

**Accident Prevention Plan
Final**

**Balance of Plant Operable Unit Field Investigation
Niagara Falls Storage Site
Lewiston, New York**

Contract No. W912QR-12-D-0023

Delivery Order No. DN01



Prepared by:
URS Group, Inc.

**For:
U.S. Army Corps of Engineers (USACE)
Buffalo District
Buffalo, New York**

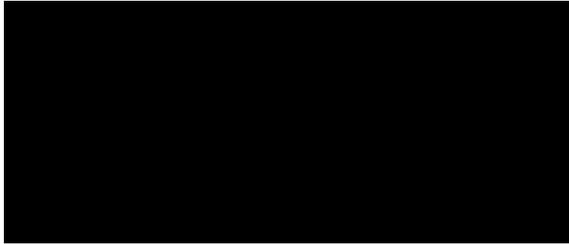


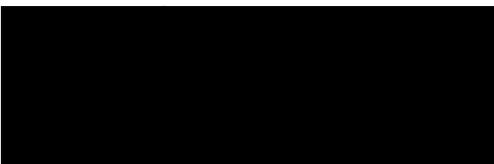
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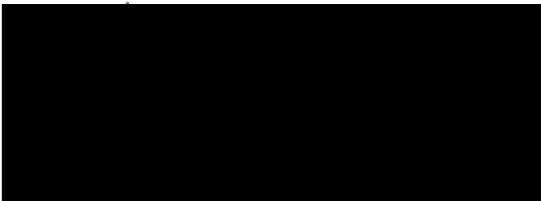
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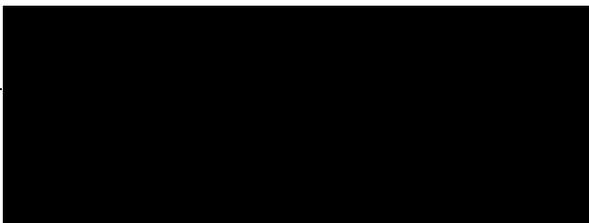
Accident Prevention Plan (Draft)

Balance of Plant Operable Unit Field Investigation Lewiston, New York

Authored By:  _____
Date 2 November 2012

Approved By:  _____
Date 2 November 2012

Approved By:  _____
Date 2 November 2012

Concurrence
By:  _____
Date 2 November 2012

- New Plan
- Title Change
- Plan Revision
- Plan Rewrite

Effective 2 November
Date 2012

CERTIFICATION OF INDEPENDENT TECHNICAL REVIEW

COMPLETION OF INDEPENDENT TECHNICAL REVIEW

URS Group, Inc. (URS) has completed the *Accident Prevention Plan* for the Niagara Falls Storage Site Balance of Plant Operable Unit Field Investigation, Lewiston, New York. Notice is hereby given that an independent technical review has been conducted that is appropriate to the level of risk and complexity inherent in the project, as defined in the Quality Control Plan. During the independent technical review, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of assumptions; methods, procedures, and material used in analyses; alternatives evaluated; the appropriateness of data used and level of data obtained; and reasonableness of the results, including whether the product meets the customer's needs consistent with existing USACE policy.



Signature/URS Report Preparer – 

2 November 2012
Date



Signature/URS Independent Technical Reviewer – 

2 November 2012
Date

Independent Technical Review Team Members: Greg Drumm

CERTIFICATION OF INDEPENDENT TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows:

Item	Technical Concerns	Possible Impact	Resolutions
	None		

As noted above, all concerns resulting from independent technical review of the plan have been resolved.



Signature/URS Principal

2 November 2012
Date

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LIST OF ACRONYMS

AEC	Atomic Energy Commission
AHA	Activity Hazard Analysis
ALARA	As Low as Reasonably Achievable
APP	Accident Prevention Plan
BOP	Balance of Plant
CIH	Certified Industrial Hygienist
CVOC	Chlorinated Volatile Organic Compound
CFR	Code of Federal Regulations
CSEP	Confined Space Entry Permit
CO/COR	Contracting Officer/Representative
COC	Contaminants of Concern
CQC	Contractor Quality Control
DNAPL	Dense Non-Aqueous Phase Liquid
EMR	Experience Modification Rates
EU	Exposure Unit
FS	Feasibility Study
FA/CPR	First Aid/Cardiopulmonary Resuscitation
FUSRAP	Formerly Utilized Sites Remedial Action Program
GFCI	Ground Fault Circuit Interrupter
HAZCOM	Hazard Communication
HAZWOPER	Hazardous Waste Operations and Emergency Response
HWP	Hazardous Work Permit
HS&E	Health Safety and Environment
HR	Heart Rate
IDW	Investigation-Derived Waste
IWCS	Interim Waste Containment Structure
LOOW	Lake Ontario Ordnance Works
LWBZ	Lower Water-Bearing Zone
MED	Manhattan Engineering District
mrem/yr	Millirem per year
MSDS	Material Safety Data Sheets
NFSS	Niagara Falls Storage Site
OSHA	Occupational Safety and Health Administration
OU	Operable Unit
PPE	Personal Protective Equipment

PM	Project Manager
RPP	Radiation Protection Plan
RWP	Radiation Work Permit
ROD	Record of Decision
RI	Remedial Investigation
SMS	Safety Management Standards
SOW	Scope of Work
SRSO	Site Radiation Safety Officer
SS	Site Supervisor
SSHO	Site Safety and Health Officer
SSHP	Site Safety and Health Plans
TSCA	Toxic Substances Control Act
USACE	United States Army Corps of Engineers
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
UWBZ	Upper Water-Bearing Zone
URS	URS Group, Inc.

1.0 BACKGROUND INFORMATION

Contractor

URS Group, Inc.



Contract Number

W912QR-12-D-0023

Project Name:

Balance of Plant Operable Unit Field Investigation, Niagara Falls Storage Site, Lewiston, New York

Introduction

Pursuant to the provisions set forth in United States Army Corps of Engineers (USACE) Contract W912QR-12-D-0023, this Accident Prevention Plan has been prepared, in accordance with the requirements of the USACE *Safety and Health Requirements Manual* (EM-385-1-1), 15 September 2008.

Description of Project and Work to be Performed and Phases of Work Anticipated

The Balance of Plant Operable Unit Field Investigation effort to be carried out by URS Group, Inc. (URS), will be performed at the Niagara Falls Storage Site (NFSS) located at 1397 Pletcher Road in Lewiston, New York, in a portion of the former Lake Ontario Ordnance Works (LOOW) that was used by the USACE Manhattan Engineer District (MED) and U.S. Atomic Energy Commission (AEC) to store radioactive residues and other materials beginning in 1944. Nearly all the radioactive residues sent to the NFSS originated from uranium processing activities conducted for MED and AEC at the Linde Air Products facility in Tonawanda, New York, the Mallinckrodt Chemical Works refinery in St. Louis, Missouri, and the Middlesex Sampling Plant in New Jersey.

Radiological constituents of concern at NFSS include isotopic uranium, isotopic thorium, and radium-226/228. Other constituents that occur on-site in lesser amounts include daughter products of the uranium series (U-238) and, to some extent, the actinium series (U-235).

Activities at the NFSS have transitioned from the site Remedial Investigation (RI) activities to the Feasibility Study (FS) evaluation of potential remediation alternatives for the first of three separate Operable Units (OUs): the Interim Waste Containment Structure (IWCS) OU. The remaining OUs are the Balance of Plant (BOP) OU and the Groundwater OU.

During development of the RI, the NFSS was divided into 18 exposure units (EU). An EU is defined as the geographic area in which a future receptor (for purposes of the baseline risk assessment) is assumed to work or live, and where a receptor may be exposed to site-related contaminants.

The objectives of this field investigation in support of the BOP OU FS are to:

- Delineate groundwater contamination in EUs 1, 2, 4, and 10;
- Identify the source of increasing uranium concentrations in groundwater in well OW11B;

- Eliminate potential preferential pathways for off-site migration of groundwater contaminants via pipelines;
- Eliminate potential migration of groundwater contamination along the 10-inch water line near the southeast corner of the IWCS; and,
- Manage existing IDW and IDW that will be generated during the field investigation.

The on-site activities performed during this field investigation will include:

- Delineation of Groundwater Contamination in EUs 1, 2, 4, and 10 through monitoring well installation and subsequent soil and groundwater sampling.
- Excavation of Investigative Trenches in the Vicinity of Well OW11B
- Excavation and Plugging of Underground Utilities

Listing of Phases of Work and Activity Hazards Analyses

An Activity Hazard Analysis (AHA) will be prepared to address tasks/activities identified within each Major Phase of Work. AHAs will be prepared in accordance with the format shown in Figure 1-2 on page 10 of EM 385-1-1 (September 15, 2008).

Phases of work anticipated are:

Phase I - Planning and Preparatory

- Conduct Site Visit (Task 1)
- Prepare Work Plans (Task 2)

Phase IIA - Field Operations - Sample Gathering and Analysis

- Monitoring Well Installation and Soil and Groundwater Sampling (Task 3)
 - Geophysical Survey
 - Drilling and Monitoring Well Installation
 - Soil and Groundwater Analysis

Phase IIB - Field Operations - Excavations

- Pipeline Excavation (Task 4)
 - Geophysical Survey
 - Pipeline Excavation, Sampling and Plugging
- Excavation of Investigative Trenches in the Vicinity of Well OW11B (Task 5)
- Manage Investigation Derived Waste (IDW) (Task 6)
 - IDW Management and Storage
 - IDW Sample Analysis and Disposal

Phase III - Reporting

- Preparation of Project Report (Task 9)

2.0 STATEMENT OF SAFETY AND HEALTH POLICY

2.1 Policy

URS is committed to business practices, operations, and projects that protect people and the environment.

The basis for health, safety, and environmental programs is that accidents causing injuries or illness to personnel or impact on the environment are preventable. It is everyone's obligation to prevent accidents, and all personnel are expected to conduct business in a manner that actively integrates the elements of the URS Health and Safety Program into applicable aspects of URS operations.

The goal of the URS Health and Safety Program is zero accidents; therefore, accident prevention continues to be of paramount importance to the firm. To this end, safety takes precedence over expediency.

URS is committed to compliance with all client health, safety, and environmental requirements as well as to applicable regulations.

URS has established procedures that provide direction on health and safety matters to all employees. These procedures are periodically evaluated in light of current case law, new regulations, and emerging industry practices.

Each manager/supervisor has the responsibility through personal example to create a climate in which everyone shares a concern for his own safety and the safety of his fellow workers.

2.2 Health and Safety Goals

For the project as a whole, URS will establish the following Health, Safety, and Environment (HS&E) goals:

- Zero accidents
- Lost Workday Accident Case Rate of zero
- Zero environmental non-compliances

The following HS&E performance targets to be used for measuring improvements:

- Achieve and maintain an average Emergency Modification Rate (EMR) of <1.0
- Achieve and maintain a recordable accident rate of zero
- Minimize annual personnel exposures to below 500 millirem per year (mrem/yr) established as-low-as-reasonably-achievable (ALARA) Committee goals.

To ensure that our managers are monitoring the proper elements critical to the performance of the work and HS&E compliance, we will track the above performance.

3.0 RESPONSIBILITIES AND LINES OF AUTHORITY

3.1 Statement of Responsibility

URS is ultimately responsible for the implementation of the Project Safety and Health Program.

The URS personnel responsible for safety and health at the corporate and project levels are presented in the following sections. A project organizational chart is presented in Figure 1.

As the project progresses, it may be necessary to modify certain organizational aspects/functions, such as personnel responsibilities and authorities, so that individual/specific tasks can be performed as efficiently, effectively and safely, as possible. This APP will be revised to reflect any changes to the overall URS project organization structure. These changes will be submitted to the USACE for acceptance. Following acceptance by the USACE, these changes will be transmitted to all affected parties.

3.2 Identification and Accountability of Personnel Responsible for Safety Program-level Personnel Responsible for Health and Safety

Regional Safety and Health Officer

Name: [REDACTED]
Phone: [REDACTED]
Cell Phone: ([REDACTED])
Email: [REDACTED]

The URS Group, Inc. (URS) Regional Safety and Health Officer is responsible for the following:

- Review and accept or reject subcontractor pre-qualification questionnaires with participation from contracts.
- Review and accept or reject subcontractor training records and site-specific safety procedures prior to start of subcontractor's field operations.
- Support the Project Manager (PM) and/or Site Safety and Health Officer (SSHO) oversight of subcontractor (and lower-tier subcontractors), Health, Safety and Environmental (HS&E) practices, Safety Management Standards (SMSs) and interfaces with on-site third parties per the site-specific safety plan.
- Assist with program implementation as needed.
- Provide technical support.
- Conduct H&S Audits

Project-level Personnel Responsible for Health and Safety

Project Manager

Name: [REDACTED]
Phone: [REDACTED]
Cell Phone: [REDACTED]
Email: [REDACTED]

The PM is responsible for providing adequate resources (budget and staff) for project-specific implementation of the H&S process. The PM has overall management responsibility for the project. The PM may explicitly delegate specific tasks to other staff, as described in sections

that follow, but retains ultimate responsibility for completion of the following in accordance with this document:

- Incorporate standard terms and conditions, and contract-specific roles and responsibilities in contract and subcontract agreements (including flow-down requirements to lower-tier subcontractors).
- Select safe and competent subcontractors.
- Obtain, review, and accept or reject subcontractor pre-qualification questionnaires.
- Ensure that acceptable certificates of insurance, including URS as named additional insured, are secured as a condition of subcontract award.
- Incorporate H&S information in subcontract agreements, and ensure that appropriate site-specific safety procedures, training, and medical monitoring records are reviewed and accepted prior to the start of subcontractor's field operations.
- Maintain copies of subcontracts and subcontractor certificates of insurance, bond, contractor's license, training and medical monitoring records, and site-specific safety procedures in the project file accessible to site personnel.
- Provide oversight of subcontractor practices per the site-specific safety plan.
- Manage the site and interface with third parties in a manner consistent with contract and subcontract agreements.
- Ensure that the overall, job-specific, H&S goals are fully and continuously implemented.

Field Investigation Coordinator

Name: [REDACTED]
Phone: [REDACTED]
Cell: [REDACTED]
Email: [REDACTED]

The Field Coordinator will conduct the following:

- Support the Project Manager.
- Coordinate Field Investigation Activities.
- Coordinate Subcontractors.
- Support Field Personnel.

Site Supervisor

Name: [REDACTED]
Phone: [REDACTED]
Cell: [REDACTED]
Email: [REDACTED]

The Site Supervisor (SS) will be the highest-level manager on the site responsible for the overall activities at the site, including Safety, Quality, and Field Activities. The Site Supervisor is responsible for the following:

- Maintaining a physical presence at the site at all times, except as otherwise acceptable to the USACE Contracting Officer.
- Assuring that daily safety inspections and written logs of areas/operations inspected are maintained.
- Assuring that incident investigations and required reports are completed in a timely fashion and that OSHA Form 300 and daily production reports are maintained.
- Assuring applicable safety reference material is maintained on the job site.

- Attend pre-construction conference, pre-work meetings, including preparatory inspection meeting, and periodic progress meetings.
- Assure accepted APPs and AHAs are implemented and enforced.
- Assure that an effective safety and health deficiency tracking system is implemented and maintained.
- Assure subcontractor compliance with safety and health requirements.

██████████ maintains the OSHA 40-hour HAZWOPER training.

Field Geologist/ Alternate Site Supervisor

Name: ██████████
Phone: ██████████
Email: ██████████

██████████ will act as the field geologist overseeing the project excavation activities. In addition, as the alternate Site Supervisor, ██████████ will have the same responsibilities listed above when ██████████ is not on site. ██████████ maintains OSHA 40-hour HAZWOPER training.

Site Safety and Health Officer

Name: ██████████
Phone (cell): ██████████
Email: ██████████

The SSHO, who will be physically present on site at all times, is responsible for the following:

- Verify that the project is conducted in a safe manner.
- Verify that the URS Accident Prevention Plan (APP) and subcontractor Health and Safety Plans are current and amended when project activities or conditions change.
- Verify team members and subcontractors read the APP and sign the Employee Signoff Form, prior to commencing field activities.
- Verify and document team members have completed any required specialty training (e.g., fall protection, confined space entry) and medical surveillance.
- Verify compliance with the requirements of the APP and applicable subcontractor health and safety plan(s).
- Act as the project “Hazard Communication Coordinator” and perform the responsibilities outlined in the APP.
- Act as the project “Emergency Response Coordinator” and perform the responsibilities outlined in the APP.
- Verify that safety meetings are conducted and documented in the project file as needed throughout the course of the project (e.g., as tasks or hazards change).
- Verify that project health and safety forms and permits are being used as outlined in the APP.
- Perform assessments of subcontractor HS&E practices/SMSs per the site-specific safety plan and verify that appropriate health and safety protocols are being used by URS team members.
- Conduct safety briefings weekly to team members and subcontractor supervisors. Require subcontractors to lead and document their own safety briefings as appropriate.
- Implement Drug-Free Workplace Policy.
- Provide open communication with employees.

- Ensure that programs are effectively functioning to prevent and control hazards on the project.
- Provide opportunities for safety involvement to project employees.

maintains the OSHA 30-hour Construction Safety and Health Certificate and 40-hour HAZWOPER training.

Site Radiation Safety Officer

Name:

Phone:

Email:

The Site Radiation Safety Officer (SRSO), who will be physically present on site at all times, is responsible for the following:

- Coordinate implementation of the Radiation Protection Plan (RPP).
- Develop and administer the RPP incorporated in the SSHP and associated standard operating procedures.
- Evaluate potential site/employee radiation exposure.
- Recommend necessary workplace and administrative controls.
- Issue RWPs/HWPs.
- Administer personnel monitoring program.
- Arrange for each individual's monitoring results to be sent to the individuals and employers as appropriate.
- Implement the radiological controls on each site.
- Perform radiological surveys.
- Collect samples and smears.
- Assess radiological hazards during work changes and make adjustments to ensure that worker radiological exposures and releases to the environment are maintained ALARA.

3.3 Competent/Qualified Personnel

The list of competent/qualified corporate and project level personnel responsible for safety include: – Regional Safety and Health Officer, - Project Manager, – Field Coordinator, nway- SSHO, and - SRSO. Copies of resumes of these individuals are presented in Attachment #1. Any additional individuals identified will be included and the list updated accordingly.

3.4 Work Limitations

It is URS policy that any work requiring specialized OSHA competent person training or certification will not be conducted until an appropriate competent person is present on site.

3.5 Pre-Task Safety and Health Analysis

Pre-task safety and health analysis will be performed prior to initiation of work activity. This pre-task safety and health analysis will be documented under the Health Hazard Control Program in the form of Accident Hazard Analysis (AHA). The SSHO will ensure that at the start of each workday, a tailgate safety briefing will be performed that reviews the AHAs applicable to the daily activities, unique site conditions, hospital route, personal protective equipment (PPE), any potential weather concerns, and stop work authority.

3.6 Lines of Authority

For this project, the SSHO has the direct responsibility for health and safety concerns on the project site, and the SRSO has direct responsibility for radiation safety concerns. The SSHO and SRSO work together with the Site Supervisor to ensure the work is completed in a safe manner.

The Site Supervisor reports to the Project Manager, who has the ultimate responsibility for health and safety matters on the overall project.

With respect to health and safety concerns, the Project Manager reports directly to the Corporate Health and Safety Manager.

3.7 Policies and Procedures for Compliance

URS and contractor individuals associated with this project must work injury-free, drug-free and must comply with the project APP, Health, Safety and Environment (HS&E) procedures SMSs any project-specific safety requirements and this policy.

URS may accept a contractor/subcontractor Site Specific Health and Safety Plan provided that the Plan meets/complies with the minimum requirements of this APP.

Drug-Free Workplace

URS does not tolerate illegal drugs, or any use of drugs, controlled substances, or alcohol that impairs an employee's work performance or behavior. URS employees shall not be involved in any manner with the unlawful manufacture, distribution, dispensation, possession, sale, or use of illegal drugs in the workplace. Any violation of these prohibitions may result in discipline or immediate discharge. All URS employees will be subject to post-incident testing in the event of an accident and/or injury requiring medical attention.

3.8 Accountability of URS Managers and Supervisors for Safety

URS is committed to conducting our operations in a way that protects people, property, communities, and the environments. All managers at all levels are accountable for the health and safety of their employees. URS believes all injuries, occupational illnesses, and unpermitted discharges or releases to the environment are preventable. Implementing this core value requires the cooperation of each employee, from upper management to field employees. Health, safety, and environmental compliance are more important than profits or work schedule commitments and are integral parts of the URS Health, Safety, and Environment Management System Elements. URS is dedicated to the concept that all accidents and impacts to the environment are preventable. To realize this value, the company is committed to striving to obtain and sustaining "Target Zero Performance and Environmental Release Performance" through continuous improvement practices. URS safety performance objectives are as follows:

- Strive to eliminate all injuries, illnesses, and adverse impacts to the environment;
- Promote ES&H objectives as a constant value in designing, planning, training, and executing work;
- Spread ownership for ES&H effectiveness throughout the Project team;
- Enhance employee awareness and involvement in our ES&H program implementation;
- Increase employee's consistent use of safe practices in their daily work activities;
- Optimize the use of continuous improvement practices as the basis for Target Zero Performance initiatives;

- Prevent pollutants from entering the environment through good work practices;
- Respond appropriately to monitoring results for subsequent actions;
- Optimize the use of continuous improvement practices as the basis for “Target Zero Performance” initiatives;
- Demonstrate to current and potential customers that URS is “Dedicated to Safety and Environmental Compliance Excellence”.

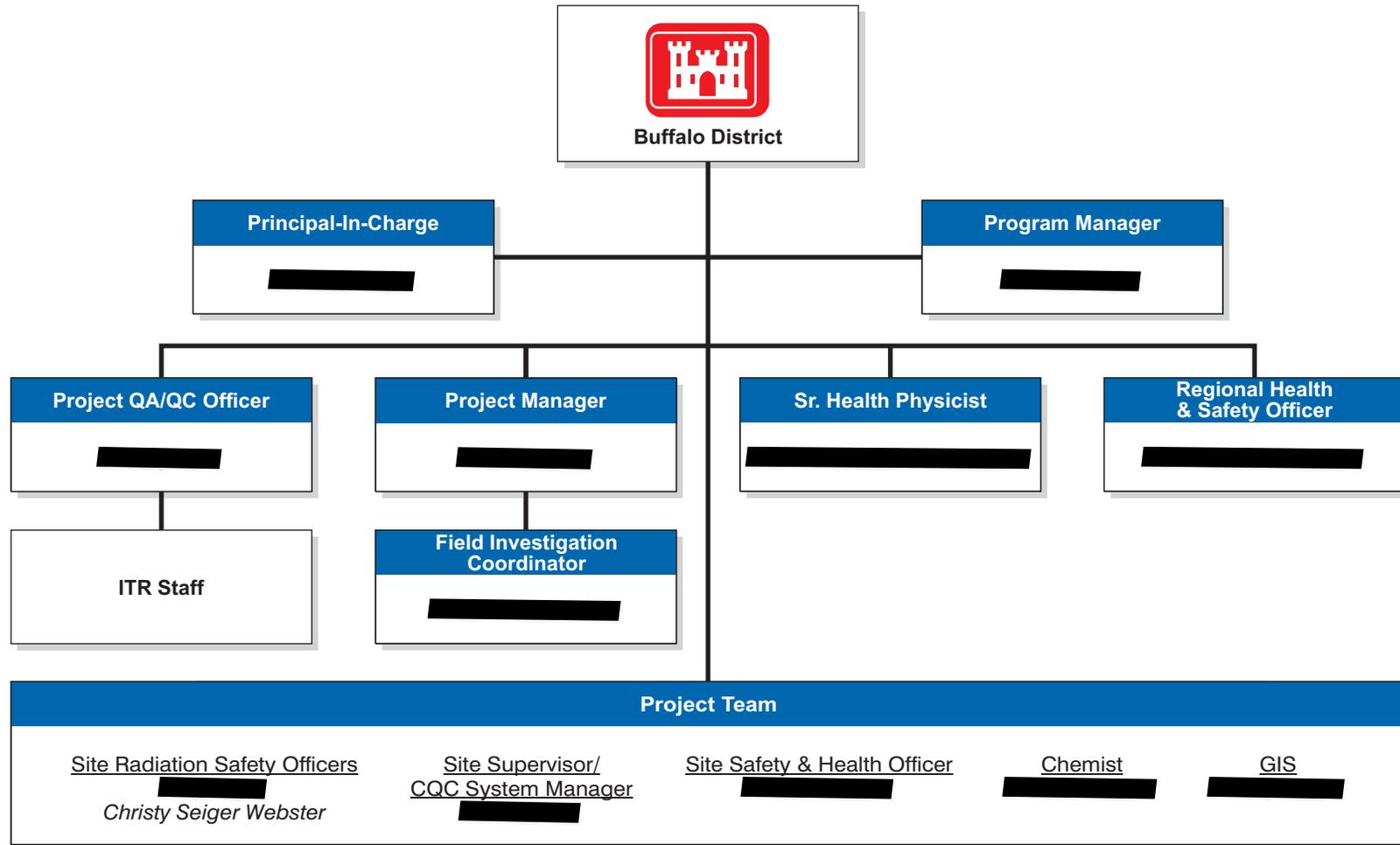
For the NFSS Project, the ultimate measure of HS&E performance will be the achievement of zero incidents. Program effectiveness at the corporate level will be measured by a continual reduction in EMR and a corresponding reduction in insurance rates. It will also be measured by how effectively risks and losses are managed. Our Project management is both responsible and accountable for setting the HS&E performance goals and metrics.

Team employees will have personal HS&E performance metrics included in his/her position descriptions and annual review expectations. HS&E performance results will be part of the management and personnel appraisals. During a formal performance review, Project Personnel Performance will cover the following areas:

- Safety and Compliance
- Job Knowledge and Ability
- Quality and Quantity of Work
- Initiative and teamwork
- Communication and Interpersonal Skills
- Initiative and Flexibility
- Time Management
- Problem Solving and Decision Making

PROJECT ORGANIZATION CHART

USACE Buffalo District
NFSS Balance of Plant Operable Unit
Field Investigation



4.0 SUBCONTRACTORS AND SUPPLIERS

The following subcontractors will be working on this project:

ON-SITE:

Sonic Drilling

[Redacted]

Excavation

[Redacted]

Geophysical Survey

[Redacted]

OFF-SITE:

IDW – Liquids Transportation & Disposal

[Redacted]
Phone: [Redacted]

Laboratory Analytical Services

[Redacted]

IDW – Solids Transportation & Disposal

[Redacted]

The on-site subcontractors listed above must be provided a copy of this APP. URS will obtain and review, for acceptance, all subcontractor Health and Safety Plans prior to the start of any fieldwork. Subcontractors must comply with the minimum standards established by this APP.

URS's oversight does not relieve subcontractors of their responsibility for effective implementation and compliance with the established plan(s) and applicable federal and state safety regulations.

URS personnel should continuously endeavor to observe subcontractors' safety performance. This endeavor should be reasonable, and include observing for hazards or unsafe practices that are both readily observable and occur in common work areas. URS is not responsible for exhaustive observation for hazards and unsafe practices. In addition to this level of

observation, the SSHO is responsible for confirming, via observation, subcontractor compliance the subcontractor's safety plan and applicable practices defined in this APP.

Health and safety related communications with URS subcontractors should be conducted as follows:

- Brief subcontractors on the provisions of this APP and require them to sign the Employee Signoff Form.
- Request subcontractor(s) to brief the project team on the hazards and precautions related to their work.
- When apparent non-compliance/unsafe conditions or practices are observed, notify the subcontractor safety representative and require corrective action. The subcontractor is responsible for determining and implementing necessary controls and corrective actions.
- When repeat non-compliance/unsafe conditions are observed, notify the subcontractor safety representative and stop affected work until adequate corrective measures are implemented.
- When an apparent imminent danger exists, immediately remove all affected employees and subcontractors. Notify subcontractor's safety representative, and stop affected work until adequate corrective measures are implemented. Notify the PM and/or, SSHO as appropriate.
- Document all significant verbal health and safety related communications in project field logbook, daily reports, or other records.

The Field Investigation Coordinator [REDACTED] will be responsible for controlling and coordinating subcontractors and suppliers.

All subcontractors and suppliers performing work on site will be expected to comply with the requirements of this Accident Prevention Plan, EM 385-1-1, as well as with OSHA regulatory requirements, and any additional applicable local, state, and federal regulatory requirements.

5.0 TRAINING

5.1 Employee Orientation

Employees (new and existing) expecting to access the site are required to attend an employee orientation. The training provided to the employees in the employee orientation shall include:

- Review this Accident Prevention Plan (APP).
- Present an overall site safety briefing (general site safety).
- Review employee responsibilities including URS Drug Policy applicability.
- Review emergency procedures and evacuation plan.
- Review injury and incident reporting procedures.
- Review reporting procedures for hazardous conditions and/or hazardous activities.
- Empower all employees with “stop work authority” when they observe a potentially dangerous condition or work practice.

Each employee will receive a safety orientation consisting of a thorough review of applicable AHAs. The safety orientation will be documented using the SSHP Employee Sign-Off Form.

Employee Training

Training documentation will be provided to the URS SS and/or SSHO prior to start of work operations. This documentation/certification includes areas such as HAZWOPER, hazard communication (HAZCOM), forklift, crane, heavy equipment, fall protection, scaffold, ladder, emergency response, etc.

URS will ensure that its employees do not perform a given task without the required training. If it is determined that an employee has been allowed to perform work without the prerequisite training, he/she will not be allowed to continue to perform that task until training has been satisfactorily completed.

5.2 Requirements for Mandatory Training and Certifications

The following is a list of mandatory training and certifications, which are applicable to this project:

1. HAZWOPER Training and Certification (annual re-certification)
2. Radiological Worker/Authorized User
3. Personal Protective Equipment
4. First Aid and CPR (minimum 2 workers per crew)
5. Emergency Response Plan (Covered in Site Safety Orientation)
6. Injury and Incident Reporting (Covered in Site Safety Orientation)
7. Overall Site Safety Briefing and Related APP Requirements and AHAs
8. OSHA - 30-Hour Construction Safety, and Health (URS SSHO)

Re-training of personnel will be at the discretion of the SSHO.

5.3 Periodic Safety and Health Training for Supervisors and Employees

Periodic safety and health training and re-training/refresher training will be provided to supervisors and employees. Such training may include but is not limited to: Site specific training, on-the-job training, HAZWOPER training, competent person training, OSHA

construction training and other related safety and health training deemed appropriate by the Corporate Health and Safety Manager or SSHO.

5.4 Requirements for Emergency Response Training

The requirements for Emergency Response Training are presented in Attachments #2 and #3.

Daily tailgate safety meetings will be conducted prior to commencement of any work and before commencement of any new definable feature of work throughout the day. These daily tailgate meetings will alert any on-site field personnel to the potential workplace hazards associated with the day's work and present a selected health and safety topic. Each on-site worker will be required to attend. All field personnel involved with the daily tailgate meetings are required to sign the attendance sheet. The URS SSHO will be responsible for conducting these meetings as well as collection and maintenance of attendance sheets.

For each separate task, as appropriate, the competent/responsible person overseeing the work will prepare a hazardous work permit (HWP) or radiation work permit (RWP) by detailing the potential hazards associated with equipment, materials, work practices, procedures or other items/activities that may cause potential injuries and/or accidents. All persons involved with that operation or entering the area are required to sign the permit acknowledging that they have read and understand it. Completed or expired permits will be kept on site and filed with safety records/documentation.

6.0 SAFETY AND HEALTH INSPECTIONS

The URS SSHO will conduct site safety inspections on a daily basis. Any noted deficiencies will be identified on that day's CQC Report. Deficiencies will be tracked using the form included in Attachment #4.

The following external inspections/certifications are required for this project - (None Required)

7.0 ACCIDENT REPORTING

7.1 Exposure Data

The URS PM will submit Monthly Man-hour Exposure Reports to the Contracting Officer no later than the fifth workday of each month. The report encompasses on-site work including all hourly and salaried employees. The report will include all subcontractors working on this project.

7.2 Accident Investigations, Reports, and Logs

The URS PM will report all accidents and injuries no matter how slight in accordance with the requirements of URS' SMSs and the Emergency Response Plan presented in Attachment #2.

The PM will report all accidents as soon as possible but not more than 4 hours afterwards to the USACE Contracting Officer/Representative (CO/COR). URS will thoroughly investigate the accident and submit the findings of the investigation along with appropriate corrective actions to the CO/COR in a prescribed format, as soon as possible, but no later than five (5) days following the accident. Corrective actions will be implemented as soon as reasonably possible. A copy of the USACE Accident Investigation Report form is presented in Attachment #2-A.

7.3 Immediate Notification

The URS PM will immediately notify the CO/COR and District Safety Officer of any incidents involving a fatality, a permanent or partial total disability, accidents in which three or more persons are hospitalized resulting from a single occurrence, accidents that result in property damage of \$200,000 or more or any accident regardless of the consequences, if it is suspected that it will result in unfavorable criticism of the USACE.

8.0 PLANS (PROGRAMS, PROCEDURES) REQUIRED BY THE SAFETY MANUAL (AS APPLICABLE)

SMSs which present controls to address the various safety hazards on the Niagara Falls Storage Site are located in Attachment A of the URS Site Safety and Health Plan (SSHP).

8.1 Layout Plans

Plans for the layout of temporary constructions buildings, facilities, fencing and access routes and anchoring systems for temporary structures are included as Attachment #5.

8.2 Emergency Response Plans

An Emergency Response Plan is included as Attachment #2. This Emergency Plan includes:

- Procedures and Tests.
- Spill Containment and Response Plan.
- Fire Fighting Plan.
- Posting of Emergency Telephone Numbers. This Emergency Response Plan will ensure employee safety in case of fire, accidents/incidents, or other emergencies. This plan includes a list of emergency telephone numbers and reporting instructions for ambulance, physician, hospital, fire and police. It also includes a map of directions to the nearest hospital(s). This list and map will be conspicuously posted at the work site.
- Medical Support
 - A list of emergency telephone numbers and a map of directions to the nearest hospital(s) is included in the Emergency Response Plan section of this APP (see Attachment #2).
 - First Aid kits will be maintained on site as required in Section 3 of EM 385-1-1. A description where first aid kits and fire extinguishers are located is provided in the Emergency Response Plan. (Attachment #2)
 - At least two employees on each shift will be qualified to administer First Aid and CPR. Individuals who are required to work alone in remote areas will be trained in First Aid. A list of URS/Subcontractor employees who are certified in First Aid and CPR, along with their certificates will be provided to the USACE before initiating any work. URS will provide this list of URS/subcontractor employees and their certificates as an update to Attachment # 3 of this APP.

8.3 Plan for Prevention of Alcohol and Drug Abuse

URS's plan for prevention of Alcohol and Drug Abuse is located as Attachment # 6 to the APP. This plan meets the minimum requirements of DFAR 252.223.7004.

8.4 Site Sanitation Plan

URS's plan for establishing and maintaining basic sanitation provisions for all employees is included in Attachment # 7.

8.5 Access and Haul Road Plan

(Not Applicable)

8.6 Respiratory Protection Plan

The URS Respiratory Protection Plan is presented in SMS 042 Respiratory Protection Program of the URS SSHP.

8.7 Health Hazard Control Program

AHAs will consider all known or reasonably anticipated substances, agents and environments that present a hazard and will recommend hazard control measures. Engineering and administrative controls will be used to control hazards. In cases where engineering or administrative controls are not feasible, PPE may be used. The AHA will serve as certification that a hazard assessment has been conducted.

Operations, materials, and equipment involving potential exposure to hazardous substances, agents or environments will be evaluated by a qualified industrial hygienist, or other competent person, to formulate a hazard control program. The following hazardous substances, agents or environments have been identified:

Project-Specific Hazards

- Underground Utilities
 - High Noise Levels
 - Handling Heavy Objects
 - Heavy Equipment/ Flying Debris/ Protruding Objects
 - Equipment Rotation and Pinch Points
 - Sharp Objects
 - Inhalation and Contact with Hazardous or Radioactive Substances
 - Fire/Explosion
 - Cutting with Torches
 - Confined Space Entry

Biological Hazards

- Snakes
- Poison Ivy/Sumac
- Ticks
- Bees & other stinging insects
- Blood-borne pathogens

General Hazards

- General Practices and Housekeeping
- Hazard communication
- Handling, Shipping and Transportation of Radiological/Chemical Materials
- Lifting
- Fire Prevention
- Electrical/Hazardous Energy Contact
- Inclement Weather
- Heat Stress
- Cold Stress
- Buried Utilities
- Vehicle Safety-Operator Safety
- Slips, trips, and falls
- Uneven work surfaces
- Pressure Washing Operation
- Handheld Tools
- Forklifts/Bobcats/Backhoes

Safe work practices and control measures to reduce or eliminate these potential hazards are included in Attachment #8.

8.8 Hazard Communication (HAZCOM) Program

Included as Attachment # 9 to this APP is a written hazard communication program addressing as a minimum, the following: training (to include potential safety and health effects from exposure), labeling, current inventory of hazardous chemicals on site, and the location and use of Material Safety Data Sheets (MSDSs).

8.9 Process Safety Management

(Not Applicable)

8.10 Lead Abatement Plan

(Not Applicable)

8.11 Asbestos Abatement Plan

(Not Applicable)

8.12 Radiation Protection Plan

The URS RPP is presented in Appendix B of this APP.

8.13 Abrasive Blasting

(Not Applicable)

8.14 Heat and Cold Stress Monitoring Plan

The heat and cold stress-monitoring plan is presented in Attachment # 8.

8.15 Crystalline Silica Monitoring Plan

(Not Applicable)

8.16 Night Operations Lighting Plan

(Not Applicable)

8.17 Fire Protection Plan

URS will provide a fire protection plan for all facilities and project sites. This plan shall include a list of the major workplace fire hazards; potential ignition sources; the types of fire suppression equipment or systems appropriate to the control of fire; assignments of responsibilities for maintaining the equipment and systems; personnel responsible for controlling the fuel source hazards; and housekeeping procedures; including the removal of waste materials. It shall be used to brief employees and emergency first responders on the fire hazards, the material and processes to which they are exposed, and the emergency evacuation procedures. The Fire Prevention Plan is included as Attachment # 10.

8.18 Wild Land Fire-Management Plan

(Not Applicable)

8.19 Hazardous Energy Control (Lockout/Tagout Plan)

A Hazardous Energy Control Plan meeting the requirements of Section 12.A.07 of EM 385-1-1 is included as Attachment # 11 to this Accident Prevention Plan.

8.20 Critical Lift Plan

(Not Applicable)

8.21 Contingency Plan for Floating Plants for Severe Weather

Although this requirement is not directly applicable, the concern for severe weather is. A severe weather plan for project activities is included in Attachment # 12.

8.22 Float Plan

(Not Applicable)

8.23 Site-Specific Fall Protection and Prevention Plan

Fall protection (from falls into trenches) is addressed in SMS 040 - Fall Protection (Attachment A) of the URS SSHP

8.24 Demolition Plan

(Not Applicable)

8.25 Excavation/Trenching Plan

An excavation/trenching plan is presented in Attachment # 13.

8.26 Emergency Rescue (Tunneling)

(Not Applicable)

8.27 Underground Construction Fire Prevention Plan

(Not Applicable)

8.28 Compressed Air Plan

(Not Applicable)

8.29 Formwork and Shoring Erection and Removal Plans

(Not Applicable)

8.30 Precast Concrete Plan

(Not Applicable)

8.31 Lift Slab Plans

(Not Applicable)

8.32 Steel Erection Plans

(Not Applicable)

8.33 Site Safety and Health Plan for HTRW Work

A Site Safety and Health Plan is presented in Appendix A of this APP. The RPP is presented in Appendix B of this APP.

8.34 Blasting Safety Plan

(Not Applicable)

8.35 Diving Plan

(Not Applicable)

8.36 Confined Space Entry Plan

Confined Space Entry procedures are addressed in SMS 010 – Confined Space Entry (Attachment A) of the URS SSHP.

9.0 RISK MANAGEMENT PROCESS

An Activity Hazard Analysis (AHA) defines the activity being performed, the hazards posed, and control measures required to perform the work safely.

AHAs for the NFSS Project will be prepared before initiating each project task/activity posing H&S hazards to protect personnel using the AHA form provided in EM-385-1-1 (September 15, 2008). The AHA will identify the work tasks required to perform each activity, along with potential H&S hazards and recommended control measures for each work task. In addition, a listing of the equipment to be used to perform the activity, inspection requirements and training requirements for the safe operation of the equipment listed will be identified. Workers will be briefed on the AHA before doing the work and their input is solicited prior, during and after the performance of work to further identify the hazards posed and control measures required.

An AHA will be prepared for all field activities performed by URS and subcontractors during the course of the project. The Project-Specific scope of work and general hazards applicable URS, Corporate H&S Plan and related URS SMSs will be used as a basis for preparing these AHAs.

URS subcontractors will be required to provide AHAs specific to their scope of work on the project for acceptance by URS. Each subcontractor will submit AHAs for their field activities as defined in their work field activities, equipment, tools, or material to perform work of additional/different hazard encountered that require additional/different hazard control measures requires either a new AHA to be prepared or an existing AHA to be revised. All AHAs must be approved by URS prior to work commencement.

Detailed site-specific hazards and controls are provided in the AHAs for the Balance of Plant Operable Unit Field Investigation Project. The AHAs for the NFSS field investigation activities are included in Attachment #14. Also, see Attachment #8.

Pursuant to the USACE's Request for Proposals, a completed APP Checklist is provided in Attachment #15.

ATTACHMENT 1
COMPETENT/QUALIFIED PERSONNEL
RESUMES

ATTACHMENT 2

EMERGENCY RESPONSE PLAN

This Plan outlines the procedures to be followed in the event of a site-wide emergency.

1.0 Pre-Emergency Planning

The URS SSHO will insure that the applicable pre-emergency planning tasks have been performed before starting field activities and coordinates emergency response with subcontractor on-site parties, and local emergency service providers (as appropriate).

- Review the facility emergency and contingency plans where applicable
- Determine what on-site communication equipment is available (e.g., two-way radio, cell phones).
- Determine what offsite communication equipment is needed and its location (e.g., nearest telephone, cell phone).
- Confirm and post emergency telephone numbers, evacuation routes, assembly areas, and route to hospital; communicate the information to on-site personnel.
- Field trailers: Post “Exit” signs above exit doors, and post “Fire Extinguisher” signs above locations of extinguishers. Keep areas near exits and extinguishers clear.
- Establish a clear and simple protocol to communicate if, or when, there is an emergency (e.g., shouting “We have an emergency” on the radio).
- Inform emergency room supervisors and the chief of the local emergency response team(s) that site work has resumed, ambulance access points and the potential types of site emergencies.
- Designate one vehicle as the emergency vehicle at each major operational area; place hospital directions and map inside; keep keys in ignition during field activities.
- Check site emergency equipment, supplies, and potable water are present and/or functional.
- Communicate emergency procedures to the workers for personnel injury, exposures, fires, explosions, and releases.
- Supervisors are to rehearse the emergency response plan before site activities begin, including a “practice run” by driving the route to the hospital.
- Brief new workers on the emergency response plan.
- The PM and SSHO will evaluate emergency response actions and initiate appropriate follow-up actions.
- Throughout the project, the SSHO will review changes in site conditions, on-site operations, and personnel in relation to emergency response procedures.

2.0 Site Communications

- Post emergency numbers near the Site telephones and in all field vehicles.
- Ensure that personnel work under the use of a “buddy” system.
- Furnish selected personnel (typically supervisors) with two-way radios.
- Each major subcontractor shall assign a person who shall report directly to the URS, SSHO. This person shall be responsible for keeping safety equipment and facilities clean and properly equipped and maintained for their personnel and for their subcontractors. This person may, most likely, perform other duties for the contractor, but the first priority shall be maintenance of protective equipment and the personnel decontamination area.

3.0 Emergency Equipment and Supplies

The SSHO will ensure that the locations of emergency equipment will be marked on the site map and the map is posted. A documented periodic inspection (e.g., monthly) of emergency and spill equipment will be conducted to verify that equipment is in its designated location and is in proper working condition.

Emergency Equipment and Supplies	Location
Fire extinguishers (ABC type dry chemical)	With Gas Powered Equipment and Office Building
First aid kits	Office Building
Portable Emergency Eye Wash	Office Building
Hand held emergency Air Horns	Office Building
Blood borne-pathogen kit	Office Building
Stretcher	Office Building
Blankets and towels	Office Building
Additional equipment (specify):	Office Building

At a minimum two URS, or subcontractor employees on each shift will be qualified to administer first aid and CPR when work activities are in progress. This person is expected to perform other duties, but shall be immediately available to render first aid when needed.

4.0 Incident Response

In fires, explosions, or major chemical releases (spills), actions to be taken include the following:

- Shut down URS and subcontractor operations and evacuate the immediate work area.
- Notify appropriate response personnel.
- Account for personnel at the designated assembly area(s).
- Assess the need for site evacuation, and evacuate the site as warranted.

Instead of implementing a work area evacuation, note that small fires or spills posing minimal safety or health hazards may be controlled.

If an immediate evacuation is necessary, individuals working in controlled areas should exit the area without frisking however, they should restrict their activities to limit the potential spread of contamination. If practical, a second set of PPE can be donned for this purpose.

5.0 Emergency Medical Treatment

The procedures listed below may also be applied to non-emergency incidents.

Injuries and illnesses (including overexposure to chemicals or fuels) must be reported to the URS, SSHO. If there is doubt about whether medical treatment is necessary, or if the injured person is reluctant to accept medical treatment, contact the URS, PM and SSHO. Emergency Medical treatment should not be delayed due to radiological contamination concerns. If practical, a second set of PPE can be donned to limit the potential for contamination.

- If appropriate, notify emergency response authorities (e.g., 911).
- The URS PM/or the SSHO will assume charge during a medical emergency until the ambulance arrives or until the injured person is admitted to the emergency room.
- Secure the cause of the injury, if possible, to prevent further injury and/or injury to others.
REMEMBER: lifesaving, first aid and/or medical treatment take priority over everything else.

- Initiate first aid and CPR where feasible.
- Get medical attention immediately.
- Perform decontamination where appropriate and feasible.
- Make certain that the injured person is accompanied to the emergency room, preferably by his/her crew supervisor
- When communicating the emergency medical professional, state your name and telephone number, the name of the injured person, the extent of the injury or exposure (if known), what caused the injury (if known) and the on-site location where the injury occurred.
- Report incident as outlined in the section entitled “Incident Notification Reporting”.

6.0 Evacuation

- Evacuation routes and assembly areas (and alternative routes and assembly areas) are specified before work begins and are identified on the site map for each major operational area.
- Evacuation route(s) and assembly area(s) will be designated by the SSHO based on information from the various supervisors before work begins. These routes and areas will be posted at each major operational area.
- Immediately upon hearing the emergency signal for evacuation, all personnel will shut down their equipment (if any) and assemble at the pre-determined location for their operational area.
- The SSHO and or PM is to confirm all of their personnel are present and accounted for in their assembly area before performing any other task.
- The PM, SSHO and/or a “buddy” will remain on the site after the site has been evacuated (if safe) to assist local responders and advise them of the nature and location of the incident.
- A designated person will account for personnel at alternate assembly area(s), (if any established).
- The PM, SSHO will document the incident as soon as possible after it occurs and submit a report to the Project Manager.
- If an immediate evacuation is necessary, individuals working in controlled areas should exit the area without frisking however, they should restrict their activities to limit the potential spread of contamination. If practical, a second set of PPE can be donned for this purpose.

7.0 Evacuation Signals

Non-verbal signals are often necessary to communicate in emergencies. The project will use the signal methods listed in this table during evacuations.

Signal	Meaning
Grasping throat with hand	Emergency-help me.
Thumbs up	OK; understood.
Grasping buddy’s wrist	Leave area now.
Continuous sounding of horn	Emergency; leave site now.

8.0 Spill Containment and Response Plan

Each piece of heavy equipment (i.e. excavator, backhoe) that holds hydraulic fluid or diesel fuel will have a spill kit to aid in the event of an oil or fuel spill. Each kit contains an oil-absorbent and oil diapers to

contain the fluid. If a hydraulic line breaks, the activity will be shut down immediately. In the event of a spill, the site supervisor will notify the URS PM, SRSO, and SSHO.

9.0 Incident Notification and Reporting

- All personnel are to immediately notify the PM and/or SSHO in the event of an incident, serious illness, fire, spill, accident, injury, near loss, or loss.
- For URS work-related injuries or illnesses, the injury/illness report (SMS 049) and the USACE Accident Investigation Report (Attachment 6) must be completed within 24 hours of incident.
- For URS, subcontractor incidents, complete the subcontractor Accident/Illness Report Form and submit to HSD.
- The PM will report all accidents as soon as possible but not more than 4 hours afterwards to the USACE Contracting Officer/Representative (CO/COR).

10.0 List of Emergency Contacts and Route to Hospital

The following Emergency Contact List and Hospital Route Map shall be conspicuously posted at the job site and maintained in all project vehicles.

NFSS BOP Field Investigation

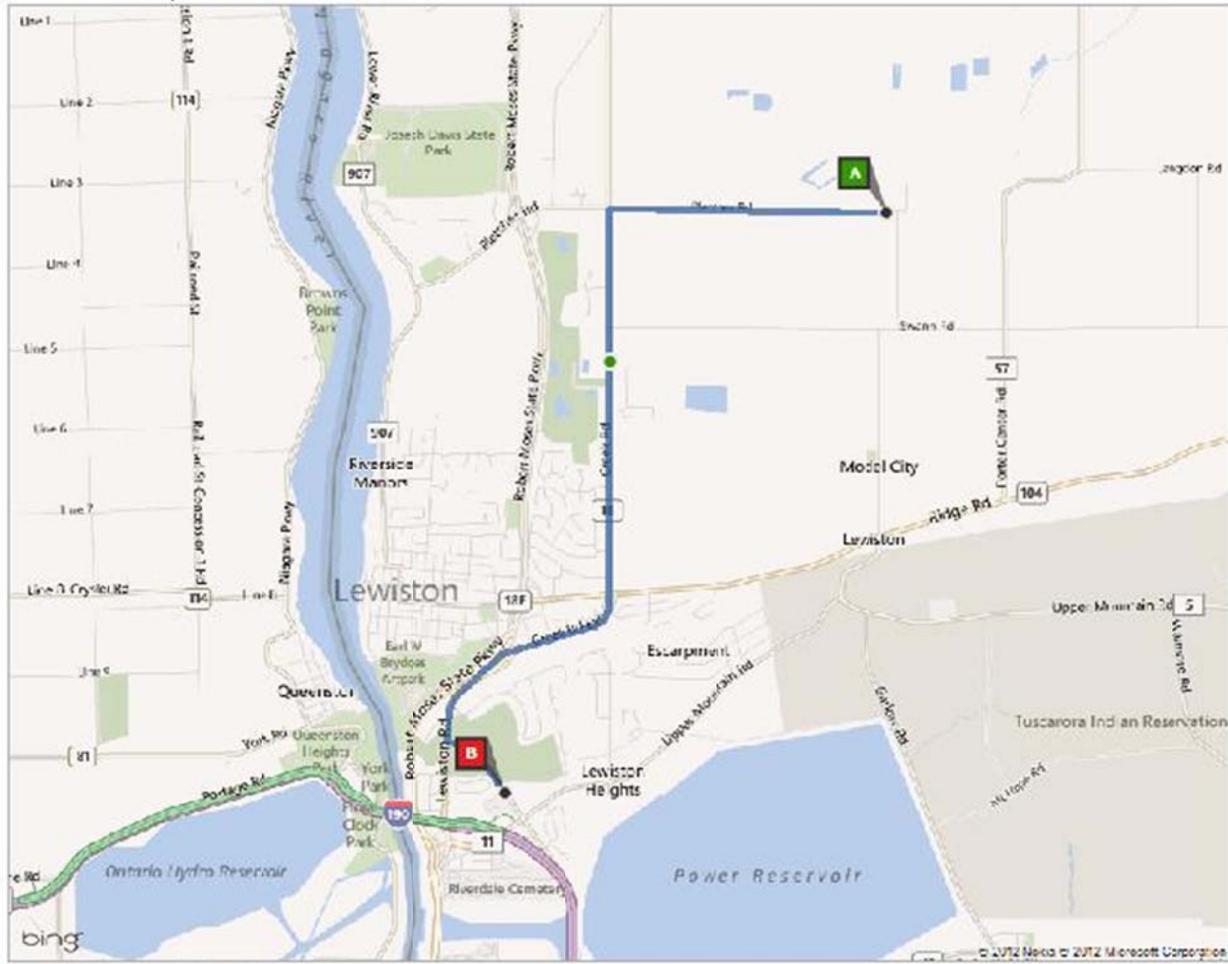
Emergency Contacts

<u>AGENCY/COMPANY</u>	<u>CONTACT</u>	<u>PHONE NUMBER</u>
EMERGENCY		911
Fire Department	Lewiston Fire Company #1	(716) 754-4487
Police	Niagara County Sheriff	(716) 438-3393
Hospital	Mount St. Mary's Hospital	(716) 297-4800
Ambulance		911
WNY Poison Control		(800) 888-7655
CHEMTREC		(800) 424-9300
USACE Emergency Mgmt.		(716) 879-0395
NYSDOH		(716) 847-4302
NYSDEC	Emergency/Spill	(800) 457-7362
URS Project Manager	[REDACTED]	[REDACTED]
URS Field Investigation Coordinator	[REDACTED]	[REDACTED]
URS Site Safety & Health Officer	[REDACTED]	[REDACTED]
URS Site Supervisor	[REDACTED]	[REDACTED]
URS Site Radiation Safety Officer	[REDACTED]	[REDACTED]
URS Occupational Health Manager	[REDACTED]	(866) 326-7321 (Incident Line) [REDACTED]
URS Regional Safety & Health Officer	[REDACTED]	[REDACTED]
USACE Program Manager	[REDACTED]	[REDACTED]
USACE Project Engineer	[REDACTED]	[REDACTED]
USACE Industrial Hygienist	[REDACTED]	[REDACTED]
USACE Site Superintendent	[REDACTED]	[REDACTED]
USACE Health Physicist	[REDACTED]	[REDACTED]
NFSS Site Maintenance/ Building 429	Allan Smallwood Co. [REDACTED]	[REDACTED]

11.0 Maps to Hospital and Occupational Clinic

Mount St. Mary's Hospital
 5300 Military Road
 Lewiston, New York 14092
 (716) 297.4800

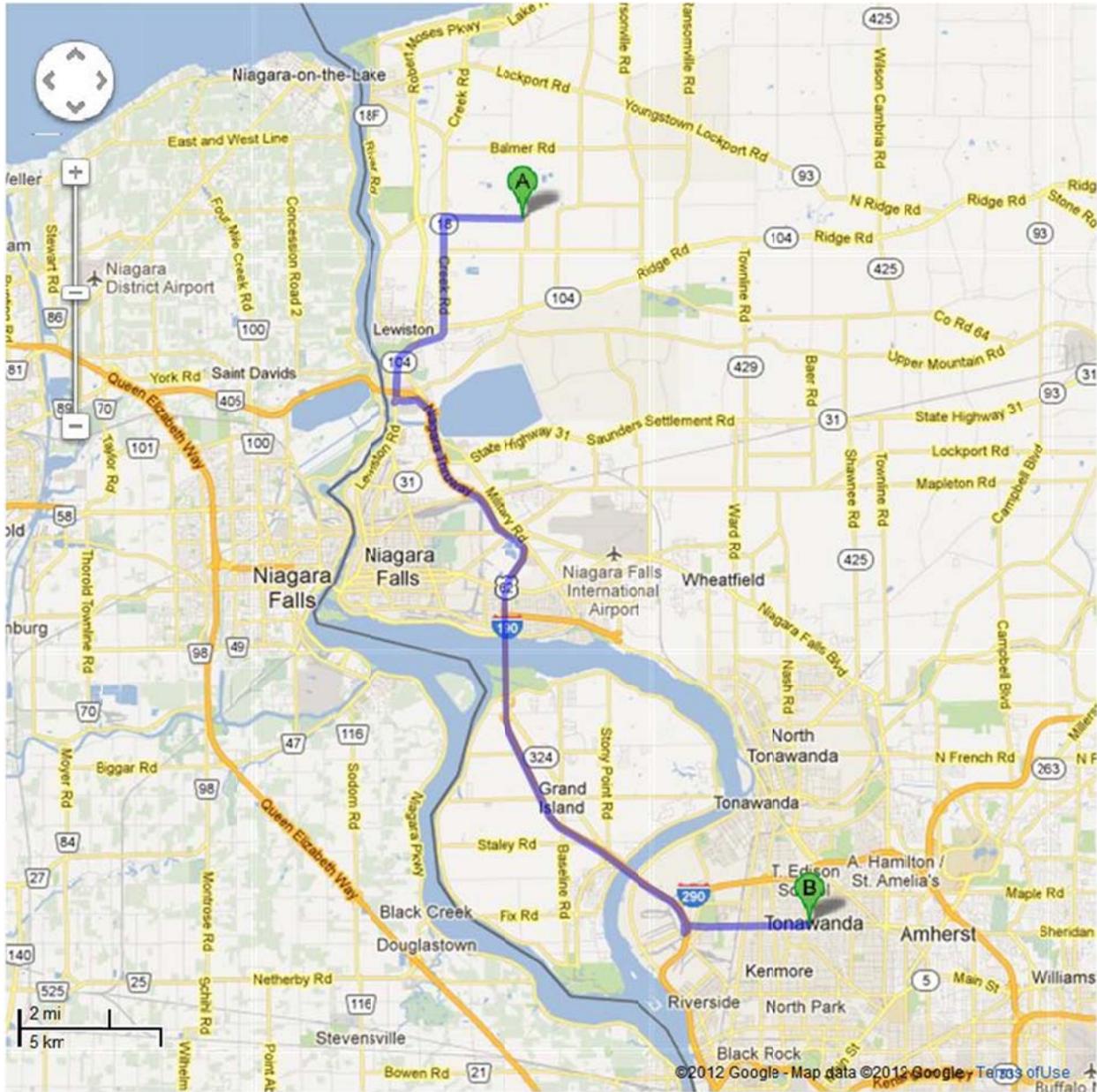
Route: 6.3 mi, 10 min



1. Turn RIGHT onto Pletcher Rd toward Route 18 (Creek Rd)	1.8 miles
2. Turn LEFT onto Route 18 (Creek Rd)	3.2 miles
3. Keep straight onto Route 18 (Creek Rd), turns into Route 104	0.8 miles
4. Turn LEFT at traffic light onto Route 256 (Military Rd)	0.5 miles
5. Hospital is about ½ mile on Right .	

Map to Occupational Clinic:

Healthworks - Tonawanda
2075 Sheridan Drive
Kenmore, New York 14223
(716) 447-6474



 1397 Pletcher Rd, Youngstown, NY 14174

	1. Head west on Pletcher Rd toward NY-18 W/Creek Rd About 3 mins	go 1.7 mi total 1.7 mi
	2. Turn left onto NY-18 W/Creek Rd Continue to follow NY-18 W About 5 mins	go 3.2 mi total 4.9 mi
	3. Take the ramp onto NY-104 W/Lewiston Rd About 2 mins	go 1.6 mi total 6.4 mi
	4. Take the exit toward I-190/Canada/Buffalo	go 0.3 mi total 6.7 mi
	5. Merge onto Upper Mountain Rd	go 299 ft total 6.8 mi
	6. Merge onto I-190 S via the ramp to Niagara Falls/Buffalo Partial toll road About 14 mins	go 15.0 mi total 21.7 mi
	7. Take exit 15 for NY-324/Kenmore Ave toward Sheridan Dr	go 0.1 mi total 21.9 mi
	8. Turn right onto NY-324 E/Kenmore Ave	go 0.2 mi total 22.0 mi
	9. Turn right onto Grand Island Blvd About 2 mins	go 0.5 mi total 22.5 mi
	10. Slight right onto Sheridan Dr Destination will be on the right About 6 mins	go 2.3 mi total 24.8 mi

 2075 Sheridan Dr, Tonawanda, NY 14223

ATTACHMENT 2-A
Accident Investigation Report

<i>(For Safety Staff only)</i>	REPORT NO.	EROC CODE	UNITED STATES ARMY CORPS OF ENGINEERS ACCIDENT INVESTIGATION REPORT <i>(For Use of this Form See Help Menu and USACE Suppl to AR 385-40)</i>				REQUIREMENT CONTROL SYMBOL: CEEC-S-8(R2)	
1. ACCIDENT CLASSIFICATION								
PERSONNEL CLASSIFICATION		INJURY/ILLNESS/FATAL		PROPERTY DAMAGE		MOTOR VEHICLE INVOLVED		
GOVERNMENT <input type="checkbox"/> CIVILIAN <input type="checkbox"/> MILITARY		<input type="checkbox"/>		<input type="checkbox"/> FIRE INVOLVED <input type="checkbox"/> OTHER		<input type="checkbox"/>		
<input type="checkbox"/> CONTRACTOR		<input type="checkbox"/>		<input type="checkbox"/> FIRE INVOLVED <input type="checkbox"/> OTHER		<input type="checkbox"/>		
<input type="checkbox"/> PUBLIC		<input type="checkbox"/> FATAL <input type="checkbox"/> OTHER		XXXXXXXXXX		XXXX		
2. PERSONAL DATA								
a. Name <i>(Last, First, MI)</i>		b. AGE	c. SEX <input type="checkbox"/> MALE <input type="checkbox"/> FEMALE		d. SOCIAL SECURITY NUMBER			
e. GRADE		f. JOB SERIES/TITLE		g. DUTY STATUS AT TIME OF ACCIDENT				
		<input type="checkbox"/> ON DUTY <input type="checkbox"/> TDY <input type="checkbox"/> OFF DUTY		h. EMPLOYMENT STATUS AT TIME OF ACCIDENT <input type="checkbox"/> ARMY ACTIVE <input type="checkbox"/> ARMY RESERVE <input type="checkbox"/> VOLUNTEER <input type="checkbox"/> PERMANENT <input type="checkbox"/> FOREIGN NATIONAL <input type="checkbox"/> SEASONAL <input type="checkbox"/> TEMPORARY <input type="checkbox"/> STUDENT <input type="checkbox"/> OTHER <i>(Specify)</i> _____				
3. GENERAL INFORMATION								
a. DATE OF ACCIDENT <i>(month/day/year)</i>		b. TIME OF ACCIDENT <i>(Military time)</i>		c. EXACT LOCATION OF ACCIDENT		d. CONTRACTOR'S NAME		
		hrs				(1) PRIME:		
e. CONTRACT NUMBER		f. TYPE OF CONTRACT		g. HAZARDOUS/TOXIC WASTE ACTIVITY		(2) SUBCONTRACTOR:		
<input type="checkbox"/> CIVIL WORKS <input type="checkbox"/> MILITARY <input type="checkbox"/> OTHER <i>(Specify)</i> _____		<input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> SERVICE <input type="checkbox"/> A/E <input type="checkbox"/> DREDGE <input type="checkbox"/> OTHER <i>(Specify)</i> _____		<input type="checkbox"/> SUPERFUND <input type="checkbox"/> DERP <input type="checkbox"/> IRP <input type="checkbox"/> OTHER <i>(Specify)</i> _____				
4. CONSTRUCTION ACTIVITIES ONLY <i>(Fill in line and corresponding code number in box from list - see help menu)</i>								
a. CONSTRUCTION ACTIVITY (CODE)				b. TYPE OF CONSTRUCTION EQUIPMENT (CODE)				
# <input type="text"/>				# <input type="text"/>				
5. INJURY/ILLNESS INFORMATION <i>(Include name on line and corresponding code number in box for items e, f & g - see help menu)</i>								
a. SEVERITY OF ILLNESS/INJURY (CODE)				b. ESTIMATED DAYS LOST	c. ESTIMATED DAYS HOSPITALIZED	d. ESTIMATED DAYS RESTRICTED DUTY		
# <input type="text"/>								
e. BODY PART AFFECTED (CODE)				g. TYPE AND SOURCE OF INJURY/ILLNESS				
PRIMARY # <input type="text"/>				TYPE # <input type="text"/>				
SECONDARY # <input type="text"/>				SOURCE # <input type="text"/>				
f. NATURE OF ILLNESS/INJURY (CODE)								
# <input type="text"/>								
6. PUBLIC FATALITY <i>(Fill in line and correspondence code number in box - see help menu)</i>								
a. ACTIVITY AT TIME OF ACCIDENT (CODE)				b. PERSONAL FLOATION DEVICE USED?				
# <input type="text"/>				<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A				
7. MOTOR VEHICLE ACCIDENT								
a. TYPE OF VEHICLE		b. TYPE OF COLLISION			c. SEAT BELTS	USED	NOT USED	NOT AVAILABLE
<input type="checkbox"/> PICKUP/VAN <input type="checkbox"/> AUTOMOBILE <input type="checkbox"/> TRUCK <input type="checkbox"/> OTHER <i>(Specify)</i> _____		<input type="checkbox"/> SIDE SWIPE <input type="checkbox"/> HEAD ON <input type="checkbox"/> REAR END <input type="checkbox"/> BROADSIDE <input type="checkbox"/> ROLL OVER <input type="checkbox"/> BACKING <input type="checkbox"/> OTHER <i>(Specify)</i> _____			(1) FRONT SEAT			
					(2) REAR SEAT			
8. PROPERTY/MATERIAL INVOLVED								
a. NAME OF ITEM			b. OWNERSHIP		c. \$ AMOUNT OF DAMAGE			
(1)								
(2)								
(3)								
9. VESSEL/FLOATING PLANT ACCIDENT <i>(Fill in line and correspondence code number in box from list - see help menu)</i>								
a. TYPE OF VESSEL/FLOATING PLANT (CODE)				b. TYPE OF COLLISION/MISHAP (CODE)				
# <input type="text"/>				# <input type="text"/>				
10. ACCIDENT DESCRIPTION <i>(Use additional paper, if necessary)</i>								

11. CAUSAL FACTOR(S) (Read Instruction Before Completing)					
a. (Explain YES answers in item 13)	YES	NO	a. (CONTINUED)	YES	NO
DESIGN: Was design of facility, workplace or equipment a factor?	<input type="checkbox"/>	<input type="checkbox"/>	CHEMICAL AND PHYSICAL AGENT FACTORS: Did exposure to chemical agents, such as dust, fumes, mists, vapors or physical agents, such as, noise, radiation, etc., contribute to accident?	<input type="checkbox"/>	<input type="checkbox"/>
INSPECTION/MAINTENANCE: Were inspection & maintenance procedures a factor?	<input type="checkbox"/>	<input type="checkbox"/>	OFFICE FACTORS: Did office setting such as, lifting office furniture, carrying, stooping, etc., contribute to the accident?	<input type="checkbox"/>	<input type="checkbox"/>
PERSON'S PHYSICAL CONDITION: In your opinion, was the physical condition of the person a factor?	<input type="checkbox"/>	<input type="checkbox"/>	SUPPORT FACTORS: Were inappropriate tools/resources provided to properly perform the activity/task?	<input type="checkbox"/>	<input type="checkbox"/>
OPERATING PROCEDURES: Were operating procedures a factor?	<input type="checkbox"/>	<input type="checkbox"/>	PERSONAL PROTECTIVE EQUIPMENT: Did the improper selection, use or maintenance of personal protective equipment contribute to the accident?	<input type="checkbox"/>	<input type="checkbox"/>
JOB PRACTICES: Were any job safety/health practices not followed when the accident occurred?	<input type="checkbox"/>	<input type="checkbox"/>	DRUGS/ALCOHOL: In your opinion, was drugs or alcohol a factor to the accident?	<input type="checkbox"/>	<input type="checkbox"/>
HUMAN FACTORS: Did any human factors such as, size or strength of person, etc., contribute to accident?	<input type="checkbox"/>	<input type="checkbox"/>	b. WAS A WRITTEN JOB/ACTIVITY HAZARD ANALYSIS COMPLETED FOR TASK BEING PERFORMED AT TIME OF ACCIDENT? <input type="checkbox"/> YES (If yes, attach a copy.) <input type="checkbox"/> NO		
ENVIRONMENTAL FACTORS: Did heat, cold, dust, sun, glare, etc., contribute to the accident?	<input type="checkbox"/>	<input type="checkbox"/>			

12. TRAINING		
a. WAS PERSON TRAINED TO PERFORM ACTIVITY/TASK? <input type="checkbox"/> YES <input type="checkbox"/> NO	b. TYPE OF TRAINING. <input type="checkbox"/> CLASSROOM <input type="checkbox"/> ON JOB	c. DATE OF MOST RECENT FORMAL TRAINING. (Month) (Day) (Year)

13. FULLY EXPLAIN WHAT ALLOWED OR CAUSED THE ACCIDENT; INCLUDE DIRECT AND INDIRECT CAUSES (See instruction for definition of direct and indirect causes.) (Use additional paper, if necessary)	
a. DIRECT CAUSE	
b. INDIRECT CAUSE(S)	

14. ACTION(S) TAKEN, ANTICIPATED OR RECOMMENDED TO ELIMINATE CAUSE(S).	
DESCRIBE FULLY:	

15. DATES FOR ACTIONS IDENTIFIED IN BLOCK 14.					
a. BEGINNING (Month/Day/Year)			b. ANTICIPATED COMPLETION (Month/Day/Year)		
c. SIGNATURE AND TITLE OF SUPERVISOR COMPLETING REPORT		d. DATE (Mo/Da/Yr)	e. ORGANIZATION IDENTIFIER (Div, Br, Sect)		f. OFFICE SYMBOL
CORPS _____					
CONTRACTOR _____					

16. MANAGEMENT REVIEW (1st)		
a. <input type="checkbox"/> CONCUR b. <input type="checkbox"/> NON CONCUR c. COMMENTS		
SIGNATURE	TITLE	DATE

17. MANAGEMENT REVIEW (2nd - Chief Operations, Construction, Engineering, etc.)		
a. <input type="checkbox"/> CONCUR b. <input type="checkbox"/> NON CONCUR c. COMMENTS		
SIGNATURE	TITLE	DATE

18. SAFETY AND OCCUPATIONAL HEALTH OFFICE REVIEW		
a. <input type="checkbox"/> CONCUR b. <input type="checkbox"/> NON CONCUR c. ADDITIONAL ACTIONS/COMMENTS		
SIGNATURE	TITLE	DATE

19. COMMAND APPROVAL	
COMMENTS	
COMMANDER SIGNATURE	DATE

10. ACCIDENT DESCRIPTION (Continuation)

13a. DIRECT CAUSE (Continuation)

13b.

INDIRECT CAUSES *(Continuation)*

14.

ACTION(S) TAKEN, ANTICIPATED, OR RECOMMENDED TO ELIMINATE CAUSE(S) *(Continuation)*

ATTACHMENT 3

FIRST AID AND CPR CERTIFICATIONS

Appropriate field personnel will have current certification in First Aid and CPR. Copies of certification are included on the pages immediately following.

Note: This list will be updated as appropriate.

2010 CPR, AED, and Basic First Aid Certification Card

has successfully completed and competently performed the required knowledge and skill objectives for this program.

Adult
 Child and Infant
 Adult, Child, and Infant

Card is void if more than one box is checked.

AMERICAN SAFETY & HEALTH INSTITUTE

ESG02890-15 (8/11)

ASHI-Approved Certification Card

_____ Authorized Instructor (Print Name)

_____ Registry No.

Class Completion Date: **888-579-4398**

Expiration Date: _____

Training Center Phone No. _____ Training Center I.D. _____

This card certifies the holder has demonstrated the required knowledge and skill objectives to a currently authorized ASHI Instructor. Certification does not guarantee future performance, or imply licensure or credentialing. Course content conforms to the 2010 AHA Guidelines for CPR and ECC, and other evidence-based treatment recommendations. Certification period may not exceed 24 months from class completion date. More frequent reinforcement of skills is recommended.

2010 CPR, AED, and Basic First Aid Certification Card

has successfully completed and competently performed the required knowledge and skill objectives for this program.

Adult
 Child and Infant
 Adult, Child, and Infant

Card is void if more than one box is checked.

AMERICAN SAFETY & HEALTH INSTITUTE

ESG02890-15 (8/11)

ASHI-Approved Certification Card

_____ Authorized Instructor (Print Name)

_____ Registry No.

Class Completion Date: **888-579-4398**

Expiration Date: _____

Training Center Phone No. _____ Training Center I.D. _____

This card certifies the holder has demonstrated the required knowledge and skill objectives to a currently authorized ASHI Instructor. Certification does not guarantee future performance, or imply licensure or credentialing. Course content conforms to the 2010 AHA Guidelines for CPR and ECC, and other evidence-based treatment recommendations. Certification period may not exceed 24 months from class completion date. More frequent reinforcement of skills is recommended.

2010 CPR, AED, and Basic First Aid Certification Card

has successfully completed and competently performed the required knowledge and skill objectives for this program.

Adult
 Child and Infant
 Adult, Child, and Infant

Card is void if more than one box is checked.

AMERICAN SAFETY & HEALTH INSTITUTE

ESG02890-15 (8/11)

ASHI-Approved Certification Card

_____ Authorized Instructor (Print Name)

_____ Registry No.

Class Completion Date: **888-579-4398**

Expiration Date: _____

Training Center Phone No. _____ Training Center I.D. _____

This card certifies the holder has demonstrated the required knowledge and skill objectives to a currently authorized ASHI Instructor. Certification does not guarantee future performance, or imply licensure or credentialing. Course content conforms to the 2010 AHA Guidelines for CPR and ECC, and other evidence-based treatment recommendations. Certification period may not exceed 24 months from class completion date. More frequent reinforcement of skills is recommended.

ATTACHMENT 4

SAFETY DEFICIENCY TRACKING FORM

Contract No. W912QR-12-D-0023

Niagara Falls Storage Site Balance of Plant Operable Unit Field Investigation

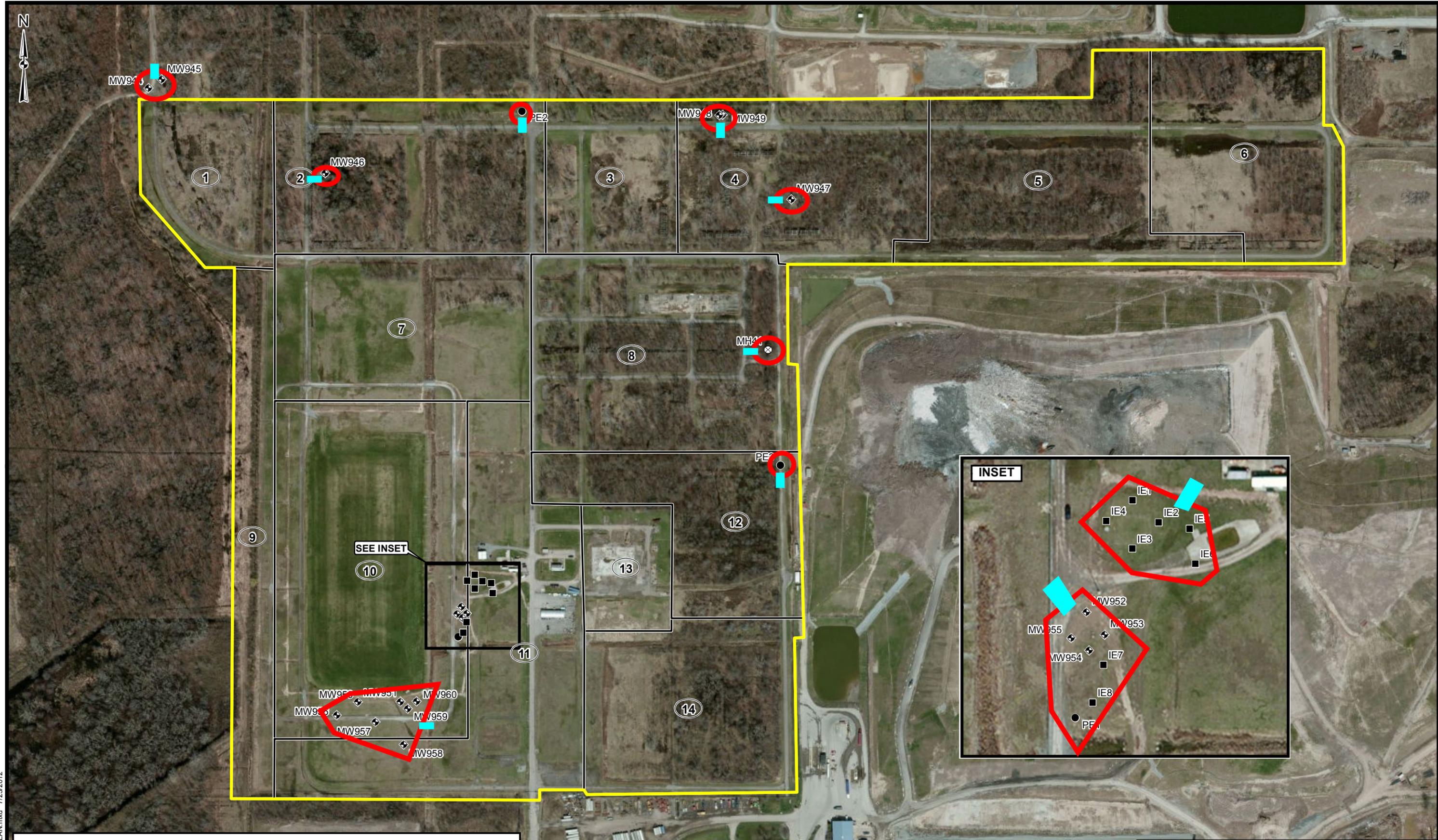
URS

SAFETY DEFICIENCY TRACKING FORM

ITEM NO.	DESCRIPTION	DATE NOTED	DATED SCHEDULED FOR CORRECTION	DATE CORRECTED

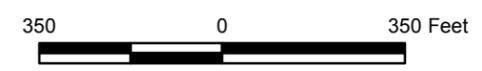
ATTACHMENT 5

LAYOUT PLANS



C:\Proposals\WFSS\SITE PLAN.mxd 7/23/2012

	Exclusion Zone	Legend		Access/ Egress	
	Investigation Excavation		Pipe Excavation		Site Boundary
	Manhole		Proposed Monitoring Well		EU Boundaries



NIAGARA FALLS STORAGE SITE PLAN
LEWISTON, NEW YORK



FIGURE 1

ATTACHMENT 6

PLAN FOR PREVENTION OF AND POLICY ON DRUG AND ALCOHOL ABUSE

1.0 Statement of Policy on Drug and Alcohol Abuse

The use of alcohol or drugs can lead to serious health problems and frequently does affect an individual's judgment, work habits and personal relationships. An individual under the influence of alcohol or drugs constitutes a potential safety hazard to themselves, their fellow workers, third parties and to property, equipment and vessels. In short, an individual under the influence of alcohol or drugs can easily undermine public confidence in the company. Alcohol and drug abuse are serious illnesses that require diagnosis and treatment at the earliest possible stage. The following statement of policy is intended to advise employees of their responsibilities in this area.

We believe that employees having drug and alcohol abuse problems make up only a small fraction of the work force and the company regrets any inconvenience that may be caused to the many non-abusers. The benefits to be derived from the reduction in number of accidents, the greater safety of all employees, and the termination and treatment of those who, because of alcohol or drugs, are a burden upon others, will more than outweigh the inconvenience to non-abusers. The company earnestly solicits the cooperation of all URS and subcontractor employees in implementing the policies described below, many of which are required by United States statutes and regulations.

2.0 Operational Policy

2.1. No alcohol. The use or possession of alcohol by any employee on a work site or while on company property, equipment or vessels or the use of alcohol at any time that would manifest itself while on a work site or while operating company equipment or while on company property, equipment or vessels, is absolutely prohibited. Alcohol for purposes of this policy means any form or derivative or ethyl alcohol (ethanol) including any beverage that may be legally sold and consumed and that has alcohol content. Manifest for purposes of this policy shall include in addition to actually being under the influence of alcohol while on duty, the use of alcohol, which affects performance, results in excessive absenteeism or tardiness or is the cause of an accident. A person displays evidence of intoxication by observation of manner, disposition, speech, general appearance, behavior or if such person has a blood alcohol concentration (BAC) of .04% or greater. No URS or subcontractor shall perform any scheduled duties within eight (8) hours of consuming any alcohol, be intoxicated at any time or consume any intoxicant while on duty. Intoxicant means any form of alcohol, drug or combination thereof.

2.2. No unlawful drugs. The unlawful, manufacture, distribution, dispensation, use, sale or possession of marijuana, narcotics, or controlled substance at any time, on or off duty, is absolutely prohibited. A controlled substance means a controlled substance in schedules through V of section 202 of the Controlled Substance Act (21 U.S.C, 812) and as further defined in Regulation 21 CFR 1308.11-1308.15, which includes, but is not limited to marijuana, cocaine, opiates, narcotics, phencyclidine (PCP), hallucinogens, amphetamines, barbiturates, and tranquilizers.

2.3. Prescription drugs. Employees undergoing prescribed medical treatment with a legal drug or controlled substance must report this fact and present satisfactory written evidence from their treating physician, that such drug or controlled substance will not adversely affect behavior or work performance, to their supervisor prior to starting any work shift. Under these circumstances, it may be necessary to restrict an employee's work activity during the course of such treatment. No prescription drug shall be brought upon a work site or upon company property, equipment or vessel by any person other than the person for whom the drug is

prescribed by a licensed medical practitioner, and shall be used only in the manner, combination and quantity prescribed. No prescription drug shall be contained in any container other than that in which it was originally obtained bearing the pharmacist's label. Abuse of prescription drugs, which affects performance or results in excessive absenteeism or tardiness or is the cause of an accident, will result in disciplinary action up to and including discharge. In this regard, the disciplinary action taken shall be solely determined by the company.

2.4. Supervisor Responsibility. URS and subcontractor supervisors are required to monitor the behavior and work patterns of their employees and all other employees on the work site.

Emotional mood or behavior changes, repeated absenteeism or general behavior consistent with intoxication from alcohol or drugs should be reported to the URS SSHO and HSD. Failure to do so will result in disciplinary action up to and including discharge. In this regard, the disciplinary action taken shall be determined solely by the company.

2.5. Work rules. In order to insure the safety of the work place and work force, the following work rules will apply to all employees immediately upon their hiring.

2.5.1 Searches. Each employee, as a condition of employment, will be required, upon request of the company supervisory personnel, to:

- Submit to a search of any vehicle brought upon or parked upon company premises;
- Submit to a search of any pocket, package, purse, briefcase, toolbox, or other container brought upon any work site, company premises or company vessel or equipment
- Submit to search of desk, locker, office, cabin, stateroom, berth or similar item or Place

2.5.2 Random and reasonable cause testing. Each employee, as a condition of continued employment will also be required, upon request of company supervisory personnel, to promptly submit to a urinalysis and/or a blood alcohol concentration (BAC) test for determining use of alcohol and/or drugs. Any employee whose blood and/or urine test positive for a controlled substance or alcohol shall be discharged. Such testing may be done on a random basis or upon "reasonable cause".

- Reasonable cause means a probability exists, based on some evidence, that a crewmember is intoxicated by or has used drugs, or is intoxicated by alcohol. Alcohol intoxication on a commercial vessel or any BAC of .04% or greater. In the case of drugs, there need not be evidence of intoxication per se; evidence of use is sufficient to require testing.
- Generally the following elements must be present to have "reasonable cause" to require drug and/or alcohol testing:
 - Direct observation of the suspected crewmember and/or physical evidence by one and where practicable, two persons in supervisory positions. This means the supervisor must personally see the evidence.
 - There must be some physical, behavioral or performance indication of use or intoxication. Indicators include but are not limited to an individual's person. Drugs and drug paraphernalia as well as alcoholic beverage containers in clothing and personal property, concealed in staterooms or elsewhere may also provide reasonable cause since these too are physical indicators. An injury to any person or damage occurring to any vessel, equipment or property may provide evidence sufficient for reasonable cause testing. Smoke, breath and body odors may provide evidence. Slurred and incoherent

speech, lack of coordination and balance, nodding and dozing off on watch, inability to report for duty, frequent or extended unexplained absences from assigned duties, sudden and wide changes of mood or attitude and many other observable variables are examples of some conditions which could constitute reasonable cause. It should be noted that a BAC of .04% or greater could be reached by consumption of less than three drinks an hour. Observed odor of alcohol on a person's body or breath is reasonable cause to test.

- When it is determined that reasonable cause to require a test exists, the individual will be informed of the fact and directed to test as soon as practicable. The company will specify whether or not urine, BAC testing or both are being required.

2.5.3 Pre-Employment Testing. All applicants for employment may be required to take a pre-employment physical examination including urinalysis and/or blood alcohol concentration (BAC) test. Applicants whose examinations and interviews, combined with general reference and background checks, indicate present alcohol or drug abuse will not be hired. Whenever the physical follows an individual's hiring, the company reserves the right to discharge the employee upon notification that such individual failed a urinalysis and/or blood alcohol concentration (BAC) test. With respect to vessel members, no person shall be hired who has not passed a pre-employment chemical test before the individual reports for work aboard a vessel. (Pre-employment testing may be waived in accordance with 46 CFR 16.210 (b) (1) and (2). A "chemical test" means a test, which analyzes an individual's breath, blood, urine, saliva and/or bodily fluids or tissues for evidence of drug or alcohol use.

URS subcontractors will be required to develop and implement a plan for prevention and policy on drug and alcohol abuse consistent with the requirements specified in the URS Plan for Protection and Policy on Drug and Alcohol Abuse.

Exhibit "A"

Certification and Declaration

1. I have been provided a written copy of the URS's Policy on Drug and Alcohol Abuse. I am aware that this policy forbids the use of or dealing in illegal drugs, on or off duty and the violation of this policy is cause for termination.
2. I understand that as a condition of my employment, I may from time to time, be required to promptly submit to searches as outlined in URS's policy on Drug and Alcohol Abuse or to urinalysis and/or blood alcohol concentration (BAC) test. I hereby consent to said searches and/or tests. However, I further, understand that I may refuse to submit to such searches or tests and if so, such refusal shall constitute misconduct and be grounds for immediate dismissal.
3. I understand that switching, tampering with or adulterating a urine, blood, saliva or breath specimen, or otherwise interfering with the collection and testing process is prohibited.
4. I understand that violation of any of the provisions of the company policy shall constitute misconduct and will result in disciplinary action up to and including termination.
5. I have read the URS policy on Drug and Alcohol Abuse. I have been given the opportunity to ask about any provisions that I do not understand and I accept and agree to its provisions.

Print Name _____

Signed: _____

Date: _____

ATTACHMENT 7

SITE SANITATION PLAN

1.0 GENERAL REQUIREMENTS

URS and subcontractor will establish and maintain basic sanitation provisions for all employees in all places of employment as specified in the following paragraphs.

1.1 DRINKING WATER

- 1.1.1 An adequate supply of drinking water will be provided in all places of employment. Cool water will be provided during hot weather.
- 1.1.2 Drinking water for field activities will be provided according to the procedures defined in Army Regulation (AR) 700-136; Field Manual (FM) 10-52; FM 21-10/Marine Corps Reference Publication (MCRP) 4-11.1D; and Technical Bulletin, Medical (TB MED) 577,
- 1.1.3 Only approved potable water systems will be used for the distribution of drinking water.
- 1.1.4 Drinking water will be dispensed by means that prevent contamination between the consumer and the source.
- 1.1.5 Portable drinking dispensers will be designed, constructed, and serviced to ensure sanitary conditions; shall be capable of being closed; and shall have a tap. Containers shall be clearly marked as **“DRINKING WATER”** and shall not be used for other purposes. Water shall not be dipped from containers.
- 1.1.6 Fountain dispensers shall have a guarded orifice.
- 1.1.7 Use of a common cup (a cup shared by more than one worker) is prohibited without the cup being sanitized between uses. Employees will use cups when drinking from portable water coolers/containers. Unused disposable cups shall be kept in sanitary containers and a waste receptacle shall be provided for used cups.

1.2 NON-PORTABLE WATER

- 1.2.1 Outlets dispensing non-potable water will be conspicuously posted **“CAUTION – WATER UNSAFE FOR DRINKING, WASHING, OR COOKING”**.
- 1.2.2 Cross-connection – open or potential – between a system furnishing potable water and a system furnishing non-potable water is prohibited.

1.3 TOILETS

- 1.3.1 If sanitary sewers are not available, one of the following facilities, unless prohibited by local codes, will be provided: chemical toilets, re-circulating toilets, combustion toilets, or other toilet systems as approved by State/local governments.
- 1.3.2 Each toilet facility shall be equipped with a toilet seat and toilet seat cover. Each toilet facility – except those specifically designed and designated for females – shall be equipped with a metal, plastic, or porcelain urinal trough. **All shall be provided with an adequate supply of toilet paper and a holder for each seat.**

- 1.3.3 Toilet facilities shall be so constructed that the occupants shall be protected against weather and falling objects; all cracks shall be sealed and the door shall be tight fitting, self-closing, and capable of being latched.
- 1.3.4 Adequate ventilation will be provided and all windows and vents screened; seat boxes will be vented to the outside (minimum vent size 4 inches (in) (10.1 centimeters (cm) inside diameter) with vent intake located 1 inch (2.5 cm) below the seat.
- 1.3.5 Toilet facilities will be constructed so that the interior is lighted.
- 1.3.6 Toilets at construction job sites. (The requirements of this paragraph shall not apply to mobile crews having transportation readily available to nearby toilet facilities.
 - 1.3.6.1 Toilets shall be provided according to Table 2-1. Where toilet rooms maybe occupied by no more than one person at a time, can be locked from the inside, and contain at least one toilet seat, separate toilet rooms for each sex need not be provided.
 - 1.3.6.2 Under temporary field conditions, provision will be made to assure that at least one toilet facility is available.

TABLE 2-1

Number of Employees	Minimum Facilities (per sex)
20 or less	One
21 – 199	One toilet seat and one urinal for every 40 workers
200 or more	One toilet seat and one urinal for every 50 workers

- 1.3.7 Provisions for routinely servicing and cleaning all toilets and disposing of the sewage will be established before placing toilet facilities into operation. The method of sewage disposal and location selected will be in accordance with Federal, State and local health regulations.

1.4 WASHING FACILITIES

- 1.4.1 Washing facilities will be provided at toilet facilities and as needed to maintain healthful and sanitary conditions. Washing facilities for persons engaged in operations where contaminants may be harmful will be at or near the work site and will adequate for removal of the harmful substance.
- 1.4.2 Each washing facility will be maintained in a sanitary condition and provided with water (either hot and cold running water or tepid running water), soap, and individual means of drying. However, where it is not practical to provide running water, hand sanitizers may be used as a substitute. For Radiological decon concerns, hand sanitizer is not an appropriate substitute for hand washing.
- 1.4.3 Whenever employees are required by a particular standard to shower, showers shall be provided in accordance with the following:

- One shower will be provided for every ten employees (or fraction thereof) of each sex who are required to shower during the same shift;
- Body soap or other appropriate cleansing agent convenient to the shower shall be provided;
- Showers will have hot and cold running water feeding a common discharge line; and
- Employees using showers will be provided with individual clean towels.

1.4.5 Whenever employees are required by a particular standard to wear protective clothing, change rooms with storage facilities for street clothes and separate storage facilities for protective clothing will be provided.

1.4.6 Whenever working clothes are provided by an employer and become wet or are washed between shifts, provision will be made to ensure such clothing is dry before reuse.

1.5 FOOD SERVICE

1.5.1 All food items will not be kept in the same refrigerator as other work chemicals that need to be kept cool.

1.5.2 Break rooms/lunch rooms will be kept clean and free of debris, leftover food items or rubbish.

1.5.3 No food or beverage will be consumed or stored in a toilet room or in any area exposed to a toxic material.

1.5.4 An adequate number of waste receptacles will be provided in the break room/lunch room area. Receptacles will be constructed of corrosion resistant or disposable material, provided with solid tight-fitting covers (covers may be omitted where sanitary conditions can be maintained without the use of a cover), emptied at least daily, maintained in a sanitary condition.

1.6 WASTE DISPOSAL

1.6.1 Receptacles used for putrescible or liquid waste material will be so constructed as to prevent leakage and to allow thorough cleaning and sanitary maintenance. These receptacles will be equipped with solid tight-fitting covers, unless they can be maintained in sanitary condition without covers.

1.6.2 Solid and liquid waste will be removed in a way that avoids creating a menace to health and as often as necessary to maintain a sanitary environment.

1.7 VERMIN CONTROL

1.7.1 Enclosed workplaces will be constructed and maintained, as far as practical, to prevent the entrance or harborage of rodents, insects, and other vermin. An effective program will be instituted where the presence of vermin is detected.

ATTACHMENT 8
HAZARD CONTROL PLAN
SAFE WORK PRACTICES AND CONTROLS

1.0 Introduction

This program provides safe work practices and control measures used to reduce or eliminate potential hazards at the Niagara Falls Storage Site. This program addresses a wide range of the common/routine hazards that can be encountered on a site. However, not all of the presented hazards/controls apply to the NFSS site. This hazard control program should be used by the SRSO and SSHO to identify the hazards/control applicable to the NFSS site. These practices and controls are to be implemented by the party in control of either the site or the particular hazard. URS employees must remain aware of the hazards affecting them regardless of who is responsible for controlling the hazards. URS employees and subcontractors who do not understand any of these provisions should contact the PM, SRSO, or SSHO for clarification.

URS subcontractors are required to identify project-specific general hazards for their assigned work and to develop and implement SMSs to ensure work will be carried out in the safest manner possible.

In addition to the controls specified in this program, selected URS SMSs may contain checklists that are to be used in identifying and controlling potential hazards and assess the adequacy of URS site-specific safety requirements. Checklists should be completed at the beginning of tasks, when tasks or conditions change, and/or or when otherwise specified by the SSHO. The checklists, including documented corrective actions, should be made part of the permanent project records, and be promptly submitted to the PM.

2.0 Project-Specific Hazards

Project-specific hazards include the items presented in the following sections, s applicable. SMSs have been developed for these tasks. Employees working on the task are required to review all task-applicable SMSs prior to proceeding with the work. Any task that does not have an applicable SMS shall be brought immediately to the attention of the PM and the SSHO. A variance must be issued by the SSHO and/or the PM, prior to beginning work, for any task that does not have an approved SMS and/or must deviate from the approved SMS in order to complete the task.

A summary of the Hazard Analysis project activities is presented in Table 1.

TABLE 1: HAZARD ANALYSIS – SUMMARY

Potential Hazards	Mobilization/ Demob	Geophysical Survey	Drilling and Monitoring Well Installation	Pipeline Excavation, Sampling and Plugging	Excavation of Investigative Trenches in the Vicinity of Well OW11B	IDW Handling	General Project Oversight
Flying debris/ objects			X	X	X	X	X
Noise > 85dBA		X	X	X	X	X	X
Electrical		X					X
Lockout/ Tagout							

Potential Hazards	Mobilization/ Demob	Geophysical Survey	Drilling and Monitoring Well Installation	Pipeline Excavation, Sampling and Plugging	Excavation of Investigative Trenches in the Vicinity of Well OW11B	IDW Handling	General Project Oversight
Heat Stress/ Cold Stress	X	X	X	X	X	X	X
Suspended Loads	X		X	X	X	X	X
Buried Utilities, Drums Tanks			X	X	X	X	X
Slip, Trip, Fall	X	X	X	X	X	X	X
Back Injury	X	X	X	X	X	X	X
Trenches / Excavations				X	X		X
Confined Space Entry				X	X		X
Visible Lightning	X	X	X	X	X	X	X
Vehicle Traffic	X	X	X	X	X	X	X
Radiological and Chemical		X	X	X	X	X	X
Fires	X	X	X	X	X	X	X
Entanglement			X	X	X		X
Heavy Equipment	X	X	X	X	X	X	X
High Pressure Washing/ Decon			X	X	X	X	

3.0 General Worker Protection Requirements

All personnel who enter the areas designated by the PM, SRSO, and/or SSHO as Active Work Areas shall have the following as a minimum.

- Sleeved Shirt (no sleeveless “tank top”)
- Long Pants
- Hardhat
- Safety Glasses
- High Visibility Reflective Vests
- Steel Toe Boots
- Access to Hearing Protection (keep a pair of ear plugs nearby)

4.0 Working Above, On or Near Water

Not Applicable

5.0 Survey Lasers

- Laser beams used in surveying may be hazardous to the eyes. The severity of the hazard depends on the type of laser and its power.
- Avoid direct eye contact with the beam. This is most important when wearing corrective eyeglasses, which can intensify the beam's focus on the retina.
- Lasers used in surveying are usually low power.
- Lasers must be posted with safety warning signs.

6.0 Aerial Lifts

Not Applicable

7.0 Cranes, Hoists, and Rigging

Not Applicable.

8.0 Rigging

Not Applicable

9.0 Energized Electrical

Refer to the following SMSs prior to beginning any task involving energized lines or equipment: 023 "Lockout and Tagout Safety"; 012 "Electrical Safety"; 014 "Fire Protection and Prevention" and 029 "Personnel Protective Equipment".

- Only qualified personnel, as determined by the PM and/or the SSHO, are permitted to work on unprotected energized electrical systems.
- Only authorized personnel are permitted to enter high-voltage areas.
- Do not tamper with electrical wiring and equipment unless qualified to do so. All electrical wiring and equipment must be considered energized until lockout/tagout procedures are implemented.
- Inspect electrical equipment, power tools, and extension cords for damage prior to use. Defective electrical equipment shall not be used and must be immediately removed from service. Defective equipment will be tagged and brought to the attention of the SSHO.
- All temporary wiring, including extension cords and electrical power tools, must have ground fault circuit interrupters (GFCIs) installed.
- Extension cords must be:
 - Equipped with third-wire grounding.
 - Covered, elevated, or protected from damage when passing through work areas.
 - Protected from pinching if routed through doorways.
 - Not fastened with staples, hung from nails, or suspended with wire.
- Electrical power tools and equipment must be effectively grounded or double-insulated UL approved.
- Operate and maintain electric power tools and equipment according to manufacturers' instructions.
- Maintain safe clearance distances between overhead power lines and any electrical conducting material unless the power lines have been de-energized and grounded, or where insulating barriers have been installed to prevent physical contact. Maintain at least 10 feet from overhead power lines for voltages of 50 kV or less, and 10 feet plus 0.5 inch for every 1 kV over 50 kV.
- Temporary lights shall not be suspended by their electric cord unless designed for suspension. Lights shall be protected from accidental contact or breakage.
- Protect all electrical equipment, tools, switches, and outlets from environmental elements.

- Electrical wiring and equipment shall be de-energized in accordance with SMS 023 - Lockout and Tagout Safety and standard industry practices prior to conducting work.
- A variance shall be obtained from the SSHO for situations where it can be demonstrated that de-energizing introduces additional or increased hazards or is unfeasible due to equipment design or operational limitations.
- All electrical systems shall be considered energized until lockout/tagout procedures are implemented.
- Always personally “double-check” to ensure power is not flowing through the line or equipment by using a voltage tester or similar device; do not accept another person’s word.
- The Energized Electrical Work Permit provided in the Lockout and Tagout Safety SMS (023) must be completed prior to working on unprotected energized electrical systems.
- Follow all control measures and procedures identified on the Energized Electrical Work Permit and all applicable SMSs, industry and OSHA practices.

10. Lockout/Tagout

- 10.1 Refer SMS 023 “Lockout and Tagout Safety”. Lockout and Tagout Safety refers to all electrical and/or mechanically energized equipment.
- 10.2 Ensure the equipment cannot “start” while work is occurring on that equipment by disconnecting battery terminals, unplugging the device from power and/or other methods recommended by the manufacturer.
- 10.3 Never work on equipment when the unexpected operation could result in injury, unless lockout/tagout procedures are implemented.
- 10.4 Standard lockout/tagout procedures include the following six steps:
- Notify all personnel in the affected area of the lockout/tagout,
 - Shut down the equipment using normal operating controls,
 - Isolate all energy sources,
 - Apply individual lock and tag to each energy isolating device,
 - Relieve or restrain all potentially hazardous stored or residual energy (e.g., hydraulic pressure, residual electrical charges in capacitors, etc.).
 - Personally verify through the use of a measurement device (if possible) that isolation and de-energizing of the equipment has been accomplished. Once verified that the equipment is at the zero energy state, work may begin.
- 10.5 NEVER remove another person’s lock or tag. If the work extends over a shift change, and under the direct supervision of the PM, the next crew shall replace the previous crews’ locks with their own, one worker at a time. Work shall not resume until the PM is confident the requirements of the SMSs have been followed and it is safe to return to work.
- 10.6 All safeguards must be put back in place, all affected personnel notified that lockout/tagout has been removed, and controls positioned in the safe mode prior to lockout/tagout removal.

11.0 Excavation

Refer to the following SMSs prior to beginning excavation tasks: 013 “Excavation”; and 019 “Heavy Equipment Operations”;

- Do not enter the excavations unless necessary, and only after the competent person has completed the required inspection and has authorized entry.
- Follow all excavation entry requirements established by the competent person.
- Do not enter excavations where protective systems are damaged or unstable.

- Do not enter excavations where objects or structures above the work location may become unstable and fall into the excavation.
- Do not enter excavations with the potential for a hazardous atmosphere until the air has been tested and found to be at safe levels.
- Do not enter excavations with accumulated water unless precautions have been taken to prevent excavation cave-in.

12.0 Forklifts

Refer to the following SMSs prior to using a forklift: 070 “Powered Industrial Trucks”; 029 “Personal Protective Equipment”.

- Only authorized and trained personnel, possessing a current license/certificate may operate the type of forklift(s) as designated on their license/certificate.
- Forklifts shall be inspected by the operator prior to use.
- Complete the Forklift Inspection Form found in the Powered Industrial truck SMS
- The operator shall use a seat belt (if available).
- Only the operator may ride on the forklift. Passengers are expressly forbidden.
- No part of a load must pass over any personnel.
- Forklifts left unattended must be immobilized and secured against accidental movement and forks, buckets or other attachments must be in the lowered position or be firmly supported.
- No load may exceed the maximum rated load and loads must be handled in accordance with the height and weight restrictions on the load chart.
- When a load is in the raised position, the controls must be attended by an operator.
- If an operator does not have a clear view of the path, a signaler must be used.
- Loads must be carried as close to the ground or floor as the situation permits.
- Loads that may tip or fall must be secured.
- Where a forklift is required to enter or exit a vehicle to load or unload, the vehicle must be immobilized and secured against accidental movement.
- Forklifts shall not be used to support, raise, or lower workers.
- Concentrations of carbon monoxide created by forklift operation indoors, or in and near excavations, must be monitored when the potential exists for reaching or exceeding permissible exposure limits.
- Barriers, warning signs, designated walkways or other safeguards must be provided where pedestrians are exposed to the risk of collision.

13.0 Scaffolds

Not Applicable

14.0 Welding and Cutting

Refer to the following SMSs prior to performing “Hot Work”; 020 “Hot Work”; 014 “Fire Protection and Prevention”; 016 “Hand Tools and Portable Equipment”; and 029 “Personal Protective Equipment”.

- Only trained personnel are permitted to operate welding/cutting equipment.
- Do not enter areas where welding/cutting operations are taking place unless completely necessary and only after receiving permission from the welding/cutting operator.
- If you must be present in an area during welding/cutting operations, position yourself behind flash screens or wear glasses/goggles with lenses of appropriate darkness.
- Do not look directly at the welding/cutting flash or at reflective surfaces surrounding welding/cutting operations.

- Avoid contacting compressed gas cylinders. Cylinders should be properly and firmly secured in an upright position at all times.
- Be aware of tripping hazards created by welding hoses, power cables, leads, and cords positioned on walking surfaces.
- The Hot Work Permit is provided in the Hot Work SMS.

15.0 Compressed Gas Cylinders

Refer to the following SMSs: 020 “Hot Work”; 029 “Personal Protective Equipment”; and 015 “Flammable and Combustible Liquids and Gases”.

- Valve caps must be in place when cylinders are transported, moved, or stored.
- Cylinder valves must be closed when cylinders are not being used and when cylinders are being moved.
- Cylinders must be secured in an upright position at all times.
- Cylinders must be shielded from welding and cutting operations and positioned to avoid being struck or knocked over; contacting electrical circuits; or exposed to extreme heat sources.
- Cylinders must be secured on a cradle, basket, or pallet when hoisted; they may not be hoisted by choker slings.
- Cylinders containing fuel gases must be stored 20 feet from oxidizer cylinders and from other combustible/flammable liquids and materials unless an appropriate fire barrier approved by the SSHO is present.

16.0 Fall Protection

- 16.1 Refer to SMS 040 “Fall Protection” prior to beginning tasks that have fall potential.
- 16.2 Fall protection systems must be used to eliminate fall hazards when performing construction activities or general industry activities at a height of 4 feet or greater.
- 16.3 All project personnel that may be exposed to fall hazards must review the Fall Protection SMS.
- 16.4 Never use fall protection systems on which you have not been trained.
- The PM and/or SSHO shall act as competent person and shall inspect and oversee the use of fall protection systems.
 - Follow all requirements established by the competent person for the use and limitation of fall protection systems.
 - A registered professional engineer shall oversee the use of horizontal lifelines.
 - Only one person shall be simultaneously attached to a vertical lifeline.
 - Remain within the guardrail system when provided. Leaning over or stepping across a guardrail system is not permitted.
 - Do not stand on objects (boxes, buckets, bricks, blocks, etc.) or ladders to increase working height on top of platforms protected by guardrails.
 - Inspect personal fall arrest systems prior to each use. Do not use damaged fall protection systems at any time, or for any reason.
 - Set up personal fall arrest systems so that you can neither free-fall more than 4 feet or contact any lower level.
 - Only attach personal fall arrest systems to anchorage points capable of supporting at least 5,000 pounds.
 - Use fall protection equipment for fall protection only and not to hoist materials. Do not use personal fall arrest systems that have been subjected to impact loading.

17.0 Earthmoving Equipment

Reference SMS 019 “Heavy Equipment Operations” prior to performing earth moving related tasks.

- Only authorized personnel are permitted to operate earthmoving equipment.
- Maintain a safe distance from operating equipment and stay alert of equipment movement. Avoid positioning between fixed objects and operating equipment and equipment pinch points, remain outside of the equipment swinging and turning radius. Pay attention to backup alarms, but do not rely on them for protection. Never turn your back on operating equipment.
- Approach operating equipment only after receiving the operator’s attention. The operator shall acknowledge your presence and stop movement of the equipment. Caution shall be used when standing next to idle equipment; when equipment is placed in gear it can lurch forward or backward. Never approach operating equipment from the side or rear where the operator’s vision is limited or blocked.
- When required to work in proximity to operating equipment, wear high-visibility vests to increase visibility to equipment operators.
- Do not ride on earthmoving equipment unless it is specifically designed to accommodate passengers. Only ride in seats that are provided for transportation and that are equipped with seat belts.
- Unless directly involved with the work activity, stay clear of all hoisting operations. Loads shall not be hoisted overhead of personnel.
- Earthmoving equipment shall not be used to lift or lower personnel.
- If equipment becomes electrically energized, personnel shall be instructed not to touch any part of the equipment or attempt to touch any person who may be in contact with the electrical current. The utility company or appropriate party shall be contacted to have line de-energized prior to approaching the equipment.

18.0 Hand Tools

Refer to the following SMSs prior to using hand tools: 029 “Personal Protective Equipment”; 016 “Hand Tools and Portable Equipment”; and 023 “Lockout and Tagout Safety”.

- Operate all tools according to the manufacturers’ instructions, within design limitations and only to perform tasks for which they were designed.
- All hand and power tools shall be maintained in a safe condition.
- Tools are to be inspected and tested before use. If a tool is found to be defective it is to be tagged “Do Not Use” and removed from service until repaired.
- Personal protective equipment (PPE), such as gloves, safety glasses, earplugs, and face shields, are to be used when exposed to a hazard from the tool.
- Power tools are not to be carried or lowered by the cord or hose.
- Disconnect tools from energy sources when not in use, before servicing and cleaning, and when changing accessories such as blades, bits, and cutters.
- Safety guards on tools are to remain installed while the tool is in use and promptly replaced after repair or maintenance has been performed.
- Tools are to be stored properly, where they will not be damaged or come in contact with hazardous materials.
- If a cordless tool is connected to its recharge unit, both pieces of equipment must conform strictly with electrical standards and manufacturer’s specifications.

- Tools used in an explosive environment must be rated (e.g., intrinsically safe, spark proof, etc.) for work in that environment.
- When using a knife or blade tool, stroke or cut away from the body with a smooth motion taking care not to use excessive force that could damage tool, material being cut or unprotected hands.
- Wrenches, including adjustable, pipe, end, and socket wrenches, shall not be used when jaws are sprung to the point that slippage occurs.
- Impact tools, such as drift pins, wedges, and chisels, shall be kept free of mushroomed heads.
- The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool.
- Manual and pistol grip hand tools may involve work with highly repetitive movement, extended elevation, constrained postures, or positioning of body members (e.g., hand, wrist, arm, shoulder, neck, etc.). Consider alternative tool design, improved posture, selection of appropriate materials, work organization, and sequencing to prevent muscular skeletal, repetitive motion, and cumulative trauma stressors.
- Tools with safety devices shall be tested each day before use to see that the safety devices are in proper working condition. The method of testing shall be in accordance with the manufacturer's recommended procedure. Safety devices shall not be removed or altered.
- Belts, gears, shafts, pulleys, sprockets, spindles, drums, flywheels, chains, or other reciprocating, rotating or moving parts of equipment shall be guarded if such parts are exposed to contact by employees or otherwise create a hazard.
- All liquid fuel-powered tools shall be stopped while being refueled, serviced, or maintained.

19.0 Boating/Dredge Operations

Not Applicable

20.0 General Hazards

20.1 Housekeeping

Refer to SMS 021 "Housekeeping".

- Site work should be performed during daylight hours whenever possible. Work conducted during hours of darkness requires sufficient illumination intensity to read a newspaper without difficulty.
- Good housekeeping must be maintained at all times in all project work areas.
- Common paths of travel should be established and kept free from the accumulation of materials.
- Keep access to aisles, exits, ladders, stairways, scaffolding, and emergency equipment free from obstructions.
- Provide slip-resistant surfaces, ropes, and/or other devices to be used.
- Specific areas should be designated for the proper storage of materials.
- Tools, equipment, materials, and supplies shall be stored in an orderly manner.
- As work progresses, scrap and unessential materials must be neatly stored or removed from the work area.
- Containers should be provided for collecting trash and other debris and shall be removed at regular intervals.
- All spills shall be quickly cleaned up. Oil and grease shall be cleaned from walking and working surfaces. Spill kits and fire extinguishers will be maintained in fuel storage areas and fueling stations.

20.2 Hazard Communication

Refer to the following SMSs: 002 “Hazard Communication”; 029 “Personal Protective Equipment “; and 042 “Respiratory Protection”.

The SSHO is to perform the following:

- Complete an inventory of chemicals brought on site by URS using Attachment A in the Hazard Communications SMS.
- Confirm that an inventory of chemicals, and their MSDSs, brought on site by subcontractors is available.
- URS shall obtain MSDSs from the client, contractors, and subcontractors for chemicals to which URS employees and subcontractors potentially are exposed.
- Before or as the chemicals arrive on site, obtain an MSDS for each hazardous chemical and retain a copy with the HSP on site.
- Label chemical containers with the identity of the chemical and with hazard warnings, and store properly.
- Give the employees necessary chemical-specific HAZCOM training.
- Store all materials properly, giving consideration to compatibility, quantity limits, secondary containment, fire prevention, and environmental conditions.

21.0 Shipping and Transportation of Chemical Products

Refer to SMS 048 “Hazardous Materials/ Dangerous Goods Shipping”; and the appropriate regulations found in the US Department of Transportation (USDOT) 49 CFR Parts 100-185. In the event wastes are being shipped off-site, the following regulations may be applicable: US Environmental Protection agency regulations (USEPA) that pertain to Resource Conservation and Recovery Act (RCRA) 40 CFR Parts 256,261, 262 and the Toxic Substances Control Act (TSCA) 40 CFR 700-789. IDW waste will include radiological hazards and all packages will need to be surveyed for radiological release before leaving the site.

- Any person who offers hazardous materials for transportation must label the package or container.
- Chemicals brought to the site might be defined as hazardous materials by the USDOT.
- All staff who ship the materials or transport them by road must receive appropriate training in shipping dangerous goods.
- All hazardous materials that are shipped (e.g., via Federal Express) or are transported by road must be properly identified, labeled, packed, manifested and documented by authorized staff.
- Contact the PM, or the SSHO for additional information.

22.0 Lifting

Refer to SMS 069 “Manual Material Handling” prior to beginning a lifting related task.

- Proper lifting techniques must be used when lifting any object.
 - Plan storage and staging to minimize lifting or carrying distances.
 - _ Get assistance when moving any materials weighing greater than 50 pounds.
 - Split heavy loads into smaller loads.
 - Use mechanical lifting aids whenever possible.
 - Have someone assist with the lift, regardless of weight, for any awkward loads.
 - Make sure the path of travel is clear prior to the lift.

23.0 Fire Prevention

Refer to the following SMSs: 014 “Fire Protection and Prevention”; 021 “Housekeeping”; and 020 “Hot Work”.

- Fire extinguishers shall be provided so that the travel distance from any work area to the nearest extinguisher is less than 100 feet. When 5 gallons or more of a flammable or combustible liquid is being used, an extinguisher must be within 50 feet. Extinguishers must:
 - Be maintained in a fully charged and operable condition,
 - Be of the proper type to extinguish a potential fire from the material used, stored, or encountered,
 - Be visually inspected each month, and
 - Undergo a maintenance check each year.
- The area in front of extinguishers must be kept clear.
- Post “Exit” signs over exiting doors, and post “Fire Extinguisher” signs over extinguisher locations.
- Combustible materials stored outside should be at least 10 feet from any building.
- Solvent waste and oily rags must be kept in a fire resistant, covered container until removed from the site.
- Flammable/combustible liquids must be kept in approved containers, and must be stored in an approved storage cabinet.
- Obtain a Hot Work Permit prior to any activity involving welding, cutting, grinding, or similar, activities.

24.0 Ladders

Not Applicable

25.0 Heat Stress

Refer to SMS 018 “Heat Stress”.

- Stay hydrated. Disposable cups and water maintained at 50 to 60oF should be available. Under severe heat conditions, drink 1 to 2 cups every 20 minutes, for a total of 1 to 2 gallons per day.
- Never use alcohol in place of water or other nonalcoholic fluids. Decrease your intake of coffee and caffeinated soft drinks during working hours.
- Acclimate yourself by slowly increasing workloads (i.e., do not begin with extremely demanding activities).
- Use cooling devices, such as cooling vests, to aid natural body ventilation. These devices add weight, so their use should be balanced against efficiency.
- Use mobile showers or hose-down facilities to reduce body temperature and cool protective clothing.
- Conduct field activities in the early morning or evening and rotate shifts of workers, if possible.
- Avoid direct sun whenever possible, which can decrease physical efficiency and increase the probability of heat stress. Take regular breaks in a cool, shaded area.
- Provide adequate shelter/shade to protect personnel against radiant heat (sun, flames, hot metal).
- Maintain good hygiene standards by frequently changing clothing and showering.
- Observe one another for signs of heat stress. Persons who experience signs of heat syncope, heat rash, or heat cramps should consult the SSHO to avoid progression of heat-related illness.

SYMPTOMS AND TREATMENT OF HEAT STRESS					
	Heat Syncope	Heat Rash	Heat Cramps	Heat Exhaustion	Heat Stroke
Signs and Symptoms	Sluggishness or fainting while standing erect or immobile in heat.	Profuse tiny raised red blister-like vesicles on affected areas, along with prickling sensations during heat exposure.	Painful spasms in muscles used during work (arms, legs, or abdomen); onset during or after work hours.	Fatigue, nausea, headache, giddiness; skin clammy and moist; complexion pale, muddy, or flushed; may faint on standing; rapid ready pulse and low blood pressure; oral temperature normal or low	Red, hot, dry skin; dizziness; confusion; rapid breathing and pulse; high oral temperature.
Treatment	Remove to cooler area. Rest lying down. Increase fluid intake. Recovery usually is prompt and complete.	Use mild drying lotions and powders, and keep skin clean for drying skin and preventing infection.	Remove to cooler area. Rest lying down. Increase fluid intake.	Remove to cooler area. Rest lying down, with head in low position. Administer fluids by mouth. Seek medical attention.	Cool rapidly by soaking in cool—but not cold—water. Call ambulance, and get medical attention immediately!

25.1 Monitoring Heat Stress

These procedures should be considered when the ambient air temperature exceeds 70°F, the relative humidity is high (greater than 50 percent), or when workers exhibit symptoms of heat stress. The heart rate (HR) should be measured by the radial pulse for 30 seconds, as early as possible in the resting period. The HR at the beginning of the rest period should not exceed 100 beats/minute, or 20 beats/minute above resting pulse. If the HR is higher, the next work period should be shortened by 33 percent, while the length of the rest period stays the same. If the pulse rate still exceeds 100 beats/minute at the beginning of the next rest period, the work cycle should be further shortened by 33 percent. The procedure is continued until the rate is maintained below 100 beats/minute, or 20 beats/minute above resting pulse.

25.2 Monitoring Cold Stress

Refer to SMS 059 “Cold Stress”.

- Be aware of the symptoms of cold-related disorders, and wear proper, layered clothing for the anticipated fieldwork. Appropriate rain gear is necessary in cool weather.
- Personnel who are required to work outside must have their own cold weather apparel and are required to have this apparel with them at the project site during the cold weather months.
- Consider monitoring the work conditions and adjusting the work schedule using guidelines such as the wind-chill index.

- Wind-chill index is used to estimate the combined effect of wind and low air temperatures on exposed skin. The wind-chill index does not take into account the body part that is exposed, the level of activity, or the amount or type of clothing worn. For those reasons, it should only be used as a general guideline to warn workers of situations that could cause cold-related illnesses.
- Observe one another for initial signs of cold-related disorders. Persons who experience initial signs of immersion foot, frostbite, hypothermia should consult the PM and/or SSSH and seek proper treatment to avoid progression of cold-related illness.
- Review the weather forecast—be aware of predicted weather systems along with sudden drops in temperature, increase in winds, and precipitation.

SYMPTOMS AND TREATMENT OF COLD STRESS			
	Immersion (Trench)Foot	Frostbite	Hypothermia
Signs and Symptoms	Feet discolored and painful; infection and swelling present.	Blanched, white, waxy skin, but tissue resilient; tissue cold and pale.	Shivering, apathy, sleepiness; rapid drop in body temperature; glassy stare; slow pulse; slow respiration.
Treatment	Seek medical treatment immediately.	Remove victim to a warm place. Re-warm area quickly in warm – but not hot – water. Have victim drink warm fluids, but not coffee or alcohol. Do not break blisters. Elevate the injured area, and get medical attention.	Remove victim to a warm place. Have victim drink warm fluids, but not coffee or alcohol. Get medical attention.

26.0 Procedures for Locating Buried Utilities

Refer to SMS 034 “Utility Clearance and Isolation”.

26.1 Local Utility Mark-Out Service

Name: DigSafelyNewYork

Phone: 1-800-962-7962

26.2 Underground Utilities

Do not begin subsurface construction activities (e.g., trenching, excavation, drilling, etc.) until a check for underground utilities has been conducted by the local utility clearance company and the PM and/or SSSH issues his approval to proceed.

- Use as-built drawings and utility company records, if available, as sources of identifying the general locations of utilities.
- Underground utility locations must be physically verified by hand digging using wood or fiberglass-handled tools when any excavation or drilling work is expected to come within 5 feet of the marked underground system.
- Protect and preserve the markings of approximate locations of facilities until the markings are no longer required for safe and proper excavations. If the markings of utility locations are destroyed

or removed before excavation commences or is completed, the SS must notify the utility company or utility protection service to inform them that the markings have been destroyed.

- Conduct a detailed site briefing about the utilities, their hazards, and the means by which the operation will maintain a safe working environment.
- Always watch for signs of subsurface utilities during drilling and/or excavation work.

27.0 Confined Space Entry

Refer to SMS 010 “Confined Space Entry”. Refer to additional SMSs applicable to the work and environment of the planned task.

27.1 The following requirements must be met **prior to** confined space entry:

- Confined space entrants, attendants, and entry supervisors must complete the Confined Space Entry training.
- A Confined Space Entry Permit (CSEP) must be completed and posted near the space entrance point for review.
- Each confined space entrant and attendant must attend a pre-entry briefing conducted by the entry supervisor and SSHO.
- Each confined space entrant and attendant must verify that the entry supervisor has authorized entry and that all permit or certificate requirements have been satisfied.
- Only individuals listed on the Authorization/Accountability Log are permitted to enter the space.
- Each confined space entrant and attendant must verify that atmospheric monitoring has been conducted at the frequency specified on the permit or certificate and that monitoring results are documented and within acceptable safe levels.

27.2 The following requirements must be met **during** confined space entry:

- Communication must be maintained between the attendant and entrants to enable the attendant to monitor entrant status.
- Entrants must use equipment specified on the permit or certificate accordingly.
- All permit or certificate requirements must be followed.
- Entrants must evacuate the space upon orders of the attendant or entry supervisor, when an alarm is sounded, or when a prohibited condition or dangerous situation is recognized.
- Entrants and attendants must inform the entry supervisor of any hazards confronted or created in the space or any problems encountered during entry.

28.0 Vehicle Safety—Operator Safety

Refer to SMS 057 “Vehicle Safety Program”.

- Operate vehicle only when in possession of valid driver’s license.
- Employees shall not operate vehicles while under the influence of drugs or alcohol. Consumption of drugs or alcoholic beverages before or during work shift/driving is prohibited, as is possession of them within vehicle.
- All vehicle occupants must use seat belts at all times. Familiarize yourself with rental vehicle features (e.g., mirror & seat adjustments).
- Adjust headrest to proper position.
- Always drive within the speed limit.
- Do not drive if you are fatigued.
- Tie down loose items when driving a pickup, truck or van.

- Exercise caution when exiting road or parking along street—avoid sudden stops, use flashers when stopping at work areas.
- Park in a manner that will allow for safe exit from vehicle, and where practicable, park vehicle so the vehicle can pull forward to leave the parking space.
- Pull off the road, and put the car in park before talking on a mobile phone.
- Maintain both a First Aid kit and Fire Extinguisher in the field vehicle at all times.
- Park vehicle in a location where it can be accessed easily in the event of an emergency. Maintain a copy of emergency contact numbers and hospital directions in the vehicle.
- Cell phone use (including hands-free devices and texting) is prohibited while driving.

29.0 Working/Walking Adjacent to Vehicle Traffic

- When possible, walk along edge of parking lots and roads, or in designated pedestrian ways.
- All personnel must wear reflective/high-visibility ANSI Class 2 safety vests in active work areas (exception: office area.)
- When initially establishing a work zone or site, pre-plan to designate separate pedestrian routes from vehicular routes (including parking and staging) when possible.
- To protect from flying debris, eye protection should be worn while walking/working near or on highways.
- Work as far from the road as possible to avoid creating confusion for drivers.
- Remain aware of factors that influence traffic related hazards and required controls—sun glare, rain, wind, flash flooding, limited sight-distance, hills, curves, guardrails, width of shoulder (i.e., breakdown lane), etc.
- Always remain aware of an escape route—behind an established barrier, parked vehicle, guardrail, etc.
- Always pay attention to moving traffic—never assume drivers see you.
- Remain aware of approaching traffic for signs of erratic driver behavior.
- When workers must face away from traffic, a “buddy system” should be used, where one worker, typically a flagman, is looking towards traffic.
- A Flagman shall be used when physical barriers are not available or practical. The Flagman continually watches approaching traffic for signs of erratic driver behavior and warns workers.
- All vehicles should be parked at least 40 feet away from the work zone and traffic except for those vehicles in direct support of the work activity.
- All Field vehicles must be equipped with flashing lights.
- Obtain the proper traffic control devices to ensure that they are adequate to protect your work area. Traffic control devices should: (1) convey a clear meaning/warning, (2) be understood by the typical driver, and (3) be placed to give drivers adequate time for proper response (e.g., one orange cone beside an open excavation is not adequate traffic control)
- Flagmen should be used when (1) two-way traffic is reduced to using one common lane, (2) driver visibility is impaired or limited by project activities, (3) project vehicles enter or exit street traffic in an unexpected manner, or (4) the use of a flagger enhances established traffic warning.

30.0 Vehicles Entering/Exiting Site

- If heavy equipment must be backed into the site, a flagman/spotter must be used.
- If vehicle will impede (is slow moving) the normal flow of traffic when pulling into/out of the site, a flagger must also be used. Once the vehicle is on the roadway, a field vehicle equipped with flashing lights will follow the heavy equipment vehicle.

- It is imperative that truck operations do not pose a traffic hazard to pedestrians and normal road traffic.

31.0 Uneven Walking/Working Surfaces

- Employees walking in ditches, swales and other drainage structures adjacent to roads or across undeveloped land must use caution to prevent slips and falls, which can result in twisted or sprained ankles, knees, and backs.
- Whenever possible, do not enter a steep ditch or side of a steep roadbed.
- If steep terrain must be negotiated, sturdy shoes or boots with good traction that provide ankle support should be used.

32.0 Slips, Trips, and Falls

Refer to SMS 021 “Housekeeping” and any additional SMSs specifically related to the planned task. Sprained and strained joints can require a long recovery period.

- Institute and maintain good housekeeping practices at all times.
- Pick up tools, remove debris and eliminate tripping hazards in the work area.
- Place extension cords, airlines, ropes, etc., under a barricade to eliminate tripping hazards.
- Walk or climb only on equipment and/or surfaces specifically designed for personnel access.
- Watch for slippery/poor footing and other potential slipping and tripping hazards in the work area that could result in a fall or serious injury (especially during winter conditions).

33.0 Pressure Washing Operations

Refer to SMS 029 “Personal Protective Equipment”.

- Wear appropriate personal protective equipment when operating a pressure washer that includes a face shield, eye protection, hearing protection, gloves and other protective clothing.
- Follow manufacturer’s safety and operating instructions.
- Use extended pressure wash wands to minimize contact with overspray.
- Inspect pressure washer before use and confirm deadman’s (or kill) switch is fully operational.
- NEVER wash your hands, boots or other items with a pressure washer.

34.0 Vacuum Truck Operations

Refer to the following SMSs: 014 “Fire Protection and Prevention”; 029 “Personal Protective Equipment”; and 070 “Powered Industrial Trucks”.

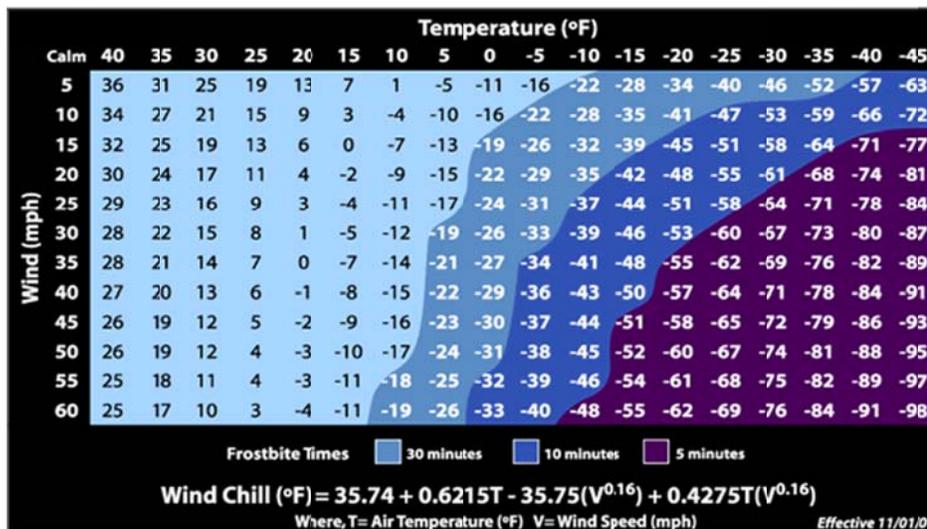
- Qualified subcontractors are the only personnel authorized to operate a vacuum truck.
- Locate the observers upwind of the tank or container being emptied.
- Keep hands from vacuum hose inlet.
- Wear protective gloves and hearing protection in the immediate vicinity.

35.0 Inclement Weather

Adverse weather conditions and work situations requiring immediate suspension of fieldwork activities are defined in the following list:

- Any observable thunder or lightning means stop work and immediately go to shelter. Remember, if you can hear thunder you can be struck by lightning.
- Use thunderstorm watches or warnings issued by the National Weather Service as an alert to potential electric activity.
- Typically, when thunder and/or lightning are observed, a 30-minute stand-down occurs to allow the storm cell to pass the area.

- If lightning or thunder is observed within the stand down period, the 30-minute period is extended until electrical activity ceases.
- The PM and/or SSHO can monitor multiple sources to track developing potential for lightning. These are the following:
- Doppler radar reports from the Internet
- National Weather Service radio reports
- Field crews are to immediately report any observations of lightning or thunder in their area to the PM and/or SSHO.
- Cease boating operations when sustained wind speeds of 20 miles per hour (mph) or wind gusts of 25 mph are observed.
- Cease high profile work when sustained wind speeds of 25 mph or wind gusts of 35 mph are observed and where wind chill is not a factor, i.e., greater than 60°F.
- Cease all other land-based work when sustained wind speeds of 40 mph or wind gusts of 45 mph are observed.
- Cease hoisting operations during moderate to heavy rain and/or snowfall events. Freezing rain is also cause for suspension of hoist use.
- An equivalent wind chill factor of -24°F on the wind chill factor chart (below) will trigger systematic shut down of all non-emergency work activities.
- A tornado warning for the general area or county will result in a site work stoppage. Move immediately to a proper shelter until the threat has passed and the PM informs you it is safe to return to work.



36.0 Radiological Hazards and Controls

Refer to SMS 052 “Radiation Protection Program”, and the RPP (Appendix B).

The soils on the Niagara Falls Storage Site have the potential to contain low levels of radiological materials. Radiological Contaminants of Concern (COCs) during field investigation activities are isotopic uranium, isotopic thorium, and radium-226/228. Other constituents that occur on-site in

lesser amounts include daughter products of the uranium series (U-238) and, to some extent, the actinium series (U-235).

Radiological monitoring and surveying of the NFSS site will be performed by the URS SRSO.

37.0 Biological Hazards and Controls

Refer to SMS 047 "Biological Hazards".

37.1 Snakes

Snakes typically are found in underbrush and tall grassy areas. If you encounter a snake, stay calm and look around; there may be other snakes. Turn around and walk away on the same path you used to approach the area. If a person is bitten by a snake, wash and immobilize the injured area, keeping it lower than the heart if possible. Seek medical attention immediately. **DO NOT** apply ice, cut the wound, or apply a tourniquet. Try to identify the type of snake: note color, size, patterns, and markings.

37.2 Poison Ivy and Poison Sumac

Poison ivy, poison oak, and poison sumac typically are found in brush or wooded areas. They are more commonly found in moist areas or along the edges of wooded areas. Become familiar with the identity of these plants. Poison ivy is ubiquitous throughout many areas of the NFSS. Wear protective clothing that covers exposed skin and clothes. Avoid contact with plants and the outside of protective clothing. If skin contacts a plant, wash the area with soap and water immediately. If the reaction is severe or worsens, seek medical attention.

37.3 Ticks

Ticks typically are in wooded areas, bushes, tall grass, and brush. Ticks are black, black and red, or brown and can be up to 1/4-inch in size. Wear tightly woven light-colored clothing with long sleeves and pant legs tucked into boots; spray **only outside** of clothing with permethrin or permethrin and spray skin with only DEET; and check yourself frequently for ticks.

If bitten by a tick, grasp it at the point of attachment and carefully remove it. After removing the tick, wash your hands and disinfect and press the bite areas. Save the removed tick. Report the bite to human resources. Look for symptoms of Lyme disease or Rocky Mountain spotted fever. Lyme disease: a rash might appear that looks like a bull's-eye with a small welt in the center. Rocky Mountain spotted fever: a rash of red spots under the skin 3 to 10 days after the tick bite. In both cases, chills, fever, headache, fatigue, stiff neck, and bone pain may develop. If symptoms appear, seek medical attention.

37.4 Wasps, Bees and Other Stinging Insects

Wasps, Bee and other stinging insects may be encountered almost anywhere and may present a serious hazard, particularly to people who are allergic. Watch for and avoid nests. Keep exposed skin to a minimum.

- Carry a "Sting Kit" if you have had allergic reactions in the past and immediately seek help if you are stung. In severe allergic reaction cases, seek IMMEDIATE medical attention.
- Inform the SS and the SSHO if you are allergic to wasp and bee stings.
- If a stinger is present, remove it carefully with tweezers. Wash and disinfect the wound, cover it, and apply ice.
- If you have never experienced an allergic reaction to a sting, do not assume you will not have one. Watch the sting area for an allergic reaction (excessive swelling, difficult breathing, light headed, etc.). Inform your supervisor and seek medical attention if a reaction develops.

37.5 Blood Borne Pathogens

Refer to the following SMSs: 051 “Bloodborne Pathogens”; and 029 “Personal Protective Equipment”.

- Exposure to blood borne pathogens may occur when rendering first aid to a co-worker who has been injured and bleeding and/or through giving CPR. Exposure controls and personal protective equipment (PPE) are required as specified in the SMS.
- Individuals who know they have an easily communicable disease shall discuss this condition, and the work they are expected to perform, with their medical professional. These individuals must have specific written permission from their medical professional before reporting to the site to work. Hepatitis B vaccination must be offered to each employee before the person participates in a task where exposure is a possibility.

37.6 Mosquitoes and West Nile Virus

Human illness from West Nile virus is rare, even in areas where the virus has been reported. On rare occasions, West Nile virus infection can result in a severe and sometimes fatal illness known as West Nile encephalitis (an inflammation of the brain). The risk of severe disease is higher for persons 50 years of age and older.

Most infections of West Nile encephalitis are mild, and symptoms include fever, headache, and body aches, occasionally with skin rash and swollen lymph glands. More severe infection may be marked by headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, paralysis, and rarely, death. The incubation period in humans (i.e., time from infection to onset of disease symptoms) for West Nile encephalitis is usually 3 to 15 days. If symptoms occur, see your doctor immediately.

You can reduce your chances of becoming ill by protecting yourself from mosquito bites. To avoid mosquito bites:

- Apply insect repellent containing DEET (N,N-diethyl-meta-toluamide) when you are outdoors. Apply sparingly to exposed skin. DEET in high concentrations (greater than 35 percent) provides no additional protection.
- Spray clothing with repellents containing permethrin/DEET since mosquitoes may bite through clothing.
- Read and follow the product directions whenever you use insect repellent, particularly if they contain permethrin.
- Wear long-sleeved clothes and long pants treated with repellent and stay indoors during peak mosquito feeding hours (dusk until dawn) to further reduce your risk.

38.0 Contaminants of Concern

38.1 Refer to the following SMSs: 029 “Personal Protective Equipment”; and 002 “Hazard Communication”.

38.2 The surface/subsurface soils on the Niagara Falls Storage Site have the potential to contain levels of Lead, Radium-226, Thorium-230, and Uranium-238 above regulatory concern and pose an unacceptable risk to human health. Workers who have the potential to be in direct contact with the surface/subsurface soils will be provided PPE in accordance with the referenced SMSs.

38.3 Potential Routes of Exposure

Refer to the following SMSs: 029 “Personal Protective Equipment”; and 042 “Respiratory Protection”.

The following are the primary routes of exposure:

- **Dermal:** Contact with contaminated media. This route of exposure is minimized through proper use of PPE, as specified in the SMS.
- **Inhalation:** Vapors and contaminated particulates. This route of exposure is minimized through proper respiratory protection and monitoring.
- **Other:** Inadvertent ingestion of contaminated media. This route should not present a concern if good hygiene practices are followed (e.g., wash hands and face before drinking or smoking)

ATTACHMENT 9

HAZARD COMMUNICATION PROGRAM

HAZARD COMMUNICATION PROGRAM

1.0 Hazard Communication Program

Refer to the following SMSs: 002 “Hazard Communication”; 069 “Materials Handling Program”; 029 “Personal Protective Equipment”; 042 “Respiratory Protection”. Also refer to Attachment 9 of this APP.

1.1 The SSHO will ensure the following are performed:

- Complete an inventory of chemicals brought on site by URS using Attachment 9-A in the Hazard Communications Program (Attachment 9).
- Confirm that an inventory of chemicals, and their MSDS, brought on site by subcontractors is available.
- URS shall obtain material safety data sheets (MSDSs) from the client, contractors, and subcontractors for chemicals to which URS employees and subcontractors potentially are exposed.
- Before or as the chemicals arrive on site, obtain an MSDS for each hazardous chemical and retain a copy on site. See Attachment 9-B in the Hazard Communications Program (Attachment 9)
- Label chemical containers with the identity of the chemical and with hazard warnings, and store properly.
- Give the employee necessary chemical-specific HAZCOM training. (See Attachment 9-C.)
- Store all materials properly, considering compatibility, quantity limits, secondary containment, fire prevention, and environmental conditions.

HAZARD COMMUNICATION PROGRAM

ATTACHMENT 9-B

Applicable Material Safety Data Sheets

MSDS file will be kept on site in URS Group, Inc.'s field offices and /or subcontractor and made available for review by contacting the URS Group, Inc. SSHO

ATTACHMENT 9-C

Chemical- Specific Training Form

Location: Lewiston NY	Project #: W912QR-12-D-0023
Trainer:	

Training Participants:

Name	Signature	Name	Signature

Regulated Products/Tasks covered by This Training:

1.2 Training Shall include the following:

- The trainer shall use the product MSDS to provide the following information concerning each of the products listed above.
- Physical and health hazards
- Control measures that can be used to provide protection (including appropriate work practices, emergency procedures and personal protective equipment to be used)
- Methods and observations used to detect the presence or release of the regulated product in the Regulated product in the workplace (including periodic monitoring, continuous monitoring devices, visual appearance or odor of regulated product when being released, etc.)

- Training participants shall have the opportunity to ask questions concerning these products and, upon completion of this training, will understand the product hazards and appropriate control measures available for their protection.
- Copies of MSDSs, chemical inventories, and URS Group, Inc. written hazard communication program shall be made available for employee review in the facility/project hazard communication file.
- URS Group, Inc. subcontractor will be required to comply with the requirements of the URS Group, Inc. Hazard Communication Program.

ATTACHMENT 10

FIRE PREVENTION PLAN

Refer to the following SMSs: 014 “Fire Protection and Prevention”; 021 “Housekeeping”; and 020 “Hot Work”.

- Fire extinguishers will be provided so that the travel distance from any work area to the nearest extinguisher is less than 100 feet. When 5 gallons or more of a flammable or combustible liquid is being used, an extinguisher must be within 50 feet. Extinguishers must:
 - ✓ Be maintained in a fully charged and operable condition,
 - ✓ Be of the proper type to extinguish a potential fire from the material used, stored, or encountered,
 - ✓ Be visually inspected each month, and
 - ✓ Undergo a maintenance check each year.
- The area in front of extinguishers must be kept clear.
- SSHO will be responsible for ensuring that the fire extinguishers and systems are maintained.
- SSHO will identify major work place fire hazards, potential ignition sources, and types of fire suppression/extinguishers appropriate to control a fire.
- All employees will be responsible for controlling fuel source hazards and complying with housekeeping procedure including removal of waste material in their work area.
- Post “Exit” signs over exiting doors, and post “Fire Extinguisher” signs over extinguisher locations.
- Combustible materials stored outside should be at least 10 feet from any building.
- Solvent waste and oily rags must be kept in a fire resistant, covered container until removed from the site.
- Flammable/combustible liquids must be kept in approved containers, and must be stored in an approved storage cabinet.
- Obtain a Hot Work Permit prior to any activity involving welding, cutting, grinding, spark or flame generating, or similar activities.
- This plan and related SMSs will be used to brief employees and emergency first responders on the fire hazard materials/processes exposed and emergency procedures.
- If a fire occurs in the IDW area, any water used to fight the fire should be contained so it can be tested for radioactive material before it is released.

ATTACHMENT 11
HAZARDOUS ENERGY (LOCKOUT/TAG-OUT)
CONTROL PLAN

Refer to the following SMS: 023 "Lockout and Tagout Safety". Lockout/Tagout refers to all electrical and/or mechanically energized equipment.

- 1.0 Ensure the equipment cannot "start" while work is occurring on that equipment by disconnecting battery terminals, unplugging the device from power and/or other methods recommended by the manufacturer.
 - 2.0 Never work on equipment when the unexpected operation could result in injury, unless lockout/tagout procedures are implemented.
- Standard lockout/tagout procedures include the following six steps:
 - Notify all personnel in the affected area of the lockout/tagout,
 - Shut down the equipment using normal operating controls,
 - Isolate all energy sources,
 - Apply individual lock and tag to each energy isolating device,
 - Relieve or restrain all potentially hazardous stored or residual energy (e.g., hydraulic pressure, residual electrical charges in capacitors, etc.).
 - Personally verify through the use of a measurement device (if possible) that isolation and de-energizing of the equipment has been accomplished. Once verified that the equipment is at the zero energy state, work may begin.
 - NEVER remove another person's lock or tag. If the work extends over a shift change, and under the direct supervision of the PM, the next crew shall replace the previous crews' locks with their own, one worker at a time. Work shall not resume until the PM and/or SSHO is confident the requirements of the SMSs have been followed and it is safe to return to work.
 - All safe guards must be put back in place, all affected personnel notified that lockout/tagout has been removed, and controls positioned in the safe mode prior to lockout/tagout removal.
 - Training will be provided to ensure an understanding of the hazardous energy control procedures by URS, Inc. and subcontractor employees and to ensure employees possess the knowledge and skills required for the safe application, usage and removal of energy control. Training will include recognition of hazardous energy source, type of magnitude of energy available in the work place and the methods and means for energy isolation and control. Retraining will be required as specified.
 - Periodic inspections (daily, weekly) will be conducted and documented to ensure all requirements of the hazardous energy control procedures are being followed.
 - Use proper lockout/tagout devices capable of withstanding exposure to the local environment.

LOCKOUT/TAGOUT CHECKLIST

1. Step 1 - Achieving Zero Energy

- Authorized employees received training prior to conducting lockout/tagout activities.

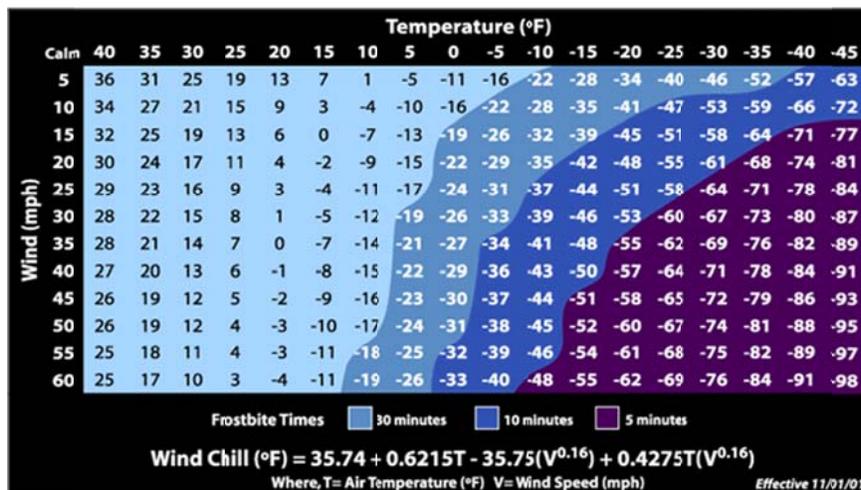
- Identified and located all sources of energy that could affect individuals involved.
 - Notified all affected personnel that equipment is going to be de-energized and accessed.
 - Disconnected the main sources of power by breaking the primary power circuit, valve, pipe, etc. Locking out a low voltage control circuit is not considered breaking a main power source.
 - Disconnected each separate power source of multiple power systems, e.g., air over hydraulic, electric over hydraulic, etc.
 - Released all residual energy remaining behind the power source, e.g., hydraulic or air pressure, etc.
 - Secured all power sources in the de-energized position with a lockout device. Used multiple lock devices when more than one lock is required. Ensure that each person who is protected by the lockout:
 1. Places a signed lock and tag on source locations(s).
 2. Keeps the key to his/her own lock.
 3. Removed own lock (only exception: person not on site and person is contacted).
 4. Worked **ONLY** on protected sources.
 5. Removes lock at completion for work shift or transfer.
 - Blocked or blanked any machinery, device or piping system that can move on its own or deliver energy without the power source.
 - Tested equipment, prior to working on it, to ensure that all sources of energy have been isolated and that it is "safe"
- 2. Step 2 - Preparing to Re-energize**
- Once the task has been completed:
 - Picked up tools. Safety chains replaced, guards, guard rails, warning signs, etc. Notified affected personnel that the lockout device is going to be removed.
 - Removed locks and tags.
 - Once all lockout devices have been removed, the equipment or process may be restarted.
- 3.0** Temporary operation of locked out source.
- a. Make sure everyone is clear of the system.
 - b. Make sure tools are clear.
 - c. Remove lock(s)
 - d. Energize the system and conduct check.
 - e. Immediately de-energize the system and replace locks.
- 4.0** Unauthorized removal of lock and tag is prohibited. Use the following procedure to Supervisor or Qualified Person to remove lock/tag when employee is not available.
- f. Verify authorized employee is not on site and available to remove own tag.
 - g. Check that employees are not exposed to hazards.

- h. Verify equipment is safe to operate, tools have been removed and guards have been replaced.
- i. Remain with affected equipment so that no one returns while equipment or process is being restarted.
- j. Remove lock/tag and energize equipment.
- k. Require that affected employee knows the lockout device(s) has been removed before he/she resumes work.

ATTACHMENT 12
CONTINGENCY PLAN FOR SEVERE/INCLEMENT
WEATHER

Adverse weather conditions and work situations requiring immediate suspension of field work activities are defined in the following list:

- Any observable thunder or lightning means stop work and immediately go to shelter. Remember, if you can hear thunder you can be struck by lightning.
- Use thunderstorm watches or warnings issued by the National Weather Service as an alert to potential electric activity.
- Typically, when thunder and/or lightning are observed, a 30-minute stand-down occurs to allow the storm cell to pass the area.
- If lightning or thunder is observed within the stand down period, the 30-minute period is extended until electrical activity ceases.
- The SSHO and or PM can monitor multiple sources to track developing potential for lightning. These are the following:
 - Doppler radar reports from the Internet
 - National Weather Service radio reports
- Field crews are to immediately report any observations of lightning or thunder in their area to the PM and/or SSHO.
- Cease high profile (critical) work when sustained wind speeds of 25 mph or wind gusts of 35 mph are observed and where wind chill is not a factor, i.e., greater than 60°F.
- Cease all other land-based work when sustained wind speeds of 40 mph or wind gusts of 45 mph are observed.
- An equivalent wind chill factor of -24°F on the wind chill factor chart (below) will trigger systematic shut down of all non-emergency work activities.
- A tornado warning for the general area or county will result in a site work stoppage. Move immediately to a proper shelter until the threat has passed and the PM and/or SSHO informs you it is safe to return to work.



ATTACHMENT 13

EXCAVATION/TRENCHING PLAN

1.0 Excavation Controls

Refer to the following SMSs prior to beginning excavation tasks: 013 “Excavation” and 019 “Heavy Equipment Operations”.

- Do not enter the excavations unless necessary, and only after the competent person has completed the required inspection and has authorized entry.
- Follow all excavation entry requirements established by the competent person.
- Do not enter excavations where protective systems are damaged or unstable.
- Do not enter excavations where objects or structures above the work location may become unstable and fall into the excavation.
- Do not enter excavations with the potential for a hazardous atmosphere until the air has been tested and found to be at safe levels.
- Do not enter excavations with accumulated water unless precautions have been taken to prevent excavation cave-in.

1.2 Excavation Approach and Procedures

URS will direct the Excavation Contractor (Contractor) in the completion of the utility line excavation, cutting, plugging, as well as the completion of investigative trenches. The Contractor will construct trenches to allow for safe access/egress in order for personnel to perform scans and collect samples. The competent person requirement for excavating is addressed in the NFSS SSHP; the Contractor’s competent person for trenching/excavation will be on-site monitoring all trenching/excavation activities.

The Contractor will comply with the following guidance to plan and perform excavation activities:

- USACE EM 385-1-1 Section 25 Excavation and Trenching
- 29 CFR 1926 Subpart P, Safety and Health Regulations for Construction, Excavations;
- USACE, EM 1110-1-1804, Geotechnical Investigations.

Excavation walls will be shored, sloped and/or benched in accordance with USACE EM 385-1-1, OSHA requirements 29 CFR 1926.650 through 29 CFR 1926.653, and all other applicable local, state, and Federal regulations and requirements to maintain stable sidewalls for personnel to safely enter the trenches, record visual observations, perform radiological scans, collect samples, and cut and plug the pipeline and trench. The slopes and configurations of the sloping benching systems will be selected and constructed in accordance with 1926.652 (b)(1) or acceptable alternative. Slopes will be excavated to form configurations that are in accordance with the slopes shown for type C soil. The Contractor will maintain stable sides and slopes and/or benches in safe conditions until excavated soils are returned to the field investigative trench or the trench is backfilled with USACE accepted backfill.

1.2.1 Underground Utility Excavation, Sampling, and Plugging

The Contractor will excavate, cut, and plug underground utility pipelines at three different locations: 1) a 10-inch water line located in EU 10; 2) the underground utilities (estimated to be 4 pipelines) that leave the site to the east in EU 12; and 3) the underground utilities (estimated to be 4 pipelines) that leave the site to the north in EU 2. No details regarding pipelines depths are available; however, it is estimated that the depths range from 8 to 18 feet bgs. URS and the USACE will locate the approximate areas to be excavated. In addition, the sanitary lines exiting the site to the east will not be excavated but shall be plugged via Manhole 41 (MH41) located in EU 8.

The Contractor will excavate in the three areas of the suspected pipelines to make them accessible for observation, sampling, and plugging. Due to the potential for trench depths of 15 feet or more, the Contractor will likely use shoring technology and protective systems during excavation. If obstructions are encountered during excavation, additional excavation shall be performed to access the pipeline beyond the obstruction and operations shall continue. Furthermore, personnel will stand upwind of the excavation area to the extent practicable.

Soils will be stockpiled next to the trench locations on plastic sheeting, laid out in the order of removal. Trenches may require dewatering. The Contractor's dewatering plan is described in Attachment 13-A. All excavation water generated during dewatering activities will be containerized in drums and transported to the IDW storage area. During excavation activities, URS personnel will perform soil classification, radiological scanning, and sample collection. Photographs of the excavations will be taken and referenced by location and direction for future use. Excavation will continue until the pipelines are exposed and accessible.

The Contractor and URS will characterize the pipeline bedding (e.g., composition, depth, visual indications of contamination, and integrity of the bedding) and identify the diameter and composition of each pipeline. Prior to opening the pipeline, one subsurface soil sample will be collected from beneath each excavated pipeline to evaluate the potential migration of contaminants from the line into the soil. The soil sample will not include bedding material and will be collected from beneath the bedding, if possible. The Contractor will then penetrate pipelines in order to sample the contents of the pipeline and to plug the pipeline. The Contractor will assume that the pipelines are filled with liquid and will make all attempts to minimize liquid entering the excavation upon penetration of the pipelines; refer to the Contractor's pipeline penetration and liquid containment procedures in Attachment 13-A. The Contractor will then cut the pipe open using a saw; refer to the Contractor's cutting and plugging procedures described in Attachment 13-A. Once the pipeline is opened, one liquid and one sediment/sludge/soil sample will be collected from inside each pipeline. At Manhole 41, one sediment and one liquid sample will be collected from inside the manhole prior to plugging the manhole.

Following completion of characterization, radiological scanning, and sampling activities, the Contractor will plug pipeline ends and Manhole 41 with a bentonite/concrete mixture; refer to the plugging material specification provided in the Contractor's procedures in Attachment 13-A. In addition, the bottom of the excavation including the bedding material portion of the trench and the area immediately surrounding the pipe will be filled with bentonite/concrete mixture to reduce the possibility of groundwater flow through the pipeline trench.

Once soil classification, radiological scanning, sampling, and pipeline/trench cutting/plugging are completed, soils will be returned to the trenches in the reverse order of removal. Each excavation location will be restored by compacting and re-grading to match adjacent grade followed by seeding and mulching. Each excavation will be surveyed for location, boundaries, dimensions, and elevations by a URS New York State-licensed surveyor. Because the surveying will not be performed at the actual time of excavation, the dimensions and depth of the excavation below ground surface will be measured with a tape measure at the time of excavation. The locations and ground surface elevations will subsequently be surveyed by the surveyor.

1.2.2 Excavation and Sampling of Investigative Trenches in the Vicinity of Well OW11B

The Contractor will excavate a total of eight (8) investigative trenches in the vicinity of well OW11B: four (4) trenches will be located near each side of the grit chamber associated with the decontamination pad; two (2) trenches will be located near the southern end of the decontamination pad; one (1) trench will be located near the underground utility lines; and, one (1) trench will be located near the former railroad bed. The field investigative trenches will be advanced to an approximate depth of ten (10) feet bgs and

will be a minimum of two (2) feet wide and six (6) feet long. The investigative trenches will be advanced using the methods described above to permit safe access (without entering the excavation) by URS and USACE personnel for radiation surveying/scanning and soil sampling soils. If groundwater is encountered, URS will collect a groundwater sample from each trench. URS will also scan the stockpiled soil materials with a radiological detector prior to their being placing back into the field investigative trenches.

Following radiological scanning and soil/groundwater sampling by URS, the Contractor will place all excavated soil back into the field investigative trench in the order removed and will ensure that no cross contamination occurs between different depth intervals and locations. Each investigative trench location will be restored by compacting and re-grading to match adjacent grade followed by seeding and mulching. Each investigative trench will also be surveyed for location, boundaries, dimensions, and elevations using the methods noted above.

The Contractor's Excavation and Trenching Plan follows in Attachment 13-A

ATTACHMENT 13-A

CONTRACTOR EXCAVATION-DEWATERING PLAN



Site ready...earth friendly

Niagara Falls Storage Site
Lewiston, New York
Work Plan

This work plan describes the requirements for excavation dewatering during test excavation and pipeline cutting and plugging activities at the Niagara Falls Storage Site (NFSS) located in Lewiston, New York.

It is understood that all necessary equipment, labor, personal protective equipment (PPE) and materials will be supplied by Russo Development, Inc. (Russo) to complete the Contractor scope of work developed by URS in both the original scope of work as well as the Addendum No. 1. Scope of work is described as all necessary excavation, trenching, pipeline cutting and plugging as well as dewatering activities involved with this project.

Russo will provide all necessary licenses, permits and any other approvals that may be necessary to perform work at the NFSS.

General Scope of Work:

- Dig Safe will be contacted to locate the public utilities in the excavation areas.
- Construction of temporary decontamination pad (if required).
- Underground utility excavation will commence to locate the desired pipelines at three different locations as directed by URS. See Attachment #1 for Excavation and Trenching procedures and guidelines.
- After the desired pipelines are excavated around, a pipe saddle will be attached to the pipe (see Attachment #2 for an example of a pipe saddle). A tapping device will be inserted into the saddle which will puncture the pipe. See Attachment #3 for Dewatering Plan.
- After pipelines are located and all necessary samples are obtained, pipeline plugging will commence. See Attachment #4 for Pipeline Plugging Plan.
- Investigative Trenching will commence, see Attachment #1 for Excavation and Trenching procedures and guidelines.
- After scope of work is completed at each work location, the ground surface will be restored to match the conditions that were present prior to work including mulching and seeding as needed.



ATTACHMENT #1

Excavation & Trenching

Purpose

This program outlines procedures and guidelines for the protection of Russo Development, Inc. employees working in and around excavations and trenches. This program requires compliance with OSHA Standards described in Subpart P (CFR 1926.650) for the construction industry.

Scope

This program pertains to all Russo Development, Inc. projects that require any excavations or trenches.

References

29 CFR 1926.650, Subpart P – Excavations

Responsibilities

It is the responsibility of each superintendent and supervisor to implement and maintain the procedures and steps set forth in this program. Each employee involved with excavation and trenching work is responsible to comply with all applicable safety procedures and requirements of this program.

Hazards

One of the reasons Russo Development, Inc. requires a competent person on-site during excavation and trenching are the numerous potential hazardous that may be encountered or created. Hazards include:

- Electrocutation
- Gas Explosion
- Entrapment
- Struck by equipment
- Suffocation
- Hazard Controls

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Before work is performed and employees enter excavations, these items must be checked and ensured:

- Before any excavation, underground installations must be determined. This can be accomplished by either contacting the local utility companies or the local "one-call" center for the area. All underground utility locations must be documented on the proper forms. All overhead hazards (surface encumbrances) that create a hazard to employees must be removed or supported to eliminate the hazard.
- If the excavation is to be over 20 feet deep, it must be designed by a registered professional engineer who is registered in the state where work will be performed.
- Adequate protective systems will be utilized to protect employees. This can be accomplished through sloping, shoring, or shielding.
- The worksite must be analyzed in order to design adequate protection systems and prevent cave-ins. There must also be an excavation safety plan developed to protect employees.
- Workers must be supplied with and wear any personal protective equipment deemed necessary to assure their protection.
- All spoil piles will be stored a minimum of four (4) feet from the sides of the excavation. The spoil pile must not block the safe means of egress.
- If a trench or excavation is 4 feet or deeper, stairways, ramps, or ladders will be used as a safe means of access and egress. For trenches, the employee must not have to travel any more than 25 feet of lateral travel to reach the stairway, ramp, or ladder.
- No employee will work in an excavation where water is accumulating unless adequate measures are used to protect the employees.
- A competent person will inspect all excavations and trenches daily, prior to employee exposure or entry, and after any rainfall, soil change, or any other time needed during the shift. The competent person must take prompt measures to eliminate any and all hazards.
- Excavations and trenches 4 feet or deeper that have the potential for toxic substances or hazardous atmospheres will be tested at least daily. If atmosphere is inadequate, utilize protective systems.
- If work is in or around traffic, employees must be supplied with and wear orange reflective vests.
- Utilize signs and barricades to ensure the safety of employees, vehicular traffic, and pedestrians.

Competent Person Responsibilities

The OSHA Standards require that the competent person must be capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and have authorization to take prompt corrective measures to eliminate them and, if necessary, to stop the work. A competent person is required to:

- Have a complete understanding of the applicable safety standards and any other data provided.
- Assure the proper locations of underground installations or utilities, and that the proper utility companies have been contacted.
- Conduct soil classification tests and reclassify soil after any condition changes.

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- Determine adequate protective systems (sloping, shoring, or shielding systems) for employee protection.
- Conduct all air monitoring for potential hazardous atmospheres.
- Conduct daily and periodic inspections of excavations and trenches.
- Approve design of structural ramps, if used.

Excavation Safety Plan:

An excavation safety plan is required in written form. This plan is to be developed to the level necessary to insure complete compliance with the OSHA Excavation Safety Standard and state and local safety standards.

Excavation safety plan factors:

- Utilization of the local one-call system
- Determination of locations of all underground utilities
- Consideration of confined space atmosphere potential
- Proper soil protection systems and personal protective equipment and clothing
- Determination of soil composition and classification
- Determination of surface and subsurface water
- Depth of excavation and length of time it will remain open
- Proper adherence to all OSHA Standards, this excavation and trenching safety program, and any other coinciding safety programs.

Soil Test & Identification:

The competent person will classify the soil type in accordance with the definitions in Appendix A on the basis of at least one visual and one manual analysis. These tests should be run on freshly excavated samples from the excavation and are designed to determine stability based on a number of criteria: the cohesiveness, the presence of fissures, the presence and amount of water, the unconfined compressive strength, duration of exposure, undermining, and the presence of layering, prior excavation and vibration.

The cohesion tests are based on methods to determine the presence of clay. Clay, silt, and sand are size classifications, with clay being the smallest sized particles, silt intermediate and sand the largest. Clay minerals exhibit good cohesion and plasticity (can be molded). Sand exhibits no elasticity and virtually no cohesion unless surface wetting is present. The degree of cohesiveness and plasticity depend on the amounts of all three types and water.

When examining the soil, three questions must be asked: Is the sample granular or cohesive? Fissured or non-fissured? What is the unconfined compressive strength measured in TSF?

Methods of testing soils:

Thumb penetration test: The competent person attempts to penetrate a fresh sample with thumb pressure.

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If the sample can be dented, but penetrated only with great effort, it is Type A. If it can be penetrated several inches and molded by light pressure, it is Type C. Type B can be penetrated with effort and molded. The competent person will perform several tests of the excavation to obtain consistent, supporting data along its depth and length. The soil is subject to change several times within the scope of an excavation and the moisture content will vary with weather and job conditions. The competent person must also determine the level of protection based on what conditions exist at the time of the test, and allow for changing conditions.

Excavation Protection Systems:

- The three basic protective systems for excavations and trenches are sloping and benching systems, shoring, and shields.
- The protective systems shall have the capacity to resist without failure all loads that are intended or could reasonably be expected to be applied to or transmitted to the system. Every employee in an excavation shall be protected from cave-ins by an adequate protective system.
- Exceptions to using protective system:
 - Excavations are made entirely in stable rock
 - Excavations are less than 5 feet deep and declared safe by a competent person

Sloping and Benching Systems:

Options for sloping:

- Slope to the angle required by the Standard for Type C, which is the most unstable soil type.
- The table provided in Appendix B of the Standard may be used to determine the maximum allowable angle (after determining the soil type).
- Tabulated data prepared by a registered professional engineer can be utilized.
- A registered professional engineer can design a sloping plan for a specific job.
- Sloping and benching systems for excavations five (5) to twenty (20) feet in depth must be constructed under the instruction of a designated competent person.
- Sloping and benching systems for excavations greater than twenty (20) feet must be designed and stamped by a registered professional engineer.
- Sloping and benching specifications can be found in Appendix B of OSHA Standard Subpart P.

Shield Systems (Trench Boxes):

Shielding is the third method of providing a safe workplace. Unlike sloping and shoring, shielding does not prevent a cave-in. Shields are designed to withstand the soil forces caused by a cave-in and protect the employees inside the structure. Most shields consist of two flat, parallel metal walls that are held apart by metal cross braces.

Shielding design and construction is not covered in the OSHA Standards. Shields must be certified in design by a registered professional engineer and must have either a registration plate on the shield or registration papers from the manufacturer on file at the jobsite office.

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ANY REPAIRS OR MODIFICATIONS MUST BE APPROVED BY THE MANUFACTURER.

Safety Precautions for Shield Systems:

- Shields must not have any lateral movement when installed.
- Employees will be protected from cave-ins when entering and exiting the shield (examples - ladder within the shield or a properly sloped ramp at the end).
- Employees are not allowed in the shield during installation, removal, or during any vertical movement.
- Shields can be 2 ft. above the bottom of an excavation if they are designed to resist loads at the full depth and if there are no indications of caving under or behind the shield.
- The shield must extend at least 18 inches above the point where proper sloping begins (the height of the shield must be greater than the depth of the excavation).
- The open end of the shield must be protected from the exposed excavation wall.
- The wall must be sloped, shored, or shielded.
- Engineer designed end plates can be mounted on the ends of the shield to prevent cave-ins.

Personal Protective Equipment:

It is company policy to wear a hard hat, safety glasses, and work boots on the jobsite. Because of the hazards involved with excavations, other personal protective equipment may be necessary, depending on the potential hazards present (examples -goggles, gloves, and respiratory equipment).

Inspections:

- Daily inspection of excavations, the adjacent areas and protective systems shall be made by the competent person for evidence of a situation that could result in a cave-in, indications of failure of protective systems, hazardous atmospheres or other hazardous conditions.
- All inspections shall be conducted by the competent person prior to the start of work and as needed throughout the shift.
- Inspections will be made after every rainstorm or any other increasing hazard.
- All documented inspections will be kept on file in the jobsite safety files and forwarded to the Safety Director weekly.
- A copy of the Daily Excavation Inspection form is located at the end of this program.

Training Program

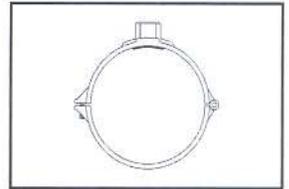
The competent person(s) must be trained in accordance with the OSHA Excavation Standard, and all other programs that may apply (examples Hazard Communication, Confined Space, and Respiratory Protection), and must demonstrate a thorough understanding and knowledge of the programs and the hazards associated.

All other employees working in and around the excavation must be trained in the recognition of hazards associated with trenching and excavating.

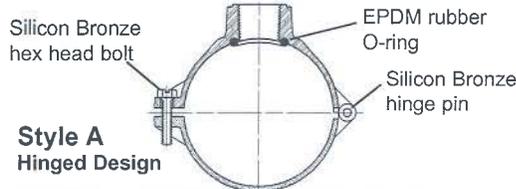
ATTACHMENT #2

SUBMITTAL INFORMATION

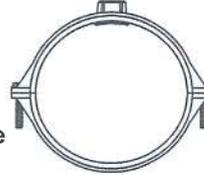
Brass Saddles For PVC - (S70-xxx style)



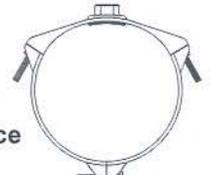
S70 BRASS SADDLES WITH AWWA TAPS FOR STANDARD PVC PIPE



Style A
Hinged Design



Style B 2-Piece
Bolted Design



Style C 3-Piece
Bolted Design

PVC PIPE SIZE	ACTUAL O.D.	TAP SIZE	APPROX. WT. LBS.	CATALOG NO.	STYLE	✓ SUBMITTED ITEM(S)
1-1/2"	1.900	1/2"	1.0	S70-151	A	
		3/4"	1.0	S70-153	A	
2"	2.375	1/2"	1.4	S70-201	A	
		3/4"	1.1	S70-203	A	
		1"	1.0	S70-204	A	
		1-1/4"	3.6	S70-205	B	
		1-1/2"	3.4	S70-206	B	
2-1/2"	2.875	3/4"	1.7	S70-253	A	
		1"	1.6	S70-254	A	
		1-1/4"	3.8	S70-255	B	
		1-1/2"	3.6	S70-256	B	
3"	3.500	1/2"	1.9	S70-301	A	
		3/4"	1.8	S70-303	A	
		1"	1.7	S70-304	A	
		1-1/2"	2.2	S70-401	A	
4"	4.500	3/4"	2.1	S70-403	A	
		1"	2.0	S70-404	A	
		1-1/2"	4.1	S70-406	A	
		2"	4.8	S70-407	A	
		3/4"	2.6	S70-503	A	
5"	5.563	1"	2.5	S70-504	A	
		1/2"	2.9	S70-601	A	
		3/4"	2.8	S70-603	A	
6"	6.625	1"	2.8	S70-604	A	
		1-1/2"	5.9	S70-606	A	
		2"	5.1	S70-607	A	
		1/2"	3.7	S70-801-AWT	A	
		3/4"	3.6	S70-803	A	
8"	8.625	1"	3.6	S70-804	A	
		1-1/2"	5.8	S70-806	A	
		2"	5.6	S70-807	A	
		3/4"	7.0	S70-1003	C	
		1"	7.0	S70-1004	C	
10"	10.75	1-1/2"	10.4	S70-1006	C	
		2"	10.7	S70-1007	C	
		3/4"	8.1	S70-1203	C	
12"	12.75	1"	7.8	S70-1204	C	
		1-1/2"	11.3	S70-1206	C	
		2"	10.9	S70-1207	C	



FEATURES

- All brass conforms to AWWA Standard C800 (ASTM B-62 and/or ASTM B-584, UNS NO C83600 - 85-5-5-5)
- Style A Saddle body and strap permanently held together with silicon bronze pin
- Bolt is 5/16" slotted hex head silicon bronze for saddles sized 1-1/2" thru 8"
- A three-piece design with 1/2" silicon bronze bolts (3/4" hex head) is used for S70 Saddles sized 10" and 12"
- UL Classified to ANSI/NSF Standard 61
- 150 psi working pressure rating

The Ford Meter Box Company considers the information in this submittal form to be correct at the time of publication. Item and option availability, including specifications, are subject to change without notice. Please verify that your product information is current.



The Ford Meter Box Company, Inc.
 P.O. Box 443, Wabash, Indiana U.S.A. 46992-0443
 Phone: 260-563-3171 / Fax: 800-826-3487
 Overseas Fax: 260-563-0167
<http://www.fordmeterbox.com>

Submitted By:

08/29/12

ATTACHMENT #3

Niagara Falls Storage Site
Lewiston, New York
Dewatering Plan

This work plan describes the requirements for excavation dewatering during test excavation and pipeline cutting and plugging activities at the NFSS located in Lewiston, New York. Dewatering will be performed during ongoing excavation activities and will not require a separate mobilization. This scope of work is for dewatering excavations of up to approximately 5,000 gallons of water. It is assumed that the water will be impacted with low level radioactive materials.

The following activities will be performed:

1. After the pipe saddle and tapping device is inserted on the pipe, 6 mil. poly plastic will be laid down on the bottom of the excavation to act as a impermeable barrier for any water that is leaked out of the pipe onto the bottom of the excavation. A hose from a diagram pump will be attached and will lead to the portable 1,500 gallon poly tank. The water under pressure will transfer from the pipe to the tank and then after the head pressure decreases the diagram pump will aid in transferring more water from the pipe to the poly tank.
2. Once the head pressure is removed from the pipes and all the water that can be pumped from the pipes is pumped, Russo will proceed with the cutting of the pipe. Any and all water that is left in the pipe will empty out into the excavation (which is lined with poly plastic) and then be pumped into the poly tank using a diagram pump. This will occur at every pipe cutting location until the scope of work is complete.
3. When the poly tank is full, it will be transported to a temporary onsite 21,000 gallon frac tank and pumped into it for storage. Repeat pumping, transport and transfer of excavation water into frac tank until all excavation water is removed.
4. When tanker trailer is scheduled to be onsite, Russo will transfer the water that is contained in the frac tank to the tanker for offsite disposal.
5. Once the frac tank is emptied, Russo will clean and decontaminate the tank and then arrange for removal of the tank from the site.



ATTACHMENT #4



Site ready...earth friendly

Niagara Falls Storage Site
Lewiston, New York
Pipeline Plugging

This work plan describes how the pipeline ends will be plugged along with Manhole 41 with a bentonite seal as well as grout seal. See Attachment #4 for specifications on the proposed bentonite and gout.

The following activities will be performed:

1. After the pipe has been dewatered, Russo will then cut the pipe in half with a saw. Russo will insert Cetco Puregold medium chips in the pipe. The chips will help absorb any residual water that may be left in the pipe and will swell up to make a water tight seal in the pipe.
2. After the bentonite chips make a seal in pipe, a grout mixture will be generated using Speed Crete Red Line Rapid Setting Repair Material and water. This mixture will plug up the very end of the pipe preventing any thing from either entering or exiting the pipe.





MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Material name PUREGOLD® MEDIUM CHIPS
Version No. 13
Revision date 16-March-2012
CAS # 1302-78-9
Synonym(s) SMECTITE * BENTONITE * MONTMORILLONITE
Manufacturer information CETCO
Drilling Products Group
[REDACTED]
safetydata@amcol.com
<http://www.cetco.com/>
General Information (800) 527-9948
CHEMTREC® (800) 424-9300

2. Hazards Identification

Potential health effects

Eyes Dust or powder may irritate eye tissue. Mild irritant to eyes (according to the modified Kay & Calandra criteria)

Inhalation Inhalation of dusts may cause respiratory irritation.

Ingestion No significant adverse effects are expected upon ingestion of the product.

Signs and Symptoms None known.

3. Composition/Information on Ingredients

Components	CAS #	Percent
Bentonite	1302-78-9	100

Constituents	CAS #	Percent
SMECTITE GROUP MINERALS	1318-93-0	
Calcium carbonate	471-34-1	
Quartz	14808-60-7	<= 8
Cristobalite	14464-46-1	<= 2

Composition comments Bentonite is composed mainly of smectite group minerals but the composition is varied, as expected for a UVCB substance, and other mineral constituents will be present in small and varying amounts. These minor constituents are not relevant for classification and labelling. The purity of the product is 100% w/w. Impurities are not applicable for a UVCB substance.

4. FIRST-AID MEASURES

First aid procedures

Eye contact No specific first aid measures noted. Flush thoroughly with water. If irritation occurs, get medical assistance.

Skin contact No specific first aid measures noted. Wash skin with soap and water. Get medical attention if irritation develops and persists.

Inhalation No specific first aid measures noted. Move to fresh air. Call a physician if symptoms develop or persist.

Ingestion No specific first aid measures noted. Rinse mouth thoroughly. Get medical attention if any discomfort occurs.

Notes to physician Provide general supportive measures and treat symptomatically.

General advice No hazards which require special first aid measures. Provide general supportive measures and treat symptomatically.

5. Fire-fighting measures

Flammable properties The product is not flammable.

Extinguishing media

Suitable extinguishing media Use any media suitable for the surrounding fires.

Unsuitable extinguishing media Not applicable, non-combustible.

Protection of firefighters

Specific hazards arising from the chemical None known. The product itself does not burn.

Protective equipment for firefighters None known.

Fire fighting equipment/instructions Material can be slippery when wet.

Explosion data

Sensitivity to static discharge Not available.

Sensitivity to mechanical impact Not available.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions No special precautions are necessary beyond normal good hygiene practices. See Section 8 for additional personal protection advice when handling this product.

Environmental precautions No special environmental precautions required. Prevent further leakage or spillage if safe to do so.

7. HANDLING AND STORAGE

Handling Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment.

Storage Store in a dry area. Keep the container dry. No special restrictions on storage with other products.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Constituents	Type	Value	Form
INERT OR NUISANCE DUSTS (SEQ250)	TWA	3 mg/m3	Respirable particles.
		10 mg/m3	Inhalable particles.

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Constituents	Type	Value	Form
INERT OR NUISANCE DUSTS (SEQ250)	TWA	3 mg/m3	Respirable particles.
		10 mg/m3	Total particulate.

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Constituents	Type	Value	Form
INERT OR NUISANCE DUSTS (SEQ250)	TWA	3 mg/m3	Respirable fraction.
		10 mg/m3	Total dust.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Constituents	Type	Value	Form
INERT OR NUISANCE DUSTS (SEQ250)	TWA	3 mg/m3	Respirable particles.
		10 mg/m3	Inhalable

Canada. Quebec OELS. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Constituents	Type	Value	Form
INERT OR NUISANCE DUSTS (SEQ250)	TWA	10 mg/m ³	Total dust.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Constituents	Type	Value	Form
INERT OR NUISANCE DUSTS (SEQ250)	PEL	5 mg/m ³	Respirable fraction.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Constituents	Type	Value	Form
INERT OR NUISANCE DUSTS (SEQ250)	TWA	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.
		50 Mppcf	Total dust.
		15 Mppcf	Respirable fraction.

Engineering controls

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn.

Personal protective equipment**Eye / face protection**

Wear dust-resistant safety goggles where there is danger of eye contact.

Skin protection

No special protective equipment required. Normal work clothing (long sleeved shirts and long pants) is recommended.

Respiratory protection

Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit.

9. Physical & Chemical Properties

Appearance	Tablet. Pellets.
Physical state	Solid.
Form	Various.
Colour	Various.
Odour	None.
Odour threshold	Not applicable.
pH	8.5 - 11
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Boiling point	Not applicable.
Melting point/freezing point	> 450 °C (> 842 °F) / Not applicable.
Solubility (water)	< 0.9 mg/l
Specific gravity	Not applicable.
Relative density	2.6 g/cm ³
Flash point	Not applicable.
Flammability limits in air, upper, % by volume	Not applicable.
Flammability limits in air, lower, % by volume	Not applicable.
Auto-ignition temperature	Not applicable.
VOC	0 %
Viscosity	Not applicable.
Viscosity temperature	Not applicable.
Percent volatile	0 %
Partition coefficient (n-octanol/water)	Not applicable.
Flammability (Train fire)	Not applicable.

Bulk density	0.9 - 1.4 g/cm ³
Molecular weight	Not applicable.
Molecular formula	UVCB Substance
Other data	
Decomposition temperature	> 500 °C (> 932 °F)
Explosive limit	Not applicable.
Explosive properties	Not explosive
Explosivity	Not applicable.
Flame extension	Not applicable.
Flammability	Not applicable.
Flammability (flash back)	Not applicable.
Flammability (Heat of combustion)	Not applicable.
Flammability (solid, gas)	This product is not flammable.
Flammability class	Not applicable.
Flash point class	Not flammable
Oxidizing properties	None.
pH in aqueous solution	8.5 - 11

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Conditions to avoid	Moisture.
Incompatible materials	None known.
Hazardous decomposition products	None.
Possibility of hazardous reactions	Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicological data

Product	Species	Test results
Bentonite (1302-78-9)		
Acute		
<i>Inhalation</i>		
LC50	Rat	> 5.27 mg/l, 4 hr, OECD 436
<i>Oral</i>		
LD50	Rat	> 2000 mg/kg, OECD 425
Acute effects	Not classified.	
Sensitisation	Not classified.	
Carcinogenicity	This product contains <10% total crystalline silica. The respirable crystalline silica as determined by the SWerf method is <1% w/w.	
Mutagenicity	Not classified.	
Reproductive effects	Not classified.	
Symptoms and target organs	None known.	

12. ECOLOGICAL INFORMATION

Ecotoxicological data

Product	Species	Test results
Bentonite (1302-78-9)		
Crustacea	EC50 Daphnia	> 100 mg/l, 48 hours
Other	EC50 Freshwater algae	> 100 mg/l, 72 hours

Product		Species	Test results
	LC50	Freshwater fish	16000 mg/l, 96 hours
		Marine water fish	2800 - 3200 mg/l, 24 hours
Aquatic			
Crustacea	EC50	Coon stripe shrimp (<i>Pandalus danae</i>)	24.8 mg/l, 96 hours
		Dungeness or edible crab (<i>Cancer magister</i>)	81.6 mg/l, 96 hours
Fish	LC50	Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>)	19000 mg/l, 96 hours

Persistence and degradability Not relevant for inorganic substances

Bioaccumulation / Accumulation Will not bio-accumulate.

Mobility in environmental media Low water solubility, expected to sink and migrate into the sediment. Expected to partition to sediment and wastewater solids.

13. DISPOSAL CONSIDERATIONS

Disposal instructions Dispose in accordance with all applicable regulations.

Waste from residues / unused products Dispose of in accordance with local regulations.

Contaminated packaging Store containers and offer for recycling of material when in accordance with the local regulations.

14. Transport information

TDG

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. REGULATORY INFORMATION

WHMIS status Controlled

WHMIS Classification D2A - Other Toxic Effects-VERY TOXIC

WHMIS labeling



Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. OTHER INFORMATION

Recommended restrictions	None known.
Further information	UVCB = a substance of Unknown or Variable composition, Complex reaction products or Biological materials SWERF = Size Weighted Respirable Fraction methodology is a scientific method developed to quantify the content of respirable particles within a bulk product. All details about the SWERF method are available at www.crystallinesilica.eu .
HMIS® ratings	Health: 1* Flammability: 0 Physical Hazard: 0
NFPA ratings	Health: 1 Flammability: 0 Instability: 0
Disclaimer	The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The manufacturer expressly does not make any representations, warranties, or guarantees as to its accuracy, reliability or completeness nor assumes any liability, for its use. It is the user's responsibility to verify the suitability and completeness of such information for each particular use. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
Prepared by	EHS Department
Issue date	25-September-2011
Revision date	16-March-2012
This data sheet contains changes from the previous version in section(s):	IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING: Synonyms Physical & Chemical Properties: Appearance TOXICOLOGICAL INFORMATION: Carcinogenicity REGULATORY INFORMATION: United States OTHER INFORMATION: Further information

SPEED CRETE RED LINE

RAPID-SETTING REPAIR MATERIAL

DESCRIPTION

SPEED CRETE RED LINE is a rapid-setting, cement-based concrete and masonry repair mortar. SPEED CRETE RED LINE is a proprietary formulation of blended portland cements, finely processed selected aggregates, and specific chemical additives which undergoes a chemical "hyper hydration" and produces a stable, low permeability, cementitious matrix. SPEED CRETE RED LINE can be "shaved" for detailed repairs

PRIMARY APPLICATIONS

- Interior and exterior
- Vertical, overhead and horizontal repairs
- Used at no slump consistency
- Outstanding repair material for concrete pipe, curbs, sidewalks, formed and precast concrete

FEATURES/BENEFITS

- Initial set in 8 to 10 minutes
- Final set within 20 minutes
- Can be "shaved" to desired shape
- High strength
- Excellent durability
- Compatible with galvanic anodes

TECHNICAL INFORMATION

Material Properties at 75°F (24°C)

Compressive Strength, psi (MPa) ASTM C 109

24 Hour.....2,550 (17.6)

7 Day.....4,700 (32.4)

28 Day.....5,900 (40.7)

Set Time, ASTM C 266

Initial.....8 - 20 Min

Final.....15 - 30 Min

Split Tensile Strength, psi (MPa) ASTM C 496

7 Day.....400 (2.8)

28 Day.....500 (3.4)

Flexural Strength, psi (MPa) ASTM C 348

7 Day.....700 (4.8)

28 Day.....918 (6.3)

Freeze Thaw Durability Factor ASTM C 666

300 Cycles.....96.75%

Shrinkage 50% RH ASTM C 157

28 Day.....-0.069%

Expansion 100% RH ASTM C 157

28 Day.....0.077%

Scaling Resistance ASTM C 672

50 Cycles.....0% loss

Volumetric Resistivity.....5,250 ohm/cm

PACKAGING

SPEED CRETE RED LINE is packaged in 50 lb (22.7 kg) poly-lined bags, and 50 lb (22.7 kg) pails

SHELF LIFE

1 year in original, unopened packaging

COVERAGE

One 50 lb (22.7 kg) bag yields approximately 0.47 ft³ (0.013 m³) when mixed with 5.5 qt (5.2 L) water.

DIRECTIONS FOR USE

Surface Preparation: Concrete surfaces must be structurally sound, free of loose or deteriorated concrete and free of dust, dirt, paint, efflorescence, oil and all other contaminants. Mechanically abrade the surface to achieve a surface profile equal to CSP 6 - 8 in accordance with ICRI Guideline 310.2. Properly clean profiled area. **Priming:** Clean and prime exposed steel with DURALPREP AC. Concrete should be primed with a spray or brush coat of DURALPREP AC. The primer coat of DURALPREP AC must be allowed to thoroughly dry prior to the application of SPEED CRETE RED LINE. Alternately, a Saturated Surface Dry (SSD) concrete surface



The Euclid Chemical Company

19218 Redwood Rd. • Cleveland, OH 44110

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An **RPM** Company



can be primed with a scrub coat of SPEED CRETE RED LINE. The repair must be made before the scrub coat dries out.

Mixing: SPEED CRETE RED LINE will require approximately 5 to 5.5 qt (4.7 to 5.2 L) of potable water per 50 lb (22.7 kg) bag to achieve the proper mix consistency. Pour the measured amount of water into a clean mixing container, then add the SPEED CRETE RED LINE, and thoroughly mix for no more than 60 seconds to a stiff, no slump, putty-like consistency. Mix small quantities of SPEED CRETE RED LINE in a clean pail with a hand trowel. Use a rotary mixer with rubber tip blades for mixing quantities up to 100 lbs. (45.4 kg). To fill patches 2" (5.1 cm) deep or greater, add clean, pre-dampened, 3/8" (0.96 cm) size pea gravel. DO NOT USE LIMESTONE AGGREGATE. The mix ratio must not exceed 40 lbs. (18 kg) of pea gravel to each 50 lb (22.7 kg) bag or pail of SPEED CRETE RED LINE. **Mixing procedure:** Start mixer, load water, load pea gravel, and then load the SPEED CRETE RED LINE. MIX FOR NO MORE THAN 60 SECONDS.

Application: To ensure a complete bond with the entire surface, force the SPEED CRETE RED LINE firmly into the SSD area by hand or with a trowel. Slightly overfill the repair, and following initial set, shave the material to conform to the contour of the surrounding surface. Always shave SPEED CRETE RED LINE toward the common bonding edge between the repair mortar and the existing surface. Cure material using standard curing practices.

Cold Weather Installation: Application at temperatures below 40°F(4°C) extends the set time. Heating the repair area until warm, using warm water for mixing and tenting or insulating the repair area after application will assist in reaching greater strength development. Do not use direct heat on the repair after its installation.

CLEAN-UP

Clean application tools and mixing equipment with water immediately following use.

PRECAUTIONS/LIMITATIONS

- Keep in covered storage away from all moisture.
- Mix no more than 60 seconds.
- Use only potable water with SPEED CRETE RED LINE.
- Mix to a stiff, putty-like, no slump consistency.
- Do not retemper or add sand to SPEED CRETE RED LINE.
- Do not overwork or overtrowel patching material.
- Do not featheredge SPEED CRETE RED LINE on horizontal surfaces.
- In all cases, consult the Material Safety Data Sheet before use.

Rev. 06.11

WARRANTY: The Euclid Chemical Company ("Euclid") solely and expressly warrants that its products shall be free from defects in materials and workmanship for one (1) year from the date of purchase. Unless authorized in writing by an officer of Euclid, no other representations or statements made by Euclid or its representatives, in writing or orally, shall alter this warranty. EUCLID MAKES NO WARRANTIES, IMPLIED OR OTHERWISE, AS TO THE MERCHANTABILITY OR FITNESS FOR ORDINARY OR PARTICULAR PURPOSES OF ITS PRODUCTS AND EXCLUDES THE SAME. If any Euclid product fails to conform with this warranty, Euclid will replace the product at no cost to Buyer. Replacement of any product shall be the sole and exclusive remedy available and buyer shall have no claim for incidental or consequential damages. Any warranty claim must be made within one (1) year from the date of the claimed breach. Euclid does not authorize anyone on its behalf to make any written or oral statements which in any way alter Euclid's installation information or instructions in its product literature or on its packaging labels. Any installation of Euclid products which fails to conform with such installation information or instructions shall void this warranty. Product demonstrations, if any, are done for illustrative purposes only and do not constitute a warranty or warranty alteration of any kind. Buyer shall be solely responsible for determining the suitability of Euclid's products for the Buyer's intended purposes.

ATTACHMENT 14

ACTIVITY HAZARD ANALYSIS

ACTIVITY HAZARD ANALYSIS

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
Mobilization and Demobilization	Overhead utilities	<ul style="list-style-type: none"> Identify all overhead utilities at the site before work commences. Determine overhead power line voltage prior to approach to ensure minimum distance is maintained.
	High Noise Levels	<ul style="list-style-type: none"> Use hearing protection when exposed to excessive noise levels (greater than 85 dBA over 8-hour work period).
	Handling Heavy Objects	<ul style="list-style-type: none"> Utilize proper lifting techniques. Observe maximum weight limits (50 pounds per person manual lift). Use mechanical equipment for heavy or awkward loads.
	Sharp Objects	<ul style="list-style-type: none"> Wear cut resistant gloves when handling sharp objects. Use caution when cutting acetate liners and handling sample bottles. Inspect power tools for safe operation before use. Keep guards of power tools in place during use.
	Heavy Equipment/ Flying Debris/ Protruding Objects	<ul style="list-style-type: none"> Use reflective warning vests when exposed to vehicular traffic. Isolate the swing radius of equipment. Make eye contact with equipment operator Barricade or rope-off the drilling area. Restrict entry to drilling area to authorized persons only. Wear hard hat, steel-toe boots and safety glasses with side shields at all times. Understand and obey hand signals from equipment operator.
	Equipment Rotation and Pinch Points	<ul style="list-style-type: none"> Identify parts of equipment that may cause personal injury. Maintain all equipment in safe condition. Keep all equipment guards in place during use. De-energize/lock-out equipment before maintenance.

ACTIVITY HAZARD ANALYSIS

Mobilization and Demobilization (continued)	Fire/Explosion	<ul style="list-style-type: none"> • Test atmosphere with combustible gas meter. • Eliminate sources of ignition from area. • Prohibit smoking in work area • Provide fire extinguishers in work areas, flammable material storage areas, and generator locations. • Store flammable materials in well ventilated areas. • Store all compressed gas cylinders upright with caps in place.
EQUIPMENT TO BE USED	INSPECTION REQUIREMENT	TRAINING REQUIREMENTS
1. Gamma Rate Meter and other Radiation Detection Instrumentation	1. Daily source check	<ul style="list-style-type: none"> • HAZWOPER 40 hour and current 8 hr. refresher • Radiological Worker/Authorized User Training • Equipment Operator Specific Training • Safety and health briefing prior to initial operations

ACTIVITY HAZARD ANALYSIS

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
Soil borings using sonic drill rig/ subsurface soil and waste sampling/monitoring well installation/other intrusive sampling utilizing drilling	Underground utilities	<ul style="list-style-type: none"> • Identify all underground utilities at the site before work commences. • Clear all borings to a depth of 5' using manual methods such as a hand auger or post hole tool. • Cease work immediately and re-evaluate if utility markers are uncovered. • Cease work immediately, call utility company and appropriate emergency crews if a utility is accidentally hit.
	Overhead utilities	<ul style="list-style-type: none"> • Identify all overhead utilities at the site before work commences. • Determine overhead power line voltage prior to approach to ensure minimum distance is maintained.
	High Noise Levels	<ul style="list-style-type: none"> • Use hearing protection when exposed to excessive noise levels (greater than 85 dBA over 8-hour work period).
	Handling Heavy Objects	<ul style="list-style-type: none"> • Utilize proper lifting techniques. • Observe maximum weight limits (50 pounds per person manual lift). • Use mechanical equipment for heavy or awkward loads.
	Sharp Objects	<ul style="list-style-type: none"> • Wear cut resistant gloves when handling sharp objects. • Use caution when cutting acetate liners and handling sample bottles. • Inspect power tools for safe operation before use. • Keep guards of power tools in place during use.
	Heavy Equipment/ Flying Debris/ Protruding Objects	<ul style="list-style-type: none"> • Use reflective warning vests when exposed to vehicular traffic. • Isolate the swing radius of equipment. • Make eye contact with equipment operator • Barricade or rope-off the drilling area. • Restrict entry to drilling area to authorized persons only. • Wear hard hat, steel-toe boots and safety glasses with side shields at all times. • Understand and obey hand signals from equipment operator.

ACTIVITY HAZARD ANALYSIS

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
Soil borings using sonic drill rig/ subsurface soil and waste sampling/monitoring well installation/other intrusive sampling utilizing drilling (continued)	Inhalation and Contact with Hazardous or Radioactive Substances	<ul style="list-style-type: none"> • Monitor the area during operations to identify substances. • Provide workers with the appropriate protection for the identified hazards. • Avoid creation of dust; implement dust controls as needed. • Review hazardous properties of contaminants prior to commencing operations.
	Fire/Explosion	<ul style="list-style-type: none"> • Test atmosphere with combustible gas meter. • Eliminate sources of ignition from area. • Prohibit smoking in work area • Provide fire extinguishers in work areas, flammable material storage areas, and generator locations. • Store flammable materials in well ventilated areas. • Store all compressed gas cylinders upright with caps in place.
	Equipment Rotation and Pinch Points	<ul style="list-style-type: none"> • Identify parts of equipment that may cause personal injury. • Maintain all equipment in safe condition. • Keep all equipment guards in place during use. • De-energize/lock-out equipment before maintenance.
EQUIPMENT TO BE USED	INSPECTION REQUIREMENT	TRAINING REQUIREMENTS
<ol style="list-style-type: none"> 1. Sonic Drill Rig 2. Gamma Rate Meter and other Radiation Detection Instrumentation 3. PID 4. CGI 5. Level D/D+/C PPE 	<ol style="list-style-type: none"> 1. Per Drilling Rig equipment specifications 2. Daily source check 3. Calibrate daily 4. Calibrate daily 5. PPE inspection prior to use 	<ul style="list-style-type: none"> • HAZWOPER 40 hour and current 8 hr. refresher • Radiological Worker/Authorized User Training • Equipment Operator Specific Training • Safety and health briefing prior to initial operations • Drillers trained in proper use of Sonic Drilling

ACTIVITY HAZARD ANALYSIS

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
Installation of Groundwater Monitoring Wells	Slips, trips, falls	Avoid wet areas and debris. Do not walk through puddles or climb over debris. Wear proper foot protection with good treads and traction. Pay careful attention to walking surfaces. Do not take short cuts over fences/walls. Barricade-off open pits and trenches in areas where duration of work is extended. Keep working areas free of slip/trip hazards and prevent accumulation of debris/material. Familiarize workers with areas prior to working.
	Noise	Wear hearing protection
	Dust	Wear respiratory protection. Wear eye protection.
	Airborne contaminants	Monitor for respiratory contaminants. Use respiratory protection where appropriate. Competent person to perform air monitoring.
	Moving traffic and equipment	Be alert for moving traffic. Employ traffic control devices as necessary.
	Pinching/crushing/entanglement injuries	Keep hands away from moving parts. Do not wear loose fitting clothing when working near drill rig to avoid entanglement in cables, ropes, etc. Workers must know location of kill switches and test them daily. Rig must not be moved while boom is raised. Stabilizers must be deployed.
	Falling/projected objects	Wear head protection (hard hats). Wear eye protection.
	Use of hand tools	Inspect conditions of tools. Know tool uses and limitations.
	Dermal contamination	Wear impervious outerwear and gloves.
EQUIPMENT TO BE USED	INSPECTION REQUIREMENT	TRAINING REQUIREMENTS
2. Sonic Drill Rig	2. Per Drilling Rig equipment	<ul style="list-style-type: none"> • HAZWOPER 40 hour and current 8 hr. refresher

ACTIVITY HAZARD ANALYSIS

3. Gamma Rate Meter and other Radiation Detection Instrumentation 4. PID 5. CGI 6. Level D/D+/C PPE	specifications 3. Daily source check 4. Calibrate daily 5. Calibrate daily 6. PPE inspection prior to use	<ul style="list-style-type: none"> • Radiological Worker/Authorized User Training • Equipment Operator Specific Training • Safety and health briefing prior to initial operations • Drillers trained in proper use of Sonic Drilling
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JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
Groundwater monitoring well development, purging, and sample collection.	Slips, trips, falls	Avoid wet areas and debris. Do not walk through puddles or climb over debris. Wear proper foot protection with good treads and traction. Pay careful attention to walking surfaces. Do not take short cuts over fences/walls. Keep working areas free of slip/trip hazards and prevent accumulation of debris/material. Familiarize workers with areas prior to working.
	Biological hazards	Avoid contact with animals/insects. Poison ivy is ubiquitous throughout the wooded areas of the NFSS. Train workers to recognize poisonous plants (i.e., poison ivy, poison oak) and to minimize contact with them. Use sunscreen on sunny days. Shower thoroughly after work. Use caution when opening well covers to avoid spiders/bees. Discuss tick hazards awareness
	Moving traffic and equipment	Be alert for moving traffic. Employ traffic control devices as necessary.
	Dermal contamination	Wear impervious outerwear and gloves.
	Falling/projected objects	Wear head protection/hard hats. Wear eye protection.
	Back injuries	Follow proper lifting procedures.
EQUIPMENT TO BE	INSPECTION REQUIREMENT	TRAINING REQUIREMENTS

ACTIVITY HAZARD ANALYSIS

USED		
1. Gamma Rate Meter and other Radiation Detection Instrumentation 2. PID 3. CGI 4. Level D/D+/C PPE	1. Daily source check 2. Calibrate daily 3. Calibrate daily 4. PPE inspection prior to use	<ul style="list-style-type: none"> • HAZWOPER 40 hour and current 8 hr. refresher • Radiological Worker/Authorized User Training • Equipment Operator Specific Training • Safety and health briefing prior to initial operations

ACTIVITY HAZARD ANALYSIS

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
Pipeline Excavation, Sampling and Plugging	Underground utilities	<ul style="list-style-type: none"> Identify all underground utilities at the site before work commences. Cease work immediately and re-evaluate if utility markers are uncovered. Cease work immediately, call utility company and appropriate emergency crews if a utility is accidentally hit.
	Overhead utilities	<ul style="list-style-type: none"> Identify all overhead utilities at the site before work commences. Maintain a minimum clearance of 10 feet from power lines.
	High Noise Levels	<ul style="list-style-type: none"> Use hearing protection when exposed to excessive noise levels (greater than 85 dBA over 8 hour work period).
	Handling Heavy Objects	<ul style="list-style-type: none"> Utilize proper lifting techniques. Observe maximum weight limits (50 pounds per person manual lift). Use mechanical equipment for heavy or awkward loads.
	Sharp Objects	<ul style="list-style-type: none"> Wear cut resistant gloves when handling sharp objects. Use caution when cutting acetate liners and handling sample bottles.. Inspect power tools for safe operation before use. Keep guards of power tools in place during use.
	Cutting with Torches	<ul style="list-style-type: none"> Wear appropriate PPE (i.e., welder's mask, leather covering over bootlaces, etc.). Use caution when cutting. Inspect cutting tools for safe operation before use. Keep guards of tools in place during use.
	Confined Space Entry	<ul style="list-style-type: none"> Utilize a 3-man team when entering the confined space. Conduct constant real-time air monitoring for O₂ and Combustible Gas Levels. Inspect man harness for safe operation before use.

ACTIVITY HAZARD ANALYSIS

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
Pipeline Excavation, Sampling and Plugging (continued)	Heavy Equipment/Flying Debris/Protruding Objects	<ul style="list-style-type: none"> • Use reflective warning vests when exposed to vehicular traffic. • Isolate the swing radius of equipment. • Make eye contact with equipment operator • Barricade or rope-off the drilling area. • Restrict entry to drilling area to authorized persons only. • Wear hard hat, steel-toe boots and safety glasses with side shields at all times. • Understand and obey hand signals from equipment operator.
	Inhalation and Contact with Hazardous or Radioactive Substances	<ul style="list-style-type: none"> • Monitor the area during operations to identify substances. • Provide workers with the appropriate protection for the identified hazards. • Avoid creation of dust; implement dust controls as needed. • Review hazardous properties of contaminants prior to commencing operations.
	Fire/Explosion	<ul style="list-style-type: none"> • Test atmosphere with combustible gas meter. • Eliminate sources of ignition from area. • Prohibit smoking in work area • Provide fire extinguishers in work areas, flammable material storage areas, and generator locations. • Store flammable materials in well ventilated areas. • Store all compressed gas cylinders upright with caps in place.
	Equipment Rotation and Pinch Points	<ul style="list-style-type: none"> • Identify parts of equipment that may cause personal injury. • Maintain all equipment in safe condition. • Keep all equipment guards in place during use. • De-energize/lock-out equipment before maintenance.

ACTIVITY HAZARD ANALYSIS

EQUIPMENT TO BE USED	INSPECTION REQUIREMENT	TRAINING REQUIREMENTS
<ol style="list-style-type: none"> 1. Excavator 2. Gamma Rate Meter and other Radiation Detection Instrumentation 3. PID 4. 4-Gas Meter 5. Level D/D+/C/B PPE 	<ol style="list-style-type: none"> 1. Per Excavator equipment specifications 2. Daily source check 3. Calibrate daily 4. Calibrate daily 5. PPE inspection prior to use 	<ul style="list-style-type: none"> • HAZWOPER 40 hour and current 8 hr. refresher • Radiological Worker/Authorized User Training • Equipment Operator Specific Training • Safety and health briefing prior to initial operations

ACTIVITY HAZARD ANALYSIS

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
Site walkover and surveying	Stepping on sharp and/or protruding objects	<ul style="list-style-type: none"> Recent mowing will enhance visibility. Surveyor must be aware of changing terrain when performing survey. Proper safety footwear will minimize the potential for foot injury. Be aware of damaged fencing wire and posts.
	Slips, trips, falls	<ul style="list-style-type: none"> Recent mowing will enhance visibility. Surveyor must be aware of changing terrain, wet ground, animal burrows, and general debris. Ensure instrument wires, straps and cables do not interfere with walking.
	Potential exposure to chemical and radiological contaminants	<ul style="list-style-type: none"> Avoid activities that disturb areas with distressed vegetation. Avoid areas that exhibit unusual characteristics (odor, color) or other signs of contamination until properly evaluated. Modify PPE as required by conditions.
	Heat/Cold Stress	<ul style="list-style-type: none"> Proper clothing for weather conditions. Available shade/shelter and thirst-quenching beverages. Available warning stations and warm, non-dehydrating beverages. Workers should be reminded to observe physiological indications. Protect instruments from thermal shock and other weather impacts.
EQUIPMENT TO BE USED	INSPECTION REQUIREMENT	TRAINING REQUIREMENTS
<ol style="list-style-type: none"> Level D PPE Radiation Detection Instrumentation GPS Equipment 	<ol style="list-style-type: none"> Inspect PPE prior to use Source check daily Ensure reception is satisfactory / Ensure that instrumentation is secure in backpack. 	<ul style="list-style-type: none"> HAZWOPER 40 hour and current 8 hour refresher Radiation Worker Training Equipment Operator Specific Training Safety and health briefing prior to initial operations

ACTIVITY HAZARD ANALYSIS

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
Equipment Decontamination	Contact with hazardous or radioactive contaminants	<ul style="list-style-type: none"> • Wear appropriate PPE as required. • Minimize contact with contaminated equipment.
	Contact with hazardous decontamination chemicals	<ul style="list-style-type: none"> • Workers should be familiar with the chemicals being used. • The MSDS should be available for reference. • Proper precautions during handling and PPE.
	Slips, Trips, Falls	<ul style="list-style-type: none"> • Boom should be lower to the extent practicable, to avoid working at height. • Fall protection should be employed when working at heights greater than 6 feet. • Exercise caution when walking on wet surfaces.
	Injury from pressure washers	<ul style="list-style-type: none"> • Operators shall be trained in equipment use. • Use proper protective clothing, especially eye and face protection. • Worker not involved with the operation should stand clear.
	Equipment rotation and pinch points	<ul style="list-style-type: none"> • Identify parts of equipment that may cause personal injury. • Maintain all equipment in a safe condition. • De-energize/lock-out equipment before maintenance.
	Electrocution	<ul style="list-style-type: none"> • Ground-fault circuitry should be used on all electrical equipment. • Inspect electrical cords and equipment before use.
EQUIPMENT TO BE USED	INSPECTION REQUIREMENT	TRAINING REQUIREMENTS
<ol style="list-style-type: none"> 1. Level D/D+/C PPE 2. Pressure Washer (if necessary) 3. Fall arrest system (if necessary) 4. Post-Decon Radiological survey instrumentation 	<ol style="list-style-type: none"> 1. Inspect prior to use 2. Inspect prior to use 3. Inspect prior to use 4. Daily source and operability check 	<ul style="list-style-type: none"> • Appropriate training for all decon and safety equipment being used

ACTIVITY HAZARD ANALYSIS

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
Travel to and at the site	Operation of Motor Vehicles	<ul style="list-style-type: none"> • Comply with all federal, state, local and site regulations. • Inspect vehicles daily and document inspections. • Drive defensively. • Wear seatbelts while vehicles are in motion. • Avoid backing vehicles when possible.
EQUIPMENT TO BE USED	INSPECTION REQUIREMENT	TRAINING REQUIREMENTS
Vehicles Trucks/Trailers	Vehicle Inspections	<ul style="list-style-type: none"> • Licensed for the operation of vehicle

Notes:

ER 385-1-92, United States Army Corps of Engineers, *Safety and Occupational Health Requirements for Hazardous, Toxic, and Radioactive Waste (HTRW) Activities*, May 2007.

ER 385-1-80, United States Army Corps of Engineers, *Ionizing Radiation Protection*, June 2012.

ER 385-1-90, United States Army Corps of Engineers, *Respiratory Protection Program*, March 1983.

URS Safety Management Standards, Revised March 2012.

ATTACHMENT 15

ACCIDENT PREVENTION PLAN CHECKLIST

CONTRACTOR ACCIDENT PREVENTION PLAN/ SITE SAFETY AND HEALTH PLAN (APP/SSHP) CHECKLIST
(EM 385-1-1, Appendix - A, Section 28, dated 15 Sept. 08)

Minimum Basic Outline for APP/SSHP

The APP/SSHP is the Contractor Safety and Health Program Document. The following Site Specific Areas will be addressed:

NOTE: 1. Contractor will complete Checklist and Submit with their APP/SSHP.

NOTE: 2. Contractor APP/SSHP WILL be submitted in format below.

NOTE: 3. Safety Office will review Contractor APP/SSHP and return to PM /COR.

NOTE: 4. Contractor APP/SSHP's ARE NOT APPROVED by the USACE, only found as Acceptable or Non-Acceptable.

Safety Office Review Status: ACCEPTED BY/DATE: _____ NOT ACCEPTED BY/DATE: _____

Contractor Name: URS Group, Inc.

Contract No: W912QR-12-D-0023

Project Title & Location: Balance of Plant Field Investigation Niagara Falls Storage Site, Lewiston, NY	Included ?			Location:
	Yes	No	N/A	Page(s)
ALL CHECKLIST ITEMS WILL BE COMPLETED!				
1. SIGNATURE SHEET. Title, signature, and phone number of the following:				
a. Plan Preparer (qualified person, Competent Person such as corporate safety staff person, QC).	✓			Signature sheet
b. Plan Approval by company/corporate officers authorized to obligate the company (e.g. owner company president, regional vice president etc.)	✓			"
c. Plan Concurrence (e.g. Chief of Operations, Corporate Chief of Safety, Corporate Industrial Hygienist, project manager or superintendent, project safety professional, project QC). Provide concurrence of other applicable corporate and project personnel (Contractor).	✓			"
2. BACKGROUND INFORMATION. List the following:				
a. Contractor;	✓			1-1
b. Contract number;	✓			1-1
c. Project name;	✓			1-1
d. Brief project description, description of work to be performed, and location; phases of work anticipated (these will require an AHA).	✓			1-1
3. STATEMENT OF SAFETY AND HEALTH POLICY. Provide a copy of your current corporate/company Safety & Health Policy Statement, detailing commitment to providing a safe and healthful workplace for all employees. The Contractor's written safety program goals, objectives, and accident experience goals for this contract should be provided.	✓			2-1
4. RESPONSIBILITIES AND LINES OF AUTHORITIES. Provide the following:				
a. A statement of the employer's ultimate responsibility for the implementation of his SOH program;	✓			3-1
b. Identification and accountability of personnel responsible for safety at both corporate and project level. Contracts specifically requiring safety or industrial hygiene personnel shall include a copy of their resumes. Qualifications shall include the OSHA 30-hour course or equivalent course areas as listed here:	✓			3-1 to 3-4
(1) OSH Act/General Duty Clause;			✓	
(2) 29 CFR 1904, Recordkeeping;			✓	
(3) Subpart C: General Safety and Health Provisions, Competent Person			✓	
(4) Subpart D: Occupational Health and Environmental Controls, Citations and Safety Programs;			✓	
(5) Subpart E: PPE, types and requirements for use;			✓	
(6) Subpart F: understanding fire protection in the workplace;			✓	
(7) Subpart K: Electrical;			✓	
(8) Subpart M: Fall Protection;			✓	

CONTRACTOR ACCIDENT PREVENTION PLAN/ SITE SAFETY AND HEALTH PLAN (APP/SSHP) CHECKLIST
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Contractor Name: URS Group, Inc.

Contract No: W912QR-12-D-0023

Project Title & Location: Balance of Plant Field Investigation Niagara Falls Storage Site, Lewiston, NY	Included ?			Location:
	Yes	No	N/A	Page(s)
(9) Rigging, welding and cutting, scaffolding, excavations, concrete and masonry, demolition; health hazards in construction, materials handling, storage and disposal, hand and power tools, motor vehicles, mechanized equipment, marine operations, steel erection, stairways and ladders, confined spaces or any others that are applicable to the work being performed.			✓	
c. The names of Competent and/or Qualified Person(s) and proof of competency/qualification to meet specific OSHA Competent/Qualified Person(s) requirements must be attached. The District SOHO will review the qualifications for acceptance;	✓			3-4
d. Requirements that no work shall be performed unless a designated competent person is present on the job site;	✓			3-4
e. Requirements for pre-task safety and health analysis;	✓			3-4
f. Lines of authority;	✓			3-5
g. Policies and procedures regarding noncompliance with safety requirements (to include disciplinary actions for violation of safety requirements) should be identified;	✓			3-5
h. Provide written company procedures for holding managers and supervisors accountable for safety.	✓			3-5
5. SUBCONTRACTORS AND SUPPLIERS. If applicable, provide procedures for coordinating SOH activities with other employers on the job site:				
a. Identification of subcontractors and suppliers (if known);	✓			4-1
b. Safety responsibilities of subcontractors and suppliers.	✓			4-2
6. TRAINING.				
a. Requirements for new hire SOH orientation training at the time of initial hire of each new employee.	✓			5-1
b. Requirements for mandatory training and certifications that are applicable to this project (e.g., explosive actuated tools, confined space entry, crane operator, diver, vehicle operator, HAZWOPER training and certification, PPE) and any requirements for periodic retraining/recertification.	✓			5-1
c. Procedures for periodic safety and health training for supervisors and employees.	✓			5-1
d. Requirements for emergency response training. > See 9.b. below for a list of requirements that may require emergency response training.	✓			5-2
7. SAFETY AND HEALTH INSPECTIONS.				
a. Specific assignment of responsibilities for a minimum daily job site safety and health inspection during periods of work activity: Who will conduct (e.g., SSHO, PM, safety professional, QC, supervisors, employees – depends on level of technical proficiency needed to perform said inspections), proof of inspector's training/qualifications, when inspections will be conducted, procedures for documentation, deficiency tracking system, and follow-up procedures;	✓			6-1
b. Any external inspections/certifications that may be required (e.g., USCG).	✓			6-1

CONTRACTOR ACCIDENT PREVENTION PLAN/ SITE SAFETY AND HEALTH PLAN (APP/SSHP) CHECKLIST
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Contractor Name: URS Group, Inc.

Contract No: W912QR-12-D-0023

Project Title & Location: Balance of Plant Field Investigation Niagara Falls Storage Site, Lewiston, NY	Included ?			Location:
	Yes	No	N/A	Page(s)
8. ACCIDENT REPORTING. The Contractor shall identify person(s) responsible to provide the following:				
a. Exposure data (man-hours worked);	✓			7-1
b. Accident investigations, reports, and logs: Report all accidents/incidents as soon as possible but not more than 4 hours afterwards to the Contracting Officer/Representative (CO/COR). The contractor shall thoroughly investigate the accident and, if applicable, submit the findings of the investigation along with appropriate corrective actions to the CO/COR in the prescribed format as soon as possible but no later than five (5) working days following the accident. Implement corrective actions as soon as reasonably possible;	✓			7-1
c. The following require immediate accident notification:				
(1) A fatal injury;	✓			7-1
(2) A permanent total disability;	✓			7-1
(3) A permanent partial disability;	✓			7-1
(4) The hospitalization of three or more people resulting from a single occurrence;	✓			7-1
(5) Property damage of \$200,000 or more.	✓			7-1
9. PLANS (PROGRAMS, PROCEDURES) REQUIRED BY THE SAFETY MANUAL. Based on a risk assessment of contracted activities and on mandatory OSHA compliance programs, the Contractor shall address all applicable occupational risks and compliance plans. Using the EM 385-1-1 as a guide, plans may include but not be limited to:				
a. Layout plans (04.A.01);	✓			8-1
b. Emergency response plans:	✓			8-1
(1) Procedures and tests (01.E.01);	✓			8-1
(2) Spill plans (01.E.01, 06.A.02);	✓			8-1
(3) Firefighting plan (01.E.01, Section 19);	✓			8-1
(4) Posting of emergency telephone numbers (01.E.05);	✓			
(5) Man overboard/abandon ship (Section 19.A.04);			✓	
(6) Medical Support. Outline on-site medical support and offsite medical arrangements including rescue and medical duties for those employees who are to perform them, and the name(s) of on-site Contractor personnel trained in first aid and CPR. A minimum of two employees shall be certified in CPR and first aid per shift/site (Section 03.A.02; 03.D);	✓			8-1
c. Plan for prevention of alcohol and drug abuse (01.C.02);	✓			8-1
d. Site sanitation plan (Section 02);	✓			8-1
e. Access and haul road plan (4.B);			✓	
f. Respiratory protection plan (05.G);	✓			8-2

CONTRACTOR ACCIDENT PREVENTION PLAN/ SITE SAFETY AND HEALTH PLAN (APP/SSHP) CHECKLIST
(EM 385-1-1, Appendix - A, Section 28, dated 15 Sept. 08)

Minimum Basic Outline for APP/SSHP

The APP/SSHP is the Contractor Safety and Health Program Document. The following Site Specific Areas will be addressed:

NOTE: 1. Contractor will complete Checklist and Submit with their APP/SSHP.

NOTE: 2. Contractor APP/SSHP WILL be submitted in format below.

NOTE: 3. Safety Office will review Contractor APP/SSHP and return to PM /COR.

NOTE: 4. Contractor APP/SSHP's ARE NOT APPROVED by the USACE, only found as Acceptable or Non-Acceptable.

Safety Office Review Status: ACCEPTED BY/DATE: _____ NOT ACCEPTED BY/DATE: _____

Contractor Name: URS Group, Inc.

Contract No: W912QR-12-D-0023

Project Title & Location: Niagara Falls Storage Site, Lewiston, NY	Included ?			Location:
	Yes	No	N/A	Page(s)
g. Health hazard control program (06.A);	✓			8-2
h. Hazard communication program (06.B.01);	✓			8-2
i. Process Safety Management Plan (06.B.04);			✓	
j. Lead abatement plan (06.B.05 & specifications);			✓	
k. Asbestos abatement plan (06.B.05 & specifications);			✓	
l. Radiation Safety Program (06.E.03.a);	✓			8-3
m. Abrasive blasting (06.H.01);			✓	
n. Heat/Cold Stress Monitoring Plan (06.I.02)	✓			8-3
o. Crystalline Silica Monitoring Plan (Assessment) (06.M) ;			✓	
p. Night operations lighting plan (07.A.08);			✓	
q. Fire Prevention Plan (09.A);	✓			8-3
r. Wild Land Fire Management Plan (09.K);			✓	
s. Hazardous energy control plan (12.A.01);	✓			8-3
t. Critical lift Plan (16.H);			✓	
u. Contingency plan for Floating Plants for severe weather (19.A.03);	✓			8-4
v. Float Plan (19.F.04);			✓	
w. Site-Specific Fall Protection & Prevention Plan (21.C);	✓			8-4
x. Demolition plan (to include engineering survey) (23.A.01);			✓	
y. Excavation/trenching plan (25.A.01);	✓			8-4
z. Emergency rescue (tunneling) (26.A.);			✓	
aa. Underground construction fire prevention and protection plan (26.D.01);			✓	
bb. Compressed air plan (26.I.01);			✓	
cc. Formwork and shoring erection and removal plans (27.C);			✓	
dd. PreCast Concrete Plan (27.D);			✓	
ee. Lift slab plans (27.E);			✓	
ff. Steel erection plan (27.F.01);			✓	
gg. Site Safety and Health Plan for HTRW work (28.B);	✓			8-4
hh. Blasting Safety Plan (29.A.01);			✓	
ii. Diving plan (30.A.13);			✓	
jj. Confined Space Program (34.A).	✓			8-5
10. RISK MANAGEMENT PROCESSES. Detailed project-specific hazards and controls shall be provided by an Activity Hazard Analysis (01.A.13) for each major phase/activity of work.	✓			9-1

CONTRACTOR ACCIDENT PREVENTION PLAN/ SITE SAFETY AND HEALTH PLAN (APP/SSHP) CHECKLIST
(EM 385-1-1, Appendix - A, Section 28, dated 15 Sept. 08)

Minimum Basic Outline for APP/SSHP

The APP/SSHP is the Contractor Safety and Health Program Document. The following Site Specific Areas will be addressed:

NOTE: 1. Contractor will complete Checklist and Submit with their APP/SSHP.

NOTE: 2. Contractor APP/SSHP WILL be submitted in format below.

NOTE: 3. Safety Office will review Contractor APP/SSHP and return to PM /COR.

NOTE: 4. Contractor APP/SSHP's ARE NOT APPROVED by the USACE, only found as Acceptable or Non-Acceptable.

Safety Office Review Status: ACCEPTED BY/DATE: _____ NOT ACCEPTED BY/DATE: _____

Contractor Name: URS Group, Inc.

Contract No: W912QR-12-D-0023

Project Title & Location: Balance of Plant Field Investigation Niagara Falls Storage Site, Lewiston, NY	Included ?			Location: Page(s)
	Yes	No	N/A	
HTRW Projects Additional Requirements (EM 385-1-1, Section 28 HAZWOPER): SSHP (Site Safety and Health Plan) shall be attached to the APP as an Appendix. The SSHP shall cover the following in project-specific detail. General information adequately covered in the APP need not be duplicated.				
a. Site description and contamination characterization	✓			i-1
b. Hazard/Risk Analysis - AHA for each task	✓			APP, Att. 14
c. Staff Organization; Qualifications; Responsibilities	✓			APP, 3.0
d. Training - General, Supervisor and Project Specific	✓			APP, 5.0
e. PPE Personal Protective Equipment	✓			6-1
f. Medical Surveillance	✓			Att. A, SMS 17
g. Exposure Monitoring/ Air Sampling Program	✓			7-1, RPP
h. Heat and Cold Stress - Procedures and Practices	✓			3-10, 3-11, SMS 059
i. SOPs Standard Operating Procedures; Engineering Controls; Work Practices:				
(1) Site rules/prohibitions (buddy system, eating/drinking/smoking restrictions, etc.)	✓			8-1
(2) Work permit requirements (rad work, excavation, hot work, confined space etc.)	✓			4-i, SMS 52
(3) Material handling procedures (soil, liquid, rad materials, spill contingency)	✓			Att A, SMS 069
(4) Drum/container/tank handling (opening, sampling, draining, removal, etc.)		✓		
(5) Comprehensive AHA of treatment technologies employed at site			✓	
j. Site Control Measures: Clearly Defined EZ, SZ, CRZ	✓			8-1 to 6-3
k. Personal Hygiene and Decontamination	✓			8-1
l. Equipment Decontamination	✓			8-1
m. Emergency Equipment and First Aid	✓			10-2
n. Emergency Response and Contingency Procedures:	✓			APP, Att. 2
(1) Pre-emergency planning	✓			" + SMS 003
(2) Personnel and lines of authority for emergency situations	✓			"
(3) Criteria and procedures for emergency recognition and site evacuation (alarms, etc.)	✓			"
(4) Decontamination and medical treatment of injured personnel	✓			"
(5) A route map to emergency medical facilities and phone numbers for emergency responders	✓			APP, Att. 2
(6) Criteria for alerting the local community responders	✓			"

APPENDICES

Appendix A – SITE SAFETY AND HEALTH PLAN

The *Site Safety and Health Plan* is included in a separate binder.

Appendix B – RADIATION PROTECTION PLAN

The *RPP* is included in a separate binder.