

Quality Control Plan Final

Balance of Plant Operable Unit
Investigation to Refine the Extent of Soil Contamination
Niagara Falls Storage Site
Lewiston, New York
Formerly Utilized Sites Remedial Action Program (FUSRAP)
Contract No. W912QR-12-D-0023
Delivery Order No. DN02

U.S. Army Corps of Engineers
Buffalo District
Buffalo, New York

Prepared by: URS Group, Inc.

October 2013

CERTIFICATION OF INDEPENDENT TECHNICAL REVIEW

COMPLETION OF INDEPENDENT TECHNICAL REVIEW

URS Group, Inc. (URS) has completed the *Quality Control Plan* for the Balance of Plant Operable Unit Investigation to Refine the Extent of Soil Contamination at the Niagara Falls Storage Site, 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 Independent Technical Reviewer –

Date: 17 October 2013

	CERTIFICATION OF INDEP	ENDENT TECHNICAL	REVIEW
Significant c	oncerns and the explanation of the resolu	tion are as follows:	
Item	Technical Concerns	Possible Impact	Resolutions
	None		
As noted abo	ove, all concerns resulting from independent	ent technical review of the pl	an have been resolved.
			17 October 2013
			Date

URS QUALITY CONTROL PLAN FOR THE

BALANCE OF PLANT OPERABLE UNIT INVESTIGATION TO REFINE THE EXTENT OF SOIL CONTAMINATION NIAGARA FALLS STORAGE SITE LEWISTON, NEW YORK

Contract No. W912QR-12-D-0023-DN02

QCP APPROVALS

By their specific signature, the undersigned certify that this QCP is approved for use during sampling and surveys at the Niagara Falls Storage Site, Niagara County, New York.

APPROVED BY:

URS Group, Inc. – Project Manager	Date: 17 October 2013
By their specific signature, the undersigned certify that they reviewed and proving QCP for use during the performance of health physics services at the Niagara Facounty, New York.	
URS Group, Inc. – Certified Health Physicist	Date: 17 October 2013

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ACRONYMS

AHA Activity Hazard Analyses
APP Accident Prevention Plan

CADD Computer Aided Design and Drafting

CHP Certified Health Physicist
CIH Certified Industrial Hygienist

CO Contracting Officer

CQCM Contractor Quality Control System Manager

EHS Environmental, Health & Safety

ETC Estimate to Complete FSP Field Sampling Plan

GIS Geographic Information System
GPS Global Positioning System

H&S Health & Safety

IDW Investigation Derived Waste
ITR Independent Technical Review

OSHA Occupational Safety and Health Administration

PE Professional Engineer
PIC Principal-in-Charge
PM Project Manager

QAPP Quality Assurance Project Plan
QA/QC Quality Assurance/Quality Control

QCP Quality Control Plan

QMS Quality Management System RPP Radiation Protection Plan

RHSO Regional Health and Safety Officer SEDD Staged Electronic Data Deliverable

SOW Scope of Work

SSHO Site Safety and Health Officer SSHP Site Safety and Health Plan SRSO Site Radiation Safety Officer

URS Group, Inc.

USACE United States Army Corps of Engineers

VP Vice President

1.0 MANAGEMENT PHILOSOPHY

URS Group Inc. (URS), using this Quality Control Plan (QCP), will strive to achieve a high level of quality on the Balance of Plant Operable Unit Investigation to Refine the Extent of Soil Contamination at the Niagara Falls Storage Site (NFSS or Site). URS' quality management philosophy is formalized and implemented by our rigorous corporate Quality Management System (QMS). This system consists of four basic components: *Quality Policy* that sets out URS' commitment to quality and the minimum expectations for personnel; *Quality Procedures* that describe what must be done; *Quality Instructions* that detail how particular actions must be performed; and *Quality Forms* which are templates that establish the required content of quality records. The QMS is administered at the division level and applies to all projects. Through consistent application of the QMS, quality is reinforced to all URS technical and management staff supporting the delivery of quality work products and services in accordance with corporate policy and project requirements.

This project specific QCP consists of planned and systematic actions necessary to assure that activities and deliverables will be executed in a satisfactory manner. The QCP is consistent with URS' QMS. Our management staff is responsible for the provision of work products that meet contract requirements, United States Army Corps of Engineers (USACE) expectations, and industry standards. These are the ultimate measures of quality and success for the project. Our management staff is also responsible for developing contractual arrangements with the identified project subcontractors. This enables URS, through inspection and communication with our technical staff, to hold subcontractors accountable for the sufficiency of their work product.

2.0 MANAGEMENT APPROACH

Throughout the project, the quality management principles described in this section will be followed.

2.1 Quality Achievement, Management, and Verification

URS management will ensure quality by maintaining quality control of project planning documents, field activities, data collection, data analysis, interim deliverables, final deliverables and reports. Quality control will be achieved through independent verification. The URS Project Manager (PM) is responsible for ensuring that contractual requirements are met for each component of work. The Project Quality Assurance/Quality Control (QA/QC) Officer will verify that the requirements are met. The URS PM will maintain a high level of quality through the project staff - particularly through the Field Investigation

Coordinator for development of plans and reports and the Contractor Quality Control System Manager (CQCM) for field activities. The Project QA/QC Officer will personally ensure that a high level of quality is achieved and maintained, as well as through personnel assigned as independent technical reviewers.

Project staff will be given written direction regarding expectations for field activities and data collection. This direction will be detailed in the USACE accepted project planning documents including the Sampling and Analysis Plan, Accident Prevention Plan (APP)/Site Safety and Health Plan (SSHP), Radiation Protection Plan (RPP) and this QCP.

2.2 <u>Contract Submittal Requirements</u>

URS will perform an Independent Technical Review (ITR) of all work plan documents and other documents and deliverables related to the field investigation activities. Changes will be made to the work product based on recommendations made by the ITR prior to submission to USACE. Per the contract, an ITR will be performed for the following submittals, and a Certification of Independent Technical Review will accompany the submission:

- Draft Sampling and Analysis Plan
 - o Volume 1 Field Sampling Plan (FSP)
 - o Volume 2 Quality Assurance Project Plan (QAPP)
- Draft APP/SSHP
- Draft Quality Control Plan and ITR Documentation
- Final Work Plans
- Investigation Derived Waste (IDW) Analytical, Draft Manifests, and Disposal Facility Acceptance Letters
- Final Waste Manifests
- Draft Project Report
- Final Project Report

The following submittal does not require an ITR per the contract:

• Contractor's Responses to USACE Comments on Draft Work Plans and Reports

2.3 Notification of Discrepancies

All project personnel are empowered to identify and report discrepancies from the Scope of Work (SOW) and/or Work Plans to the URS PM. The URS PM shall be notified immediately regarding any quality discrepancies throughout the project and provide notification to the USACE on the Nonconformance Report (Exhibit A). The URS PM will make recommendations for corrective action to the USACE Contracting Officer (CO) on a draft Corrective Action Report (Exhibit B). All discrepancies will be handled immediately in a safe and proper manner. When the corrective action takes place and is completed, the URS PM will notify the USACE CO and provide a final Corrective Action Report.

3.0 MANAGEMENT STRUCTURE

URS has assembled an integrated team for implementation of the Balance of Plant Operable Unit Investigation to Refine the Extent of Soil Contamination and preparation of project deliverables. Roles and responsibilities have been clearly defined and individual authorities for action have been provided to all personnel so that clear lines of communication will be maintained. The project organization chart is shown on Figure 1.

4.0 PROJECT TEAM AND RESPONSIBILITIES

4.1 Corporate Staff

There are two URS corporate staff identified on Figure 1. They are:

Position	Responsibility		
Program Manager	Overall URS Contract Management		
Principal-in-Charge	Buffalo Office Principal		

The responsibilities of these personnel are discussed further below.

Program Manager – The Program Manager will communicate to and assure compliance with
the terms of contract W912QR-12-D-0023 including proper invoicing. The Program Manager
has a direct line of communication with the USACE CO. Through that line of communication, the
Program Manager can be informed directly regarding concerns about the project without going
through the project team.

• **Principal-in-Charge** (**PIC**) – The PIC is a New York State Professional Engineer (PE) and is in a position from a corporate level to assign and coordinate resources to the project team. The PIC will also sign each Certification of Independent Technical Review.

4.2 **Project Team**

The project team will plan and execute the project activities in accordance with the Task Order SOW and contract specifications. The individuals identified below will, with additional support as required from others, have the primary responsibility for work product development and delivery and execution of field activities.

Position	Responsibility	
URS PM	Overall management responsibility for the project.	
Project QA/QC Officer	Supervise ITR and ensure compliance with QCP.	
Certified Health Physicist (CHP)	Provide QC oversight and review for radiological engineering and health physics components of the project.	
Regional Health and Safety Officer (RHSO)	Review the site-specific health and safety (H&S) program and planning, assist and review H&S program implementation, and review subcontractor safety qualifications.	
Field Investigation Coordinator	Aid PM with logistics, subcontractor coordination, and field and deliverable quality assurance. Responsible as primary author of the Project Report.	
Site Supervisor/CQCM	Responsible for the quality of on-site work and has authority and responsibility to ensure contract compliance.	
Alternate Site Supervisor/CQCM	Will serve in the event of the Site Supervisor/CQCM's absence.	
Site Safety and Health Officer (SSHO)	Ensure that health and safety practices on-site are performed in accordance with all applicable local, state, and federal regulatory requirements and in accordance with USACE EM 385-1-1.	
Health Physics Support/ Site Radiation Safety Officer (SRSO)	Provide radiological engineering and health physics oversight and review. Ms. Jones is responsible as primary author of the Radiation Protection Plan (RPP).	
Project Chemist	Coordinate with the subcontracted laboratories. Responsible as primary author of the QAPP.	
Geographic Information System (GIS) Manager	Deliver analytical and geospatial data in accordance with the SOW.	

The responsibilities of these personnel are discussed further below.

- URS Project Manager (PM) The URS PM is responsible for providing adequate resources (budget and staff) for implementation of the Balance of Plant Operable Unit Investigation to Refine the Extent of Soil Contamination. The URS PM provides overall management for the project, including the development of deliverables and execution of the fieldwork in accordance with the SOW. The URS PM's responsibility includes taking corrective action on discrepancies in accordance with this QCP. The URS PM may explicitly delegate specific tasks to other staff, particularly the Field Investigation Coordinator, Site Supervisor/CQCM, and SSHO, but retains ultimate responsibility for their completion. These tasks include:
 - 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.
 - 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, CQC and health and safety goals are fully and continuously implemented.
- Project QA/QC Officer This Project QA/QC Officer will assure compliance with this QCP in
 a manner consistent with URS' QMS and coordinate the ITRs for project deliverables. The
 project QA/QC Officer will work with the URS PM to implement comments made by the ITR
 team before the deliverables are submitted to the USACE.
- Certified Health Physicist The CHP exercises QC oversight and review for development and preparation of all radiological engineering and health physics components of deliverables generated as a result of project activities. This individual will ensure that required standards of design quality control including peer reviews, conformance inspections, and compliance

assessment are accomplished in support of QC System Management. This individual's activities will be coordinated with those of the Project QA/QC Officer to ensure that all project deliverables meet the specifications and standards established in the contract and the project SOW.

- **Regional Health and Safety Officer (RHSO)** the duties of the RHSO are:
 - 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 URS PM and/or SSHO in oversight of subcontractor (and lower-tier subcontractors), Health, Safety and Environmental practices, Safety Management Standards and interfaces with on-site third parties per the SSHP.
 - Assist with program implementation as needed.
 - Provide technical support.
 - Conduct H&S Audits.
- **Field Investigation Coordinator** The Field Investigation Coordinator will schedule and coordinate the activities of subcontractors, aid field personnel with logistical requirements, and aid the URS PM in coordinating the development of project submittals. This individual will also ensure that all field data generated during the field activities is appropriately documented and that required quality control provisions are maintained to support the QC System Management functions at the Site. The Field Investigation Coordinator will also serve as the primary author of the Project Report.
- Site Supervisor/CQCM The Site Supervisor/CQCM will be responsible for the overall Site preparation/mobilization, soil and groundwater sampling, underground utility excavation and plugging, geophysical surveys, investigative trenching, waste management, demobilization, and Site restoration and will be held responsible for the quality of work on the job. As Site Supervisor, she shall maintain a physical presence at the Site during all on-site work. As the designated CQCM, she will have complete authority and responsibility to take any action necessary to ensure contract compliance. The CQCM shall be responsible for overall management of CQC and have the authority to act in all matters for URS. The CQCM possesses a degree in earth science and exceeds the requirement of one year of experience on similar projects.
- Site Safety and Health Officer The SSHO will follow all applicable local, state, and federal regulatory requirements, including those listed in the SOW. He will also execute the tasks listed below daily throughout the fieldwork in accordance with USACE EM 385-1-1.

- Conduct daily health and safety inspections and maintain a written log which includes area/operation inspected, date of inspections, identified hazards, recommended corrective actions, and estimated and actual dates of corrections. Safety inspection logs shall be attached to the contractors' daily quality control reports.
- Conduct incident investigations and complete required reports. Maintain the Occupational Safety and Health Administration (OSHA) Form 300 and Daily Production reports for prime and subcontractors.
- Maintain applicable safety reference material on the Site.
- Implement and enforce accepted APPs and Activity Hazard Analyses (AHAs).
- Maintain a health and safety deficiency tracking system that monitors outstanding deficiencies until resolution. A list of unresolved safety and health deficiencies shall be posted on the safety bulletin board.
- Ensure subcontractor compliance with safety and health requirements.
- **Site Radiation Safety Officer** the SRSO will provide radiological engineering and health physics oversight and review. The SRSO will:
 - Coordinate implementation of the 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 Radiation Work Permits.
 - Administer personnel monitoring program.
 - Arrange for each individual's monitoring results to be sent to the individuals and employers as appropriate.
 - Implement radiological controls on 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 as low as reasonably achievable.

Project Chemist – The Project Chemist will coordinate with the subcontracted laboratories regarding the receipt of containers and transport of samples and will track the progress of the analyses once samples arrive at the laboratory. The chemist will also verify that the laboratory's

electronic data deliverables comply with contract requirements. The chemist also will liaise with USACE's chemist during the sampling and analysis regarding any potential analytical issues that may arise. Any deficiencies identified will be reported to the URS PM. The USACE will perform all data qualification for this project. The Project Chemist will also serve as the primary author of the QAPP.

Geographic Information System Manager – The GIS Manager will organize and deliver analytical data in the Staged Electronic Data Deliverable (SEDD) Stage 2b format as requested by the USACE. This manager also will be responsible for delivering geospatial data to the USACE in conjunction with submittal of the draft Project Report in Microsoft Access format in accordance with the USACE *Policies, Guidance, and Requirements for Geospatial Data and Systems*, ER-1110-1-8156 (September 1995) and all other contract requirements.

4.3 **Subcontractors**

The following subcontractors will be utilized on this project. These subcontractors shall work under the provisions of this QCP:

- **Russo Development, Inc.** will provide sampling support and excavation services.
- **TestAmerica**, **Inc.** will provide off-site analytical services and prepare electronic data packages for analytical data generated from the laboratory analysis activity.
- **Hager-Richter Geoscience, Inc.** will provide geophysical surveying services.

5.0 INDEPENDENT TECHNICAL REVIEW TEAM

An ITR will be performed on all deliverables prepared for submittal to the USACE as specified under the contract specifications and the SOW. This will include all work plan documents, reports, and IDW disposal documentation. The purpose of this review is to determine that compliance with the URS QMS is evident in the documents and that justified and valid assumptions have been used in preparation of the deliverables. The ITR will not be performed by the same personnel producing the deliverables. The ITR will not replace QC checks or other QC processes; a component of the ITR is to verify the adequacy of the implementation of the checks and processes.

The ITR will be conducted prior to submitting the product to the USACE with any significant recommended changes made during the ITR resolved prior to submission. For the submittals listed in Section 2.2 of the QCP and on the Submittal Requirements Summary (Exhibit C), a Certification of

Independent Technical Review will accompany the submittal which certifies that the ITR was conducted by individuals with the required knowledge and expertise to confirm that the products or deliverables met the requirements and objectives for use as specified in the SOW. A Certification of Independent Technical Review form is presented in Exhibit D. For each submittal delivered, a copy of the Submittal Requirements Summary (Exhibit C) will be attached with the title of the submitted item circled.

The members of the ITR Team for this project are listed in the table below. These individuals have the collective expertise and experience required to provide ITR oversight for all deliverables currently defined in the SOW. They will be assigned responsibility to review, as appropriate, those aspects of the deliverables that fall within their respective areas of subject matter expertise.

Person	Position	Responsibility/Expertise	
	Project QA/QC Officer	Supervise ITR and ensure compliance with QCP	
	ITR Team Member	Environmental, Health & Safety (EHS)	
	ITR Team Member	EHS and Health Physics	
	ITR Team Member	Environmental Sampling, Quality Assurance	
	ITR Team Member	Analytical Chemistry	

6.0 PLANNED DESIGN TOOLS

Several different deliverables will be prepared and submitted to USACE as a result of activities completed during performance of the project. These include but are not limited to, project work plans and reports, electronic data sets, Site maps and topographic surveys, graphical representations of geophysical surveys, locations of underground utilities, and subsurface features of interest.

A number of tools and instruments will be utilized to gather the data for, and to facilitate production of, the deliverables defined in the SOW. Global Positioning System (GPS) instruments will be used to locate horizontal positions for drilling points and trenching locations as well as for locating reference points for placing features of interest on Site maps. Vertical elevations of sampling points will be measured by differential leveling.

Multiple software applications will be used. MicroStation V8i will be used for computer aided design and drafting (CADD) generated drawings and maps. ArcGIS, Version 10 and Microsoft Access (2010)

will be used to manage analytical data and to generate tables and maps. Microsoft Office software such as Excel spreadsheets will also be used for presentation of analytical data, while Microsoft Word desktop publishing will be employed for production of plans and reports.

Quality control checks, inspections, and calibrations will be performed at various points in the data and information collection and generation processes to ensure that the required quality standards imposed by the contract specifications and the SOW are met. Discrepancies or deficiencies noted will be documented and resolved immediately in accordance with Section 2.3 of the QCP.

7.0 SCHEDULING

The current project schedule is shown on Figure 2. The schedule has been developed to provide a detailed view of the activities that will be completed during execution of each task, as well as a guide for the overall project. The schedule presents the interrelationships between tasks and establishes the sequencing and duration for task performance including plans development, field work investigation, data preparation and submittal, and project report preparation and approval.

The URS PM will update the schedule to reflect actual progress according to details of work completion. The updated schedule will also show any revisions in projected completion dates for project activities remaining. Current updated schedules will be presented at progress status meetings with the USACE.

8.0 COST CONTROL

URS will track costs for the project by accrual accounting for labor, subcontractors, and other direct costs weekly as they occur. The URS PM will be provided with summary level reports from the accounting systems that will present project-to-date information that will be compared to budget estimates established for each task.

The project schedule will be used to track progress on the work and to determine the value earned and cost for work performed on a monthly basis. Cost and schedule variances will be identified through this comparison and will allow the URS PM to review the basis for any variances and to direct corrective actions to address negative variance conditions. Monthly reviews of the Estimate to Complete (ETC) will also provide the URS PM an opportunity to update the estimates for work remaining in the project based on project-to-date costs for work performed.

A Monthly Progress Report will be prepared and submitted to the USACE along with the monthly invoice for the project. It will present a brief summary of activities completed for the previous month, a brief summary of activities planned for the upcoming month, difficulties encountered, changes in scope of work, impacts to the schedule, and fee summary. The fee summary will track percent complete by task. Monthly accruals will also be submitted to USACE each month, projecting expenditures through the end of the month.

9.0 COMMUNICATIONS

Clear lines of authority and responsibility are established for disseminating information and for providing direction throughout the project organization. Specific individuals have also been designated to provide interface and coordination with the USACE.

The **URS PM**, as the individual responsible for the overall performance and accomplishment of project requirements, has been designated as the primary interface with the USACE CO on matters pertaining to execution of project activities and resolution of issues potentially affecting project scope cost and schedule. The URS PM has an open line of communication with all project personnel on an as-needed basis but will primarily interface with the Field Investigation Coordinator and Site Supervisor/CQCM. These three persons will communicate frequently to ensure cohesiveness of operations. The URS PM will communicate with the PIC regarding accessing additional staffing or other resources as necessary.

The **Program Manager** has a direct line of communication with the USACE CO. Through that line of communication, the Program Manager can be informed directly regarding concerns about the project without going through the project team.

The **Project QA/QC Officer** will report directly to the PIC. This individual is empowered to contact all personnel necessary, in coordination with the URS PM, to ensure that this QCP and the URS QMS is adequately implemented. This communication can be delegated to a specific and appropriate member of the ITR Team, as necessary.

The **Field Investigation Coordinator** will communicate daily with the Site Supervisor/CQCM to facilitate logistical arrangements, particularly with subcontractor off-site management staff.

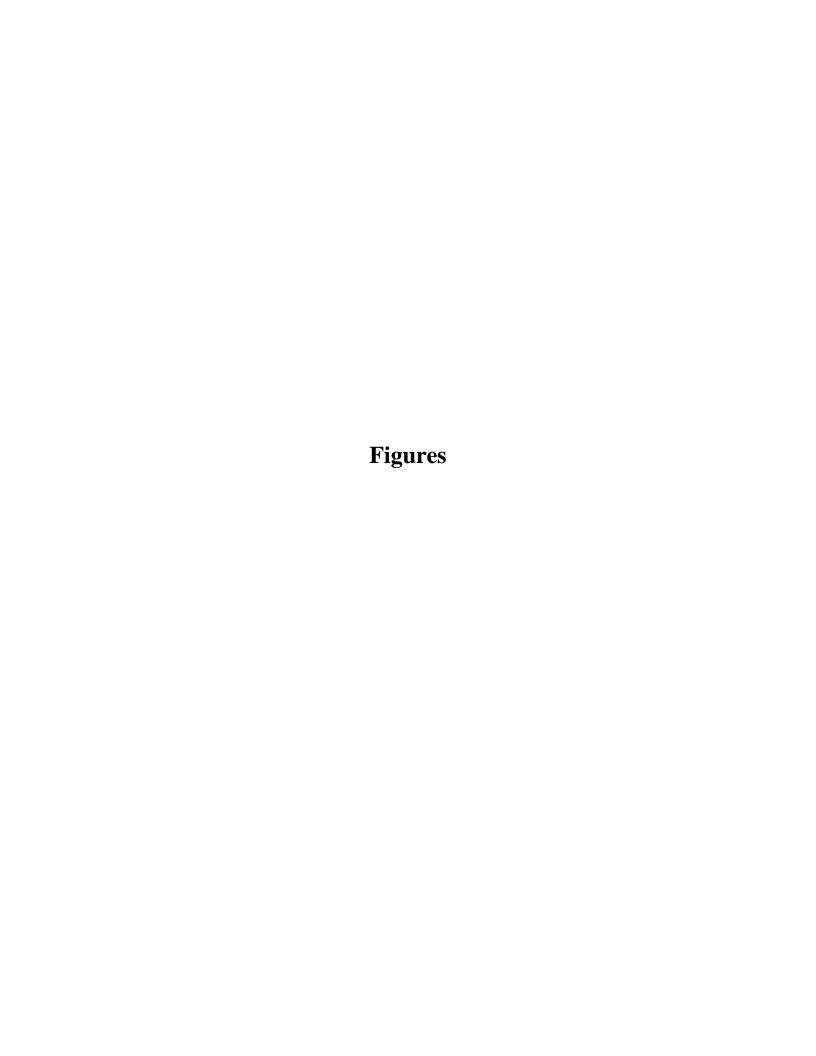
The **Site Supervisor/CQCM** will provide day-to-day direction to Site personnel for accomplishment of field tasks and will provide communication interface with the USACE on-site representative on matters pertaining to decision-making and approaches for executing field activities. She will also serve as the

primary interface with the CO on matters pertaining to compliance with contract specifications, deliverables, and submittals required under the SOW. This individual is designated as the coordinator for collection review and preparation of information that will comprise daily and weekly activity reports submitted to the CO.

The **SSHO** will define and communicate requirements for safe performance of Site operations. He will also provide direction for precautions to be taken to protect worker health and safety and the environment based on regulatory USACE and URS policies and guidelines. For safety and health issues, this individual will also serve as the primary communication interface with the USACE and on-site health and safety representatives.

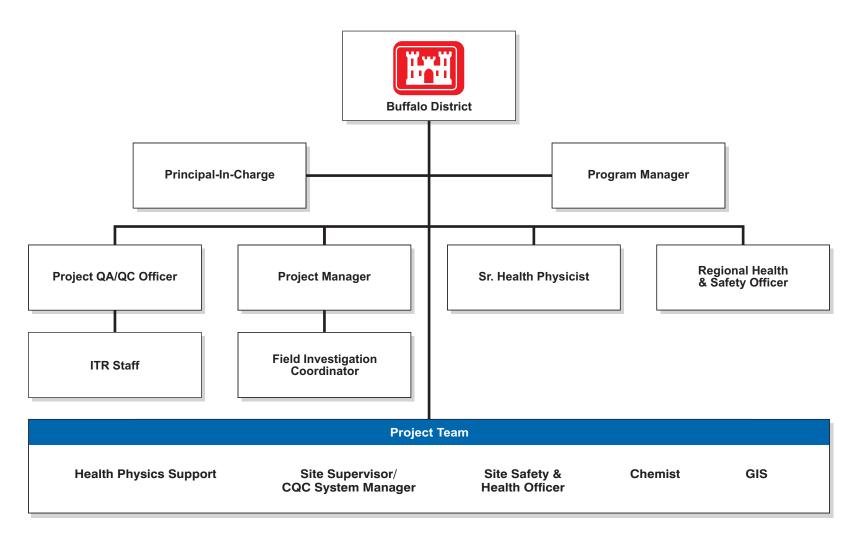
The **SRSO** will define and communicate requirements for safe performance of Site operations. The SRSO will prepare Radiation Work Plans based on survey data that are appropriate to characterize the expected work conditions. The SRSO will communicate the requirements of Radiation Work Plans including specific requirements for protective measures, including dosimetry, air sampling, personal protective equipment, or respiratory protection.

All project personnel will be instructed during the project orientation training to refer all members of the media and other contacts from stakeholders or the public to USACE as directed in the SOW.



PROJECT ORGANIZATION CHART

USACE Buffalo District
NFSS Balance of Plant Operable Unit
Investigation to Refine the Extent
of Soil Contamination





ID	Task Name	Start		Business Day
1	Project Award	Wed 8/28/13	Wed 8/28/13	0 days
2	Planning Documents	Wed 8/28/13	Mon 11/4/13	48 days
3	Prepare Draft Planning Documents	Wed 8/28/13	Wed 9/11/13	10 days
4	Submit Draft to USACE	Wed 9/11/13	Wed 9/11/13	0 days
5	USACE Review	Thu 9/12/13	Thu 9/26/13	11 days
6	Response to USACE Comments	Fri 9/27/13	Tue 10/8/13	8 days
7	Revise Documents	Wed 10/9/13	Thu 10/17/13	7 days
8	Submit Final Documents to USACE	Thu 10/17/13	Thu 10/17/13	0 days
9	USACE Approval	Thu 10/17/13	Thu 10/17/13	0 days
10	NYSDEC and Community Review	Fri 10/18/13	Mon 11/4/13	12 days
11	Site Investigation	Tue 11/5/13	Mon 12/23/13	-
12	Radiation Survey	Tue 11/5/13	Mon 11/18/13	
13	Geophysical Survey	Wed 11/6/13	Fri 11/8/13	-
14	Drilling and Soil Sampling	Tue 11/5/13	Mon 12/23/13	-
15	Mobilize Drilling Equipment	Tue 11/5/13	Wed 11/6/13	_
16	Soil Borings	Thu 11/7/13	Fri 12/20/13	-
17	Demob Drilling Equipment	Mon 12/23/13	Mon 12/23/13	-
18	Excavation Investigation	Tue 11/19/13	Mon 12/9/13	
19	Mobilize Excavation Equipment	Tue 11/19/13	Tue 11/19/13	_
20	Block and Divert South 31 Ditch	Wed 11/20/13	Wed 11/19/13	-
21				-
	Excavate and Expose Sewer in South 31 Ditch	Wed 11/20/13	Wed 11/20/13	-
22	Excavate and Backfill MH06	Thu 11/21/13	Fri 11/22/13	-
23	Excavate Six Trenches	Mon 11/25/13	Wed 12/4/13	
24	Post Excavation Gamma Walkover Survey	Thu 12/5/13	Thu 12/5/13	
25	Site Restoration	Fri 12/6/13	Fri 12/6/13	
26	Demob Excavation Equipment	Mon 12/9/13	Mon 12/9/13	-
27	Surveying	Fri 12/13/13	Mon 12/23/13	
28	IDW Management	Mon 12/23/13	Mon 2/24/14	_
29	Sample Collection	Mon 12/23/13	Mon 12/23/13	-
30	Sample Analyses	Thu 12/26/13	Tue 1/21/14	-
31	Prepare Waste Profiles	Wed 1/22/14	Wed 1/22/14	-
32	Submit Draft IDW Manifests/Acceptance Letters to USACE	Wed 1/22/14	Wed 1/22/14	
33	USACE Review and Comment	Thu 1/23/14	Wed 2/5/14	10 days
34	Final Waste Manifests for USACE Signature	Thu 2/6/14	Wed 2/19/14	10 days
35	Waste T&D	Thu 2/20/14	Mon 2/24/14	3 days
36	Environmental Sample Analyses	Thu 12/5/13	Tue 2/18/14	50 days
37	Soil Analyses	Thu 12/5/13	Tue 1/21/14	30 days
38	USACE Data Validation	Wed 1/22/14	Tue 2/18/14	20 days
39	Project Report	Wed 2/19/14	Mon 5/26/14	-
40	Prepare Draft Report	Wed 2/19/14	Mon 3/24/14	_
41	Submit Draft Report to USACE	Mon 3/24/14	Mon 3/24/14	-
42	USACE Review	Tue 3/25/14	Mon 4/21/14	-
43	Address USACE Comments	Tue 4/22/14	Mon 4/28/14	-
44	Revise Draft Report	Tue 4/29/14	Mon 5/26/14	-
45	Submit Final Report to USACE	Mon 5/26/14	Mon 5/26/14	-
46	USACE Approval	Mon 5/26/14	Mon 5/26/14	-
	1	Wed 8/28/13		-
	Project Management and Meetings		Mon 5/26/14	
48	Project Management	Wed 8/28/13	Mon 5/26/14	-
49	Bi-weekly Project Meetings	Wed 8/28/13	Mon 5/26/14	187 days

Exhibit A Nonconformance Report

URS	Nonco	onformance Report	Quality
Report #			
Project Name:		Project Number:	
Project Location:			
PM Name:		PIC Name:	<i>I</i>
Client Name:	1	CAR Number:	[Assign if subject to CAR]
Description of Work Product	Returned from Client [Enter description of work pro	Returned from Subcontractor / Subconsultant and address here.]	/ Supplier
Nonconforming Condition(s)	[Enter nonconforming conditi	ion(s) here.]	
Disposition (Check one)	Discard/Scrap For "Rework / Revise" or "Ott [Enter written plan here.] For "Use as is" dispositions, [Enter explanation here.]	Rework / Revise Use as is ner" dispositions, a written plan is required.	☐ Other
	ΛD	PROVAL and DISPOSITION	
Dispositio	on Authority Name	Signature	Disposition Date
		g	· r ·
Distribution:	ality Officer Name - Quality file folder	Signature	Disposition Date

Note: This form must stay with nonconforming product until nonconforming condition is addressed.

 Date: May 12, 2010
 Page 1 of 1

 Form 7-1 (MM)
 Form 7-10 (MM)

Exhibit B Corrective Action Report

IRS	Corrective	Action Report	Quality
CAR Numl			
Client Na		Date:	
Project Na		Project Number:	
PM Na		PIC Name:	
Project Locati			
Primary Assigr Corrective Action Te			
Description of	[Enter description of finding here.]		
Finding	[Enter description of miding here.]		
Tg			
Root Cause	[Enter root cause analysis here.]		
Analysis			
Containment	[Enter Containment Actions here.]		
Action(s)	[Enter Containment Actions here.]		
(Where necessary)			
Corrective Action	[Enter Corrective Action Plan here,	including projected completion date.]	
Plan			
	APPROVA	L and DISPOSITION	
Date of Corrective As	tion Plan Implementation		
Date of Corrective AC	tion Plan implementation		
Corrective A	ction Verified By	Signature of Verifier	Date
		-	
cription of Verification: [i	Enter description here.]		
stribution:			
Project Central File –	Ouality file folder		
Office Quality Officer	=		

Note: This form is intended to be used instead of Form 6-1 to document Corrective Actions associated with more complex findings or in instances where findings were not identified during an internal quality audit.

Date: May 12, 2010 Page 1 of 1 Form 7-2 (MM)

Exhibit C Submittal Requirements Summary

SUBMITTAL REQUIREMENTS SUMMARY

- 1. To each item submitted, the Contractor shall attach a copy of this form and circle the title of the item being submitted.
- 2. Failure to submit required submittals as delineated on this form may result in withholding of payment in accordance with provisions of the Contract.
- 3. The Contract Administrator is responsible for distributing submittals to the requesting Department (e.g., Construction). The Department is responsible for further distributions (e.g., Site Superintendent).

Submittal		Scope of Work Paragraph	Classification	ITR Required	Schedule (Calendar Days after NTP)	No. and Type
1	Draft Sampling and Analysis Plan	3.1.1	R1	Yes	14	Е
2	Draft Accident Prevention Plan/Site Safety and Health Plan	3.1.2	R1	Yes	14	Е
3	Monthly Manhour Report	3.1.2	FIO	No	5 th of each month	О
4	Draft Quality Control Plan and ITR documentation	3.1.3	R1	Yes	14	Е
5	Contractor's Responses to USACE Comments (allow 2 weeks) on Draft Work Plans	3.1.4	R1	No	35	E
6	Final Work Plans	3.1.4	F	Yes	42	E, O
7	IDW Analytical Data, Draft Manifests, and Disposal Facility Acceptance Letters submitted to USACE for review and comment	3.3.2	R1	Yes	154	E, O
8	Final Waste Manifests (for USACE signature)	3.3.2	F	Yes	182	E, O
9	Draft Project Report	3.5	R1	Yes	210	E, O
10	Final Project Report	3.5	F	Yes	273	E, O

Submittal Schedule

S Prior to Shipment

A Per S/C Schedule

M Prior to Mobilization

W Prior to Commencing Work

Y Prior to Progress Payment

Submittal Type Required

O Original

P Print/Photocopy

E Electronic Format

M Microfilm

PH Photograph

Classification

FIO For information only R1 PDT Review and Accept.

KI FDI Keview and Accept.

R2 CX/LRD/HQ Rev./Accept.

F Final

Exhibit D Certification of Independent Technical Review

CERTIFICATION OF INDEPENDENT TECHNICAL REVIEW

COMPLETION OF INDEPENDENT TECHNICAL REVIEW

	COMPLETION OF INDEP	ENDENT TECHNICAL R	KE VIE W		
URS Group, Inc. (URS) has completed the <u>Title of Plan or Report</u> . 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/ R	teport or Plan Preparer		Date		
Reviewer		Signature/	Independent Technical		
	CERTIFICATION OF INDE	PENDENT TECHNICAL	REVIEW		
Significant of	concerns and the explanation of the reso	olution 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.					

Date

Signature/URS Principal –