

**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**





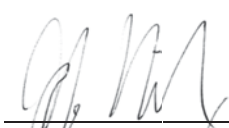

**US Army Corps
of Engineers®**
Buffalo District

November 2012

Accident Prevention Plan (Draft)

Balance of Plant Operable Unit Field Investigation

Lewiston, New York

Authored By:	 _____ Kevin J. McGovern, PG, CPG, CHMM Tel. (716) 923-1101	<u>2 November 2012</u> Date
Approved By:	 _____ Kevin Connare, Project Manager Tel. (716) 923-1165	<u>2 November 2012</u> Date
Approved By:	 _____ Jack Wilcox, V.P., Principal-in-Charge Tel. (716) 923-1141	<u>2 November 2012</u> Date
Concurrence By:	 _____ Benjamin Bertolotti, CIH, Regional Safety and Health Officer Tel. (973) 777-3003	<u>2 November 2012</u> Date

- ☒ 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 – K. McGovern

2 November 2012
Date


Signature/URS Independent Technical Reviewer – G. Drumm

2 November 2012
Date

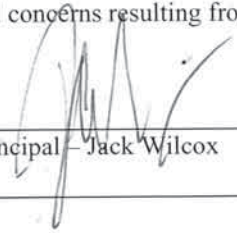
Independent Technical Review Team Members: Greg Drumm

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 – Jack Wilcox

2 November 2012
Date

TABLE OF CONTENTS

ACRONYMS	III
1.0 BACKGROUND INFORMATION	1-1
2.0 STATEMENT OF SAFETY AND HEALTH POLICY	2-1
2.1 POLICY	2-1
2.2 HEALTH AND SAFETY GOALS	2-1
3.0 RESPONSIBILITIES AND LINES OF AUTHORITY	3-1
3.1 STATEMENT OF RESPONSIBILITY	3-1
3.2 PERSONNEL RESPONSIBLE FOR SAFETY	3-1
3.3 COMPETENT/QUALIFIED PERSONNEL	3-4
3.4 WORK LIMITATIONS	3-4
3.5 PRE-TASK SAFETY AND HEALTH ANALYSIS	3-4
3.6 LINES OF AUTHORITY	3-5
3.7 POLICIES AND PROCEDURES FOR COMPLIANCE	3-5
3.8 ACCOUNTABILITY OF URS MANAGERS AND SUPERVISORS	3-5
3.9 ORGANIZATION	3-7
4.0 SUBCONTRACTORS AND SUPPLIERS	4-1
5.0 TRAINING	5-1
5.1 EMPLOYEE ORIENTATION	5-1
5.2 REQUIREMENTS FOR MANDATORY TRAINING AND CERTIFICATIONS	5-1
5.3 PERIODIC SAFETY AND HEALTH TRAINING FOR SUPERVISORS AND 5- EMPLOYEES	5-1
5.4 REQUIREMENTS FOR EMERGENCY RESPONSE TRAINING	5-2
6.0 SAFETY AND HEALTH INSPECTIONS	6-1
7.0 ACCIDENT REPORTING	7-1
7.1 EXPOSURE DATA	7-1
7.2 ACCIDENT INVESTIGATIONS, REPORTS, AND LOGS	7-1
7.3 IMMEDIATE NOTIFICATION	7-1
8.0 PLANS REQUIRED BY THE SAFETY MANUAL	8-1
8.1 LAYOUT PLANS	8-1
8.2 EMERGENCY RESPONSE PLANS	8-1
8.3 ALCOHOL/DRUG ABUSE PREVENTION	8-1
8.4 SITE SANITATION PLAN	8-1
8.5 ACCESS AND HAUL ROAD PLAN	8-1
8.6 RESPIRATORY PROTECTION PLAN	8-2
8.7 HEALTH HAZARD CONTROL PROGRAM	8-2
8.8 HAZARD COMMUNICATION PROGRAM	8-2
8.9 PROCESS SAFETY MANAGEMENT	8-3
8.10 LEAD ABATEMENT PLAN	8-3
8.11 ASBESTOS ABATEMENT	8-3
8.12 RADIATION SAFETY PROGRAM	8-3
8.13 ABRASIVE BLASTING	8-3
8.14 HEAT AND COLD STRESS MONITORING	8-3
8.15 CRYSTALLINE SILICA MONITORING PLAN	8-3

8.13 NIGHT OPERATIONS LIGHTING PLAN	8-3
8.17 FIRE PROTECTION PLAN	8-3
8.18 WILD LAND FIRE MANAGEMENT PLAN	8-3
8.19 HAZARDOUS ENERGY CONTROL PLAN	8-3
8.20 CRITICAL LIFT PLAN	8-3
8.21 CONTINGENCY PLAN FOR FLOATING PLANTS	8-4
8.22 FLOAT PLAN	8-4
8.23 FALL PROTECTION/PREVENTION PLAN	8-4
8.24 DEMOLITION PLAN	8-4
8.25 EXCAVATION/TRENCHING PLAN	8-4
8.26 EMERGENCY RESCUE (TUNNELING)	8-4
8.27 UNDERGROUND CONSTRUCTION FIRE PREVENTION	8-4
8.28 COMPRESSED-AIR PLAN	8-4
8.29 FORMWORK AND SHORING PLANS	8-4
8.30 PRECAST CONCRETE PLAN	8-4
8.31 LIFT SLAB PLANS	8-4
8.32 STEEL ERECTION PLANS	8-4
8.33 SITE SAFETY AND HEALTH PLAN FOR HTRW	8-4
8.34 BLASTING SAFETY PLAN	8-4
8.35 DIVING PLAN	8-5
8.36 CONFINED SPACE PLAN	8-5
9.0 RISK MANAGEMENT PROCESS	9-1
ATTACHMENTS	
ATTACHMENT 1 - RESUMES2	
ATTACHMENT 2 - EMERGENCY RESPONSE PLAN	
ATTACHMENT 3 - FIRST AID/CPR CERTIFICATIONS	
ATTACHMENT 4 - SAFETY DEFICIENCY TRACKING FORM	
ATTACHMENT 5 - LAYOUT PLANS	
ATTACHMENT 6 - DRUG/ALCOHOL ABUSE PREVENTION	
ATTACHMENT 7 - SITE SANITATION PLAN	
ATTACHMENT 8 - HAZARD CONTROL PLAN	
ATTACHMENT 9 - HAZARD COMMUNICATION PLAN	
ATTACHMENT 10 - FIRE PREVENTION PLAN	
ATTACHMENT 11 - HAZARDOUS ENERGY CONTROL	
ATTACHMENT 12 - SEVERE/INCLEMENT WEATHER PLAN	
ATTACHMENT 13 - EXCAVATION/TRENCHING PLAN	
ATTACHMENT 14 - ACTIVITY HAZARD ANALYSIS	
ATTACHMENT 15 - APP CHECKLIST	
APPENDICES	
APPENDIX A - Site Safety and Health Plan (Under Separate Cover)	
APPENDIX B - Radiation Protection Plan (Under Separate Cover)	

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.
77 Goodell Street
Buffalo, NY 14203

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: Benjamin Bertolotti, CIH
Phone: (973) 777-3003
Cell Phone: (973) 572-3916
Email: ben.bertolotti@urs.com

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: Kevin Connare
Phone: (716) 923-1165
Cell Phone: (716) 861-7661
Email: kevin.connare@urs.com

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: Colin Wasteneys
Phone: (716) 923-1164
Cell: (716) 319-4610
Email: colin.wasteneys@urs.com

The Field Coordinator will conduct the following:

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

Site Supervisor

Name: Rob Murphy
Phone: (716) 923-1176
Cell: (716) 903-1346
Email: rob.murphy@urs.com

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.

Mr. Murphy maintains the OSHA 40-hour HAZWOPER training.

Field Geologist/ Alternate Site Supervisor

Name: Steve Moeller
Phone: (716) 923-1112
Email: steve.moeller@urs.com

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

Site Safety and Health Officer

Name: Shawn Conway
Phone (cell): (716) 361-4678
Email: shawn.conway@urs.com

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.

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

Site Radiation Safety Officer

Name: Amy Jones

Phone (cell): (801) 913-5199

Email: amy.r.jones@urs.com

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: Benjamin Bertolotti – Regional Safety and Health Officer, Kevin Connare - Project Manager, Colin Wasteney – Field Coordinator, Shawn Conway- SSHO, and Amy Jones - 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

ORGANIZATION CHART

USACE Buffalo District
NFSS Balance of Plant Operable Unit
Field Investigation

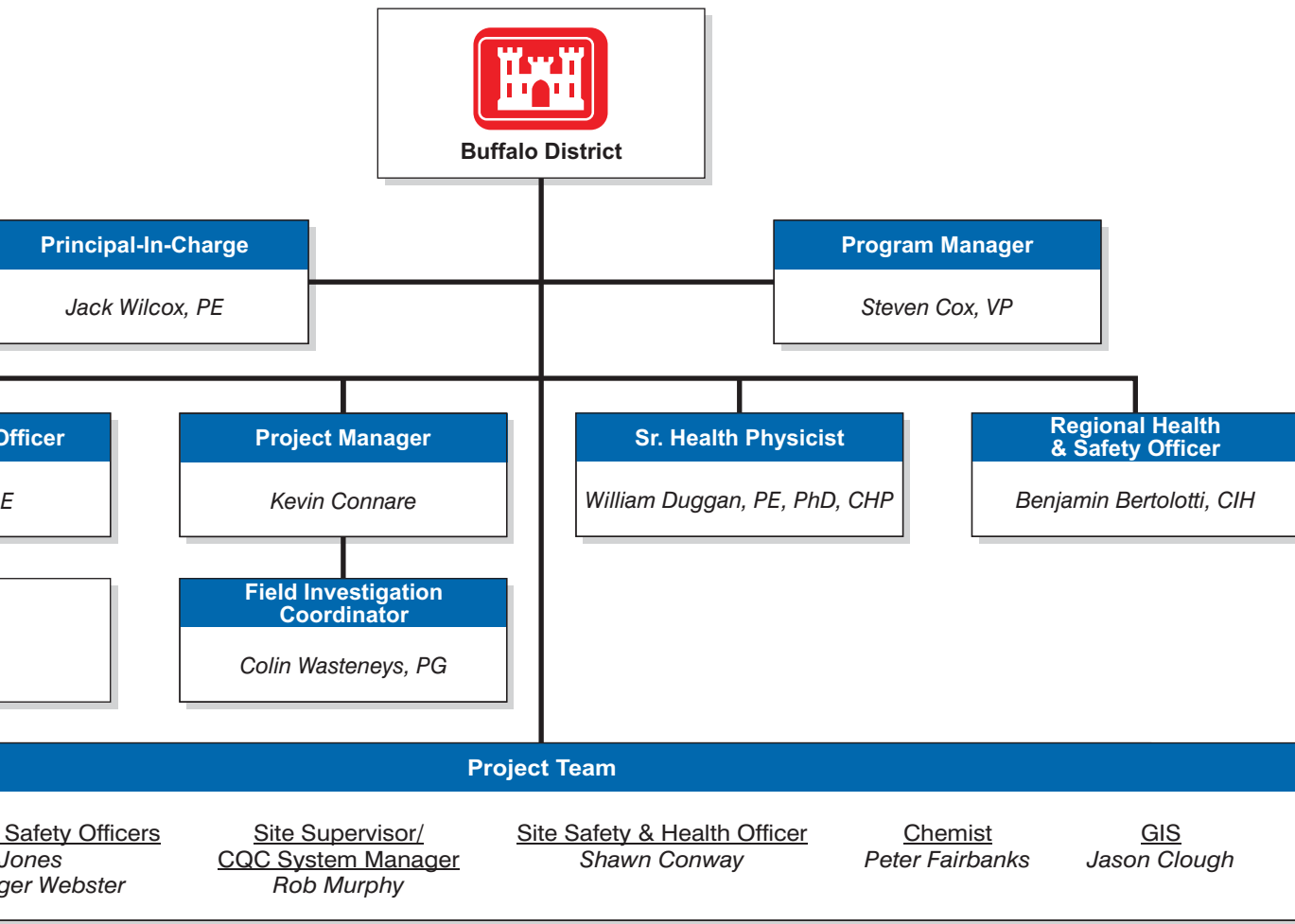


Figure 1

4.0 SUBCONTRACTORS AND SUPPLIERS

The following subcontractors will be working on this project:

ON-SITE:

Sonic Drilling

Dennis Robins
Boart Longyear
6215 Lehman Drive
Flint, MI 48507
Phone: 810-877-7176
drobins@boartlongyear.com

Excavation

Eric Warren
Russo Development, Inc.
3710 Milestrip Road
Blasdell, New York 14129
Phone: 716-844-8745
ewarren@russodev.com

Geophysical Survey

Dorothy Richter
Hager-Richter Geoscience
8 Industrial Way, D-10
Salem, NH 03079
Phone: 603-893-9944
dorothy.richter@hager-richter.com

OFF-SITE:

IDW – Liquids Transportation & Disposal

Tibby Snipes
Perma-fix Environmental Services, Inc.
2800 Solway Road
Knoxville, TN 37931
Phone: 865-342-7609
tsnipes@perma-fix.com

Laboratory Analytical Services

Mike Franks
Test America-Saint Louis
13715 Rider Trail North
Earth City, MO 63045
Phone: 314-298-8566
mike.franks@testamericainc.com

IDW – Solids Transportation & Disposal

Chris Lee
Energy Solutions
423 West 300 South Suite 200
Salt Lake City, Utah 84101
Phone: 801-649-2079
clee@energysolutions.com

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 Mr. Colin Wasteneys 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 (SSHHP).

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



Benjamin J. Bertolotti, CIH

URS Division Health, Safety and Environment Manager

Overview

Mr. Bertolotti is a Certified Industrial Hygienist with over 20 years experience developing, implementing and managing health, safety and environmental (HSE) programs. He currently serves as the URS Division Health, Safety and Environmental Manager and provides industrial hygiene, safety and environmental consulting services including auditing, exposure assessments and safety program development within URS and to both government and private sector clients.

Areas of Expertise

Health, Safety and Environmental Program Management
Hazardous Waste Site Remediation
Health, Safety and Environmental Audits
Incident Investigations
Industrial Hygiene

Years of Experience

With URS: 13 Years
With Other Firms: 6 Years

Education

MS, Environmental Sciences/Toxicology, 1991, New Jersey Institute of Technology
BS, Biology, 1989, Rutgers University

Registration/Certification

2004, Certified Industrial Hygienist, 8787CP

Project Specific Experience

Health, Safety and Environment Program Development, Implementation and Management:

- URS HSE Division Manager, Mr. Bertolotti provides management support for URS Division's Business Units with over 15,000 employees globally. Developed safety programs to mitigate injury risks including preparation and revision of Safety Management Systems, Training and Loss Prevention/Loss Control Strategies.
- URS HSE Regional Manager for the URS Division Mid-Atlantic and New England States, Mr. Bertolotti is responsible for preparation and review of Safe Work and Health and Safety Plans, Sub-contractor prequalification, instruction of OSHA and URS required training, conducting safety and environmental audits, performing accident investigations, and ensuring compliance with governmental and URS internal programs.
- HSE Lead supporting all URS work on DuPont, Ashland Chemical, ConocoPhillips and ExxonMobil operations. Mr. Bertolotti provides program development, implementation support, training, program audits and technical support for work totaling over 100 MM annual revenues globally.
- Safety Advisor for ExxonMobil Research and Engineering (EMRE) facilities in Edison, Clinton and Paulsboro New Jersey. Responsibilities included providing safety and loss prevention guidance and consultation to the EMRE operations and research groups including compliance assurance, continuous improvement, technical support, and emergency response. Specific responsibilities included implementation of safety programs, preparation of EHS policies, coordination of safety committees, management of industrial hygiene and radiation safety programs, TapRoot incident investigations, maintenance of safety statistics, and administration of site emergency response, fire suppression and mitigation activities.



Hazardous Waste Operations

- Program HSE Manager for a Confidential Cleanup Project in downtown Seattle, WA. The site was a former service station where an 80,000 gallon gasoline leak occurred. The \$24 million remedial design and action included removal and relocation of infrastructure, well installation sheet pile installation, dewatering roadwork, gravity wall installation and excavation of impacted soils. Mr. Bertolotti implemented a comprehensive safety program including behavior-based safety elements, such as task planning, safety observations, near miss reporting and auditing. The program included enhanced subcontractor pre-qualification, programmatic and site-specific safety training, and an evaluation of the safety awareness of individuals on the project site.
- Program HSE Manager for a Confidential Cleanup Project in Weymouth, Massachusetts. The \$50 million remediation involved soils and sediments contaminated with arsenic and lead at the 52-acre site of a former fertilizer manufacturing plant. Occupied by a condominium development, remedial activities included capping, excavation and removal, dredging, and on-site treatment. Upon completion of work in 2008, the site worked over 200,000 safe hours.
- Safety Manager for the Diamond Alkali Superfund Site in Newark, NJ. The project consisted of a multi million dollar Pre-design and Interim Remedial Action. Contaminant of concern at this property was dioxin due to the manufacture of Agent Orange. Work activities included installation of monitoring wells, drilling of test borings, drum sampling, on-site waste disposal and compatibility testing, asbestos removal, building demolition, perimeter air monitoring and presentations for emergency response personnel. All work activities conducted at the site were performed in either Level B or Level C personal protective equipment.
- Site Manager for an investigation at the Straford Army Engine Plant in Stratford, CT conducted under the Base Realignment and Closure Program. The plant historically manufactured aircraft and tank engines Investigation activities included load-out of contaminated soil, advancement of soil borings, wetland assessment, installation of monitoring wells, and analytical field screening of groundwater for Mg-Th, Cr, Pb, and VOCs. Mr. Bertolotti was responsible for the preparation of technical specifications, oversight of all site investigation operations, and interfacing between the client, regulators and community.
- Site Manager for a cleanup at the Dynapac Manufacturing, Inc. 40-acre industrial site in Mount Olive Township, NJ. Mr. Bertolotti was responsible for coordinating contractors during contaminant delineation, removal of underground and above ground storage tanks, aquifer testing, installation of a LNAPL



recovery system, cleanup of waste pits, excavation and removal of 30,000 tons of contaminated soil, asbestos abatement, demolition of buildings, wetlands investigations, site restoration and siting of a potable water supply.

- Site Manager for an investigation and cleanup of the Kennedy Van Saun 13-acre industrial site in Danville, PA. This site consists of a former munitions manufacturing facility where site contaminants include petroleum products, chlorinated organics, and heavy metals. Mr. Bertolotti was responsible for on-site supervision of contamination delineation, excavation of contaminated soil, installation and maintenance of a floating product recovery system, removal of underground and above ground storage tanks, decontamination and restoration of drainage structures, demolition of contaminated buildings, wetland investigations and decontamination of the interior of a large manufacturing facility.

Safety and Industrial Hygiene Operations

- Program Safety Manager for the East Side Access Project, a 7-billion dollar rail link connecting the Long Island Railroad to Manhattan's Grand Central Station. Responsibilities include coordination of sub-consultants safety programs, preparation of safety plans, review of contractors' plans, and safety inspections.
- Safety Manager at the Jamaica Water Pollution Control Project (WPCP) in Jamaica, NY. Responsibilities included environmental and safety consultation and industrial hygiene monitoring of employees during construction activities associated with the sewer plant upgrade. Specifications were developed, work areas were monitored for VOC, oxygen, carbon monoxide, and hydrogen sulfide and results of the program were discussed with contractors and regulators during weekly meetings.
- Industrial Hygienist at the Third Water Tunnel Project in Maspeth, New York where 30-ft diameter tunnel 700-ft below ground surface was cored. Responsibilities included silica and dust monitoring during mining activities. Results of the program were used to determine appropriate personal protective equipment and engineering controls for dust and silica produced during operations.
- Manager of the Perimeter Air Monitoring System (PAMS) for PSE&G's Hobart Avenue Remediation Project in Bayonne, NJ. Mr. Bertolotti installed and maintained an automated PAMS, which determined airborne up-wind and down-wind concentrations of benzene and total petroleum hydrocarbons during environmental remedial activities.
- Asbestos Inspector for numerous abatement projects including Atlantic City/Brigantine Connector Project in Atlantic City, NJ, Continental Airlines Terminal C Project at Newark International Airport, and Gap Corporation's West Belt Mall Improvement in Wayne, NJ.



Professional Societies/Affiliates

American Board of Industrial Hygiene Association
American Industrial Hygiene Association
American Society of Safety Engineers

Specialized Training

40-hr. HAZWOPER, 1991
8-hr. HAZWOPER Refresher, 2010
HAZWOPER Supervisor, 1991
Loss Prevention System Instructor, 2006
Level B Training, 1992
Confined Space Entry, 1994
10-hr OSHA Construction, 2006
DOT Hazardous Materials Certification, 2008
Why Tree Incident Investigation, 2008
TapRoot Incident Investigation, 2007
NSC Defensive Driving, 2008
Nuclear Density Gauge Certification, 1994
Radiation Safety Officer, 2006
Environmental Site Assessments, 1996
Lead Safety, 2006

Security Clearance

Transportation Workers Identification Credential

Chronology

05/06 – Present: URS, Division Health, Safety & Environment, Manager
01/00 – 5/06: Safety and Environmental Consulting Company, Inc.,
President
10/91 - 01/00: Woodward-Clyde, Inc., (URS), Project Manager
5/90 – 10/91: Hackensack Meadowlands Development Corporation,
Staff Scientist

Contact Information

URS Corporation
26 Knox Place
Clifton, New Jersey
Phone: 973.777.3003
Mobile: 973.572.3916
Email: ben.bertolotti@urs.com



Kevin M. Connare

Project Manager / Senior Geologist

Overview

Mr. Connare is a Senior Geologist responsible for the review, evaluation and preparation of documentation and associated activities related to the investigation and remediation of underground storage tank (UST) remediation and hazardous waste projects.

Mr. Connare also has been responsible for the coordination and direction of technical aspects of environmental and geotechnical projects. Responsibilities include preparation of proposals, negotiations with clients, development of investigation scopes of work and requirements, supervision of field investigations, training field personnel, preparation and review of site investigation reports, identifying and maintaining project compliance with state and federal regulations, and coordination and scheduling of subcontractors including preparation of subcontractor agreements.

In addition to his project assignments, Mr. Connare functions as URS's Geology group supervisor for the Buffalo office.

Project Specific Experience

National Grid, Hempstead Intersection MGP Site: For the National Grid Hempstead Intersection Manufactured Gas Plant (MGP) site, Mr. Connare functions as the lead field coordinator. He has coordinated the preparation and was the primary author of pre-investigation planning documents (i.e., WP, FSP, HASP, and QAPP) for an Interim Remedial Measure (IRM) MGP waste delineation investigation, a pre-design investigation, and a pre-construction waste characterization investigation. As part of these activities, he developed waste delineation and sampling protocol and prepared engineer's cost estimates for the drilling and multimedia sampling associated with the project. The field investigations are ongoing and have spanned over 32 months through pre-design and design phases of the project.

For the **National Grid Front Street Former Gas Holder site**, Mr. Connare functions as the project manager and primary client contact for this former MGP site in Brooklyn, NY. This ongoing project has included preparation of investigation planning documents (e.g., FSP, HASP, QAPP) as well as a Records Search Report. Site characterization investigation have included a geophysical survey, advancing soil borings on sidewalks adjacent to the site, onsite borings, and borings located inside the basement of an onsite warehouse building. The sidewalk borings were completed as monitoring wells. Drilling was accomplished using direct-push, hollow stem auger, and Sonic drilling techniques. Soil and groundwater samples were collected and analyzed for indications of petroleum and MGP impacts. The site investigation data was compiled in a Site Characterization Report that was submitted to the NYSDEC for review and approval.

Areas of Expertise

Geology

Years of Experience

With URS: 12 Years

With Other Firms: 18 Years

Education

MS/ Geology/ McMaster
University, Hamilton, Ontario,
Canada/ 1986

BA/ Geology/ State University
College at Buffalo, NY/ 1980



New York City Transit UST Program: Lead Scientist for an ongoing UST project with New York City Transit. For more than 12 years, Mr. Connare has been, and continues to be responsible for the development of project work plans, coordination of field personnel, evaluation of analytical and hydrogeologic data, and preparation of site characterization reports for sites located throughout the five boroughs of New York City. Investigations at various sites have led to remedial activities including excavation, installation of groundwater/product recovery and treatment systems, and implementation of various chemical oxidation and bioremediation programs to address residual contamination. Site evaluations have also included using groundwater fate and transport modeling and comparison of petroleum fingerprint analyses and age-dating to identify offsite sources of petroleum contamination. Project activities not related to petroleum USTs have included preparation of hazardous waste storage area closure plans and subsurface investigations of PCB-impacted areas.

For four consecutive three-year contracts totaling over \$19,000,000, Mr. Connare has been, and continues to be responsible for preparation and negotiation of task orders, budget tracking, preparation of bi-weekly budget status reports, and review and approval of subcontractor invoices. He serves as the prime contact with the client for issues relating to project budget, task order development and negotiation, site investigations, and project work plans and reports. Together with the Lead Engineer, Mr. Connare attends monthly technical meetings with the client and NYSDEC to discuss the progress of site-specific investigations, remediation activities, and associated technical issues.

RI/IRM, Astoria NY: Project Manager for an ongoing multi-phased remedial investigation (RI) and implementation of IRMs at a large power-producing plant in Astoria, New York. The scope of work for the RI has included site-wide hydrogeologic investigations including soil boring, installation of monitoring wells, groundwater surface contour mapping, hydrogeologic testing, geophysical surveys, and a tidal study. Review of historical aerial photographs and Sanborn maps revealed that the site was part of a large MGP. Subsurface investigations identified and delineated MGP-impacted areas on site. Samples of groundwater, soil, MGP DNAPL, and petroleum product were collected for chemical, geotechnical, and fingerprint analyses. The IRM consists of the recovery of free-phase petroleum product and DNAPL from wells. Because of its high viscosity, several DNAPL recovery methods were evaluated. Recommendations for further actions were provided in a site-wide RI report submitted to the NYSDEC.

Consolidated Edison, Bronx NY MGP Site: For Consolidated Edison, Mr. Connare is functioning as the field investigation coordinator for a large, former MGP facility in Bronx, NY. He has coordinated the preparation and was the primary author of pre-investigation planning



documents (i.e., WP, FSP, HASP, and QAPP) for the MGP delineation investigation.

RI/IRM, Staten Island NY: Project Manager for an ongoing RI, Remedial Design (RD), and IRM at a large power-producing plant in Staten Island New York. The scope of work for the RI included a hydrogeologic investigation of the site including soil borings, installation of monitoring wells, hydrogeologic testing, groundwater surface contour mapping, and a tidal study. Samples of groundwater, subsurface soils, surface water, and sediment were collected for detailed chemical analyses. Based on the findings of the RI, an RD was prepared for the installation of engineering controls in the impacted areas. The IRM consisted of the removal of drums, steel, and miscellaneous debris and the recovery of free-phase petroleum product from recovery wells. As the Project Manager, responsibilities include contract negotiations, budget tracking, and invoicing, and the technical coordination of site investigation activities, evaluation of investigation results, and preparation of site investigation and design reports.

Lake Ontario Ordnance Works Site (LOOW), NY: Remedial Investigation Coordinator for a remedial investigation/feasibility study (RI/FS) at the former 7500-acre LOOW site in Niagara County, New York. Responsible for the coordination and supervision of field investigations involving the collection of multimedia samples; installation, permeability testing and sampling of monitoring wells; test pit explorations; asbestos delineation; and geophysical and land surveys. Office activities included contract preparation and negotiations, data evaluation, and preparation of a preliminary risk assessment, HRS II scoring, and Engineering Evaluation and Cost Analysis (EE/CA). Other activities included providing assistance in remedial design investigation activities and remedial design report preparation for buried TNT and chemical waste sewer systems. Also developed the scope of work for a site-wide RI/FS for the 7,500-acre facility and provided assistance in the writing of a LOOW site-wide history report and preparation of field investigation planning documents.

NYSDOT Site Investigations and Remediation, NY: Lead Scientist for investigations at petroleum-impacted sites operated and/or acquired by NYSDOT. Sites typically had been impacted by gasoline releases. Investigations at one site, an active NYSDOT garage, have led to the implementation of a bioremediation program. Activities at other sites have included site investigations including soil borings, well installation, hydrogeologic testing, and groundwater modeling.

Ellis Property Superfund Site, NJ: Remedial Design Investigation Coordinator for the Ellis Property Superfund Site in Burlington County, New Jersey. Investigations of the DNAPL-contaminated site included DNAPL plume delineation activities including Geoprobe investigations, soil borings, well drilling and installations; soil and groundwater sampling; and performance of a constant rate pump test. Mr. Connare also assisted



in the preparation of soil and groundwater remedial designs, cost estimates, and bid documents.

Bellview Hospital, NYC: Project Manager for a well installation and analytical testing program for a dewatering project at the Bellview Hospital in Manhattan, New York. Responsible for coordination of site investigation activities, evaluation of investigation analytical and drilling results, and preparation of a site investigation report. As the prime client contact, responsibilities included contract negotiations, budget tracking, and invoicing.

Environmental Site Assessment, Buffalo, NY: Project Manager for a Phase I/II Environmental Site Assessment (ESA) at a pharmaceutical manufacturing plant. ESA activities included geophysical surveys; well installations and monitoring; sewer investigations including a camera survey and dye tracing; and confined-space entry. Investigations focused on former fuel oil USTs, transformers, and compressor blow-down areas. Environmental sampling included the collection and analysis of soil, groundwater, and wipe samples.

Environmental Assessments, Eastern US: Project Manager for Phase I and Phase II ESAs and asbestos surveys for a large, national department store chain. Under a nationwide agreement with the chain, functions as URS' Eastern US Contact. Projects under Mr. Connare's direction have included an evaluation of a petroleum product recovery system in Virginia; Phase I Site Assessments in California, North Carolina, and Virginia; Phase II Site Assessments in Virginia; and an asbestos survey in Virginia.

Underground Gas Storage Project, PA: Permit Specialist for a major proposed underground gas storage project in Pennsylvania. Responsibilities included the preparation of environmental permits including NPDES, E&SCP, FERC 7(c) certification, and other local, state, and federal permits. Also responsible for the development and implementation of surface water and groundwater monitoring programs including well yield testing.

Niagara Frontier Transportation Authority, Buffalo, NY: Environmental Auditor responsible for environmental audits of Niagara Frontier Transportation Authority (NFTA) properties, projects, and operations. The audits were conducted in accordance with the NYSDEC 1993 Environmental Audit Guidance Manual and involved the review of all environmentally related permit and registration requirements such as hazardous materials handling and disposal, UST management, and remedial actions to determine compliance with local, state, and federal regulatory requirements. The audit also included interviews with knowledgeable personnel and field verification of reported conditions.



MTA Bus Company, New York, NY: Responsible for preparation of project work plans and reports and coordination and implementation of site investigations to delineate petroleum-impacted areas. Investigations included acquisition of chemical, biological, and hydrogeological data to support spill closure or development of remedial plans and designs. Responsible for interfacing with the NYSDEC during monthly technical meetings. Also responsible for issues relating to project budget, task order development and negotiation, budget tracking, preparation of monthly budget update reports, weekly task order tracking reports, and review and approval of subcontractor invoices.

TTC Environment Audits, Toronto, Canada: Environmental Auditor who prepared in-depth environmental audit and regulatory compliance reports for six bus garages, three rail yards, and three subway stations for the Toronto Transit Commission (TTC). The audits included UST investigations, sewer surveys, noise and air quality surveys, and review of operations to evaluate compliance with environmental regulations. Also included were evaluations of remedial actions currently being conducted at TTC sites and recommendations for future actions.

TTC Investigations, Toronto, Canada: Hydrogeologist responsible for supervising the drilling of a dewatering pump test well for the TTC in downtown Toronto, Ontario. Following completion of the well, supervised the performance of a step drawdown test and a 24-hour constant rate pump test.

Petawana Canadian Defense Base Investigations: Environmental Assessor who performed a third party assessment of LNAPL remedial actions at a Canadian Defense base in Petawawa, Canada. The site included 23 wells used to extract petroleum product from leaking underground storage tanks. Duties included review of well installation data, pump recovery data, and remedial system efficiency.

Superfund Sites, NJ: Hydrogeologist responsible for determining hydrogeologic conditions utilizing computer modeling for two Superfund sites in New Jersey.

Phase I/II Environmental Assessments, NY: Environmental Assessor who performed numerous Phase I and II site assessments for private clients in southern Ontario, and throughout Western New York and other sites in the northeastern United States.

Manufacturing Plant Compliance, NY, OH: Regulatory Compliance Specialist who prepared a baseline monitoring report for compliance with pretreatment standards for a large engine manufacturing plant in Jamestown, New York. Also prepared spill prevention control and countermeasure (SPCC) plans and developed a RCRA groundwater monitoring and sampling program for a metals facility in Ohio.



Deep Mine Geotechnical Drilling Investigation, OH: Geologist who participated in a 2½-month deep mine geotechnical drilling investigation in Norton, Ohio. Responsibilities included drilling supervision, detailed logging of over 8,000 lineal feet of rock core, and collection of formation gases, water and brine for detailed chemical analyses.

RI/FS Sites, NY: RI/FS Site Representative who functioned as a NYSDEC representative overseeing PRP-led RI/FS activities at hazardous waste sites in Chenengo and Nassau Counties, New York.

NYSDOT Hazardous Waste Agreement: Hazardous Waste Site Investigator who performed site assessments and investigations for the New York State Department of Transportation (NYSDOT). Activities included standard site assessments, investigative drilling programs and soil gas surveys at locations throughout New York State.

Toronto Transit Commission, Toronto, Ontario, Canada: Functioned as the Supervising Geologist for a 72-hour pump test for a subway dewatering project. Field activities included the installation of a 50-foot pump test well and over 20 monitoring wells. Coordinated the collection and analysis of groundwater discharge samples, acquisition of a discharge permit, and supervision of the pump test.

Toronto Transit Commission, Toronto, Ontario, Canada: Environmental Auditor responsible for the preparation of in-depth environmental audits and regulatory compliance reports for six bus garages, three rail yards and three subway stations for the TTC. The audits included UST investigations, sewer surveys, noise and air quality surveys, and review of operations to evaluate compliance with environmental regulations. Also included were evaluations of remedial actions that were currently being conducted at TTC sites and recommendations for future actions.

New Jersey Department of Environmental Protection, Trenton, NJ: Project Geologist for Remedial Investigations and Feasibility Studies at four Superfund sites and remedial design investigations at one Superfund site in New Jersey. Responsibilities included field investigations involving drilling, sampling, and pump tests, for the acquisition and evaluation of hydrogeologic and chemical analytical data.



Colin D. Wasteneys, PG

Field Investigation Coordinator

Overview

Mr. Wasteneys is a Sr. Project Manager and geologist with expertise in the areas of soil and groundwater investigations, site remediation, underground storage tank (UST) closures/compliance, Phase I environmental site assessments, and environmental construction projects.

Mr. Wasteneys' management responsibilities have included budget and schedule development; report submittal schedule compliance; scope of work preparation; work plan and technical approach development; coordination of field activities; preparation of proposals, and client/agency liaison. As a Senior Geologist, his responsibilities have included collection and evaluation of hydrogeologic data for site contamination studies; implementation and documentation of groundwater monitoring programs; analysis of geological logs of borings, test wells, and monitoring wells to assess subsurface conditions; aquifer test planning and implementation; client environmental strategy development; and the development and implementation of remediation programs for soil and groundwater contamination.

Areas of Expertise

Project Management
Geology
Remedial Investigation
Soil & Groundwater Remediation

Experience

With URS: 13 Years
With Other Firms: 6 Years

Education

BA/ Geology/ University of
Colorado, Boulder/ 1990

Registration/Certification

Professional Geologist – California

Project Specific Experience

Private Sector Projects

Chemical Blending, Packaging, and Distribution Facility, Ajax, Ontario Canada: Project Manager overseeing site investigation activities related to groundwater impacted by various chlorinated volatile organic compounds (VOCs). Conducted onsite and offsite groundwater investigation to evaluate the potential for offsite migration of site contaminants of concern. Conducted indoor air sampling of the site buildings to evaluate the potential for vapor intrusion associated with contaminated groundwater. Results of investigation determined that site COCs were not migrating onto the adjacent property, and that indoor air quality was within the applicable occupational time-weighted average values. Oversaw preparation of a Risk Assessment to establish site specific cleanup standards as part of the Ontario Ministry of the Environment Record of Site Condition process.

Chemical Manufacturing Facility, Ringwood, IL: Project Manager for various projects related to investigation and remediation of a 6,000 foot long groundwater contaminant plume of various chlorinated VOCs. Projects completed or ongoing include the following:

- Oversaw the development of a 3-D groundwater flow model that was used in the design of groundwater recovery wells;
- Drilled and installed 33 groundwater monitoring wells to supplement the existing groundwater monitoring network;
- Conducting ongoing quarterly groundwater monitoring (four times per year) of over 100 groundwater monitoring wells and 14 residential wells;



- Performed sediment sampling and characterization for the removal of accumulated sediment from facility settling ponds;
- Provided permitting services for the renewal of the facility NPDES industrial discharge permit;
- Oversaw design, permitting, and construction of a groundwater recovery system expansion including installation of two additional extraction wells and installation of approximately 5,000 feet of HDPE piping connecting the new wells to the existing treatment system. Piping was installed by a combination of trenching and directional boring techniques at two stream crossings and beneath a wetland area.

Former Fuels Blending Facility, Site Investigation and Remediation, Buffalo, NY: Project Manager for site investigation of a light industrial property formerly operated as a fuels blending operation. Completed soil and groundwater investigation activities including completion of approximately 45 soil borings and collection of groundwater samples. Delineated site petroleum contamination in preparation of development of remedial approach. Oversaw preparation of remedial design for excavation and removal of petroleum contaminated soil. Oversaw remedial construction activities including excavation and removal of approximately 42,000 tons of petroleum contaminated soil.

Chemical Storage and Distribution Facility, Santa Fe Springs, California: Project Manager for site remediation; site clean-up activities were overseen by the California Regional Water Quality Control Board. Soil and groundwater were impacted with chlorinated solvents and other VOCs released from previous site operations. VOCs present in the soil and groundwater included trichloroethene (TCE), perchloroethene (PCE), vinyl chloride, methylene chloride, benzene, xylene, and ethylbenzene. Managed the operation and maintenance of soil and groundwater remediation activities. Remediation system technologies included soil vapor extraction, air sparging, a groundwater recirculation well, and groundwater pump & treat using air stripping, a biological reactor, and granular activated carbon polish. Oversaw the removal of 46 chemical underground storage tanks and 61 aboveground storage tanks (ASTs). Responsibilities included obtaining permits, coordinating regulatory inspections, preparing and executing a field sampling plan, ensuring environmental compliance, developing the health and safety plan, and monitoring contractor safety.

Epoxy Resin Manufacturing Plant, Commerce, California: Project Manager for Resource Conservation and Recovery Act (RCRA) Corrective Action. Site remediation activities were overseen by the California Environmental Protection Agency (EPA) Department of Toxic Substances. Soil and groundwater beneath the site were impacted with mineral spirits and various VOCs. Oversaw operation and maintenance (O&M) of the SVE system, implemented a light nonaqueous-phase liquid (LNAPL) recovery system, conducted a semi-annual groundwater monitoring program, and prepared and submitted the final Remedial



Investigation/Feasibility Study (RI/FS) report.

Petroleum Spill Site Investigation/Remediation, Tonawanda, New York: Senior Geologist for investigation and remediation of petroleum spill at a former refinery site. Oversaw the investigation and cleanup of fuel oil contaminated soil under the New York State Department of Environmental Conservation (NYSDEC) Spills Program. Conducted a subsurface investigation with testing trenches to identify the extent of fuel oil contamination. Oversaw excavation of contaminated material and confirmation soil sampling. Petroleum contamination was initially discovered during site restoration activities following remediation of radioactive contamination associated with former uranium ore separation activities. The USACE was overseeing site cleanup under the Formerly Utilized Sites Remedial Action Program (FUSRAP) program. Levels of radiological constituents were below the USACE cleanup criteria but exceeded normal background concentrations of U-238. The NYSDEC Bureau of Hazardous Waste and Radiation Management determined that disposal of the petroleum impacted soil would be regulated under 6 NYCRR Part 380, and therefore, the material could not be placed in a landfill within New York. Therefore, soil was transported and disposed of at the Waste Control Specialists facility located in Andrews, Texas.

Norris Industries Plating, Vernon, California: Provided environmental services field management for decontamination and demolition of a large industrial plating operation. Conducted sampling of plating operation waste materials for purpose of waste characterization and profiling. Developed a waste transportation and disposal strategy based on waste chemical and physical characteristics and compatibility. Conducted environmental compliance oversight of waste removal operations, as well as plating equipment decontamination and demolition. Conducted decontamination verification sampling. Prepared health and safety plans and work plans and coordinated site efforts with local oversight agency. Upon completion of the plating equipment decontamination and demolition, planned and implemented the subsurface soil investigation beneath former plating line area. Obtained site closure.

Oilfield Service Company, Signal Hill, California: Project Manager for site investigation activities to fully delineate multiple contamination source areas including a former gasoline UST and former oil field sumps. Implemented remediation of former leaking gasoline UST using soil vapor extraction (SVE) technology. Remediated crude oil-impacted soil by excavating and land farming; obtained regulatory closure for site upon successful remediation.

ARCO Pipe Line Company New Mexico, Utah, Arizona, and California: Oversaw investigation and remediation activities of 16 crude oil pump stations for the Line 90 pipeline system spanning 700 miles from southern California to northwest New Mexico. Responsibilities included preparation and submittal of site investigation and remediation work plans; oversight of drilling and remediation subcontractors; coordination



of all field activities; management of scope, schedule, and budget; negotiations on cleanup levels and work plan approvals with up to eight different regulatory agencies. Project is ongoing; one site has been completed and regulatory closure has been achieved.

Port of Long Beach, California: Site Characterization Task Leader on a three-year contract with Port of Long Beach (POLB). Managed and conducted numerous projects throughout the Port in support of POLB property acquisitions and overall environmental management strategy. Projects included groundwater investigation using cone penetration testing (CPT) and groundwater sampling to delineate benzene contamination identified in the Gaspar Aquifer near Dry Dock #1 at the former Long Beach Naval Shipyard; conducting a surficial geophysical survey on the former Navy Mole Pier to delineate and remove buried drums; and conducting soil and groundwater investigations to delineate chlorinated solvent contamination at a former defense contractor facility. Responsibilities included management of project scope, schedule and budgets, preparation of proposals, and client/agency liaison.

Former Aeronautical College Facility, Los Angeles, California: Field Manager of a large investigation and remediation project. Delineated soil contamination at two different leaking former diesel USTs to depths as deep as 90 feet below ground surface. Completed remediation of one UST area by excavating over 2,200 tons of diesel-impacted soil to depths of approximately 45 feet; excavated soil was transported to an off-site facility for recycling. Conducted subsurface soil investigation at the second UST area to fully delineate the diesel-impacted soil to approximately 90 feet below ground surface. A large portion of the impacted soil extended below an existing building. Implemented active bio-venting system to remediate diesel impacted soil to below negotiated clean-up goals, and obtained regulatory site closure.

Mckesson Water Products, Various Sites in Southern California: Project Manager for a UST compliance and removal program. Oversaw the evaluation of on-site fueling systems for compliance with federal and State underground storage tank regulations. Reviewed specifications for upgrading fuel underground tank and piping systems. Responsibilities also included performing UST removals at multiple sites, investigating and remediating petroleum hydrocarbon-impacted soil, preparing UST closure reports for submittal to local oversight agencies, and regulatory liaison with various local oversight agencies.

Chrysler Realty Corporation, Various Sites in Southern California: Conducted numerous Phase I and II environmental site assessments and remediations for property transactions. The assessments of active and former automobile dealership properties included evaluation of current and past site usage, regulatory records review, historical aerial photograph search, and subsurface investigation work. Fully delineated and remediated all impacted areas identified in Phases I and II. Subsurface investigations included soil and groundwater sampling. Remediation work



included UST and hydraulic hoist removal and remediation of petroleum hydrocarbon-impacted soil.

Public Sector Projects

United States Army Corps of Engineers (USACE) – Linde FUSRAP

Site, Tonawanda, NY: Project Manager for preparation of a CERCLA Five-Year Review of the USACE remedial activities at this former uranium ore separation facility. The USACE is currently overseeing site remediation of radioactive contamination resulting from former site operations. The site cleanup is being conducted under the USACE FUSRAP. The five-year review activities included work plan preparation, community involvement/public notification, review of historical documents, data analysis, site inspection, a protectiveness determination, and preparation of a Five-Year Review Report. The overall objective of the Five-Year review was to determine the effectiveness of the remedial actions selected in the site Record of Decision.

New York State Department of Environmental Conservation, (NYSDEC) Standby Contract – Former Kenwood Cleaners State Superfund Site, Schenectady, NY:

Project Manager for Remedial Investigation/Feasibility Study (RI/FS). Developed the RI Plan and managed RI activities at this former dry cleaning facility impacted by PCE in soil and groundwater. RI activities included completion of 22 soil borings, installation of 22 groundwater monitoring wells, and installation of 17 soil vapor sampling points. Following submittal of an RI report, oversaw completion of a FS to evaluate remedial options and select the proposed remedy. FS Report recommended a combination of dual phase extraction and permeable reactive barrier as the selected remedy. Conducted a DPE pilot test to evaluate technology feasibility and estimate design parameters including radius of influence, vapor and groundwater contaminant concentrations, and extracted groundwater production rate.

NYSDEC Standby Contract – Camp Summit Remedial Design, Fulton, NY:

Senior Geologist assisting on Remedial Design. The remedy consisted of excavation of soils contaminated with Pentachlorophenol (PCP) and placement into an on-site consolidation cell covered by an impermeable multi-layer geomembrane cap. Performed Pre-design Investigation including test trenching to further delineate areas of contaminated soil, soil and groundwater sampling for waste characterization purposes, calibration of PCP Immunoassay Testing of soil samples, and geotechnical sampling and testing for consolidation cell foundation. Assisted with preparation of bid documents including design specification and drawings. Prepared documents including a Health and Safety Plan, a Community Air Monitoring Plan, and a Long Term Monitoring Plan. Assisted with Citizen Participation planning and meetings, and prepared pre-bid meeting materials including a limited site data document. Assisted in contractor bid review.



NYSDEC Standby Contract – Camp Summit Construction Management, Fulton, NY:

Senior Geologist assisting on Construction Management work assignment during implementation of the selected remedy (excavation and on-site consolidation under a modified Part 360 cap). Prepared documents for and attended the Pre-Construction Meeting. Coordinated and oversaw the implementation of the Community Air Monitoring Program that included collection of documentation air samples using upwind and downwind polyurethane foam (PUF)/XAD samplers and analysis for PCP by Method TO-13A. Performed review of project related Contractor submittals including shop drawings, soil tests, material tests, and as-built drawings. Made recommendations for submittal acceptance or rejection to the NYSDEC. Periodically attended bi-weekly progress meetings to monitor the Contractor's progress.

NYSDEC Standby Contract – Kings Electronics IIWA, Tuckahoe, NY:

Senior Geologist on IIWA to perform vapor intrusion investigation in a residential area surrounding this former manufacturing facility. Prepared Field Sampling Plan and Health and Safety Plan. Coordinated a vapor intrusion investigation involving indoor air and sub-slab vapor sampling at 10 residences. Prepared a final report presenting the field sampling procedures and results of laboratory analytical testing.

NYSDEC Standby Contract - Multiple Sites: Senior Geologist on several projects under current NYSDEC Standby Contract. Projects include:

- Hillcrest Site Investigation, Fenton, New York
- Dinaburg Distributing Site Pre-design Investigation, Rochester, New York
- Camp Georgetown Pre-design Investigation Report, Georgetown, New York
- Camp Pharsalia Pre-design Investigation Report, Pharsalia, NY

Provided technical support, prepared various documents including project management work plans and investigation reports. Project Management tasks including budget and schedule development, report submittal schedule compliance, and scope of work preparation.

New York Power Authority (NYPA), Niagara Power Project Relicensing, Regional Groundwater Investigation, Lewiston, NY:

Project Task Manager for a regional hydrogeologic investigation evaluating the effects of hydroelectric power project operations on groundwater flow and groundwater quality. Oversaw and directed a year-long investigation involving groundwater flow modeling to evaluate power project effects on groundwater flow patterns; siting, drilling, and installing of 17 bedrock groundwater monitoring wells (including 91 nested piezometers); implementation of a groundwater level monitoring program using electronic data logging equipment; performance of a tunnel flow study to evaluate power project effects on tunnel groundwater infiltration; performance of a regional quarterly groundwater monitoring program involving sample collection of 91 groundwater well locations and



11 surface water locations; and preparation of a comprehensive report describing the investigation results and the effects of power project operations on groundwater flow and quality. Managed a multi-discipline team including hydrogeologists, Geographic Information System (GIS) specialists, civil engineers, groundwater modelers, surveyors, and field technicians.

City of New York Department of Design and Construction (NYCDDC), UST Program, Various Sites, New York City: Provided technical support for numerous UST sites in all five boroughs of New York City. Evaluated site data and made recommendations for additional investigation and/or remediation. Prepared project documents including investigation summary and remedial plans (ISRPs), design analysis reports (DARs), building department permit packages, and task orders.

New York City Transit Authority, UST Program, Various Sites, New York City: Provided technical support for numerous UST remediation sites. Provided independent technical review of project reports and work plans. Prepared project documents including remedial investigation reports and routine monitoring reports.

Los Angeles County Metropolitan Transportation Authority (MTA), Various Sites, Southern California: Managed and conducted soil and groundwater investigations at multiple MTA sites including bus depots and subway-related sites. Projects included investigation of a diesel product leak into a 110-foot-deep subway construction shaft; investigation of USTs at various sites throughout the Los Angeles area; and planning and implementation of a well maintenance program for over 100 hydrogen sulfide vapor monitoring wells. Responsibilities included managing project scope, schedule and budgets, preparation of proposals, and client/agency liaison.



Robert J. Murphy

Geologist

Areas of Expertise

Geology

Years of Experience

With URS: 10 Years

With Other Firms: 0 Years

Education

BA/ Geology/ State University of
New York at Buffalo/ 1999

Registration/Certification

OSHA 40Hr Hazardous Materials
Training

OSHA 8Hr Supervisor Training

Red Cross First Aid

Red Cross CPR

Confined Space Safety Training

Radiation Worker II

Hazardous Material/Dangerous
Goods Transportation Course
(IATA)

Overview

Mr. Murphy has experience in various geologic/hydrogeologic studies. Responsibilities have included drilling supervision during soil boring and monitoring well installation, collection of surface soil, subsurface soil, surface water, groundwater, soil vapor, indoor air, and NAPL samples for analysis, preparation of boring logs, and assisting in the design of remediation systems. Additionally he has assisted on numerous remedial investigation reports, groundwater monitoring reports, interim remedial measure reports, site-specific investigation plans, and operation and maintenance summary reports. He has also used site data to generate 3-dimensional stratigraphic models and 2-dimensional cross sections of the subsurface at sites using Rockworks software.

Project Specific Experience

Chautauqua County Landfill – Phase IV Expansion: Working for Chautauqua County Department of Public Works, field geologist for the hydrogeologic investigation of the site in preparation for a sixty acre horizontal expansion of landfill. Activities included oversight of sonic drilling of overburden and bedrock, in-situ hydraulic conductivity tests (packer tests and slug tests), monitoring well development and sampling, and assistance in preparation of the hydrogeologic investigation report.

City of New York Department of Design and Construction - UST Program: Assisted in work plan development, health and safety plan development, data interpretation and reporting, submittal review, scheduling, cost estimates, and remedial design.

Dupont – Lyndonville: Geologist for a surface and shallow subsurface soil investigation for arsenic contaminated soils in Lyndonville, New York. Soil samples were collected using a manual geoprobe and trowels.

Dupont – Necco Park: Participated in Phase 2 and Phase 3 of the Pre-Design Investigations at the Dupont Necco Park Site in Niagara Falls, New York. Provided oversight and geologic logging of overburden and bedrock monitoring well installations. Assisted in pump tests including set-up, hydraulic monitoring, sampling during test, and break-down. Performed monitoring well development and provided oversight during low-flow groundwater sampling. Assisted with collection of groundwater pumping system's operation and maintenance data.

Dupont – Necco Park – AGM Cell: Provided oversight and helped determine placement of alternative grading material in cell. Performed dust monitoring and instituted corrective measures as necessary. Provided construction oversight during a soil moving job consisting of over 15,000 cubic yards of soil fill for eventual use in landfill final grading and cover.



Dupont - Niagara Plant - Blasted Bedrock Trench Monitoring Wells and Recovery Well: Geologist for the installation of three (3) overburden and top of bedrock monitoring well pairs, and one 10-inch extraction well set in fractured bedrock.

Dupont – Southwest Plant: Various activities at the Dupont SW Plant located in Niagara Falls, New York. Including oversight of monitoring well installation and maintenance, involvement in multiple pump tests, and participation in a long term pH study at the plant's water intakes, including a summarization of the studies results.

GTE, Hicksville: Participated in a critical short lead-time low flow groundwater sampling event at the GTE, Hicksville, Long Island NY site.

Miller Brewing Company - Fulton, NY: Geologist for the installation of three (3) overburden groundwater monitoring wells.

Niagara Falls Air Reserve Station (NFARS) – Niagara Falls, New York: Lead Field Technician for multi-media monitoring, sampling, and analysis at NFARS. Tasks include monthly sanitary sewer sampling, semi-annual oil water separator sampling, annual oil water separator inspections, quarterly storm water monitoring for compliance with the site NYSDEC State Pollutant Discharge Elimination System (SPDES) permit and Storm Water Pollution Prevention Plan (SWPPP), and sampling of various environmental media as needed for waste characterization.

New Jersey UST Program: Drafted Workplans for two separate site investigations related to petroleum related contamination in New Jersey.

NYSDEC – 315 North Meadow Street Site, Ithaca NY: Assisted in the development of investigation work plans for this site contaminated with PCE and other chlorinated hydrocarbons from former dry cleaner operations. Field manager during the Remedial Investigation which included the installation and sampling of eighteen groundwater screening locations using a direct push rig, fifteen direct push soil boring locations to further refine the lateral extent of soil contamination, installation and development of 6 new groundwater monitoring wells, groundwater level measurements and collection of groundwater samples for chemical analysis from the 6 new wells and two upgradient wells installed by others, survey of site features and sampling points coordinated the investigation-derived waste characterization and disposal. Assisted in summarizing RI activities into the RI Report for the site. Returned to the site later to oversee a limited site excavation of PCE contaminated soils and removal of a UST.

NYSDEC – Campagnolo Property Site, Ithaca, NY: Assisted in the development of investigation work plans for this site contaminated with PCE and other chlorinated hydrocarbons from former dry cleaner operations. Field manager during the Remedial Investigation which



included the installation and sampling of twenty groundwater screening locations using a direct push rig, ten direct push soil boring locations to further refine the lateral extent of soil contamination, installation and development of 10 new groundwater monitoring wells, groundwater level measurements and collection of groundwater samples for chemical analysis from the 10 new wells and two upgradient wells installed by others, survey of site features and sampling points coordinated the investigation-derived waste characterization and disposal. Assisted in summarizing RI activities into the RI Report for the site.

NYSDEC - East Ferry Street: Collected six bulk soil samples and provided oversight during grain size analysis. Discrete sample grain size ranges were retained from each sample. Assisted NYSDEC personnel with analysis of samples for lead using an XRF unit. Summarized results and incorporated them into a letter report.

NYSDEC – Hillcrest Site - Binghamton, NY: Field program manager during a remedial investigation of a site contaminated by TCE. The RI consisted of the installation and sampling of 27 groundwater screening points, eleven groundwater monitoring wells, a long term groundwater elevation study using downhole data loggers, and development and low flow groundwater sampling of 35 monitoring wells.

NYSDEC – Wellsville Andover Landfill: Collected indoor air samples from a residence nearby a landfill to assess potential impacts to indoor air quality. Samples were collected using Summa Canisters and flow controllers.

NYSEG - MGP Site - Auburn, NY: Conducted an analysis of the fractured bedrock hydrostratigraphy using a portable dual packer system to seal off discrete bedrock zones to evaluate hydraulic heads. Assisted in the collect of groundwater samples from the 31 site monitoring wells. Collected DNAPL from several site monitoring wells using a peristaltic pump. Performed additional characterization and sampling of the sediments in the Owasco Lake Outlet. Assisted in the drafting of the Remedial Investigation Report for the site. The Remedial Investigation included the advancement and/or installation of 22 geoprobe borings, 30+ monitoring wells, and 7 test trenches, the summarization of historical investigations/results, the detailed characterization of the Owasco Lake Outlet in the vicinity of the site, collection of 26 sediment samples, and 10 surface water samples.

NYSEG - MGP Sites – Homer and Cortland, NY: Geologist during investigations of subsurface conditions beneath two houses, which reportedly were built on top of the location of a former gasholder. Investigations included the use of geophysics to locate potential remnants of the gasholder foundation, the advancement and sampling of three test trenches, 17 soil borings. Four of the soil borings were converted to monitoring wells and also sampled. Six surface soil samples were



collected for analysis. Indoor air sampling was also conducted. Summarized the results of investigations in letter reports.

Collected indoor air samples and samples from a crawlspace at a building adjacent to the location of the former MGP in Homer, NY.

NYSEG - MGP Sites - Lockport, NY: Helped develop Remedial Investigation work plans for a pair of Former manufactured gas plant (MGP) sites in Lockport, NY. Field Geologist for the collection of sediment thickness and qualitative descriptive information collected along 14 transects in the Erie Canal in Lockport to assess impacts from nearby MGP sites. Assisted in summarizing the data and its incorporation into a letter report with suggested surface water and sediment sampling locations based on the qualitative assessment. Work also included geologic sections of select canal rock cuts. Returned to the canal later and collected sediment samples at approximately 36 locations at multiple depths, for various analyses, including environmental forensic analysis. Collected nine (9) surface water samples for various analyses.

Onsite Geologist/Field Manager for the installation of 22 bedrock monitoring wells in various fracture and hydraulic zones, 3 bedrock/overburden interface wells, and 4 overburden monitoring wells. Directed the decommissioning of 6 existing monitoring wells. Performed well development/redevelopment of all 49 onsite wells. Conducted packer testing/sampling of discrete bedrock zones in 4 monitoring wells and hydraulic conductivity testing at 23 wells.

Performed DNAPL product sample collection and proper shipment as dangerous goods. Also performed routine DNAPL monitoring at the site as well as collection of accumulated DNAPL.

The work involved extensive coordination with various utility companies due to the urban setting of the site; day to day interfacing with regulators (NYSDEC); coordination with various property owners for access to their property for well installations; daily tailgate safety meetings and ensuring adherence to the site HASP; coordinating and ensuring proper execution of site surveying activities; tracking of drilling quantities and verification of invoices for approximately \$130,000 of drilling subcontractor services; and proper labeling, staging, and disposal of site IDW.

Monitored 49 wells and canal "staff gauges" and performed DNAPL checks throughout the drilling program and during the Canal level rise. Including the set-up, downloading and breakdown of 10 in-situ groundwater data loggers during the Canal "rise" event.

Provided oversight and logged soils at 43 geoprobe soil borings at the site and collected approximately 74 samples for various analyses, including environmental forensic analysis. Also collected nine surface soil samples. This also included extensive coordination with various utility companies due to the urban setting of the site.



Performed a confined space entry and inspection of a combined sewer tunnel approximately 72 feet below grade. Entry was conducted over the course of two days nearby a busy intersection and required traffic diversion. SCBAs and Level B personal protective equipment was worn during the entire inspection. The inspection was performed to assess whether MGP impacts had reached the tunnel via fractured bedrock.

Manually installed soil vapor points. Collected soil vapor, subslab air, and indoor air, using summa canisters and flow controllers, from within and nearby several residences to assess the impact of soil and groundwater contamination on indoor air quality nearby the site.

Assisted in creating the comprehensive Remedial Investigation Reports for the sites.

NYSEG – MGP Site - Geneva, NY: Provided oversight during the installation of several soil vapor implants at the site. Collected soil vapor samples to assess potential impacts to a nearby building. Samples were collected using Summa Canisters and flow controllers.

NYSEG – MGP Site - Ithaca, NY: Provided oversight during a sub slab investigation at a historic gas house, work was completed with a limited access remote geoprobe rig. Summarized results and submitted a letter report.

NYSOGS – Various Sites: Assisted on several test well installations, aquifer pumping tests, groundwater water sampling, and development for potential and existing groundwater production wells.

PAFB, BXSS: Performed low flow groundwater sampling at the Plattsburgh Air Force Base, BX Service Station Site, Plattsburgh, New York.

Rohm and Haas – Ringwood: Performed low flow groundwater sampling at the Ringwood, Illinois site.

Rohm and Haas – Freeport: Geologist for three phases of investigation, including oversight of the drilling and sampling to delineate BTEX contaminated soils and groundwater. During the first phase seven borings were advanced using conventional hollow stem auger drilling, four of those borings were converted to monitoring wells. Soil samples were collected for chemical and geotechnical analyses.

The second phase consisted of the advancement of eleven geoprobe borings, from which samples were collected for analysis. Drafted the investigation summary report following site activities.

Union Carbide Corporation – Voluntary Cleanup: Site Health and Safety Officer and Assistant Geologist during subsurface investigation of



the Niacet Facility in Niagara Falls, NY under the NYSDEC Voluntary Cleanup Program. Former UCC operations at the site had resulted in mercury contamination in subsurface soils. Field activities included geoprobe soil gas survey and sample collection, followed by test pit excavation and soil and groundwater sample collection.

A second phase of investigation consisted of 107 geoprobe borings, the installation of several monitoring wells and piezometers, and soil and groundwater sampling. Soils were screened with a Jerome Mercury Vapor Analyzer.

Union Ship Canal Voluntary Cleanup: Geologist for investigation of Subparcel 3 associated with the former Hanna Furnace and Union Ship Canal site in Lackawanna, NY. Field activities included test pit excavation, shallow and subsurface soil sample collection and monitoring well installation.

United States Army Corps of Engineers – SLDA: Geologist during a large-scale multi-million dollar remedial investigation of the Shallow Land Disposal Area site in Parks Township, Pennsylvania, which was impacted with low-level radioactive and chemical waste. Assisted in the initial set-up of the site at the beginning of the program including onsite communications, computers, filing, weather station, decontamination pad, and the drum storage pad. Team leader for the advancement of 103 geoprobe borings and collection of soil samples for radioactive analysis. The team leader during the advancement of 44 waste trench borings for sampling that was conducted in Level B personal protective equipment. Assisted in the collection of groundwater, leachate, surface water, seepage, and air filter samples.

United States Army Corps of Engineers – Dayton Warehouse: Team member during an investigation of a multi-floor warehouse potentially containing low-level radioactive waste. Screening was conducted with a floor monitor followed by static scans and the collection of wipe samples. Activities were conducted in Level C personal protective equipment due to the potential exposure to pigeon excrement and its associated bacteria.

Various Sites: Oversight of petroleum contaminated soil excavation, delineation, and disposal at a former UST site. Assisted in the development of a Remedial Investigation Report for a NYSDEC Superfund site in Queens, New York, contaminated with chlorinated hydrocarbons.

Working for a private client seeking to build a monofill in the Finger Lakes Region of New York. Field geologist for the hydrogeologic investigation of the site. Activities included oversight of drilling of overburden and bedrock, in-situ hydraulic conductivity tests (packer tests and slug tests), monitoring well development and sampling.

Health & Safety Training

8-Hour Supervisor



This Certifies That

Robert J Murphy

Has completed eight hours of training toward fulfillment of management/supervisor requirements for hazardous waste/materials workers under OSHA 29 CFR 1910.120

A handwritten signature in dark ink, appearing to read 'Phillip L. Jones', is written over a horizontal line.

Phillip L. Jones, M.S., C.I.H.
Health & Safety Director

Course Date:

7/6/2006

Course Location:

Web Seminar

Serial Number:

06-207

URS

CERTIFICATE OF COMPLETION

May It Be Known That This Certificate Has Been Presented To

Robert Murphy

For Completion Of

**40 HR. HAZARDOUS MATERIALS
TRAINING**



Jeffrey P. Koch, President

July 17-20, 2001


Compliance Management, Inc.

Certificate of Completion

This is to certify that:

Rob Murphy

successfully completed

HAZWOPER Annual Refresher Training

Course ID - HAZ01

Version - 2012.1

Offering - 00003752

Has completed eight hours of annual refresher training for hazardous waste/materials workers under
OSHA 29 CFR 1910.120.

taught by

Ben Bertolotti

conducted on

March 13, 2012, Buffalo, NY



A handwritten signature in black ink, reading "Phillip L. Jones".

Phillip L. Jones, M.S., C.I.H.,
Vice President Health, Safety, and Environment
URS Infrastructure and Environment

URS Corporation

Confined Space Safety Training

This Certifies that

Robert J. Murphy

This is to certify that the above named employee has, in accordance with Federal OSHA regulation CFR 1910.146(g) received confined space safety training on the date listed below.

AP

Steven J. Sherman, CIH
Regional Health and Safety Manager

Richard A. Fudeman

Richard A. Fudeman
Buffalo Health and Safety Representative

Course Date: June 3, 2004

Course Location: Buffalo, New York

ID Number: 48269



Shawn Conway

Site Safety & Health Officer

Years of Experience

With URS: 4 Years

With Other Firms: 20 Years

Education

Certification / Hazardous Material
Chemistry/ Erie Community
College (ECC)

Registration/Certification

NYS Environmental Technician
NYS Incident Command System
Safety Officer
40hr HAZWOPER Training
Confined-space Supervisor
Training
SWPPP-Erosion control Inspector
RAD Worker II
125hr Hazardous Chemical training
certification from ECC
NYS Asbestos Supervisor
NYS Asbestos Air Monitor
NYS Asbestos Monitor
ICS 100, 200, 300, 400,

Overview

Mr. Conway is a Health and Safety Specialist/Project Superintendent with 20 years of experience in the Industrial manufacturing/Environmental field including serving as an onsite Health and Safety Officer (HSO) for General contractors performing construction, and demolition. Field activities conducted as HSO for contractor were performed at Bethlehem Steel Corp, General Motors Corp, and Ford Motor Corp as well as serving as HSO representing clients for remediation of several Former Manufacturing Gas Plants(MGP) across New York State. Daily activities included tailgate safety briefings, site safety inspections, compliance audits, issuing work permits, and safety training.

URS Project Specific Experience

New York State Electric & Gas Corp. Former MGP Sites

Saranac Street Former MGP Site, Plattsburgh NY: Health and Safety Officer/ Construction Oversight for the Remedial Construction involving containment and removal and off-site treatment/disposal of contaminated soils and contaminated river sediment. Landside remediation activities included the construction of a stabilized soil barrier to limit migration of groundwater through impacted soil, and excavation and offsite thermal desorption of impacted soils. A Community Air Monitoring Plan was implemented during remediation and additional monitoring was undertaken for sensitive receptors.

Ithaca Court Street Former MGP, Ithaca, NY: Community Health and Safety Officer/ Construction Oversight for the Remedial Construction involving the removal and off-site treatment/disposal of onsite contaminated soils. URS provided project coordination for the remedial work. A Community Air Monitoring Plan was implemented during remediation and additional monitoring was undertaken for sensitive receptors.

Saranac Street Former MGP Site, Plattsburgh NY: (AECOM) Health and Safety Officer/ Remedial Construction Oversight involving containment and removal and off-site treatment/disposal of contaminated soils and contaminated river sediment. Remediation activities included the construction of a stabilized soil barrier to limit migration of groundwater through impacted soil, and excavation and offsite thermal desorption of impacted soils. An Air Monitoring Plan was implemented during remediation to assess worker exposures.

The Oneonta (MGP) site Oneonta, NY: (AECOM) Construction oversight and Community Health and Safety monitoring during the removal of MGP impacted soils and structures. The remediation was conducted in two phases: the eastern plant area and western plant area. The remedial action successfully removed the vast majority of the MGP



impacts from the site. Over 70,000 tons of soil and sediments representing the contaminant source areas, including the gas hold foundations, below grade structures and piping were removed. In addition, permeable infiltration trenches were installed to assist in treating off-site groundwater impacts. During the excavation activities, a Community Air Monitoring Program (CAMP) was implemented daily using a portable GC unit. All work was completed safely without incident.

Bethlehem Steel Corp

Health and Safety Officer/LVI Corp: Performed decontamination and demolition of onsite buildings, tanks, and piping. Health and Safety officer duties included onsite safety meetings, confined space permitting, issuing hot work permits and onsite safety orientations.

Health and Safety Officer/IWR: Performed construction and reclamation of onsite waste water treatment systems. Health and Safety duties included oversight of construction of new ground water treatment systems to insure safe work practices where utilized.

General Motors Corp (GMC)

Superintendent/Health and Safety/National Vacuum Corp: Performed debris and sediment removal inside air handling units directly overhead of the L850 line in plant 1. Throughout the cleaning and removal process, assured a sterile environment as well as zero down time for plant operations.

Performed Health and Safety meetings, and daily work area inspections to meet and exceed the high health and safety standards required by GMC. Daily communication and cooperation with onsite GMC staff further strengthened collaboration insuring seamless compliance with their rules and procedures.

Professional Societies/Affiliates

Erie County Hazmat Team

ATTN: Linda Murray

IEE

FAXED
5/2/06
8:52 AM

INSTITUTE FOR ENVIRONMENTAL EDUCATION, INC.
52B Cummings Park, Suite 315, Woburn, MA 01801
(617) 935-7370

Shawn Conway

has attended the 40 hour course

OSHA Health and Safety Training for Hazardous Waste Operations

March 13-18, 1993

Course Date (s)

93-861-180-108

Certificate Number


Social Security Number

March 18, 1994

Expiration Date



President / Director of Training





A **tyco** International Ltd. Company

Certificate of Training

SHAWN CONWAY

Has Successfully Completed HAZWOPER Supervisor Training

[In Accordance With 29 CFR 1910.120(e)(4)]

Awarded on September 7, 2006

A handwritten signature in black ink, appearing to read 'Robert M. Poll'.

Robert M. Poll, CIH, CSP
District Safety Manager

EARTH TECH | AECOM

Certificate of Training

SHAWN CONWAY

*Has Successfully Completed the Following Training:
OSHA Requirements for Confined Space
Entrant, Attendant and Supervisor*

[In Accordance With 29 CFR 1910.146]

Awarded on September 8, 2008


Robert M. Poll, CIH, CSP
Northeast District Safety Manager

Total Training Time = 4.0 hours

CERTIFICATE OF COMPLETION

This certificate awarded to

Shawn Conway

for satisfactory participation in

**DOT Hazardous Materials Shipping for Environmental Professionals
Online Training**

Awarded on March 5, 2007.



Eduwhere
Your compliance connection.

Joni White

Eduwhere

Eduwhere • PO Box 4704 • Chapel Hill, NC 27515 • www.eduwhere.com

United States Department of Homeland Security

Office for Domestic Preparedness

Center for Domestic Preparedness




this is to certify that

Shawn M. Conway

has successfully met the requirements for
WMD Response Training (100)

June 4, 2003

Ronald W. Endle
Trainer


L Z Johnson
Director
Center for Domestic Preparedness

STATE OF NEW YORK

FIRE TRAINING CERTIFICATE

This is to attest that

SHAWN M. CONWAY

is hereby awarded this certificate signifying the completion of
HAZ MAT FIRST RESPONDER OPERATIONS 31-7697
in the standardized fire training program, totalling 16 hours of instruction.

Attested to this 1st day of **APRIL** *2003*

My E. Patan
GOVERNOR
STATE OF NEW YORK

Ray A. DeS
SECRETARY OF STATE
DEPARTMENT OF STATE

James A. Lewis
STATE FIRE ADMINISTRATOR
OFFICE OF FIRE PREVENTION AND CONTROL

Ronald W. Endle
STATE FIRE INSTRUCTOR
OFFICE OF FIRE PREVENTION AND CONTROL



New Mexico Tech

ENERGETIC MATERIALS RESEARCH AND TESTING CENTER

Shawn M Conway

Is hereby awarded this certificate and .4 continuing education units
for successfully completing the 4 hour

Incident Response to Terrorist Bombings

Awareness Training Course

06/15/2003


Associate Director/Program Manager

To all who read this let it be known

Shawn Conway

**HAS SUCCESSFULLY COMPLETED
THE DEPARTMENT OF JUSTICE
WEAPONS OF MASS DESTRUCTION**

Radiological/Nuclear Awareness Course

29 April – 1 May 2003

**CONDUCTED BY BECHTEL NEVADA
COUNTER TERRORISM OPERATIONS SUPPORT**

*This course is approved for 0.6 hours of Continuing Education Credit by the
University of Nevada, Las Vegas, Division of Continuing Education*

Erie Community College

Department of Workforce Development

*On the recommendation of the faculty and by virtue
of the authority vested in them the trustees
of the college have certified that*

SHAWN CONWAY

Has completed the course

**CHEMISTRY OF HAZARDOUS MATERIALS
HAZMAT TECHNICIAN 120 HOURS**

Hereby issued this 28th day of June 2003

given in the County of Erie in the State of New York in the United States of America

William Mahani

William Mahani
President

Paul Savino, Ph.D.

Paul Savino Ph.D.
Department Chair and Professor of Chemistry and Chemical Technology



ISS Interactive Safety Services

10565 Clarence Center Rd, Clarence New York 14031 (716)-741-1048

Mr. Shawn Conway
URS Corporation
77 Goodell St.
Buffalo NY, 14203

Date: November 2, 2012

RE: interim letter of completion

Dear Mr. Conway,

This letter will serve as temporary proof of successful completion of the OSHA 30 Construction Outreach program for Shawn Conway and Steven Moeller. Formal completion cards will be issued by the by the OTI office in a few weeks and forward to you.

Congratulations Shawn and Steven on the completion of this important safety credential.

Sincerely,

David M Bissonette

David M Bissonette
President, ISS



Amy Jones

Senior Environmental Engineer

Overview

Ms. Jones has over 19 years of experience in radiological assessment and verification surveys; analyzing radiological and site data, and has been designated as a Site Radiation Safety Officer at multiple field sites. Her area of expertise include radiological assessments, radioactive material regulatory compliance, developing, reviewing and, implementing radiological work plans, radiation safety procedures, and radiological training programs to ensure safe handling of radioactive materials. She has also assisted in the development of project-specific procedures for commercial and industrial clients, along with data management practices to handle large volumes of electronic data generated during radiological surveys, paired with a global positioning system. She has participated in evaluations of facilities involving radioactive materials such as low-level radioactive waste, uranium mill tailings, and naturally occurring radioactive materials (NORM).

Areas of Expertise

Radiological Site Assessment,
Remediation and Verification
Site Radiation Safety Officer
Data Analysis and Interpretation
Procedure development

Years of Experience

With URS: 10 Years
With Other Firms: 9 Years

Education

MS/Environmental Policy and
Management/2000/University of
Denver
BS/Science Biology/1990/Mesa
State College

Registration/Certification

Registered Radiation Protection
Technologist #15872

Project-Specific Experience

Site Radiation Safety Officer/ Radiological Survey Lead, Abandoned Uranium Mine OU I Radon and Surface Gamma Characterization, Orphan Mine Site, Grand Canyon Arizona, 2010-present: Developed work plans, quality assurance project plan, project specific procedures and provided input on radiological safety practices for project Health and Safety plan. Work included a yearlong effort including both passive and active Radon monitoring, with a Short Term Continuous Radon Monitor deployed inside the partially sealed mineshaft to collect data at the site. Conducted a GPS linked gamma radiation surface survey across the 31 acre site, collecting approximately 500,000 measurements.

Site Radiation Safety Officer /Radiological Survey Lead, Residual Radioactive Material Characterization/Remedial Action, Green River Utah, 2010-present: Drafted a site characterization/remedial action plan for residual radioactive material adjacent to the Green River Utah UMTRA site. Site RSO supervised the removal action, and conducted DOT and equipment release surveys.

Site Radiation Safety Officer, Client Site Los Angeles California, Aman Environmental Construction, 2009: Developed a Site Specific Radiation Safety Plan and implementing procedures to support remediation of Thorium 232 and Uranium 238 contaminated material from Site. Conducted radiological training for project staff, issued dosimetry, directed a radiation staff, of 3 senior technicians, and maintained records to document survey activities. Excavation activities were conducted under Radiation/ Hazardous Work Permits, to properly control the excavation and ensure personnel were using appropriate PPE. Directed the excavation using portable radiation instruments such as, dose rate meters, NaI, gas proportional and GM detectors, and collected excavation control samples.



Incoming and outgoing DOT radiation surveys were conducted on all trucks used for the transport of contaminated material.

Project Manager, DoD Radiological Support Defense Distribution Center (DDC), 2007–Present: Provide general Health Physics support to the DDC for their NRC radioactive materials license. Including updating and revising the existing training program, and providing onsite support as needed. Updated and conducted the DoD 2 week Radiation Protection Officer Qualification Course. Updated and conducted both Radiation Worker Training and Packaging and Transportation of Radioactive Material course, for the Anniston Depot

Team Member, Radiological Scoping Survey, Carteret Site, New Jersey, 2005–2007: Conducted radiological scoping survey of 35-acre property to determine the presence of naturally occurring radioactive material (NORM) contaminants resulting from historical fertilizer at the site. Used Visual Sample Plan to establish MARSSIM survey units and identify specific sample locations for the work plan to fully characterize surface and subsurface contamination at the facility.

Team Leader, Radiological Assessment, Monticello Millsite Remedial Action Project, 1992–1999: Specific duties included conducting radiological verification surveys, evaluating survey data, and generating project reports. Performed independent evaluation of radiological survey methods and procedures used to verify sites met site criteria. Developed operational procedures for a system combining radiological survey data and global positioning data to better evaluate radiological contamination. Reviewed historical assessment, construction, remedial action, and verification data to ensure sites met appropriate criteria.

Team Leader, Radiological Assessment, Monticello Vicinity Properties, 1992–1999: Specific duties included conducting radiological surveys, evaluating survey data, and generating project reports. Performed independent evaluation of radiological survey methods and procedures used to verify sites met site criteria. Reviewed historical assessment, construction, remedial action, and verification data to ensure sites met criteria to support deletion from the National Priorities List.

Team Leader, Radiological Assessment, Uranium Mill Tailings Remedial Action Project, 1992–1999: Specific duties included conducting radiological surveys at 11 different Uranium Mill Tailings Remedial Action (UMTRA) sites across the United States, evaluating survey data, and generating inclusion and verification reports. Performed independent evaluation of remediation contractor radiological survey methods and procedures used to verify sites met site criteria.



Team Leader, Radiological Assessment, Rocky Flats Environmental Technology Site, 1996: Conducted verification surveys in former uranium and plutonium processing building. Specific duties included conducting radiological surveys and evaluating resulting data.

Professional Societies/Affiliates

Health Physics Society
National Registry of Radiation Protection Technologists #15872

Specialized Training

1997/Technical Writing Course, American Management Association
1994/8-hour Supervisor Hazardous Waste Operations and Emergency Response Training
1991/40-hour Hazardous Waste Operations and Emergency Response Training
1991/Safe Use of Radionuclides, Oak Ridge Associated Universities Professional Training Program

Security Clearance

DOE Q (inactive)

Publications

Nielson, K.K., A.R. Jones, G.M. Sandquist "Gamma Radiation Scanning Survey Designs for Large Land Areas," 13th International Conference on Nuclear Engineering Beijing China, May 16-20, 2005.
Egidi, P.V., M.K. Jensen, A. R. Jones, M.J. Wilson-Nichols, S.M. Smith, G.A. Pierce, and J.L. Zutman, "Use of Global Positioning System for Accelerated Independent Verification of Clean up at A Superfund Site," Health Physics Society 33rd Annual Mid Year Meeting 'Instrumentation, Measurements, and Electronic Dosimetry' Site Characterization Session January 30 – February 2, 2000.
Pierce, G. A., A. R. Jones, and S. M. Smith, "Combining a Global Positioning System with Environmental Detection Instruments," presented at the U.S. Army Corps of Engineers Combined Military Programs Environmental Technical Conference and Biennial Safety and Occupational Health, Albuquerque, NM, March 16, 1998.

Chronology

2001–Present: URS Corporation, Salt Lake City, Utah
1993–1999: Oak Ridge National Laboratory, Grand Junction, Colorado
1990–1993: Oak Ridge Associated Universities, Grand Junction, Colorado

Contact Information

URS Corporation
756 East Winchester, Suite 400
Salt Lake City, UT 84107
Tel: 801.904.4000
Fax: 801.904.4100
Email: amy.r.jones@urs.com

OAK RIDGE NATIONAL LABORATORY

HEALTH AND SAFETY
RESEARCH DIVISION

Amy R. James

HAS SATISFACTORILY FULFILLED THE
REQUIREMENTS OF CERTIFICATION FOR THE 40-HOUR
HEALTH AND SAFETY TRAINING
AS MANDATED BY 29CFR1910.120,(E),(1&2)

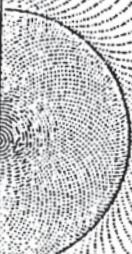
OTWILL

SENIOR INSTRUCTOR

James E. T. Bate

DATE OF COMPLETION

February 27, 1991



CERTIFICATE OF COMPLETION

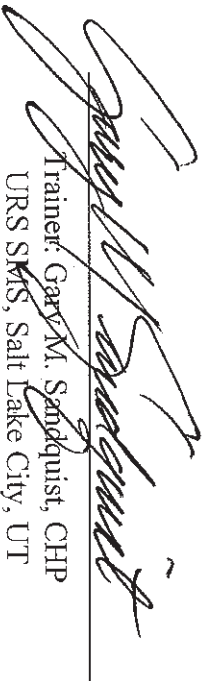
Amy Robin Jones

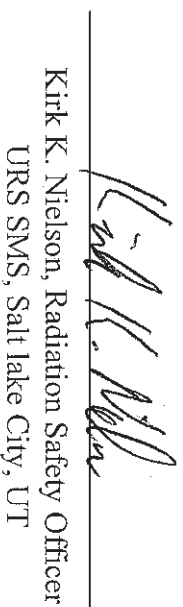
has successfully completed the course titled

Radiological Worker II

on

December 16, 2011


Trainer: Gary M. Sandquist, CHP
URS SMS, Salt Lake City, UT


Kirk K. Nielson, Radiation Safety Officer
URS SMS, Salt Lake City, UT

Certificate of Completion

This is to certify that:

Amy Jones

successfully completed

HAZWOPER Annual Refresher Training

Course ID - HAZ01

Version - 2012.1

Offering - 00003496

Has completed eight hours of annual refresher training for hazardous waste/materials workers under
OSHA 29 CFR 1910.120.

taught by

Millard Griffin

conducted on

June 26, 2012, HSE Seminar



A handwritten signature in black ink that reads "Phillip L. Jones".

Phillip L. Jones, M.S., C.I.H.,
Vice President Health, Safety, and Environment
URS Infrastructure and Environment

URS Corporation

WORK STATUS REPORT

Employer Copy

TYPE OF EXAMINATION: URS Corp - Periodic Exam
EXAM CLASSIFICATION: Periodic Examination

EMPLOYEE: Jones, Amy R.
ID: 83184
DATE OF EXAM: 05/10/2012
EXPIRATION DATE: 05/10/2013

COMPANY: URS EC
POSITION: Sr. Environmental Engineer
LOCATION: URS EC-WSMS
SITE: Salt Lake City

The following recommendations are based on a review of one or all of the following: a base history questionnaire, supporting diagnostic tests, physical examination, and the essential functions of the position applied for or occupied by the individual named above.

	Yes	No	Undecided
Has the employee any detected medical conditions that would increase his/her risk of material health impairment from occupational exposure in accordance with 29 CFR §1910.120?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Does the employee have any limitations in the use of respirators in accordance with 29 CFR §1910.134?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

STATUS

- ☒ **QUALIFIED** The examination indicates no significant medical condition. Employee can be assigned any work consistent with skills and training.
- ☐ **QUALIFIED - WITH LIMITATIONS** The examination indicates that a medical condition currently exists that limits work assignments on the following basis:
- ☐ **NOT QUALIFIED**
- ☐ **DEFERRED** The examination indicated that additional information is necessary. The employee has been given the following instructions.

COMMENTS:

I have reviewed the medical data of the above named employee, and informed the employee of the results of the medical examination and any medical conditions that require follow-up examination or treatment.

Name of Physician: Peter P. Greaney, M.D. Date: 05/15/12

Signature: Peter P. Greaney MD

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

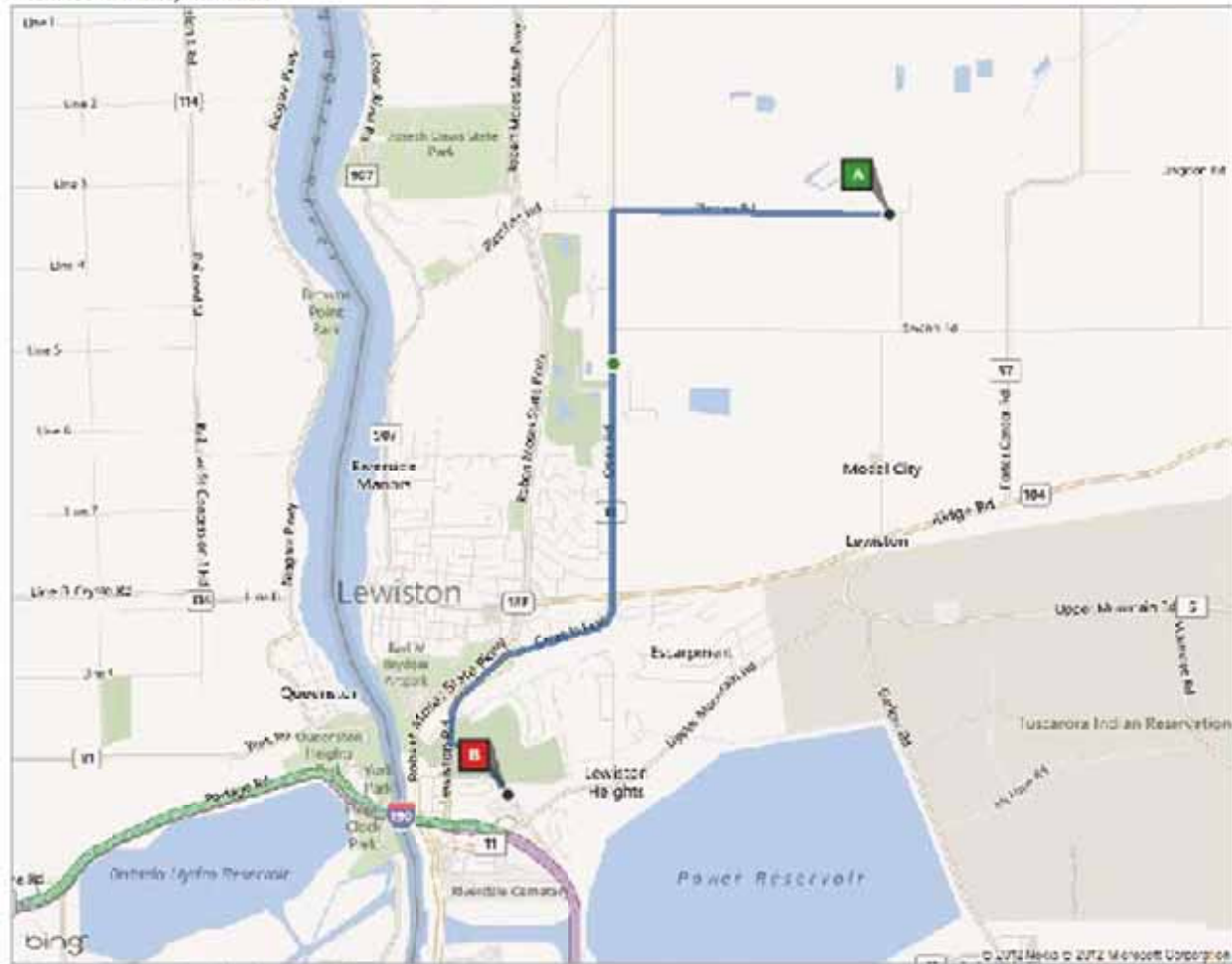
Emergency Contacts

<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	Kevin Connare	(716) 861-7661 (cell)
URS Field Investigation Coordinator	Colin Wasteneys	(716) 319-4610 (cell)
URS Site Safety & Health Officer	Shawn Conway	(716) 361-4678 (cell)
URS Site Supervisor	Rob Murphy	(716) 903-1346 (cell)
URS Site Radiation Safety Officer	Amy R. Jones	(801) 913-5199 (cell)
URS Occupational Health Manager	Jeanette Schrimsher, RN	(866) 326-7321 (Incident Line) (512) 656-0203 (cell)
URS Regional Safety & Health Officer	Ben Bertolotti, CIH	(973) 572-3916 (cell)
USACE Program Manager	John Busse	(716) 879-4375
USACE Project Engineer	Jane Staten, CHMM	(716) 879-4237
USACE Industrial Hygienist	Roseanne Weidner	(716) 879-4197
USACE Site Superintendent	Dennis Rimer	(716) 912-5833 (cell)
USACE Health Physicist	Neil Miller	(716) 940-1404 (cell)
NFSS Site Maintenance/ Building 429	Allan Smallwood Co. Neil & Larry	(716) 754-4442 (building) (716) 480-0911 (cell)

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

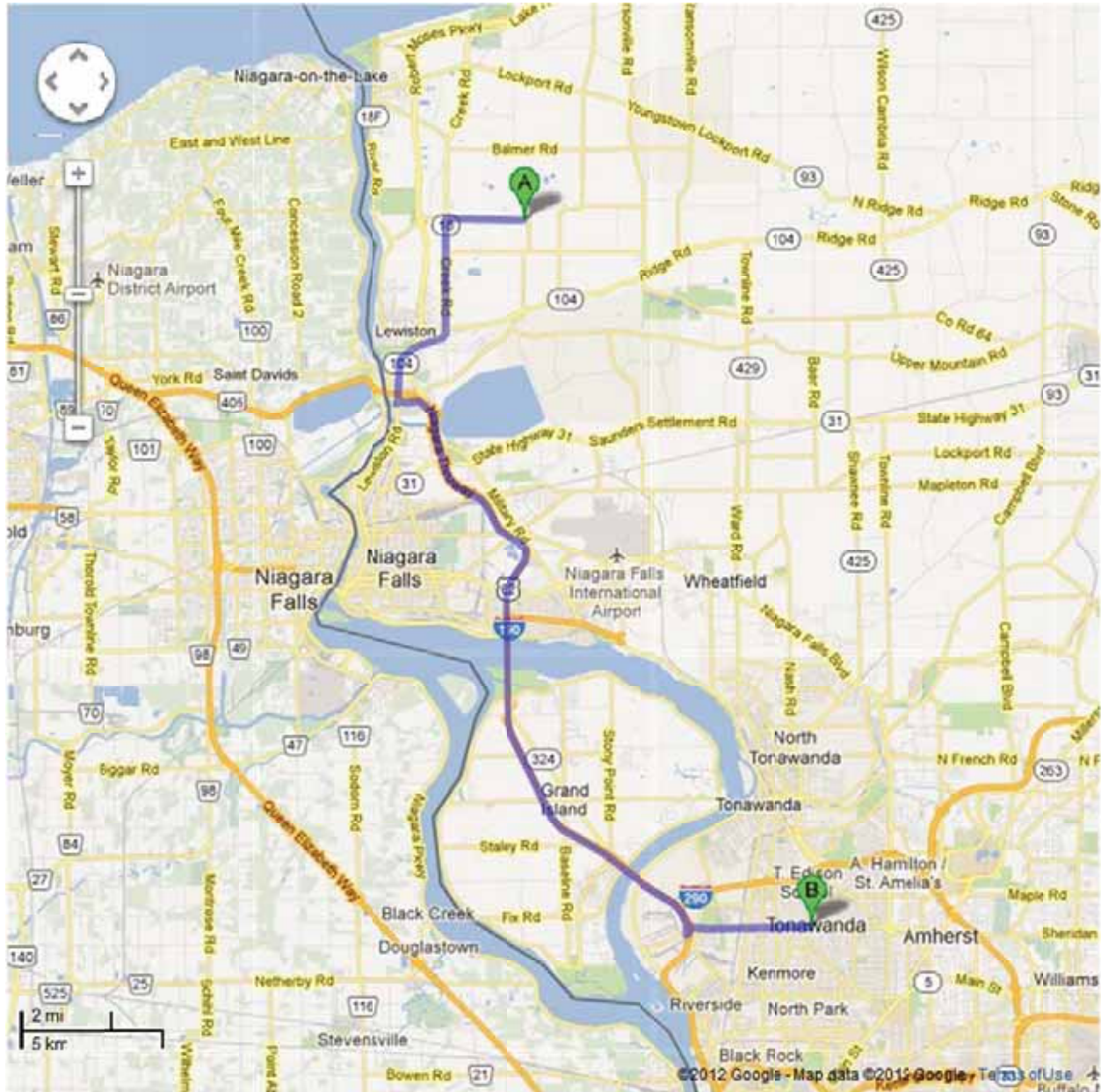


1. Turn RIGHT onto Pletcher Rd toward Route 18 (Creek Rd)	1.8 miles
2. Turn LEFT onto Route 18 (Creek Rd)	3.2 miles
3. Keep straight onto Route 18 (Creek Rd), turns into Route 104	0.8 miles
4. Turn LEFT at traffic light onto Route 256 (Military Rd)	0.5 miles
5. Hospital is about ½ mile on Right .	

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

(For Safety Staff only)	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		X		<input type="checkbox"/>		
2. PERSONAL DATA									
a. Name (Last, First, MI)			b. AGE	c. SEX <input type="checkbox"/> MALE <input type="checkbox"/> FEMALE		d. SOCIAL SECURITY NUMBER			
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 (Specify) _____			
3. GENERAL INFORMATION									
a. DATE OF ACCIDENT (month/day/year)		b. TIME OF ACCIDENT (Military time) hrs		c. EXACT LOCATION OF ACCIDENT			d. CONTRACTOR'S NAME (1) PRIME: (2) SUBCONTRACTOR:		
e. CONTRACT NUMBER <input type="checkbox"/> CIVIL WORKS <input type="checkbox"/> MILITARY <input type="checkbox"/> OTHER (Specify) _____		f. TYPE OF CONTRACT <input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> SERVICE <input type="checkbox"/> A/E <input type="checkbox"/> DREDGE <input type="checkbox"/> OTHER (Specify) _____			g. HAZARDOUS/TOXIC WASTE ACTIVITY <input type="checkbox"/> SUPERFUND <input type="checkbox"/> DERP <input type="checkbox"/> IRP <input type="checkbox"/> OTHER (Specify) _____				
4. CONSTRUCTION ACTIVITIES ONLY (Fill in line and corresponding code number in box from list - see help menu)									
a. CONSTRUCTION ACTIVITY <div style="text-align: right;">(CODE) # </div>					b. TYPE OF CONSTRUCTION EQUIPMENT <div style="text-align: right;">(CODE) # </div>				
5. INJURY/ILLNESS INFORMATION (Include name on line and corresponding code number in box for items e, f & g - see help menu)									
a. SEVERITY OF ILLNESS/INJURY <div style="text-align: right;">(CODE) # </div>					b. ESTIMATED DAYS LOST		c. ESTIMATED DAYS HOSPITALIZED	d. ESTIMATED DAYS RESTRICTED DUTY	
e. BODY PART AFFECTED PRIMARY _____ <div style="text-align: right;">(CODE) # </div> SECONDARY _____ <div style="text-align: right;">(CODE) # </div>					g. TYPE AND SOURCE OF INJURY/ILLNESS TYPE _____ <div style="text-align: right;">(CODE) # </div> SOURCE _____ <div style="text-align: right;">(CODE) # </div>				
f. NATURE OF ILLNESS/INJURY <div style="text-align: right;">(CODE) # </div>									
6. PUBLIC FATALITY (Fill in line and correspondence code number in box - see help menu)									
a. ACTIVITY AT TIME OF ACCIDENT <div style="text-align: right;">(CODE) # </div>					b. PERSONAL FLOATATION DEVICE USED? <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 (Specify) _____			<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 (Specify) _____			(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 (Fill in line and correspondence code number in box from list - see help menu)									
a. TYPE OF VESSEL/FLOATING PLANT <div style="text-align: right;">(CODE) # </div>					b. TYPE OF COLLISION/MISHAP <div style="text-align: right;">(CODE) # </div>				
10. ACCIDENT DESCRIPTION (Use additional paper, if necessary)									

11. CAUSAL FACTOR(S) <i>(Read Instruction Before Completing)</i>					
a. (Explain YES answers in item 13)	YES	NO	a. <i>(CONTINUED)</i>	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 <i>(If yes, attach a copy.)</i> <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 <i>(See instruction for definition of direct and indirect causes.) (Use additional paper, if necessary)</i>					
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 <i>(1st)</i>					
a. <input type="checkbox"/> CONCUR b. <input type="checkbox"/> NON CONCUR c. COMMENTS					
SIGNATURE		TITLE		DATE	
17. MANAGEMENT REVIEW <i>(2nd - Chief Operations, Construction, Engineering, etc.)</i>					
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 <i>(Continuation)</i>
-----	--

13a.	DIRECT CAUSE <i>(Continuation)</i>
------	------------------------------------

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

Shawn Conway

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

ASHI-Approved Certification Card
Wayne Stewart

Authorized Instructor (Print Name)

136502

Registry No.

10/30/2012 **10/30/2014**

Class Completion Date Expiration Date

888-579-4398 **63796**

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

Robert Murphy

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

ASHI-Approved Certification Card
Wayne Stewart

Authorized Instructor (Print Name)

136502

Registry No.

10/30/2012 **10/30/2014**

Class Completion Date Expiration Date

888-579-4398 **63796**

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

Steven Moeller

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

ASHI-Approved Certification Card
Wayne Stewart

Authorized Instructor (Print Name)

136502

Registry No.

10/30/2012 **10/30/2014**

Class Completion Date Expiration Date

888-579-4398 **63796**

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



Legend

- | | | |
|--------------------------|--------------------------|---------------|
| Investigation Excavation | Pipe Excavation | Site Boundary |
| Manhole | Proposed Monitoring Well | EU Boundaries |



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 report 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 SANTITATION 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 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 SSHO 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 SSHO 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”.

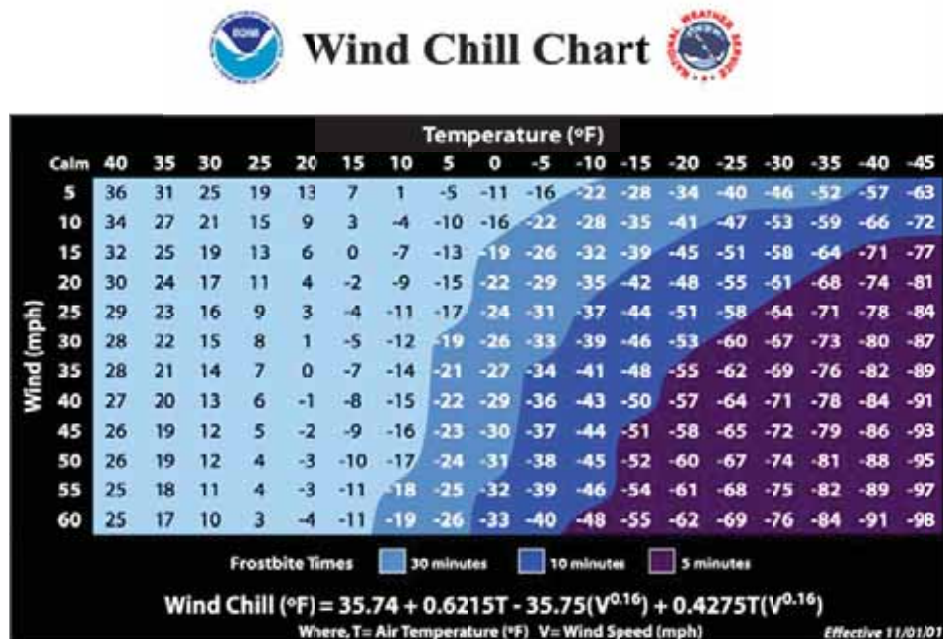
- Qualified subcontractors are the only personnel authorized to operate a vacuum truck.
- Locate the observers upwind of the tank or container being emptied.
- Keep hands from vacuum hose inlet.
- Wear protective gloves and hearing protection in the immediate vicinity.

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-A

Project-Specific Chemical Product Hazard Communication Form

Project-Specific Chemical Product Hazard Communication Form

This form must be completed prior to performing activities that expose personnel to hazardous chemicals products. Upon completion of this form, the SSHO shall verify that training is provided on the hazards associated, with these chemicals and the control measures to be used to prevent exposure to URS and subcontractor personnel, labeling and MSDS systems will also be explained.

Project Name: Niagara Falls Storage Site

Project Number: W912QR-12-D-0023

MSDSs will be maintained at the following location(s) URS Group, Inc. and/or subcontractor field office

HAZARDOUS CHEMICAL PRODUCTS INVENTORY

Chemical	Quantity	Location	MSDS Available	Container Labels	
				Identity	Hazard

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.

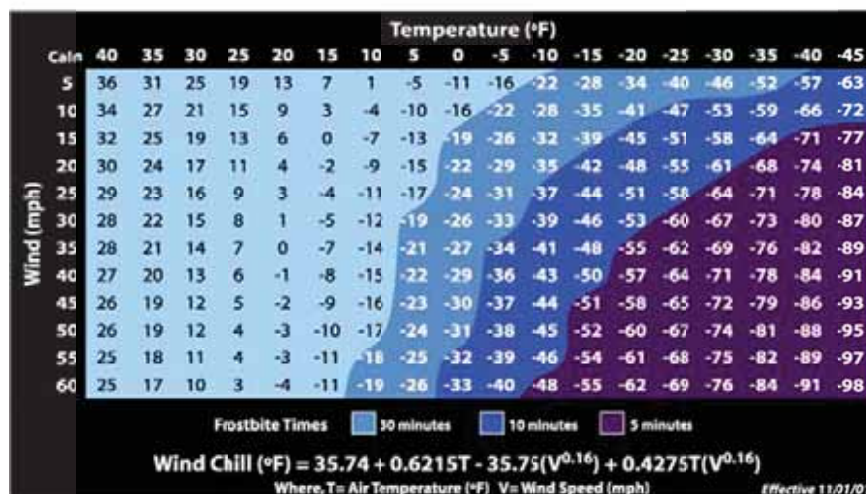
- h. Verify equipment is safe to operate, tools have been removed and guards have been replaced.
- i. Remain with affected equipment so that no one returns while equipment or process is being restarted.
- j. Remove lock/tag and energize equipment.
- k. Require that affected employee knows the lockout 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:

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

Russo Development, Inc.	Issue Date: Jan 2012
Health & Safety Program	Revision #: 1

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.

Russo Development, Inc.	Issue Date: Jan 2012
Health & Safety Program	Revision # 1

- 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.

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.

Russo Development, Inc.	Issue Date: Jan 2012
Health & Safety Program	Revision # 1

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



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	
4"	4.500	1/2"	2.2	S70-401	A	
		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	
5"	5.563	3/4"	2.6	S70-503	A	
		1"	2.5	S70-504	A	
6"	6.625	1/2"	2.9	S70-601	A	
		3/4"	2.8	S70-603	A	
		1"	2.8	S70-604	A	
		1-1/2"	5.9	S70-606	A	
		2"	5.1	S70-607	A	
8"	8.625	1/2"	3.7	S70-801-AWT	A	
		3/4"	3.6	S70-803	A	
		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	
10"	10.75	1"	7.0	S70-1004	C	
		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>

08/29/12

Submitted By:

ATTACHMENT #3

*Site ready...earth friendly*

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
2870 Forbs Avenue
Hoffman Estates, IL 60192 United States
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/m3	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/m3	Respirable fraction.
		15 mg/m3	Total dust.

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

Constituents	Type	Value	Form
INERT OR NUISANCE DUSTS (SEQ250)	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	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
Aquatic Crustacea	LC50	Freshwater fish	16000 mg/l, 96 hours
		Marine water fish	2800 - 3200 mg/l, 24 hours
	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

VERTICAL REPAIR

SPEED CRETE RED LINE

Master Format #:
03 01 30.71



The Euclid Chemical Company

19218 Redwood Rd. • Cleveland, OH 44110

Phone: [216] 531-9222 • Toll-free: [800] 321-7628 • Fax: [216] 531-9596

www.euclidchemical.com

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 the 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

ANALYSIS

	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
	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.

ANALYSIS

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.
INSPECTION REQUIREMENT	TRAINING REQUIREMENTS
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

ANALYSIS

	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
ill ve g	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.

ANALYSIS

	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
Ill ve g	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.
	INSPECTION REQUIREMENT	TRAINING REQUIREMENTS
	<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

ANALYSIS

	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
g	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.
E	INSPECTION REQUIREMENT	TRAINING REQUIREMENTS
	2. Per Drilling Rig equipment	<ul style="list-style-type: none"> HAZWOPER 40 hour and current 8 hr. refresher

ANALYSIS

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
---	--

HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
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.
INSPECTION REQUIREMENT	TRAINING REQUIREMENTS

ANALYSIS

	<ol style="list-style-type: none">1. Daily source check2. Calibrate daily3. Calibrate daily4. 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

ANALYSIS

HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
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.

ANALYSIS

HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
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.

ANALYSIS

	INSPECTION REQUIREMENT	TRAINING REQUIREMENTS
E	<ol style="list-style-type: none">1. Per Excavator equipment specifications2. Daily source check3. Calibrate daily4. Calibrate daily5. 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

ANALYSIS

	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
	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.
	INSPECTION REQUIREMENT	TRAINING REQUIREMENTS
	<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

ANALYSIS

	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
	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.
	INSPECTION REQUIREMENT	TRAINING REQUIREMENTS
	<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

ANALYSIS

	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS
	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.
	INSPECTION REQUIREMENT	TRAINING REQUIREMENTS
	Vehicle Inspections	<ul style="list-style-type: none">• Licensed for the operation of vehicle

ates Army Corps of Engineers, *Safety and Occupational Health Requirements for Hazardous, Toxic, and Radioactive*
s, May 2007.

ates Army Corps of Engineers, *Ionizing Radiation Protection*, June 2012.

ates Army Corps of Engineers, *Respiratory Protection Program*, March 1983.

t 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: Page(s)
	Yes	No	N/A	
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
(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	
(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.	✓			4-1 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
(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	
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: Balance of Plant Field Investigation Niagara Falls Storage Site, Lewiston, NY	Included ?			Location: Page(s)
	Yes	No	N/A	
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.)	✓			4-1, 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 8-3
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. 3
(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.