FORMERLY UTILIZED SITE REMEDIAL ACTION PROGRAM (FUSRAP)
GUTERL SPECIALTY STEEL SITE, LOCKPORT, NEW YORK

TECHNICAL PROJECT PLANNING MEETING FOR THE REMEDIAL INVESTIGATION PHASE

MEETING MINUTES
AUGUST 9-10, 2005

A Technical Project Planning (TPP) meeting was held at the Naval Reserve Center, Porter Avenue, Buffalo, NY on August 9 and 10, 2005 for the Guterl Steel Specialty Steel Site. Minutes of the meeting are presented below in a format that follows the Agenda provided by USACE Buffalo District.

Participant List

USACE Personnel

- Heidi Novotny — TPP Session Facilitator
- Tomiann McDaniel — HQUSACE – FUSRAP Team Leader (9 Aug 2005)
- Sharon Wagner — HQUSACE (Program Manager FUSRAP)
- Ronald Church — USACE – Lower River and Great Lakes Division (FUSRAP Coordinator)
- Raymond Pilon — Buffalo District – Project Manager
- Thomas Kenna — Buffalo District – Project Engineer
- Thomas Papura — Buffalo District – Health Physicist
- Peter Lorey — Buffalo District – Chemist
- Karen Keil — Buffalo District – Risk Assessor
- William Fredrick — Buffalo District – Hydrogeology
- Anthony Capella — Buffalo District – Industrial Hygienist
- Fred Boglione — Buffalo District – Chief Environmental Engineer
- Carm Marranca — Buffalo District – Structural Engineer

Earth Tech Personnel (Contractor to USACE Buffalo District)

- Mike Thiagaram — Program Manager
- James Kaczor — Project Manager
- Allen Burton — Regulatory Specialist
- Charles Flynn — Health Physicist
- Amit Haryani — Environmental Engineer

NYSDEC Personnel

- Barbara Youngberg — Point of Contact for USACE
- John Mitchell — Project Manager for FUSRAP sites
- James Strickland — Region 9
- Pat Concannon — Region 9 – Geologist

NYSDOH Personnel

- Matthew Forcucci — NYSDOH Representative – Western New York Region
- Robert Synder — Bureau of Environmental Radiation Protection
- Jerry Collins — Bureau of Environmental Radiation Protection

Niagara County Health Department Personnel

- Holly D'Angelo — Representative

City of Lockport Public Works Personnel

- Gary Andes — Administrator

Following stakeholders could not participate in the meeting:

- NYSDEC Personnel from the Department of Environmental Remediation
- USEPA Region 2 Personnel
- Representative from AllVac Group
- Representative from the Office of Congressman Thomas J. Reynolds

Following documents were provided by USACE before the meeting:

- November 2002 aerial photographs of the site.
- Summary of Historical Analytical Data (USACE, June 2005).
- Preliminary Assessment/Site Inspection Report (USACE, April 2001).
- Scope of work document (USACE, March 2005).
- TPP Meeting Agenda.
- Copy of the slide presentation made by USACE and Earth Tech at the beginning of the TPP meeting.

2. Project Specific Goals and Objectives

Project specific goals and objectives were discussed:

a. Safety

- *Fence*: The following issues were discussed regarding the existing site fence:
  - The fence along Ohio Street is compromised.
  - All parties involved are concerned about the potential for trespassing and vandalism at the site.
  - USACE and NYSDEC do not own the property and therefore do not have the liability to repair the fence.
  - NYSDEC will contact AllVac to have them repair the fence, as required, in accordance with AllVac's agreement with the Department of Justice (AllVac was given $10,000 to maintain the fence during the bankruptcy proceedings).
- *Safety of the Existing Structures*: The following issues were discussed regarding the existing buildings at the site:
  - The structural integrity of the buildings needs to be evaluated.

- There appears to be widespread friable asbestos in the building.
- Residual radiological contamination is documented within the buildings.

- *Responding to an Emergency Situation*: The City of Lockport representative wanted to know how they should respond to an emergency situation at the site (e.g., roof collapse, kids playing in the existing contaminated buildings, rescue efforts within the excised area). USACE Project Manager mentioned that USACE has developed health and safety plans and response measures to address similar concerns at other sites that can be shared with city and county representatives if/when requested.
- *Potential Contamination on Adjacent Properties*: The adjacent properties need to be included in the study area.

b. Protection of Human Health and Environment

- *Contamination on Adjacent Properties*: Black powdery material (possibly thorium and/or uranium) found along former railroad spur area. This area is unrestricted and public has open access to these areas.
- *Current AllVac operation at the Site*. There is contamination in one of the buildings being used by AllVac; building 24 is being used for storage; contamination in floor joints and floor drains is documented; any work in this area will affect AllVac operations.
- *Action Required*: The selected remedy should be protective of human health and environment.

c. Identify Radiological Contamination Specifically Related to Past Government Practices.

- *Discussion on Source Material Issue*: NYSDEC considers the radiological contaminated material at the site as source material that can be licensed. Rationale given by NYSDEC was that thorium and uranium are source material under Atomic Energy Act and therefore, the disposal of these materials is regulated under Part 380. NYSDEC recommends the disposal of the radiological contaminated material be dealt with as Low Level Waste.
- *Review of Historic Site Operations*: Earth Tech will review the readily available information on the site prior to developing the data gap analysis report, and propose COPCs and ROPCs considered as AEC-related contaminants.

d. Identify Other Contaminants of Concern.

- Only the chemicals that are unique to AEC-related operations will be remediated under the FUSRAP. Chemical contaminants may be remediated if worker safety concerns or disposal pre-treatment requirements prevail.

- Historic site operations should be reviewed to determine if other COPCs are associated with AEC-related operations. (e.g., quenching, oxidation, descaling).
- NYSDEC agrees that radium is not an ROPC.
- Determine whether lead, cadmium, zirconium can be uniquely and directly associated with the historic AEC-related operations.

e. Identify the Other Concerns (Site Security, Condition of Buildings, etc.)

- *Property Ownership*: Property is in bankruptcy; the case has been closed; the property is currently abandoned; USACE has initiated condemnation proceeding through Justice Department to get right of entry for performing the RI/RA work. Condemnation process may take up to 6 months. Right of entry is only for performing the RI/RA work.
- The land occupied by AllVac operations and the former landfill is owned by Niagara County IDA.
- *Utilities* – unknown location, extent; Radiation contamination (location, discharge) in the sub floor drains is unknown.
- *Future Safety of the Buildings*: Buildings may be safe today; however, soil remediation or removal during the RA may cause the structure to be deemed unsafe.

3. Review of Available Information

Following items were discussed:

a. Current Scope of Work

- A copy of the current scope of work for the data review, data gap analysis, acquisition of field data and remedial investigation was made available to the meeting participants.
- USACE noted that only Tasks 1 through 4 of the SOW are currently funded for Earth Tech.

b. Report on Existing Data Summary

- A copy of the USACE compilation and data summary of previous investigations to date was provided to all the participants.
- NYSDEC mentioned that it has data from previous investigation that needs to be included in the summary document. NYSDEC will provide the data to USACE.

c. Draft Data Quality Objectives

- The DQOs are under development; USACE will share these with the stakeholders upon completion.

d. Draft Applicable or Relevant and Appropriate Requirements (ARARs)

- The ARARs are under development; USACE will share these with the stakeholders upon completion.
- NYSDEC recalled developing potential ARARs for USACE for the site in 2000. NYSDEC will review their files and send the list of ARARs to USACE for consideration.

4. Identify Project Expectations

Following were discussed:

a. Safety

- *Safety of the Existing Structures*: Following are the project expectations regarding the existing buildings at the site:
  - The structural integrity of the buildings needs to be evaluated.
  - The possibility exists that an interim removal action may be required to demolish the existing structures at the site, if it is determined that demolition of the building eliminates the threat of collapse or injury to workers during the RI/RA, or if it's determined that it would be less costly to demolish the structure(s) and dispose off-site than to decontaminate and preserve/make safe. Building demolition would be performed during the RIonly if the FUSRAP site investigation work would be negatively affected if the buildings were to be left standing.
- *Baseline Air Monitoring*: The necessity of baseline air monitoring was discussed. This issue is to be discussed further and resolved.
- *Personal Monitoring*: Personal monitoring will be performed during all the field activities.
- *Other Hazards*: Bird droppings may pose a health concern inside the excised area buildings. USACE indicated that, if necessary, an assessment of the site could be made to determine the need to clean the site prior to starting any future field activities.

b. Budget

- *Funding Constraints*: Due to funding constraints, USACE indicated that site investigations or operations could be broken into operable units (OUs), with the OUs prioritized to best allocate the available funds. This

would not include the concept of multiple mobilizations, rather the timing of operations would be optimized to best take advantage of available/anticipated funding.

- *Suggestions for Fund Allocation*: Perform a data gap analysis and then determine how much money is needed and how much money is actually available to prioritize the tasks.

c. Schedule

- USACE indicated condemnation of the excised property has begun; the purpose being to allow for site access to perform the RI/RA work. USACE anticipates property access issues to be resolved by the end of 2005.
- Remedial Investigation is anticipated to be performed in 2006 & 2007.
- Feasibility Study is anticipated to be performed in 2008 and 2009.
- The Remedial Action at the site is anticipated to be completed by 2016.
- The schedule is subject to availability of funds to perform the work.

d. Real Estate Access

- USACE has started the condemnation of the excised property to perform the RI/RA work.
- As part of the data gap analysis, Earth Tech will identify off-site properties that may require investigation; USACE would coordinate access to these off-site properties, if necessary.

e. Define Study Boundaries based on the Available Information

- *Background*: The nature of AEC-related contamination at the site is reasonably understood; however, the extent and transport mechanisms of AEC-related contamination is not well established. Contamination at vicinity properties is not well understood or investigated.
- *Properties that need to be Investigated*: Excised property (as defined by FUSRAP), Niagara County Industrial Development Agency property (i.e., AllVac operation site and Non-AllVac areas), landfill, northern railroad corridor, the cluster of off-site northeast properties, Mr. Lombardi's property, and other vicinity properties that may have been historically owned by Guterl Specialty Steel.
- *Study Area*: According to USACE, the study area (as defined in the FUSRAP) is limited to the 70-acre property identified in the March 2005 RI Statement of Work (including the NCIDA property, the landfill, and the excised area). USACE will initiate the required paper work to include other adjacent and vicinity properties in the study area, if necessary.

f. Define Contaminated Media Based on the Available Information

- *Identification of the Operational History*: The historic operations at the Guterl Specialty Steel site need to be evaluated to determine areas of concern other than what has already been identified and investigated. USACE and its' contractors will evaluate the historic operations based on the information. AEC-related production processes should be researched to determine if any other ROPCs/COPCs uniquely and directly associated with AEC-related operations exist at the site (e.g., artifacts of quenching, oxidation, descaling, etc.)
- *Contaminated Media*: The media potentially contaminated with the radiological contaminants include surface soil, subsurface soil, groundwater (overburden and bedrock), surface water (Erie Canal), sediments (Erie Canal), buildings, and landfill.
- *Subsurface Contamination*: Following were discussed regarding the contamination in subsurface soil:
  - The bedrock at the site is shallow (3 ft to 17 ft at places).
  - Some vertical migration of radiological contaminants at the site is evident based on the results of prior investigations; whether there is a definable trend with depth will be evaluated as part of the data gap analysis.
- *Building Contamination*: Following were discussed regarding the building contamination:
  - An inventory of the building contents and condition of the structures needs to be performed to support the development of FS alternatives.
  - The contamination in some buildings appears to be limited to joints between the floor tiles, concrete floor joints, lined trenches; this will be further evaluated as part of the data gap analysis.
  - In buildings where the contamination was found on the building walls and frames, the contamination appears to be adsorbed interstitially (based on removable activity readings).
  - The decision regarding decontamination of the structures versus demolition and disposal will be based on an engineering analysis of the alternatives.
- *Groundwater Contamination*: Following were discussed regarding the groundwater contamination:
  - In accordance with 6NYCRR Part 701.18, groundwater at the site is classified as GA.
  - There are existing wells around the excised area (5 wells), landfill (4 wells), and on vicinity properties (~1/4-mile to ~1/2-mile).
  - The wells around the landfill were installed in the early 1980's, so the integrity of these wells is questionable.
  - USACE suggested the existing wells could be low-flow purged and sampled to help determine whether the wells can continue to be used for subsequent sampling events.

- According to a NYSDEC report focused on the excised area, dewatering activities at a rock quarry located southwest of the site affects groundwater flow direction over the western-half of the site landfill. Groundwater over the remainder of the site was reported to flow towards the Erie Canal, located south of the site. The report stated that groundwater may act as a potential pathway for contamination to discharge to the Erie Canal, although additional characterization would be needed to determine conclusively. Given the data available at the time of the report, NYSDEC did not conclude that the site was a significant source of groundwater contamination.
- A separate NYSDEC report that focused on the landfill area noted that gross alpha contamination above NYS standards was observed in at least one of the landfill monitoring wells.
- Isotopic analysis of groundwater samples should be performed.
- Background samples should be collected to establish a baseline.
- Recommendation was made to perform two rounds of groundwater sampling, one each during a high water table and low water table period.
- USACE noted that they have GIS maps of the potable wells in Niagara County.

- *Surface Water and Sediment Contamination*: Following were discussed regarding potential surface water and sediment contamination:
  - At least one former outfall from the excised area is located along the Erie Canal. Sediment samples should be collected from near the outfall and from the canal, at locations downstream of the outfall. The exact locations will be outlined in the Remedial Investigation Work Plan.
  - The pump house located south of Ohio Street that was formerly used for raw water intake from the Erie Canal should be investigated.
  - Topographically, surface water elevation in the Erie Canal is below the general site elevation.
  - Surface water samples should be collected from persistent standing water areas east and northeast of the landfill.
- *Landfill*: Following were discussed regarding potential landfill contamination:
  - Prior reports indicate the landfill was put into service post-AEC activity time frame. To develop an understanding of what might have been placed in the landfill, interviews/aerial photo review is recommended.
  - According to prior reports, the landfill was "mined" by Allegheny-Ludlum Corporation for recoverable metals around 1982; i.e., after the AEC-related activities had ceased at the Guterl site.
  - Runoffs during precipitation would go northeast of building 24 and southeast and east of the landfill.

- Contamination was found in the landfill during the NYSDEC investigations. Available data was inadequate to define the nature and extent of contamination. NYSDEC indicated during the TPP meeting that there is more data that has not been formally put into a report format.
- Initial review of ORISE report data suggests that portions of the NCIDA area (i.e., areas of AllVac operations) are radiologically contaminated east and northeast of the landfill area.
- The RI/FS should also seek to delineate and remediate AEC-related contaminated material, if any, from the landfill and surrounding areas.

g. Underground Utilities

- Soil samples have been collected from excised area building floor drains, and an oil water separator during the previous ORISE investigations.
- A geophysical survey was suggested to help identify the locations of undefined underground utilities at the site. Interviews with current operators, and potentially a search of historic facility drawings could also be helpful.
- Complete identification and screening/sampling of floor drains and underground utilities should be performed during the remedial investigation.

h. Future Land Uses

- USACE recommended that cleanup to industrial use risk scenario would be appropriate as most of the area around the site is owned by NCIDA and is currently used for industrial/commercial purposes.
- NYSDEC recommended that USACE consider residential development as future land use scenario, given the proximity to the residential neighborhood north of the site.
- The City of Lockport and Niagara County suggested the most likely end use of the property would be for light industrial/commercial purposes such as a parking lot, assembly plant, etc. The City of Lockport and Niagara County representatives mentioned that finding a developer that would develop the site for residential use was unlikely. City of Lockport believes that AllVac will expand its operations and use the excised property once it is cleaned.
- Potential remedies to achieve either re-use goal would likely include soil removal, and/or decontaminating/demolishing the existing contaminated structures.

i. Screening Levels vs. Cleanup Level

- This is discussed in detail in Pointer 4.1.

j. Off-site Properties

- Radiological contamination presently exists on adjacent property (railroad spur to north), and may exist on vicinity properties. However, the 70-acre study area as defined by FUSRAP does not currently include these properties. USACE will be responsible for obtaining right-of-entry to these properties for the purpose of conducting field investigations, if deemed necessary.
- The data gap analysis report currently being prepared by Earth Tech will identify the gaps in the data, if any, collected from the adjacent and vicinity properties.
- The adjacent and vicinity properties should be investigated once they are added to the study area.
- Samples should be collected from off-site properties to establish background concentrations of site COPCs/ROPCs.

k. Phased Approach for Investigation

- USACE would prefer a single-mobilization sampling event. Phasing the event as many tasks is not cost efficient or schedule efficient. (Note: Preliminary assessment of existing groundwater monitoring wells would be acceptable as a separate item of work, if conducted.)
- The investigation could potentially span two fiscal years to optimize available funding (e.g., September through November, etc.).

l. Risk Assessment

- *Receptors*: Risk assessment should be performed for a trespasser/industrial use scenario. Per NYSDEC request, residential use can also be evaluated in the risk assessment.
- Health concerns associated with continued use of adjacent property potentially contaminated with radiological material exists.
- *Data Usability*: Most of the existing data is field screening data; the data gap analysis will evaluate whether the data are usable for risk assessment purposes.
- *ROPCs*/COPCs: For risk assessment purposes, other radiological contaminants should also be considered even if they are not AEC-related. USACE will determine if any other contaminants (non-AEC) affect risk exposure calculations (e.g., compounding effect of lead exposure combined with ROPC exposure).
- USACE recommended use of NRC guidelines for screening level exposure risk assessment. During the data gap analysis, soil and building surfaces data should be screened using these levels.
- In order to use the NRC's building surface screening levels, gross activity measured on the site needs to be translated into nuclide-specific activity.

For this, alpha/beta ratios may be developed using any isotopic, building volumetric sampling results that are available and appropriate.

- Specific details of a formal risk assessment will be discussed at a later date. The meeting will be conducted prior to development of the Remedial Investigation Work Plan.

m. Modeling

- Groundwater at the site may be a potential pathway for the migration of the ROPC/COPC contamination. The groundwater quality at the site is of concern. The need for groundwater modeling will be determined at a later date, based on data gap analysis and/or field investigation data.

n. Promote and Plan for Success.

- *Definition of Success*: Remediation of AEC-related waste at the site performed in a cost effective and timely manner, in accordance with CERCLA, and in a manner that releases the site from the FUSRAP for appropriate future use.
- *Cleanup Goals*: Should be based on risk/dose based cleanup levels. NRC will accept risk/dose-based cleanup goals

5. Discuss Data Collection Requirements

The following were discussed regarding the future RI effort:

- *Analysis*: Following were recommended to be performed:
  - Uranium and thorium isotopic analysis.
  - Alpha spectroscopy.
  - Gamma spectroscopy for radon progeny (if deemed necessary following data gap analysis; radium-226 not included as ROPC).
  - Scan correlation.
  - Limited sampling for non-rad AEC-related contaminants, to provide sufficient data to determine worker safety, and develop FS alternatives.
  - USACE suggested that Mr. Brian Harty should be consulted regarding the possibility of plutonium use at the site. The presence of radium-226 and thorium-230 is not attributable to AEC-related activity; therefore field investigation samples do not need to be analyzed for these elements.
- *Soil Sampling Methods*: Following soil sampling methods may be used during RI depending on location and site conditions:
  - Trowel (surface)
  - Hand Auger (surface and shallow subsurface)
  - Geoprobe (subsurface) (A drill rig may also be required)
- *Soil Sampling Locations*: Following were discussed:

- Sample locations should be biased towards historic Guterl operations and material handling areas.
- The floor drains and underground drains should be screened with a remote sensing tool, e.g., pencil probe.
- The outfall near the Erie Canal and sediments from Erie Canal should be sampled.

- *Groundwater Sampling*: Following discussions on groundwater sampling were made:
  - Discussed the possibility of conducting a condition survey of the existing wells to determine whether the wells can be used in future sampling events was held. A cost and decision matrix for installing new wells should be included in the RI cost estimate.
  - USACE suggested that a screening level sampling of the wells could be conducted to assist this effort.
  - Groundwater from well development should be containerized as IDW. NYSDEC stated they would work closely with USACE to properly manage the IDW in the most cost-effective manner.
- *Level of Sampling (Buildings)*: Earth Tech recommended that a thorough evaluation of existing data (quality and quantity) be performed. Buildings that have sparse contamination could be sampled at a screening level to confirm existing data, such that at the end of the RI phase (i.e., before a full FS has been conducted) it could be determined if it's appropriate to eliminate the building as an area of concern (i.e., use screening level sampling during this investigation to confirm the quality of prior data for decision making purposes).
- *Remediation by Characterization*: During conduct of the RI, if small local sources (e.g., fragments, etc.) are encountered, then these localized sources should be properly picked up and stored at a designated location for off-site disposal. The removed material could potentially be treated as an investigation derived waste (IDW).
- The data generated from the RI will be used to determine the nature and extent of contaminants (AEC-related rad and non-rad), to understand the chemical process, for risk assessment purposes, to develop site-specific remedial action objectives, for estimating the volume of contaminated media, and to develop ARARs.

6 Discuss Scheduling

- Work sequencing, budget, and schedule have been discussed above.
- USACE and it's contractor's will consider operational history before preparing the Remedial Investigation Work Plan.

7 Use of EM 200-1-2 Technical Project Planning

- (Not specifically discussed.)

8 Other Issues Discussed

Other issues discussed included the following:

a. Site History

- *Removal action performed by EPA*: USEPA removed a significant quantity of drums from the site in 1996 as part of a removal action. Earth Tech requested more information on how many drums and what actions were performed as part of the removal action.
- *Scoring for NPL List*: USEPA never scored the site for inclusion on the NPL list. NYSDEC did an informal scoring and the site did not score very high. NYSDEC believes that after the removal action was performed by USEPA in 1996, the score for the site would have been even lower than before the removal action.

b. Summary of Remedial Investigation Project Objectives (by USACE TPP Session Facilitator)

- Define AEC-contracted site operations, including processing and material handling areas, to identify: 1) any chemicals unique to the AEC contracted process; and 2) areas of the site that could be impacted (especially, during forging, quenching, oxidation, descaling processes).
- Determine if any other non-radiological contaminants affect risk exposure calculations for radiation, and/or for the chemical toxicity of uranium.
- Define nature and extent of isotopic uranium and thorium in surface and subsurface soils, and buildings to support risk assessment (using NRC Screening levels) and development and evaluation of FS alternatives (volume determination).
- Determine whether the groundwater has been impacted by isotopic uranium and thorium above screening levels; and if so, determine nature and extent to support risk assessment, and development and evaluation of FS alternatives.
- Determine whether the surface water and sediments have been impacted by isotopic uranium and thorium above screening levels (screening levels for these media would need to be researched and developed during RI/FS tasks).
- Determine magnitude of any chemical contamination to support worker safety protection.
- Determine magnitude of any chemical contamination to support establishing transportation and disposal requirements and associated costs to be included in various FS alternatives.
- Evaluate the safety and stability of the existing building structures to allow for RI activities. Establish worker protection (PPE) requirements. Establish a baseline assessment of building condition to determine minimum requirements for building preparation to allow for execution of

the RI. (If extensive building preparation is required, a cost/risk management decision may need to be made to determine the effect on the FS alternative cost and to determine whether it is cost effective to prepare the building.)

- Conduct an inventory of building content/structures to support FS alternatives and evaluations.
- Identify the underground utility system within the site, including if possible, utilities in place at the time of AEC contracted efforts and utilities installed after the AEC contracted efforts. Includes both between building and within building.
- Determine if isotopic uranium and thorium has contaminated underground utilities.
- Review ORISE data and consult with COE (Brian Hearty CX-402-697-2478) to document the uranium pathway and to verify that plutonium is not likely to exist at this site.
- Determine the ground disturbances on the Site that may have had an effect on where AEC contaminants may have been moved. (i.e., landfill area, north area, etc)
- Develop site specific remedial action objectives.
- Conduct risk assessment for current and future use scenarios.

c. Guterl Objectives Summary Notes by USACE Hydrogeologist (included at the request of USACE Facilitator)

- Screening-level data collection If the results come out positive, then include the area in RI-SOW/FSP.
- USACE will review previously collected data and evaluate their use in data group analysis (geostatistical uncertainty distribution).
- EU delineation of buildings area, surrounding land, and adjacent properties.
- USACE will prepare building disposition options.