Site Specific Health and Safety Plan

W.R. Grace

Zonolite Road Site

Atlanta, DeKalb County, Georgia

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ATTACHMENTS

Attachment A	Completed URS Safety Management Standards (SMS) Checklist Applicable URS Safety Management Standards
Attachment B	Blank Site Forms
Attachment C	Job Safety Analyses (JSA)

ACRONYMS

AHA	Activity Hazard Analysis
ANSI	American National Standards Institute
BBP	Blood borne Pathogens
CGI	Combustible Gas Indicator
CPR	Cardiopulmonary Resuscitation
CRZ	Contamination Reduction Zone
CSP	Certified Safety Professional
EZ	Exclusion Zone
GFCI	Ground fault circuit interrupters
HASP	Health and Safety Plan
HSMS	Health and Safety Program and Management System
kV	Kilovolt
LEL	Lower Explosive Limit
MC	Medical Consultant
MSDS	Material Safety Data Sheets
OSHA	Occupational Safety and Health Administration
PM	Project Manager
PAHs	Polynuclear Aromatic Hydrocarbons
PPE	Personal Protective Equipment
RHSEM	Regional Health, Safety, and Environment Manager
SM	Site Manager
SMS	Safety Management Standard
SOW	Statement of Work
SSO	Site Safety Officer

1.0 INTRODUCTION

1.1 General

URS was contracted by W.R. Grace for consulting and management activities during the removal action at the Zonolite Road Site located at Zonolite Road, Atlanta, DeKalb County, Georgia (the Site).

This Site Specific Health and Safety Plan (HASP) establishes procedures to help URS provide a work environment that is protective of the health and safety of project personnel, residents, and off-site receptors during removal activities at the site. A URS safety representative shall review the safety programs of every contractor to assure compliance with protocols and procedures set forth in this HASP. In the event that tasks arise that have not been addressed, they will be reviewed and evaluated and safe-operating procedures will be attached to this HASP prior to starting said task.

The requirements of this HASP are applicable to URS staff and its contractors only for the scope and duration of work described in the project contract. A copy of this plan must be kept on site and available to workers and regulatory agencies at all times. Other contractors, regulatory agency staff, employees of W.R. Grace, and other onsite personnel not employed or subcontracted by URS shall be required to comply with their respective organization's specific health and safety program or site-specific plan.

1.2 Site Description

The Site is comprised of approximately 16 acres in Atlanta, DeKalb County, Georgia. The eastern portion of the Site is occupied by the Atlanta Soto Zen Center. The Site is bordered by light-industrial and commercial businesses to the north and to the east. Peachtree Creek runs along the south and west sides of the Site. Residential communities are located to the south, west and north sides of the Site. In 1950, Southern Zonolite Company built the former vermiculite expansion plant at the Site. In 1957, Southern Zonolite Company merged with the Zonolite Company. In 1963, the assets of the Zonolite Company were acquired by W.R. Grace. W.R. Grace continued to operate the expansion plant at the Site until 1970. According to W.R. Grace, the parcel was deeded to R.W. Sterrett in 1983. Since then, DeKalb County has assumed ownership of a large part of the original property with the intention to convert their portion of the property into a park, while other entities own the other parts. The Environmental Protection Agency (EPA) conducted a removal site evaluation at the Site in response to an initiative to investigate vermiculite facilities that received vermiculite ore from the W.R. Grace vermiculite mine in Libby, Montana. The Site received between 499 and 1,225 tons of vermiculite concentrate from the W.R. Grace vermiculite mine in Libby, Montana.

In March 2010 the EPA conducted an asbestos investigation on a soil mound at the Site to

determine whether suspected Asbestos Containing Material (ACM) were present. Laboratory analysis of the two soil samples (0-6 inches, and 6-15 inches) indicated the presence of Asbestos in the samples (0.50% and 0.75%, respectively). A follow up investigation was conducted at the Site in December 2010 by Remedium and URS. A total of 10 soil samples were collected from the soil mound (maximum depth of ~18 inches) at the Site during the December 2010 follow up investigation. Laboratory analysis of the soil samples indicated the presence of asbestos at levels ranging from less than 0.25% asbestos to 0.50% asbestos.

In the spring of 2010, EPA and EPA's Superfund Technical Assistance and Response Team (START) contractor conducted activity-based air sampling and bulk material sampling at the Site. On November 12, 2010, EPA and START conducted a site visit to evaluate the presence of vermiculite below the ground surface.

On April 12, 2011 Grace and the EPA entered into an Administrative Settlement AOC for Removal Action to excavate an area measuring approximately 175 feet by 250 feet to the depth of native soil, or to a maximum depth of 2 feet below land surface (bls) if asbestos continues to be detected in native soil above the bulk standard of greater than 0.25 percent. The AOC contained provisions to prepare a work plan including a Health & Safety plan HASP, Quality Assurance/Quality Control plan (QA/QC), and Quality Management Plan (QMP).

1.3 Scope of Work

Site work at the site will include the following tasks:

Site Preparation

The scope of Site preparation activities will include preparation of an access/haul road, installation of security fencing, and establishment of a truck parking area. Additional items to be addressed prior to the start of excavation include installation of the erosion control features as required by the approved E&SC plan and potentially raising a low hanging power line located at the proposed site entrance. Prior to the excavation at the Site, URS will invoke the local utility clearance program.

Site Security

Site security will consist of erecting temporary fencing on the northern side of the Site in the grassy area between the stream and asphalt parking lot. Signs will be posted on 75-foot centers on the temporary fencing providing a warning of a restricted area. Temporary fencing will not be installed along the eastern, western, and southern sides of the Site since these sides are heavily vegetated and access by the public would be difficult. Temporary signs will be posted along the eastern, western, and southern sides on 75-foot centers on posts. Additionally, a gate will be installed across the access road (access road is located at the end of Zonolite Place Northeast).

Soil Removal

W.R. Grace will contract with a licensed Georgia Asbestos Abatement Contractor to conduct excavation, transportation, disposal, backfilling, and site restoration activities for this project. URS will oversee and document these activities.

The Asbestos Abatement contractor is responsible for its own Work Plan to identify necessary engineering controls, obtain any required permits, assure that the integrity of any on-site and surrounding structures and utilities are not compromised by excavation activities, and to verify that all URS requirements are met prior to and during the proposed remedial activities.

The Asbestos Abatement contractor also is responsible for preparing its own Health and Safety Plan.

The excavation will be performed with a track hoe or equivalent equipment. The excavation process will start on the western side of the Site and proceed towards the east. The trucks will be loaded as material is excavated and not from a stockpile.

Dust Suppression

The contractor will utilize appropriate dust suppression methods during the removal action. The dust suppression method will likely be wetting of the soils with a water truck and/or fire hose. Fogging nozzles may be required during the truck loading operation. A fire hydrant is located at the corner of Zonolite Road and Zonolite Place. The contractor will obtain a permit or permission from Dekalb County Department of Watershed Management to utilize the fire hydrant as a water source during the removal action. The objective of the dust suppression is to keep the soil damp to reduce asbestos fibers from being released into the atmosphere. If the air monitoring analytical results outlined in section 5.6 of the work plan indicates additional dust suppression is needed, then other measures will be implemented such as a sprinkler system.

Perimeter Air Monitoring

URS will retain a third party contractor to develop and implement an air monitoring plan for implementation during the removal action. The air monitoring plan will include personnel monitoring along with perimeter air monitoring.

A majority of the air monitoring stations will be located on the northern side of the site where the businesses are located. Air monitoring stations will also be located on the southern, eastern, and western sides of the removal operations. The air monitoring plan will detail the procedures for baseline monitoring prior to the start of the removal action including personnel and perimeter air monitoring, frequency of air monitoring during the removal, action levels, and analytical methods. Air monitoring analytical results will be provided to EPA in a timely manner.

Suspected and confirmed asbestos-containing material (ACM) sampling and waste management

All materials excavated from the Site will be transported by a licensed ACM transporter to a disposal facility approved by the EPA for the disposal of ACM. Two types of bulk sampling will be performed during the removal action; 1) random bulk sampling and 2) confirmatory bulk sampling. Random bulk sampling (referred to as a verification sample) will be performed on material in areas outside the area of known asbestos material that is suspect based on visual evidence. The purpose of these samples is to determine if the suspect material will require removal. The second type of bulk sampling (referred to as a confirmatory sample) is composite sampling from areas that have been excavated. The purpose of these samples is to confirm the asbestos material has been removed to the asbestos removal clean-up level of <0.25%.

Random bulk samples will be collected in concurrence with EPA when material outside the known asbestos material contains suspect asbestos material. In this case, a random sample or samples may be collected and analyzed to determine if the removal clean-up level of <0.25% has been exceeded and the material requires removal. All random bulk sampling locations will be marked with a survey stake and surveyed for future reference. If the random sample location requires removal then the area where the suspect material is excavated would be incorporated in the confirmatory bulk sampling grid for confirmatory sampling.

Confirmatory bulk sampling locations will be determined based on extent of the excavation at the Site. URS will establish a grid system in the excavation area to collect confirmation samples for laboratory analysis to verify the asbestos material has been removed in accordance with the AOC. URS proposes to collect composite confirmatory bulk (soil) samples at a rate of 1 sample per 2,500 square feet. Each composite bulk sample will be made up of five aliquots collected from within the 2,500 square foot sample grid. Grab samples will also be collected from the individual aliquots in the four quadrants comprising the grid and submitted to the laboratory on hold, pending the analyses of the composite sample.

After the bulk analysis sampling indicates the asbestos materials have been removed to meet the removal clean-up level of <0.25% asbestos, then the Activity-Based Sampling (ABS) will be performed in accordance with the procedure outlined in the QAPP. The ABS clean-up goal for asbestos in air is 0.02 fibers/cubic centimeter (f/cc) and quantified by TEM analysis.

ABS will be conducted to simulate human exposure to asbestos during typical site activities. There will be three activity-based outdoor air sampling rounds. Each ABS event will occur over a minimum 120-minute period. Raking has been selected as the ABS scenario for this site. The specific location of the raking for this event will be determined based on the final area excavated with concurrence with EPA. The area will consist of an open area devoid of vegetation and with exposed soil. The event will occur prior to the final site restoration and re-vegetation activities.

In each raking event, the participant will rake the entire designated area to gather loose dust and soil, using a standard garden rake. A grab or multi-point composite bulk material sample of the raked dust/soil will be collected after the round of raking activity is completed.

In addition to ABS of the personal breathing space of the participant, air samples will also be collected around the perimeter of each activity at upwind and downwind locations to assess the impact of the activity on outdoor air.

Additional details of the sampling plan are listed in the Work Plan.

Erosion and storm water management

URS will implement erosion and storm water measures during the removal action in the areas adjacent to the stream. A Land Disturbance Permit has been prepared and submitted to Dekalb County.

Site Restoration

Upon completion of remediation activities at the Site, the contractor will backfill the excavation area (if required) and restore any excavated area to the elevation of the existing ground surface at the Site. These activities will be coordinated with Dekalb County and EPA Identified Community Groups.

PROJECT ORGANIZATION AND RESPONSIBILITIES

1.4 General

All on-site personnel will be responsible for complying with the requirements of this HASP. The Project Manager (PM) will be responsible for implementing the HASP and ensuring that its requirements are enforced. Managers will be assisted in this effort by URS health and safety staff.

1.5 Project Manager

The Project Manager (PM) will be responsible for the direction, implementation, and enforcement of the health and safety requirements. Responsibilities of the PM will include:

- Provide project information for the development of the HASP, and ensure that the HASP is prepared and approved.
- Verify the project is performed in a manner consistent with Occupational Safety and Health Administration (OSHA) and URS standards.
- Monitor compliance with the HASP by URS and contractor personnel.

- Ensure adequate resources are provided to the health and safety staff so that they may carry out their duties.
- Maintain communication with the client.
- Have the authority to determine personnel assignments on this project.
- Have the authority to stop field activities if an imminently dangerous situation exists. The emergency situation will be reviewed immediately with the Project Manager, URS' Regional Health, Safety, and Environment Manager (RHSEM), and the Site Safety Officer (SSO), as appropriate.
- Effectively manage change conditions in the field.
- Conduct regular safety observations.

1.6 Site Manager

The SM will be responsible for the daily implementation and enforcement of the HASP, including the following responsibilities:

- Responsible for reporting all incidents, including near misses, to the Project Manager.
- Ensure site activities are performed in a manner consistent with the HASP.
- Report health and safety deficiencies to the PM and the SSO, and include a corrective action implementation schedule.
- Ensure site activities are scheduled with adequate personnel and equipment resources to perform scheduled activities safely.
- Ensure adequate communication between work crew personnel and emergency response personnel is available.
- Authorizing a stoppage of field activities if an imminently dangerous situation exists. The emergency situation will be reviewed immediately with the SSO, PM, and the RHSEM.
- Maintain communication with work crew and contractors.
- Effectively manage change conditions in the field.
- Conduct regular safety observations.

1.7 Site Safety Officer

The SSO will have the following responsibilities:

- Maintain safety and air monitoring equipment on-site.
- Perform personal and environmental air monitoring.
- Inspect ongoing site activities, ensuring compliance with the HASP, and reporting any health or safety deficiencies to the PM or SM.
- Interface with the RHSEM about on-site implementation of the HASP.
- Report all accidents, incidents, and near misses to the PM and SM.
- Accompany the contractor work crew when working on-site.

- Authorize a stoppage of field activities if an imminently dangerous situation exists. The emergency situation will be reviewed immediately with the SM, PM, and RHSEM.
- Conduct personal and perimeter air monitoring in conjunction with the performance of intrusive activities and adjust the level of personal protective equipment as required based on the results.
- Provide emergency care, including first aid and CPR, in cases of injury or illness.
- Serve as decontamination inspector.
- Maintain site records for project personnel.
- Effectively manage change conditions in the field.
- Conduct regular safety observations.

1.8 Regional Health, Safety, and Environment Manager

URS' RHSEM is a Certified Safety Professional (CSP) with experience in environmental projects. The RHSEM has the following responsibilities:

- Interface with the PM, SM, and SSO about project health and safety-related issues.
- Approve the HASP and any amendments to the HASP.
- Approve revised or new health and safety protocols for site activities.
- Monitor compliance with the HASP.
- Conduct regular health and safety audits during ongoing site activities, as needed or requested.
- Determine and implement personnel disciplinary actions for safety violations.
- Approve the appointment of the SSO and any replacement SSOs.
- Stop site activities if an imminently dangerous situation exists.
- Remove personnel from the project if their actions endanger their health and safety, or the health and safety of their co-workers. The emergency situation will be reviewed immediately with the PM and SSO.

1.9 Licensed Georgia Asbestos Consultant/Building Inspector

A licensed Georgia Asbestos Consultant/Building Inspector (Asbestos Inspector) will be on-site to visually inspect unearthed material for suspected ACM. The Asbestos Inspector will be responsible for directing the segregation and staging of suspected ACM for sampling and temporary storage purposes. The Asbestos Inspector will also be responsible for the conductance of employee exposure sampling, perimeter air sampling, determining the effectiveness of dust/fiber suppression, direction of additional dust/fiber suppression controls, and the collection of regulatory and confirmatory samples. Additional assistance may be provided by a licensed Georgia Asbestos Abatement Contractor whose personnel hold Georgia Asbestos Supervisor licenses.

All other on-site personnel are excluded from the handling and directing the management of suspected ACM waste at the site. All other on-site personnel who do not hold a Georgia Asbestos License will complete an Asbestos Awareness Training course, which will be facilitated by URS. Completion of training documentation will be maintained and included in this HASP.

1.10 Asbestos Removal Supervisor

The Asbestos Removal Supervisor will be a licensed Georgia Asbestos Abatement Contractor and will be responsible for the oversight of the removal of ACM from the site. The Asbestos Removal Supervisor will be accountable for the tracking and documentation of all ACM removed from the site. Additional responsibilities will include providing assistance to the Asbestos Inspector in the completion of his/her duties.

1.11 Asbestos Removal Worker

The work crew team members will have the following responsibilities:

- Immediately report any unsafe or potentially hazardous conditions to the SSO or the SM.
- Report all incidents, accidents, and near misses, no matter how minor they may seem, immediately to the SSO and/or the SM;
- Maintain knowledge of the information, instructions, and emergency response procedures contained in this HASP.
- Comply with the requirements and procedures set forth in this HASP, and with any amendments that are added.
- Work safely every day on every task.
- Perform only the tasks for which a Job Safety Analysis (JSA) has been prepared, reviewed, and signed by team members.
- Workers have a stop work responsibility to take immediate action to STOP work in cases of imminent danger to fellow workers or public-at-large.
- Effectively manage change conditions in the field.
- Conduct regular safety observations.

2.0 OSHA MEDICAL SURVEILLANCE AND TRAINING REQUIREMENTS

2.1 Medical Surveillance Requirements

2.1.1 General Medical Surveillance Requirements

All personnel who will be performing work in the exclusion zone (EZ), contamination reduction zone (CRZ), or any other area where potential exposure to contaminants of concern exist must comply with medical surveillance requirements outlined in OSHA 29 CFR 1910.120(f) and URS Safety Management Standard (SMS) 024 (*Medical Screening and Surveillance*, Attachment A). URS medical surveillance requirements meet OSHA standards. The medical consultant completing the surveillance must offer an opinion as to the employee's ability to perform the work. The general requirements of the URS Medical Surveillance Program are outlined in URS SMS Form 024-3 (Attachment A). The PM and SSO will verify that all site personnel meet applicable OSHA medical surveillance requirements. This shall include all personnel initially assigned to the project, as well as any staff member added after the project start. During any work activities classified as non-HAZWOPER, the aforementioned medical requirements may be waived.

2.1.2 Site-Specific Medical Surveillance Requirements

No additional site-specific medical monitoring is required for this site.

2.1.3 URS Medical Consultant

The RHSEM, in consultation with the URS Medical Consultant (MC), administers the medical surveillance program for URS employees. The URS MC is Dr. Peter Greaney of WorkCare. The MC will be available for consultation, particularly when questions arise regarding program applicability, additional testing measures, and frequency of examinations. The MC may also confer with local emergency medical facilities as part of the URS Emergency Physician Access Plan. The Emergency Physician Access Plan is designed specifically to obtain the MC's expertise during emergencies related to site work. Both URS employees and local emergency facilities can access the MC using this Plan (Table 10-2, Section 10.0).

2.1.4 Contractor Medical Surveillance Requirements

Contractor personnel performing work in the EZ or CRZ must participate in a medical surveillance program that meets or exceeds the requirements established in SMS 024-3. At the time of job assignment, all Contractor site workers must have received a medical surveillance examination within the past year. A copy of each Contractor site worker's most recent medical clearance form must be sent to the SSO for review prior to the start of site work and after subsequent medical clearances during the length of the project.

2.1.5 Medical Surveillance Documentation

Documentation regarding medical surveillance clearance will be kept in the site health and safety files. This documentation will include a signed letter stating that each employee is certified by an occupational physician as capable of wearing respiratory protection and working on a hazardous waste site (in accordance with 29 CFR 1910.120[f]).

2.1.6 Accident/Incident Medical Surveillance

As a follow-up to an injury or possible exposure above established exposure limits, all employees are entitled and encouraged to seek medical attention. All accidents and potential exposures must be reported immediately to the SSO or the SM, who will arrange for the appropriate medical attention. Depending on the type of exposure, it may be critical to perform tests within 24 to 48 hours. The MC will advise the RHSEM or SSO on the type(s) of test(s) required to accurately assess exposure effects. See Section 11.4 for accident/incident reporting guidelines. The URS *Incident Report Form* (URS SMS 049-1) must be used to document the occurrence.

2.1.7 URS Drug Free Workplace Policy

URS is committed to a work environment free of substance abuse. Other types of drug or alcohol testing may be required of URS employees including random testing, reasonable cause, and post-accident.

2.2 Training Requirements

2.2.1 General Health and Safety Training

All URS and subontractor personnel who will be performing work in an Exclusion Zone or Contamination Reduction Zone at the project site must comply with the training requirements outlined in OSHA 29 CFR 1910.120(e) and URS SMS 017 (Attachment A). The SSO/SM will verify and document that all site personnel meet the applicable OSHA training requirements prior to the start of site work. This shall include all personnel initially assigned to the project, as well as any staff member added after the project start that performs work in the field. During any work activities classified as non-HAZWOPER, the aforementioned training requirements may be waived. In addition, all site personnel will participate in a mandatory safety screening in order to assess each worker's safety.

2.2.2 40-Hour Initial Training

All employees must have received, at the time of project assignment, a minimum of 40 hours of initial OSHA health and safety training for hazardous waste site operations. Personnel who have

not met the requirements for initial training will not be permitted in the EZ or CRZ. A copy of each Contractor site worker's 40-hour training certificate or equivalent must be sent to the PM for review prior to the start of site work.

In addition to the 40 hours of initial training, each employee initially receiving this training will receive 3 days of directly supervised on-the-job training. This training will address the duties the employee is expected to perform. URS recognizes that there may be site personnel who fall under OSHA's 24-hour training program, and any decision regarding the applicability of this training will be made by the RHSEM.

2.2.3 8-Hour Annual Refresher Training

An 8-hour refresher training courses will be taken at a minimum of once per year after the completion of the initial 40 hours of training. At the time of job assignment, all site workers must have received 8 hours of refresher training within the past year. This course is required of all field personnel to maintain their qualification for hazardous waste site work. A copy of each site worker's most recent 8-hour training certificate must be sent to the PM for review prior to the start of site work and must be updated as necessary during the length of the project.

2.2.4 Supervisory Training

In accordance with OSHA 29 CFR 1910.120(e)(3), all on-site management and supervisors directly responsible for site workers, or who supervise employees engaged in hazardous waste operations, will have received training as required by Section 3.2.2 of this HASP. Additionally, these personnel will have received at least eight additional hours of specialized training on managing hazardous waste operations prior to the job assignment.

2.2.5 Asbestos Awareness Training

In accordance with OSHA 29 CFR 1910.1001(f)(2), all on-site personnel who do not hold a current Georgia Asbestos Consultant/Building Inspector, Abatement Contractor or Supervisor license will be provided with Asbestos Awareness Training. URS will facilitate this training requirement, be responsible for maintaining training documentation for all applicable employees and make the training information available upon request.

2.2.6 Site Safety Briefing

The SSO, SM, TM, CM, PM, or site superintendents will present daily site safety briefings (i.e., daily tailgate meetings) to project personnel. The purpose of the briefings is to assist personnel in safely conducting the scheduled work activities. The briefings shall include weather-related information, instructions for new operations to be conducted, a review of job safety analyses,

and/or safe work practices. The briefings will also provide an opportunity to identify safety-related performance deficiencies noted during daily activities or during a safety audit. Attachment 055-2 to URS SMS 055 (Attachment A) or equivalent shall be used to record the attendance of project staff present during the meeting.

2.2.7 Visitor Training

Visitors must immediately report to the site office for admittance. Visitors who intend to visit the EZ or CRZ must present documentation specified previously in this Section. The SSO/TM will provide site-specific safety training and review current site activities at the project. Visitors entering areas of activity will be required to comply with the provisions of this HASP and any other provision/instruction required in the work area.

2.2.8 First Aid and Cardiopulmonary Resuscitation (CPR) Training

The SSO/TM shall maintain certification for first aid and CPR. At least one individual trained in first aid and CPR shall be available during site activities. First aid and CPR training will be consistent with the requirements of the American Red Cross, National Safety Council, or other nationally recognized organizations.

2.2.9 Additional Training

Where site-specific activities may require additional training (e.g., confined space entry), documentation of training will be requested by the SSO and maintained in the site safety and health files.

2.3 Contractor Pre-qualification

Prequalification of contractor organizations shall be completed in accordance with SMS 046. This includes a review of the recordable incident rate, experience modification rate, OSHA or enforcement agency citations, insurance, and related information. The contractor's HSE program, their training programs and documentation, as well as OSHA citations reported on the OSHA web site will be reviewed. The intent is to ensure that the Company's safety performance is accurate and correct as presented by the contractor on SMS 046-1.

3.0 HAZARD ASSESSMENT

3.1 General

The potential hazards associated with the project activities may potentially include chemical, physical, or biological hazards. The hazards of the project have been evaluated using the URS' Safety Management Standard Checklist (Attachment A). This form has been used as a tool to conduct and document the hazard analysis process, and to identify the hazards that will be specific to the tasks at this project. The hazard assessment in this section is intended to communicate to personnel the hazard and risk associated with the activities at the site.

3.2 Chemical Hazards

Asbestos is the primary contaminant of concern at the Zonolite Road site. Asbestos is a generic term applied to a group of naturally occurring silicates that have the unique property of being separable into fibers. Types include chrysotile, amosite, crocidolite, anthophyllite and tremolite. A friable ACM is any material, which, when dry, can be easily crumbled, pulverized, or reduced to a powder by hand pressure. This may also include previously non-friable material that becomes broken or damaged by mechanical force. The effects of asbestos on human health are well documented. The major effects of inhaling asbestos fibers are asbestosis (a thickening of lung tissues), cancer of the lung, and cancer of the peritoneal and pleural mesothelia. There is evidence that ingestion of asbestos fibers can cause cancer of the gastrointestinal tract. Dermal exposure to asbestos can cause skin irritation. Asbestosis and cancer usually do not appear until 10 to 30 years post-exposure. The OSHA Permissible Exposure Limits (PELs) are 0.1 fiber per cubic centimeter (f/cc) of air as an 8-hour time-weighted average (TWA) and 1 f/cc as an excursion limit (averaged over a 30 minute period). SMS 008, Asbestos Operations, which describes procedures for asbestos activities, is included in Attachment B. The table presented below provides information on the characteristics of Asbestos, such as health hazards, expected concentrations, warning properties, exposure limits,etc.

Chemical	Highest Conc. Range (mg/L)	Flash Point (^{o}F)	LEL (%)	PEL (ppm)	IDLH (ppm)	Primary Hazards
Asbestos	N/A	N/A	N/A	0.1 f/cc	N/A	Exposure to asbestos dusts may be irritating, producing a severe cough and chest pain.

The main routes of exposure for field personnel include:

- Inhalation of contaminated particulate matter;
- Ingestion of contaminated material; and

Due to the nature of the contaminants, local features, and type of site activities planned:

- There is a moderate potential for inhalation of contaminated particulate matter; and
- There is a low potential for ingestion of contaminated material.

Site personnel can reduce their exposure potential by:

- Proper utilization of specified PPE;
- Practicing contamination avoidance;
- Following proper decontamination procedures;
- Observing good personal hygiene;
- Implementation of engineering controls during soil handling and well testing; and
- Utilizing air monitoring data to provide feedback.

In order to protect site personnel from the hazards associated with site contaminants of concern, a personnel protection and monitoring program will be implemented to control potential exposures. If chemicals are brought on-site, a Material Safety Data Sheet (MSDS) must be supplied to the SSO/SM for review prior to bringing the chemical on-site. For further information, refer to URS SMS 002 (*Worker Right to Know (Hazard Communication)*, Attachment A).

3.3 Physical Hazards

A variety of physical hazards may be present, but these hazards are similar to those associated with any project, and they are generally familiar to most site workers.

3.3.1 Slipping/Tripping/Puncture Hazards

As with any project, uneven work surfaces and other slipping, tripping, or puncture hazards may be present. Working near water may exacerbate the slipping/tripping/puncture hazards present. As much as possible, site workers should avoid walking/working in wet/muddy areas. High traction boots may be required. Proper site housekeeping, removal of trash, and orderly stacking and removal of materials will reduce slipping and tripping hazards. Proper site housekeeping will be the responsibility of all site workers, and the SSO/SM will make regular entries into the health and safety logbook at the end of each shift, indicating the work area is adequately clean and foot traffic routes are being maintained. Regular documented inspections will be completed using URS SMS 021 (*Housekeeping*, Attachment A).

3.3.2 Contact with Energized Sources

During any site activities that involve work around live utilities, a potential exists for site workers, heavy equipment, or moving vehicles to contact energized sources. Additionally, site workers could come in contact with energized parts of machinery or power tools. Contact with energized sources may result in fire, explosion and/or electrocution. All work performed near electrical sources must be performed consistent with the OSHA electrical safety requirements found in 29 CFR 1926 Subpart K and URS SMS 012 (*Electrical Safety*, Attachment A). A licensed electrician must perform any site work involving live electrical systems.

Control efforts for this hazard include requirements that all equipment and power tools used on-site be properly maintained, positioned, guarded, and operated by competent personnel. Equipment will not be permitted within a 10-foot radius of energized sources with nominal voltage of 50 kilovolts (kV) or less. For energy systems with nominal voltage greater than 50 kV, the distance required will be in accordance with URS SMS 034 (*Utility Clearances and Isolation*, Attachment A).

The SSO/SM will be responsible for identifying live utilities and energized machinery parts prior to the start of each task, and will ensure that live utilities and energized machinery are de-energized or barricaded. Identification of utilities will comply with URS SMS 034. Workers are not permitted to work near electrical power circuits unless the worker is protected against electric shock by de-energizing and grounding the circuit or by guarding or barricading the circuit and providing proper personal protective equipment. Lock-out/tag-out procedures will comply with URS SMS 023 (*Lock-Out and Tag-Out Safety*, Attachment A) and 29 CFR 1910.147.

All electrical circuits and equipment must be installed by licensed electricians and grounded in accordance with the NEC regulations. Ground fault circuit interrupters (GFCIs) are required on all 120-volt, single phase, 15- and 20-amp outlets in work areas that are not part of the permanent wiring of the building or structure. A GFCI is required when using an extension cord. GFCIs must be tested prior to initial use with a GFCI tester, and periodically thereafter. The frequency of inspection will be determined by the SM/SSO.

Heavy-duty extension cords will be used; flat-type extension cords are not allowed. All extension cords must be the three-wire type, and designed for heavy duty or industrial usage. Electrical wire or cords passing through work areas must be protected from water and damage. Worn, frayed, or damaged cords and cables will not be used. Walkways and workspaces will be kept clear of cords and cables to prevent a tripping hazard. Extension cords and cables may not be secured with staples, hung from nails, or otherwise temporarily secured.

In existing installations, changes in the circuit protection (in order to increase the load in excess of the load rating of the circuit wiring) are not allowed. All lamps used in temporary lighting will be protected from accidental contact and breakage via the use of lamp guards. Metal shell and

paper-lined lamp holders are not permitted. Fixtures, lamp holders, lamps, receptacles, etc. are not permitted to have live parts (e.g., exposed circuits or wiring). Workers must not have wet hands nor shall they be standing in water while plugging/unplugging energized equipment. Plugs and receptacles will be kept out of water unless they are approved for submersion.

3.3.3 Noise

Noise is a potential hazard associated with the operation of heavy equipment, power tools, pumps, or generators. As a general rule, site workers will be required to wear hearing protection when working on or near heavy equipment, power tools, and generators. Noise control and hearing protection requirements will be implemented in accordance with 29 CFR 1910.95. Refer to Attachment A, which includes URS SMS 026 (*Noise and Hearing Conservation*) for noise monitoring and site-specific hearing conservation program guidelines.

High noise operations will be evaluated by the SSO. This will include the evaluation of each job task using screening methods described in URS SMS 026. Where information indicates that an employee's noise exposure exceeds 85 decibels, the SM/SSO will recommend controls to limit employee exposure. These controls may include engineering controls to limit the amount of noise generated by the equipment used on site, shielding/isolation, or the use of hearing protection in the form of plugs or muffs.

3.3.4 Hand and Power Tools

All hand and power tools will be maintained in a safe condition and in good repair. Hand and power tools will be used in accordance with 29 CFR 1926, Subpart I and URS SMS 016 (*Hand Tools and Portable Equipment*, Attachment A). Neither URS nor contractors will issue/use unsafe tools. All tools will be inspected by the operator before use to ensure safe operating condition prior to each use in accordance with the manufacturer's instructions. Any tool that fails an inspection will be immediately removed from the site, or tagged with a "Do Not Use" sign until repaired.

Workers using hand and power tools who are exposed to falling, flying, abrasive, or splashing hazards will be required to wear personal protective equipment (PPE). Section 7.0 provides detailed information on specific PPE ensembles, while individual activity hazard analyses (AHAs) provide detailed information on specific activity requirements (Section 5.0). Eye protection must always be worn when working on-site. Additional eye and face protection, such as safety goggles or face shields, may also be required when working with specific hand and power tools. Workers using tools that may subject their hands to an injury, such as cuts, abrasions, punctures, or burns, will wear protective gloves. Loose/frayed clothes, dangling jewelry, or loose long hair will not be worn when working with power tools.

Electric power-operated tools will be double insulated or grounded, and equipped with an on/off switch. Switches are NOT to be locked in the on position, at any time during use. Electrical powered tools are not to be moved by their cord. Guards must be provided to protect the operator and other nearby workers from hazards such as nip points, rotating parts, flying chips, and sparks. All reciprocating, rotating, and moving parts of tools will be guarded if contact is possible. Removing machine guards is prohibited.

Cutting tools shall feature shielded blades or other safety design.

3.3.5 Manual Lifting

Back injuries are among the most frequent occupational injuries reported by industrial workers. Using proper manual lifting techniques can reduce back injuries such as pulls and disc impairments. Leg muscles are stronger than back muscles, so workers should lift with their legs and not with their back. If the load is too heavy, then do not lift it alone. Lifting is always easier when performed with another person. Manual or mechanical assistance should always be used when it is available, and should be planned for based on the load. The maximum weight of items to be lifted by hand is 50 lbs. Refer to URS SMS 069 (*Manual Materials Handling*, Attachment A) for further information.

3.3.6 Heat Stress

Heat stress is a significant potential hazard during the warmer months. The SM/SSO shall implement the provisions stated in URS SMS 018 (*Heat Stress*, Attachment A) provides detailed information about symptoms, monitoring procedures, prevention, and first aid procedures for heat stress-related illnesses. Heat stress controls will be implemented at 70 ºF for workers in chemical protective clothing and 90 ºF for workers wearing normal work clothes.

Local weather conditions may produce an environment that will require restricted work schedules in order to protect employees. The TM/SSO will be observing workers for any potential symptoms of heat stress.

Adaptation of work schedules and training on recognition of heat stress conditions should help prevent heat-related illnesses from occurring. Heat stress prevention controls include:

- Allow workers to become acclimatized to the heat (3 to 6 days);
- Utilize an appropriate work/rest cycle;
- Provide shaded or air-conditioned break areas;
- Provide sun screen to prevent sun burn;
- Provide drinking water and electrolyte-replenishing fluids; and

- Monitor all workers wearing PPE for heat stress with temperature checks (oral or ear canal) in accordance with the URS SMS 018 when temperature dictates and document on SMS Form 018-2 (*Heat Stress Monitoring Record*).

3.3.7 Other Weather-Related Hazards

Other weather-related hazards include electrical storms, treacherous weather-related working conditions (e.g., slippery conditions, high winds, etc.), or limited visibility. These hazards correlate with the season in which site activities will occur. Outside work will be suspended during electrical storms. In the event of other adverse weather conditions, the TM/SSO will determine if work can continue without endangering the health and safety of site workers.

3.3.8 Heavy Equipment and Motor Vehicle Operation

Seat belt use is required during all vehicular and heavy equipment operation (passengers included). Only qualified personnel (as determined by documented experience and a practical evaluation of skills) will operate heavy equipment, drilling equipment and motor vehicles. Equipment will not be operated in a manner that will endanger persons or property. All heavy equipment, drilling equipment and motor vehicles will be operated in accordance with the manufacturer's instructions, OSHA 29 CFR 1926 Subpart O, and URS SMS 019 (*Heavy Equipment Operations*, Attachment A). Operators are required to lower all buckets and neutralize equipment whenever they are approached by a fellow team member onsite. The following inspection and repair controls will also be implemented during this project:

- Prior to starting work on a daily basis, all equipment and vehicles will be inspected by the operator using SMS 019-1 (*Daily Heavy Equipment Safety Inspection Checklist*). Records of tests and inspections will be maintained on-site by the SSO.
- In addition drilling equipment will be inspected using the Drill/Direct Push Type Rig Inspection Checklist (*Environmental Remediation Drilling Safety Guideline*).
- Drilling and direct push hole clearance will be conducted in accordance with the contractors, URS and W.R. Grace hole clearance requirements.
- Any unsafe/defective equipment or vehicles will be removed from the site or tagged with a "Do Not Operate" sign until repairs can be made.
- Equipment will be shut down and locked out before maintenance or repairs are made.

3.3.9 Flammables, Combustibles, Oxidizers, and Compressed Gases

All flammable or combustible liquids and gases will be stored outdoors, in a well-ventilated area, and away from excessive heat or direct sunlight. Liquids will be stored within an appropriate cabinet or shed. Flammable or combustible liquids and gases will not be stored in areas used for exits, stairways, or aisles. Material that reacts with water will not be stored near flammable or combustible liquids or gases. All sources of ignition are prohibited in these storage areas,

including smoking, cutting and welding, hot surfaces, open flames, sparks (static, electrical, and mechanical), and frictional heat.

Handling, storage, and use of flammable or combustible liquids and gases will be in compliance with 29 OSHA CFR 1926.152 and URS SMS 015 (*Flammable/Combustible Liquids and Gases*, Attachment A). If URS personnel or the contractor bring flammable or combustible liquids or gases on-site for use, all will supply the TM/SSO an MSDS for review and approval prior to the use of the material on-site. SMS Form 015-2 (*Flammable, Combustible, Oxidizer, and Compressed Gas Inspection Checklist*) will be completed by the SM/SSO during the mobilization phase of the project, and then at least monthly thereafter.

3.3.10 Fall Hazards

The site activities may include work at elevated locations. OSHA-approved ladders may be used for access to elevated locations. Appropriate fall arrest protection must be provided at unguarded locations greater than 4 feet and when working over dangerous operations. The selection of fall protection equipment will be made by a competent person, and will be based on the type of work being performed; the work environment; the weight, size, and shape of the user; the type and position of the anchorage; and the length of the lanyard. Competent person qualifications and all fall protection equipment will comply with 29 CFR 1926.104 and 1926.105 and SMS 040 (*Fall Protection*; Attachment A).

The manufacturer's recommendations will be followed for fitting, using, adjusting, inspecting, testing, and caring for fall arrest protection equipment. A copy of these recommendations will be maintained on-site. Before workers use fall arrest protection devices, they will receive training on the potential fall hazards, and on how to inspect, adjust, use, and care for the fall arrest protection equipment in accordance with 29 CFR 1926.503. A competent person must conduct fall prevention training. Fall arrest protection must be inspected each day, prior to use, to determine if the device is in safe working condition. If the fall arrest protection equipment is found to be defective, it will be immediately removed from the site and either discarded or tagged with a "Do Not Use" sign until repaired. Any fall arrest protection equipment actually used in a fall will be immediately removed from the site and discarded.

Lifelines will be secured above the point of operation to a support capable of holding a minimum dead weight of 5,400 pounds per person. Vertical and horizontal lifelines and lanyards will have a minimum tensile strength of 5,000 pounds. Self-retracting lifelines and lanyards must automatically limit the wearer's free fall distance to 2 feet or less, and have a minimum tensile strength of 3,000 pounds. Only one person is allowed per lifeline. The lifeline must be protected against being cut or abraded.

Body harness systems must decelerate and bring the wearer to a complete stop within 42 inches (3 ½ feet), excluding lifeline elongation. When stopping a fall, the body harness system may not

produce an arresting force on the wearer of more than ten times the worker's weight, or 1,800 pounds (whichever is lower). The anchorage point for the lanyard should be located above the wearer's body harness attachment. The lanyard will be constructed of at least ½ inch nylon rope, or equivalent, with a maximum length to provide for a fall of no more than 6 feet.

All safety harnesses and lanyard hardware will be drop forged or pressed steel. Surfaces must be smooth and free of sharp edges and must be able to withhold a tensile load of 4,000 pounds without cracking, breaking, or becoming permanently deformed.

3.3.11 Illumination

Site activities will only be conducted during day light hours unless adequate lighting is available. Refer to 29 CFR 1910.120(m) for information on appropriate lighting requirements. Any lighting used will be weatherproof and safe for work in a wet environment.

3.4 Biological Hazards

The site is located in an area where biological hazards may be present. Biological hazards may include ticks, other biting/ stinging insects, poisonous snakes, reptiles, and poisonous plants. URS SMS 047 (Biological Hazards) addresses these concerns.

3.4.1 Ticks

Deer tick bites may result in the transmission of Lyme Disease. A characteristic rash may develop a few days to a few weeks after the bite of an infected tick. The rash generally looks like an expanding red ring with a clear center, but it can vary from a blotchy appearance to red throughout the rash. However, it is important to note that some victims *never* exhibit a rash. Lyme Disease symptoms include flu-like symptoms such as a headache, stiff neck, fever, muscle aches, and/or general malaise. If Lyme Disease is not treated early with antibiotics, the early symptoms may disappear, but more serious problems may follow. Long-term effects of Lyme Disease may include arthritis of the large joints, meningitis, neurological complications (such as numbness or tingling of the extremities, loss of concentration and memory retention, Bell's Palsy), withdrawal and lethargy, or cardiac symptoms. Site workers should use the following prevention tactics in accordance with SMS 047:

- Avoid walking through brush, woods, or grassy areas; try and avoid contact with plants if you must walk through these areas.
- Dress in light-colored clothing to make adhering ticks more visible. Wear long-sleeved shirts and tuck pants into socks. Wear a hat and tie back long hair.
- Use a tick repellant containing permethrin or dimethyl-m-toluamide (DEET). However, you should never use tick repellant containing more than 30% DEET, and

all tick repellant should be sprayed on clothing (and allowed to dry) and not directly on your skin.

- Perform self-searches each day to check for ticks.

3.4.2 Other Biting/Stinging Insects

Two types of poisonous spiders may be present in this area: the black widow and the brown recluse. The black widow spider has a shiny black body about the size of a pea, with a red or yellow hourglass-shaped mark on its abdomen. It weaves shapeless webs in dark, undisturbed areas. A bite may result in illness, pain, and possibly death from complications, but usually not from the bite itself. The brown recluse spider is approximately 3/8-in. in size, with a dark, violin-shaped mark on its back. It weaves a sticky, irregular web. Within a few hours of being bitten, the victim's skin around the bite becomes red and swollen. In time, most of the tissue dies, leaving a deep sore that may take months to heal and may leave a scar. A few persons suffer an allergic reaction to its poison that could result in death.

Site workers may also encounter a number of biting or stinging insects during site activities. Insects that may be present on-site include bees, wasps, mosquitoes, and ticks. The SSO will inform site workers about the potential insect hazards and preventative measures, such as the use of insect repellant. Site workers who have a history of allergic reactions to bee stings should inform the SM/SSO using the Medical Data Sheet completed during the initial site-specific safety training. The TM/SSO will provide first aid treatment in the event of an insect bite or sting (refer to Section 9.11 of this HASP). Those allergic individuals requiring administering of an EpiPen should take measure to ensure ready availability and awareness by fellow workers.

3.4.3 Plant Hazards

Poison ivy, oak, and sumac may be present on-site. Poison ivy can be found as vines on tree trunks or as upright bushes. Poison oak is another name for the bush form of poison ivy. Poison ivy consists of three leaflets with notched edges. Two leaflets form a pair on opposite sides of a stalk, and the third leaflet stands by itself at the tip. Poison ivy is red in the early spring and turns shiny green later in the spring. Poison sumac can be present in the form of a flat-topped shrub or tree. It has fern-like leaves, which are velvety dark green on top and pale underneath. The branches of immature sumac have a velvety "down." Poison sumac also has "hairy" berry clusters.

Contact with poison ivy, oak, or sumac may lead to a skin rash, characterized by reddened, itchy, blistering skin, which needs first aid treatment. If you believe you have contacted one of these plants, immediately (within five minutes) wash your skin thoroughly with soap and water, taking care not to touch your face or other parts of your body before washing. Site workers who have a

history of allergic reactions to bee stings should inform the SM/SSO using the Medical Data Sheet completed during the initial site-specific safety training. A physician should examine any serious case of poison ivy, oak, or sumac rash.

4.0 JOB SAFETY ANALYSES (JSA)

All Job Safety Analyses (JSAs) will be reviewed and discussed by all site workers involved with the specific task prior to the start of the task. JSA's list the steps to complete a task, the hazards for each step, and the control methods (engineering, administrative, and/or PPE) to complete the task safely. The JSAs will be supplemented and amended as specific job tasks and conditions change making it necessary to update the JSA. If a task is planned for which there is no JSA, then an analysis will be prepared and reviewed by site workers. The project JSA's include (but are not limited to):

- Excavation and Asbestos Removal
- Site Clearing and installation of fencing
- Heavy Equipment Operation
- Small Power Equipment Operations
- Operation and Use of Hand Tools
- Asbestos Sampling and Waste Segregation
- Soil Sampling

The project JSAs are included in Attachment C to this HASP.

5.0 SITE CONTROL MEASURES

5.1 Site Security

Site security will consist of erecting temporary fencing on the northern side of the Site in the grassy area between the stream and asphalt parking lot. The fencing will be standard 6-foot high fencing with a screen to reduce visibility during the removal action. Signs will be posted on 75-foot centers on the temporary fencing providing a warning of a restricted area. Since the eastern, western, and southern sides of the Site sides are heavily vegetated and access by the public would be difficult, temporary "snow" fencing will be installed to delineate the boundaries of the Site. Temporary signs will be posted along the eastern, western, and southern sides on 75-foot centers on posts. Site access will be controlled using a gate on the access road leading from Zonolite Place NE. Access to the Site shall be limited to authorized persons only.

5.2 Site Zones

The tasks at the site will be set up based on a three-zone system to control the potential spread of contamination. Prior to the start of any activities involving the contaminants of concern, a Support Zone (SZ), a Contamination Reduction Zone (CRZ), and an Exclusion Zone (EZ) will be identified.

Support Zone – A non-contaminated area that will be separated from the EZ by the CRZ. It contains a center for team communications and emergency response. Appropriate sanitary, safety, and support equipment are also located in this zone. Site operations will be controlled from this location. A log will be kept in the SZ of all personnel entering and exiting the site.

Contamination Reduction Zone - Established between the EZ and the SZ, it provides for personnel and portable equipment decontamination. The CRZ will be used for EZ entry and exit, and for donning/removing PPE.

Exclusion Zone - The areas that contain, or are suspected to contain, contaminants of concern will be the EZ. Prior to the start of each task, the EZ "hot line" will be clearly identified using physical marking systems, which may include stanchions, warning tape, jersey barriers, fencing, or other methods. The CSP and SSO will determine the appropriate type of physical marking system at the time of zone establishment. Selection will depend on the activity being conducted within the EZ, as well as the potential for the presence of residents in the area. All areas that contain, or are suspected to contain, contaminants of concern will be marked as an EZ. Personnel are not allowed in the EZ without:

- A "buddy"
- Appropriate PPE

- Current OSHA medical authorization
- Current OSHA training certification

Contaminant removal and environmental activities will be conducted in an active commercial and residential zone. Therefore, work areas will be barricaded and clearly marked to alert residents to the hazards associated with the area. This shall include the placement of appropriate signage and, where necessary, the erection of physical barriers (e.g., fencing, jersey barriers, etc.).

5.3 Communications

A cellular phone will be available on-site for emergency use. Emergency numbers are posted in Table 9-1, and will be available on site. Work will not be conducted on-site without access to a telephone, and site workers will be informed of the nearest available telephone. Two-way radios may be used for communications between personnel performing site work.

Workers needing to approach heavy equipment may do so only when the equipment operator's attention has been captured, and the equipment is de-energized (i.e. drill rotation stopped, blade or bucket lowered to the ground, etc.). Trucks shall be placed in park, or taken out of gear and the parking brake applied. The Operators shall have "eyes on" the worker on the ground at all times while approaching or while in proximity to the equipment.

5.4 General Site Rules

- All workers will participate in the daily safety briefing.
- All site workers will wear personal protective equipment as required by the task. Refer to the applicable AHA or job safety analysis for task requirements.
- The buddy system will be observed at all times. NO ONE is to work alone outside of the unobstructed vision of one or multiple personnel.
- Facial hair that interferes with a respirator-to-face seal will not be permitted on site for all workers who are required to wear respiratory protection.
- All site workers who wear corrective lenses will provide their own prescription safety glasses and respirator optical inserts wherever necessary.
- Horseplay will **not** be tolerated.
- Proper site housekeeping (including removal of trash and orderly stacking and removal of materials to reduce slipping, tripping, puncture and fire hazards) will be the responsibility of all site personnel on a daily basis.
- The use of open blade knives or other cutting tools is not authorized. Shielded, quick retraction, or other types of safety knives and cutting shears will be provided for the task.

- All site workers will participate in safety observations as requested by site management.
- When backing a vehicle with no back-up alarm, clear the area visually, sound horn, and back slowly.

5.5 Sanitation

Sanitation facilities will be set up or maintained in accordance with 29 CFR 1926.51 and URS SMS 030 (*Sanitation*, Attachment A). Sanitation issues will include the following items:

- Drinking/potable water
- Hand and face washing facilities
- Eye washing station
- Toilets
- Eating and drinking areas
- Waste disposal

SMS Form 030-1 (*Sanitation Inspection Sheet*) will be completed by the SM/SSO during the mobilization phase of the project, and then at least monthly thereafter.

6.0 PERSONAL PROTECTIVE EQUIPMENT

6.1 General

URS SMS Form 029-1 (*Hazard Assessment Certification Form*, Attachment C) has been used as part of the PPE decision-making process for **each** task being performed at the Zonolite Road site. **Form 029-1 was utilized to decide the initial levels of protection assigned for each task.** The level of protection worn by site workers will be enforced by the SSO. Any changes in the level of protection will be documented

6.2 Modified Level D Protection

Modified Level D PPE provides minimal protection against chemical hazards, and should not be worn in any area with respiratory or skin hazards. A respirator is not required. Level D PPE includes:

- Cotton coveralls or long pants and a shirt with sleeves
- Hard hat
- Safety glasses [meeting American National Standards Institute (ANSI) Z-87]
- Steel-toe/steel-shank work boots (including anti-slip footwear)
- Work gloves
- Hearing protection (as required by task)
- Fluorescent visibility vest

6.3 Level C Protection

Level C PPE provides a higher level of respiratory and skin protection against chemical hazards. Level C PPE, at a minimum, will be used during suspected ACM sampling work. Level C PPE includes the items listed in Section 6.2 above, and may also include a selection of the following items:

- Full-face, air-purifying respirator (required) – with P100 filter cartridge
- Regular (white) or poly-coated tyvek (yellow)
- Steel-toe/steel-shank work boots and latex over-boots, or chemical resistant steel-toe/steel shank boots
- Inner latex (i.e., surgical) gloves
- Chemical resistant outer gloves
- Seal arm, leg, and zipper joints with tape, as required

7.0 MONITORING

7.1 Exposure Monitoring

Compound-specific monitoring will be conducted prior to work to establish baseline conditions and during remedial site activities to determine exposure levels. Monitoring will be performed for all categories of potentially exposed personnel (e.g., operator, laborer, etc.), and will be performed in accordance with applicable National Institute of Occupational Safety and Health (NIOSH) sampling methods and compared with Occupational Safety and Health Administration (OSHA) permissible exposure limits (PELs). The SM/SSO, in consultation with the RHSEM and the air monitoring contractor, will use the data from this sampling to determine if additional compound-specific monitoring is required and to determine initial levels of PPE. All personal samples collected will be collected using the procedure outlined in SMS 043, Personal Monitoring (Industrial Hygiene) and the Industrial Hygiene Monitoring Form (SMS Form 043-1). Results will be shared with the affected employee in writing within 15 days of receipt of the results.

Monitoring and calibration will be performed by the air monitoring contractor in accordance with the manufacturer's guidelines and the appropriate sampling method. Flow calibration of personnel monitoring pumps will be performed, at a minimum, prior to and at the end of each day's use. Calibrations will be recorded in a daily logbook or on daily log sheets.

7.2 Action Levels

Realistically, asbestos cannot be monitored using real-time instrumentation; therefore, personal sampling data must be used for exposure assessment. The established occupational exposure limit (0.1 fibers per cubic centimeter of air [f/cc] for asbestos) referenced in this HASP is the OSHA Permissible Exposure Limit (PEL), which is based on an 8-hour time-weighted average (TWA).

7.3 Heat Stress Monitoring

Due to the environmental conditions (solar load, high humidity and PPE), heat stress could be a major working stress encountered for this project. Drinking liquids will be available at all times.

Heat exhaustion or heat stroke is always a potential personal hazard during field activities. The use of protective clothing in conjunction with environmental conditions and workload can potentially lead to heat related incidents. Site personnel should be able to identify heat stress victims and be knowledgeable of the first aid treatment procedures.

Personnel should replace water salts lost from sweating before they feel thirsty, since thirst is not an accurate indicator of adequate salt and fluid replacement. Drink ample amounts of cool water and/or commercially available liquids (i.e., Gatorade™, PowerAde™, or Quickick™). Sport

drinks should be consumed only during periods of heavy work activities. Use early morning hours for the majority of physically demanding work. Take breaks in cool rest areas, removing protective garments. Consumption of alcoholic beverages prior to or during heat-related work can promote heat-related illnesses.

If heat stress becomes a concern (i.e., ambient dry bulb temperatures exceed 70 °F for personnel in chemical protective clothing and 90 °F for personnel in normal work clothing), the SSO will refer to and implement URS' SMS 018 (*Heat Stress*) and SMS Attachments 18-1 through 18-3. The plan outlines heat stress identification, treatment, prevention, the development of work-rest regimens, and monitoring.

Refer to URS' SMS 018 for a complete heat stress management program.

8.0 DECONTAMINATION

8.1 Contamination Prevention

One of the most important aspects of decontamination is the prevention of contamination. Good contamination prevention should minimize worker exposure and help ensure valid sample results by precluding cross-contamination. Procedures for contamination prevention for personnel include:

- Do not walk through areas of obvious or known contamination.
- Do not handle or touch contaminated materials directly.
- Thoroughly wash hands and face using clean water to minimize risk of prolonged dermal contact with the contaminants.
- Make sure all PPE is free of cuts or tears prior to donning.
- Fasten all closures on suits, covering with tape if necessary.
- Particular care should be taken to protect any skin injuries. If open wounds exist on hands or forearms, handling contaminated materials or samples should be restricted or eliminated.
- Stay upwind of airborne contaminants.
- Do not carry cigarettes, gum, chewing tobacco, cosmetics, etc. into potentially contaminated areas.
- Procedures for contamination prevention for equipment include:

Take care to limit the amount of contamination that comes in contact with heavy equipment.
If contaminated tools are to be placed on non-contaminated equipment for transport, use plastic to keep non-contaminated surfaces clean.

8.2 Personnel Decontamination

A personnel decontamination station will be set up at the exit to the EZ. All personnel exiting the EZ will pass through the decontamination station. To reduce the volume of decontamination water generated, protective clothing will be discarded, instead of cleaned and reused. Additionally, hand, face, and eye wash stations will be established outside of the EZ at the Site. The generation of decontamination water should be minimized whenever possible. The following eight steps will be taken for personnel decontamination when site personnel exit the EZ through the CRZ. The decontamination set-up is subject to modification by the SM/SSO. Changes in the decontamination set-up will be documented by the SM/SSO in the field log. Refer to URS' SMS 030 for a complete heat stress management program.

Step	Personnel Decontamination Procedure for Level C PPE
1	Deposit all equipment and tools used in the EZ onto plastic sheeting or into plastic-lined containers.
2	Scrub outer boots and any soiled PPE (i.e., outer gloves, Tyvek) thoroughly with a soapy wash solution and a scrub brush. Rinse off boots and PPE.
3	Remove tape from around boots and sleeves and dispose of into a plastic-lined drum
4	Remove Tyvek (inside out) and dispose of into a plastic-lined drum.
5	Remove outer over-boots; dispose of into a plastic-lined drum.
6	Remove outer gloves; dispose of into a plastic-lined drum.
7	Remove respirator, remove and discard respirator cartridges, and place in a bucket of respirator sanitizer/cleaner solution. Gently clean with a soft bristle brush, and rinse respirator in warm water. Allow respirator to dry in the SZ.
8	Remove inner gloves (inside out) and dispose of into a plastic-lined drum.

Equipment and supplies needed for the level C personnel decontamination station include:

- Plastic buckets for glove wash and rinse
- Plastic drum liners
- Plastic sheeting
- Wash tubs for boot wash and rinse
- Detergent/water solution (non-phosphate detergent)
- Respirator sanitizer/cleaner
- Plastic tubs for respirator wash and rinse
- Long-handled soft bristle scrub brushes for boot wash
- Small, soft-bristle scrub brush for respirator wash
- 55-gallon drums or trash cans

Step	Personnel Decontamination Procedure for Modified Level D PPE
1	Deposit all equipment and tools used in the EZ onto plastic sheeting or into plastic-lined containers.
2	Scrub boots with a soapy wash solution and a scrub brush. Rinse off boots. (Or dispose of over boots)
3	Remove tyvek coveralls.
4	Remove gloves and discard or store for reuse in the CRZ. (Or discard disposable gloves).
5	Thoroughly rinse hands and face with clean water, use soap and scrub brushes or wash cloth to remove any soil/dirt from the skin.
6	Clean hands with cleaning solution/gel and wipes.

Equipment and supplies needed for the personnel decontamination station include:

- Plastic buckets for glove wash and rinse
- Plastic drum liners
- Plastic sheeting
- Wash tubs for boot wash and rinse
- Detergent/water solution (non-phosphate detergent)
- Long-handled soft bristle scrub brushes for boot wash
- Clean water and hand/body soap
- 55-gallon drums or trash cans

8.3 Equipment Decontamination

A separate equipment decontamination pad will be set up adjacent the EZ. The decontamination pad will be of sufficient size to fully contain any heavy equipment items, which may need to be decontaminated during the project activities, including excavators and dump trucks. All small and large equipment will be decontaminated on this pad. Contaminated water generated during the decontamination of equipment will be mixed in with the soil and transported offsite for proper disposal.

All equipment and tools will be cleaned prior to site entry to remove grease, oil, dirt, or any other off-site materials. The SM or SSO will make an inspection of the equipment prior to approving the items for use on-site. The SM or SSO will also be responsible for inspecting all items for adequacy of decontamination prior to removal off-site. The inspection will be noted in the TM or SSO's logbook.

The following steps will be taken when decontaminating small equipment:

Step	Small Equipment Decontamination Procedure
1	Wrap small equipment such as shovels, picks, chisels, hammers, drill augers, etc. in plastic sheeting.
2	Transport the small equipment from the EZ to the decontamination pad.
3	Wash small equipment with pressurized water spray.
4	Scrub small equipment with soapy water, using brushes and a phosphate-free soap.
5	Rinse small equipment with potable water.
6	Place small equipment on clean plastic sheeting and allow equipment to dry.

The following steps will be taken when decontaminating large equipment:

Step	Large Equipment Decontamination Procedure
1	Drive large equipment such as a backhoe, from the EZ to the decontamination pad.
2	Use shovels or picks to remove obvious or caked on contamination.
3	Wash the heavy equipment with the pressurized water spray.
4	If necessary, scrub excessively soiled spots with soapy water, using brushes and a phosphate-free soap.
5	Rinse large equipment with water.
6	Move heavy equipment onto clean plastic sheeting and allow it to air dry.

8.4 Equipment Decontamination Testing

Throughout the duration of the project, decontamination procedures may need to be tested. Together, the SM or SSO, PM, and RHSEM will determine sampling protocols, schedule and the equipment necessary to perform testing for lead and arsenic before equipment is removed from the site. Once this has been determined, the SM or SSO will develop a JSA that addresses the hazards and mitigations associated with this procedure.

9.0 EMERGENCY ACTION PLAN

9.1 General

When an emergency occurs, decisive action is required. Decisions must often be made immediately and personnel must be ready to immediately respond to an emergency. For this purpose, pre-emergency planning is an essential part of each project's Emergency Action Plan. Pre-emergency planning tasks will be developed and established prior to the start of site work. Pre-emergency planning for the Zonolite Road site includes the following tasks:

- Development and approval of this Emergency Action Plan in accordance with URS SMS 003 (*Emergency Action Plans*, Attachment A);
- Coordination of the Emergency Action Plan with local health and emergency response agencies;
- Training of site workers in appropriate emergency procedures;
- Maintaining emergency response equipment on-site, such as fire extinguishers, first aid supplies, and spill response equipment; and
- Modification of the Emergency Action Plan, if necessary, as work progresses.

9.2 Response Priorities

It is expected that URS personnel will provide minimal first line response to all emergencies.

First Priority: Prevent further injury or illness by:

- Protecting response personnel,
- Isolating the scene to authorized personnel only,
- Notifying emergency response personnel, and
- If possible, rescuing any injured parties.

Second Priority: Provide first aid to those persons with life-threatening injuries or illnesses.

Third Priority: Alleviate the immediate hazards by:

- Extinguishing incipient stage fire,
- Reducing chemical releases, or
- Containing any spill.

9.3 Evacuation Routes and Procedures

In a severe emergency, such as a large fire, explosion, or large spill, site evacuation may become necessary. The SM/SSO will be responsible for informing site workers of the anticipated routes

of evacuation during the morning safety briefings. The evacuation route and assembly area will take into account the wind direction, topography, and the nature of the incident. Site workers will be advised to move to an upwind location at least 100 yards from any fires and/or releases, and will be advised to continually monitor wind direction for changes. Section 8.0 provides the action levels required for work area evacuation and to activate this Emergency Response Plan.

If moving upwind is not possible without encountering the incident, workers will be advised to move cross wind or downwind to a distance necessary to be out of the path of vapor releases, smoke, odors, or spills. In the event that a site evacuation becomes necessary, the following procedures will be used:

Step	Site Evacuation Procedures
1	Site workers are notified of an emergency evacuation via verbal command. All site workers will immediately stop work.
2	All site workers evacuate the work area as quickly as possible, and assemble at a location at least 100 yards upwind of the incident, or as instructed during the daily safety briefing. **The muster points are Primary–Site Entrance, and Secondary–Parking Lot located across the stream on the northern boundary of the proposed excavation area.**
3	The SM or SSO will be responsible for roll call.
4	The SM or SSO will contact emergency response personnel as all site workers are being accounted for during roll call.
5	The SM or SSO will ensure that emergency apparatus have adequate site access.
6	The SM or SSO will ensure that all combustion equipment has been shut down.
7	All site workers assembled at the designated safe evacuation area will wait for further instructions from emergency response personnel.

9.4 Emergency Medical Treatment

The local paramedics will administer all emergency medical treatment, other than first aid. Table 9-1 lists site emergency telephone numbers.

Medical emergencies that require medical treatment include:

- Loss of consciousness
- Unexplained chest pain
- Breathing difficulty
- Uncontrolled bleeding
- Fractures
- Suspected internal injuries
- Suspected exposure to chemical/biological hazard
- Second or third degree burns
- Electrocution
- Unexplained change in mental state

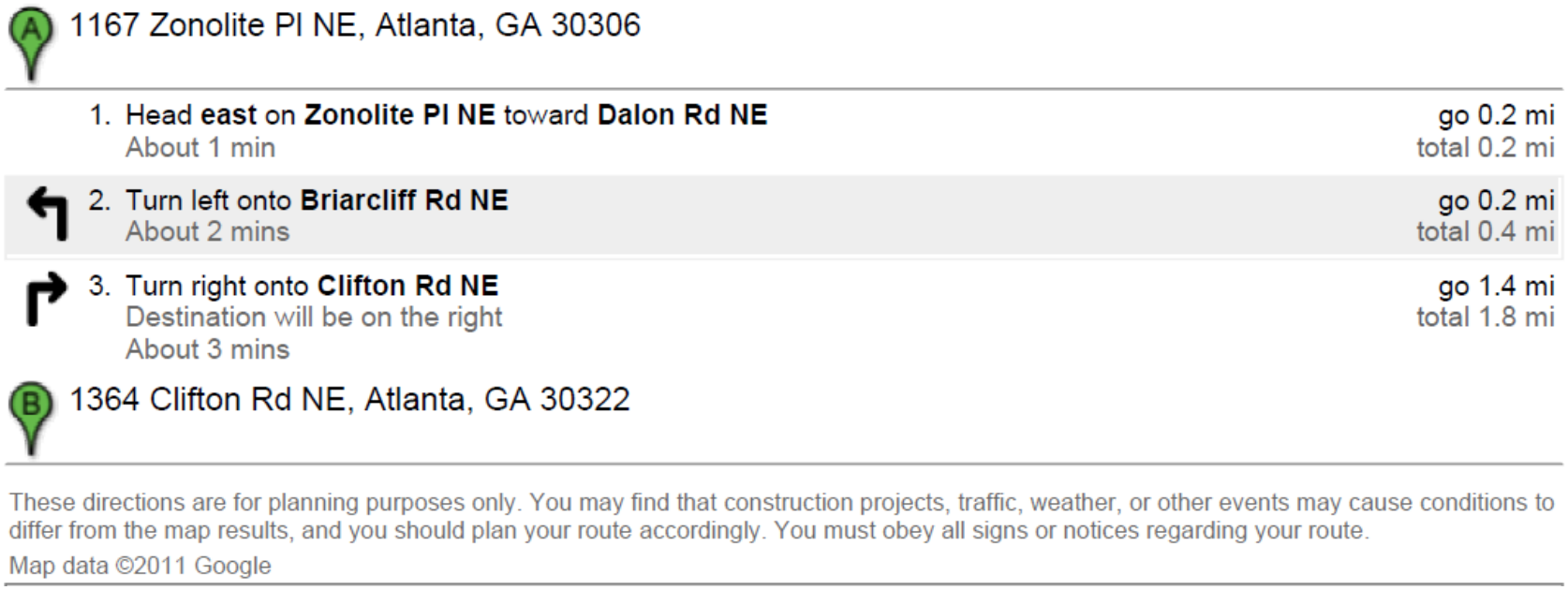
All vehicles used to transport injured persons to the off-site medical facility will be provided with directions and a map to the medical facility. The SM or SSO will accompany the victim to the medical facility. Prior to returning to work after a disabling injury/illness or loss of consciousness, the employee must present a medical release from the attending physician to the SM or SSO. The URS Emergency Physician Access Plan, as shown on Table 10-2, may be instituted by the SM or SSO and/or the medical facility when emergency medical advice is required.

9.5 Blood-borne Pathogen Prevention

During site activities, workers can potentially be exposed to blood-borne pathogens when rendering first aid or CPR. Avoiding contact with biological agents is the best way to prevent adverse health effects caused by them. Recognition of potential hazards is essential. When avoidance is impractical or impossible, PPE and personal hygiene will be used to prevent adverse effects. Site health and safety briefings will include protective measures to be taken by workers. In addition, the SM or SSO will evaluate the potential for exposure for each job task, advise site workers, and adjust the site briefings accordingly. URS SMS 051 contains detailed information on blood-borne pathogen (BBP) exposure control methods. All personnel trained in first aid/CPR will receive initial and annual BBP prevention training, including information of "universal precautions." A blood-borne pathogen kit will be kept on-site to protect employees from blood-borne diseases.

9.6 Route To Hospital and Route to Clinic

Hospital:
Name: Emory University Hospital
Address: 1364 Clifton Road
City, State: Atlanta, Georgia
Phone: (404) 712-7100



1167 Zonolite Pl NE, Atlanta, GA 30306

1. Head **east** on **Zonolite Pl NE** toward **Dalon Rd NE** — go 0.2 mi
   About 1 min — total 0.2 mi
2. Turn left onto **Briarcliff Rd NE** — go 0.2 mi
   About 2 mins — total 0.4 mi
3. Turn right onto **Clifton Rd NE** — go 1.4 mi
   Destination will be on the right — total 1.8 mi
   About 3 mins

1364 Clifton Rd NE, Atlanta, GA 30322

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Map data ©2011 Google

Clinic:
Name: Nextcare Urgent Medical Care
Address: 1220 Caroline Street NE
City, State: Atlanta, GA
Phone: (678) 916-3610

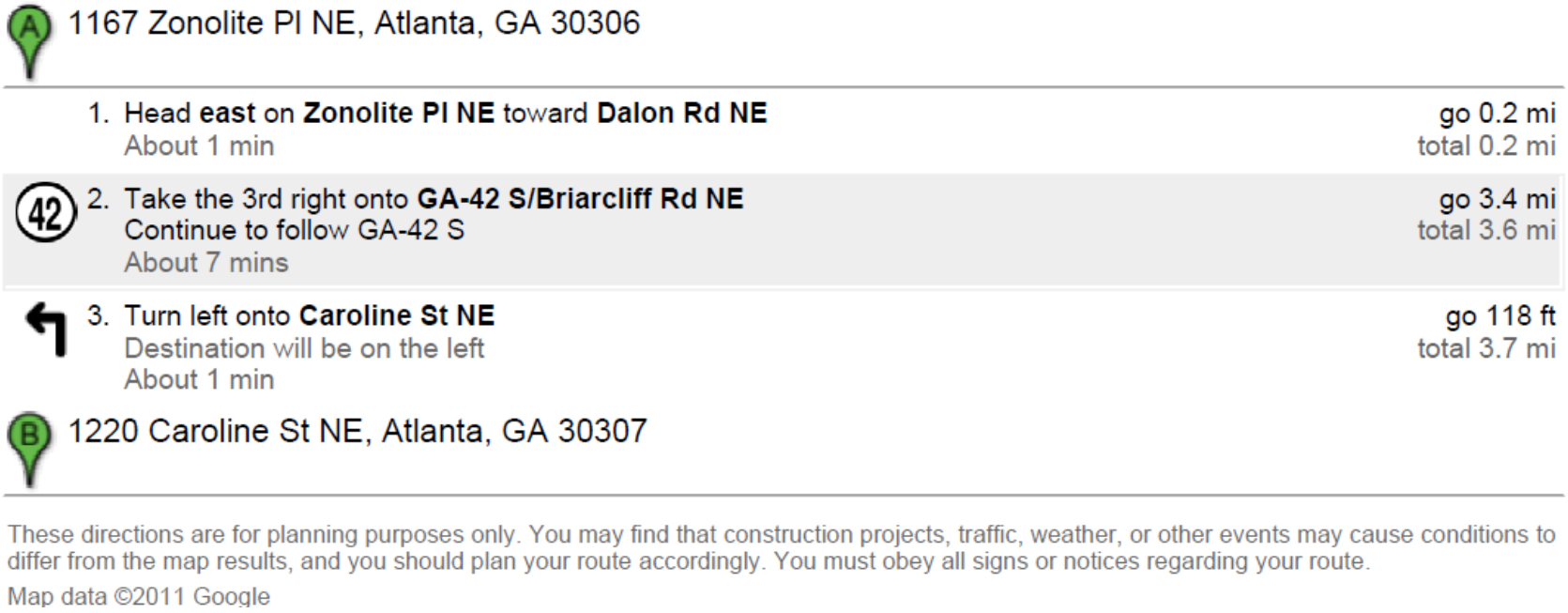


Table 10-1 Emergency Telephone Numbers	
Ambulance:	911
Fire:	911
Police:	911
Hospital:	(404) 712-7100
National Spill Response Center	(800) 424-8802
Poison Control Center: Atlanta, Georgia	Toll free: (800) 222-1222 or Direct: (404) 616-9000
URS Medical Consultant: Workcare – Dr. Peter Greaney	(800) 455-6155
The following people will be notified when an accident has occurred:	
URS Regional Health and Safety Manager: Millard Griffin	Cell: (770) 315-5900 Office: (770) 345-9760
URS Occupational Health Manager: Ms. Jeanette Schrimsher, RN	Office: (512) 419-5440
URS Project Manager: Brent Jacobs	Cell: 770-630-0913 Office: 678-808-8915
URS Site Safety Officer: Larry Crawford	Cell: (678) 428-8814 Office: (678) 808-8912
URS Office:	678-808-8800

Table 10-2
Emergency Physician Access Plan

In the event that any medical emergency arises due to work-related injuries/illnesses, a 24-hour Emergency Physician Access Plan has been established to enable any URS employee to communicate with our Medical Consultant (MC), Dr. Peter Greaney. The following procedure outlines how the plan can be accessed during business hours:

Step	Monday through Friday, 9:30 AM-8:00 PM EST
1	Contact the URS Medical Consultant at (800) 455-6155.
2	Give the receptionist the following information: You are calling for URS; and This is an emergency call.

The Medical Consultant's staff has been informed how to contact the Medical Consultant designated to provide emergency coverage on that day. *Collect calls will be accepted.*

The following procedure outlines how the plan can be accessed during evenings, weekends, and holidays (non-business hours):

Step	Evenings (after 8:00 PM until 9:30 AM EST), Weekends, and Holidays
1	Contact the URS Medical Consultant at (800) 455-6155. An operator from the answering service will answer the telephone.
2	Give the answering service operator the following information: • You are calling for URS; • This is an emergency call; • Give the operator your name; and • Give the operator the telephone number where the Medical Consultant can contact you (including your area code).
3	Verify the operator has written the correct telephone number; do not hang up first.

4	If you do not receive a call back from the Medical Consultant within 15 minutes, place a second call to (800) 455-6155.

9.7 Hazardous Chemical Overexposure

At this time it is anticipated that site personnel will be sufficiently protected through work procedures so as to prevent significant exposure to site chemicals during any of the activities at the Zonolite Road project. Before using any hazardous chemicals onsite, all URS personnel and contractors will consult the MSDS for proper handling and use instructions.

9.8 Small/Incipient Fire

A small fire is defined as a fire that can be extinguished with an available 20-pound type ABC fire extinguisher. An incipient fire is a fire that is small because it has just started. In the event of a small or incipient fire, the following minimum actions will be taken:

- Evacuate nearby site workers from the area, if possible, to an upwind location or to an area not affected by smoke or hazardous decomposition products if an upwind location is not feasible.
- Attempt to extinguish fire using portable fire extinguisher or by smothering.
- Contact emergency response personnel, as needed, for any injuries or exposures to hazardous decomposition products.

After the fire has been extinguished, or emergency response personnel have been contacted, notify the PM, SSO, and RHSEM.

9.9 Large Fire/Explosion

An explosion, large fire, or a small fire that cannot be extinguished, is beyond the first line capabilities of URS personnel. Professional emergency response personnel would be needed to provide emergency assistance for these types of incidents. In the event of a large fire, explosion, or a small fire that cannot be extinguished, the following minimum actions will be taken:

- Evacuate all site workers from the site, if possible, to an upwind location, or to an area not affected by smoke or hazardous decomposition products if an upwind location is not feasible.
- Perform a quick role call to account for all site workers.
- Contact the fire department.
- Contact emergency response personnel, as needed, for any injuries or exposures to hazardous decomposition products.
- After emergency response personnel have been contacted, notify the PM, CM, and RHSEM.

9.10 Hazardous Chemical Spill or Release

Hazardous chemical spill or release situations may all be different due to the way the incident occurred, how hazardous the substance may be, and how much has been spilled or released. If a hazardous chemical spill or release occurs, the following steps will be taken:

- Evacuate site personnel, if necessary. Follow the evacuation sequence outlined in Section 9.3.
- Determine the source of leak or release.
- Determine the approximate volume of the leaked or released substance and identify the chemical(s) involved.
- Contact emergency response personnel to inform them of the possible need for assistance.
- Don the appropriate PPE.
- Secure the spread of the spill, if possible, using one of the following methods of containment:
  - Damming with soil, straw bales, or sand bags
  - When spill is on dry ground, and there is no risk of spill entering the creek running adjacent to the site, use:
    - Patch and plug
    - Adsorbent materials such as clay, saw dust, absorbent pillows, sheets, or rolls/booms (adsorbent materials will be stored in a central location at the site
  - When there is a risk of the spill reaching the creek running adjacent to the site:
    - Install adsorbent booms across the creek at intervals downstream of the spill
    - If necessary, construct an over/under dike using machinery on-site
- After the spill/release has been contained, or emergency response personnel have been contacted, notify the PM, SSO, and RHSEM.
- A spill or release of a hazardous substance at or above its Reportable Quantity (RQ) will require reporting to the National Spill Response Center (see Table 10-1). See the material's MSDS for the RQ reporting requirements.

9.11 First Aid

The trained first aid responders must have current first aid certificates and be trained in blood-borne Pathogens. When a work-related incident results in a non-critical injury/illness, the primary objective is to provide appropriate medical services to diagnose and treat the injury/illness.

Options available to the employee and project management in these situations include the following:

- First aid treatment and/or review by a qualified first aid responder
- First aid treatment and/or review by a qualified first aid responder followed by a referral to the URS Occupational Health Manager.

If a site worker is bitten by an insect, tick, mosquito, or snake, or comes into contact with a poisonous plant, the SM or SSO shall refer to SMS 047 (Biological Hazards, Appendix A) for information on medical follow up. SMS 047 also contains background information and precautionary measures for each of these biological hazards.

9.12 Emergency Equipment and First Aid Requirements

A supply of emergency PPE and equipment will be maintained on-site in sufficient quantities and locations to ensure an adequate supply for all emergency response personnel. All emergency equipment will be fully stocked and readily accessible as needed. Refer to URS SMS 024-9 (Attachment B) for the *Field First Aid Kit Supply List*. The following emergency supplies will be available:

- Industrial first-aid kit (one 16-unit kit that complies with ANSI Z308A for every 25 persons or less)
- Blood borne pathogen precaution kit with CPR mouth shield
- Instant cold packs
- Portable emergency eye wash and drenching station
- Fire extinguishers placed in the following locations:
  - In each piece of heavy equipment (2.5 B:C)
  - In each motor vehicle (2.5-B:C)
  - Adjacent to any flammable/combustible liquid or compressed gas storage area (20-A:120-B:C, one extinguisher located within 10 feet from the entrance, and one located 25-75 feet outside the storage area)
  - Adjacent any fueling area (20-A:120-B:C, maximum travel distance of 75 feet to an extinguisher)
  - Adjacent any active generator pump or air compressor (20-A:120-B:C)
- Coveralls, boot covers, gloves, face shields, etc., as required by project activities

10.0 SITE RECORDKEEPING

10.1 Required Documentation

The following documentation must be kept on-site or readily accessible:

- OSHA Form 300 - Log and Summary of Occupational Injuries and Illnesses (posted);
- Material Safety Data Sheets (MSDSs) for all hazardous chemicals brought on-site by URS and its contractors;
- A site-specific Respiratory Protection Program, which meets the requirements of 29 CFR 1910.134 and URS SMS 042 (*Respiratory Protection*, Attachment A), **if required by site activities**;
- Employee fit test records;
- OSHA-required training records for site workers;
- OSHA-required medical surveillance examination clearance records for site workers who may be required to wear respiratory protection;
- Calibration records for all monitoring equipment;
- Health and safety logbook;
- Copies of any Incident Reports;
- Signed copies of the Site Safety Plan Compliance Agreement (see Section 12.0);
- A completed SMS Checklist;
- The Field First Aid Kit Supply List (SMS Form 024-9; posted); and
- Any other permits, training records, or documentation required by applicable URS SMS.

10.2 Training and Recordkeeping Log

Training and recordkeeping information will be maintained with the SSO and will include initial site-specific safety training, basic safety training, medical monitoring information and training certifications. All daily safety briefings and visitor training information will also be maintained by the SSO. A record of the training will be documented on a training log, which will include the following information:

- The date;

- Employee's name and employee number (attendance check); and
- Training topic(s);

10.3 Health and Safety Field Log

The SM or SSO will maintain a logbook or daily safety log on-site in accordance with standard URS procedures. Complete and detailed documentation of site activities is very important. The following information will be recorded on a daily basis:

- Site conditions (e.g., weather);
- Activities being performed;
- Personnel on-site;
- Site visitors;
- Incidents, accident, and near misses;
- Violations of health and safety procedures; and
- Other significant events.

Site monitoring will also be documented in the health and safety logbook, including the following information:

- Monitoring equipment condition;
- Calibration records;
- Employees and work areas monitored; and
- Monitoring results.

10.4 Incident Reports

Upon receiving a report of an on-site incident, the SSO will investigate the circumstances surrounding the incident. Incidents requiring the notification of local, state, and federal agencies include, but are not limited to:

- Diesel spill;
- Truck accident;
- Fire;

- Property Damage;
- Air monitoring level exceedence; and
- Unexpected chemical exposures to the public.

Additional information concerning the incident reporting procedure is provided in URS SMS 049 (*Injury/Illness/Incident Reporting*) and URS SMS 066 (*Incident Investigation*).

10.5 Inspections

Inspections of the Site, Site conditions, compliance with URS HSE standards, the monitoring records, and the daily logs at the Site will occur on a weekly basis. In addition, representatives of regulatory agencies may have statutory authority to evaluate URS operations for compliance with health, safety, and environmental regulations. URS personnel are required to cooperate with all such inspections. Details of the procedures for inspections are outlined in URS SMS 001 (*Regulatory Inspections*, Attachment A).

11.0 SITE SAFETY PLAN COMPLIANCE AGREEMENT

All project personnel, including URS employees, client project staff, URS contractors and visitors associated with work at any of the Zonolite Road site shall pledge to follow all protocols and procedures in this HASP. In order to document individual agreement with this requirement, all personnel must complete this Site Safety Plan Compliance Agreement. These agreements will be kept in the on-site and will become part of the permanent project record upon completion of site activities.

I, _____ (print name), have read the Site Safety Plan (HASP) for the Zonolite Road site in Atlanta, GA or I have been verbally advised of its contents. I understand, and I agree to comply with all of its provisions. I understand that I could be prohibited from working on the project, and I may be subject to disciplinary actions for violating any of the health and safety requirements specified in this HASP.

_____	_____
Signature	Date
_____	_____
Company	Employee Number

12.0 APPROVALS

By their signature, the undersigned certify this Site Safety Plan will be used for the protection of the health and safety of URS personnel, contractors, and visitors during the Zonolite Road site in Atlanta, GA.

Signature	**Date**
_____	_____
Brent Jacobs URS Project Manager	
_____	_____
URS Site Safety Officer	
	May 25, 2011
Millard Griffin URS Regional Health, Safety, and Environment Manager	

ATTACHMENT A

APPLICABLE URS SAFETY MANAGEMENT STANDARDS

SMS 001	Regulatory Inspections	SMS 041	Rigging
SMS 002	Hazard Communication	SMS 042	Respiratory Protection
SMS 003	Emergency Action Plans	SMS 043	Personal Monitoring (Industrial Hygiene)
SMS 008	Asbestos Operations	SMS 046	Subcontractor Health and Safety Requirements
SMS 012	Electrical Safety	SMS 047	Biological Hazards
SMS 013	Excavation Safety	SMS 048	Hazardous Materials/Dangerous Goods Shipping
SMS 014	Fire Prevention	SMS 049	Injury/Illness/Incident Reporting and Notification
SMS 015	Flammable/Combustible Liquids and Gases	SMS 050	Toxic and Hazardous Substances
SMS 016	Hand Tools and Portable Equipment	SMS 051	Blood borne Pathogens
SMS 017	Hazardous Waste Operations	SMS 054	Office Ergonomics
SMS 018	Heat Stress	SMS 055	Health and Safety Training
SMS 019	Heavy Equipment Operations	SMS 057	Vehicle Safety
SMS 021	Housekeeping	SMS 064	Hand Safety
SMS 023	Lockout/Tagout (Control of Hazardous Energy)	SMS 065	Injury Management

SMS 024	Medical Screening and Surveillance	SMS 066	Incident Investigation
SMS 025	New Employee HSE Orientation	SMS 069	Manual Material Handling
SMS 026	Noise and Hearing Conservation	SMS 070	Powered Industrial Trucks
SMS 029	Personal Protective Equipment	SMS 072	Behavior Based Safety
SMS 030	Sanitation	SMS 086	Managing Health, Safety and Environment-Related Risks
SMS 031	Scaffolding	SMS 088	Signs, Signals and Barricades
SMS 034	Utility Clearance and Isolation	SMS 090	Project Security
SMS 038	Cranes	SMS 098	Management of Change
SMS 040	Fall Protection		

ATTACHMENT B

BLANK SITE FORMS

SMS Form 13-1 Excavation/Trenching Permit
SMS Form 13-2 Daily Excavation/Trench Inspection Report
SMS Form 15-2 Flammable/Combustible/Oxidizer and Compressed Gas Inspection Checklist
SMS Form 18-1 Heat Stress Monitoring Record
SMS Form 19-1 Daily Heavy Equipment Safety Inspection Checklist
SMS Form 21-1 Housekeeping
SMS Form 24-9 Field First Aid Kit Supply List
SMS Form 29-1 Hazard Assessment Certification Form
SMS Form 29-2 PPE Inspection Sheet
SMS Form 30-1 Sanitation Inspection Sheet
SMS Form 40-1 Fall Protection PPE Checklist
SMS Form 42-1 Identifying When a Respirator is Needed
SMS Form 46-1 Subcontractor Safety Evaluation Form
SMS Form 49-1 Incident Reporting Form
SMS Form 72-1 Behavior Based Safety Checklist

ATTACHMENT C - JSA