Tank Closure and Removal Scope Clarification

- 1. Complete inspection of facility tank areas, including visual assessment of containment systems, piping systems, and surrounding terrain, to investigate potential impacts to removal activities, find any breeches of the secondary containment, and identify possible environmental impacts to adjacent soils and vegetation. Photographs will be taken by BRG representatives before, during, and after tank removal activities in order to appropriately document the operation.
- 2. Access to the tank areas of the Photech facility will be secured by the removal of the chain-link fence surrounding the tanks and the chemical storage shed. Employees of the City of Rochester will complete this task.
- 3. Complete removal of any standing water or material from secondary containment systems and silver recovery system vault. Waste generated during this activity will be properly containerized and characterized. Samples of this waste stream will be collected and submitted to the selected laboratory for proper analysis prior to the start of tank removal activities. Dependent on sampling results, options for the disposal of accumulated wastewater may include discharge to sewer. discharge to ground surface, or transport off-site to an acceptable disposal facility. BRG will make this determination in consultation with the City when appropriate.
- 4. Secure proper permits from the City of Rochester for proposed tank removal activities, and for access to water supply, if necessary. The Rochester Fire Department (RFD) requires a minimum ten (10) day advance notice for removal of tanks within City limits. A permit from the City of Rochester Building Department is required for removal projects. Generally, RFD does not allow cutting of tanks with City corporation limits; however, this project may be able to petition RFD to perform cutting of tanks on City-owned property (Photech site).
- 5. Complete proper closure and removal of Aboveground Storage Tanks (ASTs), including:
 - 10,000-gallon steel petroleum tank - 2,500-gallon steel virgin methanol tank
 - 10,000-gallon steel virgin methanol tank
- 2,500-gallon steel waste methanol tank

All tanks were emptied but not cleaned in 1994. The contractor will remove the secondary containment systems, drain all tanks and associated piping, and clean and render the tanks free of hazardous vapors. All connecting lines/piping will be disconnected and plugged in close proximity to each tank as appropriate. Each tank will be properly vented and transported off-site. All associated piping will also be cleaned and transported off-site. All waste streams generated during this activity will be properly containerized, characterized, and transported to an acceptable disposal facility.

During removal and excavation activities, the soil under and around the tank and secondary containment system will undergo preliminary screening. If contamination is observed, based on staining, odors, or organic vapor levels, limited removal of soils (approximately 10 cy) will be performed. All excavated soil material must be placed on sheeting adjacent to the excavation area and covered. Sample collection will be conducted on the excavated soils to determine the proper disposition of the material (i.e., approved for use as backfill or off-site disposal required). Samples will be collected as well for confirmation samples of the tank removal/excavation area. If significant contamination is observed, removal operations will be halted and the City and NYSDEC notified.

Soil screening activities will be completed using an Organic Vapor Analyzer (OVA), or equivalent, and will be completed following procedures outlined in the approved Work Plan, Appendix B, Field Sampling Plan. OVA screening threshold levels will be set at 10 parts per million (ppm) for organic compounds and 5 ppm for petroleum-related compounds above background level, in order to trigger soil removal actions.

Samples collected for disposal characterization or soil confirmation samples will be collected following the procedures outlined in the approved Work Plan, Appendix B, Field Sampling Plan. Samples will be submitted to the approved laboratory for analysis. Waste stream samples will be analyzed for characteristics of ignitability, corrosivity, and toxicity (Toxicity Characteristic Leaching Potential [TCLP]), as well as reactive cyanide and sulfide. Confirmation samples will be submitted to determine total concentrations of applicable chemical constituents following ASP protocols, with the specific analyses dependent on the area being sampled (i.e., soils associated with the petroleum tank will be submitted for the STARS memo list of constituents).

As required, upon completion of excavation and tank removal activities, the excavation area and/or tank removal area will be backfilled will certified clean soil fill and graded.

Complete removal of containment drum located at the rear of the chemical storage shed. Contents
of the drum, if any, will be removed and placed in an acceptable container for characterization, prior
to physical removal of the drum.

During removal and excavation activities, the soil under and around the drum will be screened with an OVA or equivalent. If contamination is observed, based on staining, odors, or OVA levels, limited removal of soils (approximately 10 cy) will be performed. All excavated soil material must be placed on sheeting adjacent to the excavation area and covered. Sample collection will be conducted on the excavated soils to determine the proper disposition of the material (i.e., approved for use as backfill or off-site disposal required). Samples will be collected as well for confirmation samples of the tank removal/excavation area. If significant contamination is observed, removal operations will be halted and the City and NYSDEC notified. All sample collection and screening activities will be performed as described above.

- 7. Excavate two test pits in order to identify the presence of two suspected underground structures:
 - 500-gallon steel waste chemical tank
 - concrete vault structure of unknown size

The 500-gallon steel tank is suspected to be located between the tank farm and north side of Building 12 at a depth of 5-10 feet. The presence of the tank was identified on facility drawings and from interviews with past employees at Photech. A recent field survey with a magnetometer indicated the presence of a metallic object at the suspected location of the tank. Also identified from facility drawings, the concrete vault is located directly to the east of Building 3. Recent subsurface work in the immediate area discovered concrete-like material at a depth of 6 feet.

If encountered, the contractor will first empty the 500-gallon tank contents and properly containerize and characterize the liquid material prior to removing the tank. The tank will then be removed, cleaned, and handled in a similar fashion as indicated above for the ASTs. Any liquid contents found in the concrete vault will be removed and containerized and characterized for proper disposal. Removal of the concrete vault will not be performed at this time.

Tank Closure and Removal Scope- Other Issues

Brownfield Restoration Group, LLC (BRG) representatives will be present throughout the performance of this project task, providing supervisory and field support to site operations, including soil screening activities, soil/water/disposal sample collection, and perimeter air monitoring support. The contractor is responsible for all items described above, including tank cleaning, venting, piping disconnection and removal, tank disassembly and removal, secondary containment disassembly and removal, soil excavation, and backfilling/grading. Waste streams generated from task operations will be managed and provided by contractor. BRG will provide sample results and waste characterization information in order to facilitate disposal activities. The contractor must provide copies of all project documentation to BRG, including copies of secured permits, disposal bill-of-lading or manifest documentation, and other pertinent supporting documentation.

The contractor is responsible for certifying that all tanks are clean and vapor free prior to transportation off-site. The City requires that no tank be allowed to remain on-site overnight without prior written approval from RFD.

Tank Removal activities for this task will be conducted under the health and safety program established for the Photech SI/RA project, documented in the Health and Safety Plan (HASP) as part of the approved project Work Plan. The contractor must comply with and follow all health and safety procedures for this task, including providing properly certified and trained employees and maintaining appropriate health and safety during project operations. The contractor shall provide all necessary support equipment during removal activities, including:

- oxygen level meter
- combustible gas meter
- (2) 40 lb. BC-rated portable fire extinguishers
- communication device(s), such as cellular phone
- required bonding straps and equipment
- necessary materials for excavation site security (i.e., "Caution"-tape and/or hazard fencing).

The contractor must follow the provisions presented in the City of Rochester "Bulk Storage Tank Minimum Safety Standard Requirements" manual.

The City of Rochester maintains the authority to review and provide final approval for all disposal operations. Prior to disposal off-site, the City must approve of all selected disposal facilities for waste streams generated during this task.

BRG will be responsible for completing all necessary tank closure paperwork and notifications to the City of Rochester and the NYSDEC, and will submit a tank closure report to the City and NYSDEC upon completion of task activities. A summary of all activities will also be included in the Photech SI/RA Final Report document.

Prior to the initiation of operations in the field, the contractor must provide to BRG and the City the following:

- a copy of its certification with the Rochester Fire Department to install/remove tanks in the City
 of Rochester
- a copy of the proposed schedule for these operations, including anticipated time for in-field activities, timeline for sampling and disposal activities, and dates for tank removals, backfilling activities, and completion of the task.