses to operate their vehicle.

The phone numbers of the SSO, the field office, and subcontractor Health and Safety representative will be carried in each vehicle on site. These numbers may also be provided to all police, fire, rescue, and emergency agencies in the area.

Upon notification of an accident, the PM will make available any personnel and equipment at his or her disposal to aid in the cleanup. For example, the following equipment may be supplied:

- sorbent materials to contain/control liquids;
- front-end loaders to pick up solids;
- dust-suppression materials to control dust;
- trucks to haul collected material; and
- appropriate protective gear for cleanup workers.

The supervision and operation of all emergency response personnel and equipment will be coordinated through the authorities at the scene of the accident.