SECTION 028334 - WATER TANK PAINT REMOVAL

1. GENERAL
   * + 1. RELATED WORK SPECIFIED ELSEWHERE
          1. Lead Contaminated Soil Removal: Section 028335.
          2. Earthwork: Section 310000.
       2. SCOPE
          1. The Contractor shall furnish all labor, materials, and equipment, complete, required to clean and surface preparation for loose lead paint removal on the aboveground steel water tanks. The tanks being demolished are to be sandblasted or scraped by some mechanical means.
          2. The Contractor shall be responsible to comply with all local, state and federal rules and regulations concerning emissions and disposal of solids and other materials generated from cleaning, preparation, and blasting operations. Containment, handling and disposal of materials, and means and methods employed by the Contractor, is the entire responsibility of the Contractor.
       3. SUBMITTALS
          1. Submittals for this section are subject to the re-evaluation fee identified in Article 4 of the General Conditions.
          2. Manufacturer’s installation instructions shall be provided along with product data.
          3. Submittals shall be provided individually in the order in which they are specified and tabbed.
          4. The following items shall be submitted to the Director’s Representative for review and approval in accordance with Section 013300.

Detailed Work Plan: This plan shall be submitted for approval and shall include, but not be limited to, describe methods, equipment, and sequences of operations to remove loose paint off of the tanks, and proposed methods, equipment and sequence of operations for the removal and disposal of industrial waste.

Submit a clean-up procedure plan including a process for quick removal of the paint and abrasive materials. The Contractor shall furnish copies of all manifests, chain of custody forms, testing results, etc. to the Director’s Representative for materials removed from the site and disposed of. The Contractor shall provide the name of the treatment or disposal facility to the Director’s Representative for approval prior to removal of any materials from the site. The transporter shall obtain the necessary insurances and permits and submit them to the Director’s Representative for approval prior to removal and transporting of any materials from the site. Submit a Containment Procedures Plan how spent abrasive blast debris will be confined to the tank site including drawings and data detailing the containment system, loose paint removal operations, containment, ventilation, storage, removal, and transportation of the waste.

Copies of manifests required to transport waste materials. These manifests shall be submitted within 24 hours following their preparation.

Documentation of acceptance of waste materials by a facility permitted to treat or dispose of those types of materials. These documentations shall be submitted no later than 7 days following delivery of waste materials to the permitted facility.

Letters of acceptance from the permitted facility and haulers acknowledging agreement to accept the waste material. These letters shall be submitted not more than 14 days prior to transporting any waste materials.

* + - 1. STATUTES, REGULATIONS, CODES AND POLICIES
         1. All work included in the Contract shall be conducted in strict compliance with all applicable federal, state, and local statutes, regulations, codes and policies.

Compliance assurance shall be the responsibility of the Contractor.

Communication between Contractor and governing authorities, regulatory agencies, and similar entities, shall be coordinated through the Director’s Representative.

* + - 1. PERMIT AND LICENSE REQUIREMENTS
         1. All permits, bonds, easements, or licenses required to perform the Work shall be obtained by the Contractor.

The Contractor shall coordinate with the Director’s Representative to ensure all permits are in place prior to the Contractor starting work.

Determination of license and permit requirements shall be the responsibility of the Contractor.

* + - * 1. Copies of all executed permits and licenses shall be transmitted to Director’s Representative upon receipt.
      1. REFERENCES
         1. The publications are referenced by basic designation only and shall be the latest published version.

Code of Federal Regulations (CFR):

OSHA 1910.144 Safety Color-Code for Marking Physical Hazards

29 CFR Part 1926.62 Lead

CFR 40 Part 260 Hazardous Waste Management System: General

CFR 40 Part 261 Identification and Listing of Hazardous Waste

CFR 40 Part 262 Standards Applicable to Generators of Hazardous Waste

CFR 40 Part 263 Standards Applicable to Transporters of Hazardous Waste

CFR 40 Part 268 Land Disposal Restrictions

New York Department of Environmental Conservation (NYSDEC):

6 NYCRR Part 360.15 Beneficial Use

6 NYCRR Part 360-7.1 Hazardous Waste Management Systems

6 NYCRR Part 371.3 Characteristics of Hazardous Waste

6 NYCRR Part 372 Hazardous Waste Manifest System and Related Standards for Generators, Transporters, and Facilities

TAGM SW-89-2002 Division of Solid Waste Technical and Administrative Guidance Memorandum: Construction and Demolition Debris, Dated Dec. 26, 1989

TAGM HWR-94-4046 Determination of Soil Cleanup Objectives and Cleanup Levels

Other Applicable References:

Standards for Welding by the American Welding Society (AWS).

American Society for Testing and Materials (ASTM).

SSPC SP6-Joint Surface Preparation Standard Commercial Blast Cleaning.

SSPC SP10-Joint Surface Preparation Near-White Blast Cleaning

SSPC SP11-Power Tool Cleaning to Bare Metal

SSPC SP COM - Surface Preparation Specifications Surface Preparation Commentary

Include the following Paragraph if there are project specific reports/studies that have been prepared and will be made available to the Contractor.

* + - * 1. The following document is available upon request to the Director’s Representative:

**[Insert document title, preparer, and date.]**

* + - * 1. Preparation work, where specified, shall be in accordance with the Society for Protective Coatings (SSPC) latest revisions, including commentary sections and appendices. These include SSPC visual standards for the various blasting and preparation work as outlined in the Technical Specifications. The SSPC “visual Standard for Abrasive Blast Cleaned Steel SSPC-Vis 1-89” and the SSPC “Visual Standard for Power B and Hand-Tool Cleaned Steel SSPC-Vis-93”, SSPC Standards SSPC-SP6, Commercial Blast Cleaning and SSPC-SP-10, Near-White Blast Cleaning shall also be used.
      1. QUALITY ASSURANCE
         1. The Contractor shall have a full compliment of personnel, for the proper coordination and expedition of the Work, on a continuous basis until the Work is completed.
         2. All cleaning, preparation and sand blasting shall be performed in a workmanlike manner.
         3. The Contractor shall be responsible for assuring that no foreign materials enter the inlet/outlet piping of the overflow piping.

1. PRODUCTS
   * + 1. PIT FILLING MATERIALS (Applies only to tank being repainted)
          1. Pit filling material and seam sealing materials shall be Product No. 63-1500 as manufactured by the Tnemec Company, Product No. Nu-Klad 114A as manufactured by Ameron International, or approved equal. The pit filling material shall be from the same manufacturer as the painting system to ensure compatibility.
          2. Materials shall be mixed in strict accordance with the manufacturer’s instructions. Application shall be performed in accordance with the manufacturer’s recommendations.
          3. Pit filler shall not be applied until after the prime coat is applied.
       2. ABRASIVE BLAST MATERIAL
          1. The abrasive shall be a grit size to produce a 1.5 mil to 2.0 mil profile (unless modified by coating manufacturer). All abrasives shall meet the minimum requirements of SSPC-AB1 and shall be Class A (crystalline silica content less than 1% before blasting). (applies only for work on tank to be repainted)
          2. Abrasive shall be free from contaminants such as excessive fine particles, paint, heavy metals, oils, moisture, etc.
          3. The abrasive for the interior surfaces shall be a commercially available, non-metallic, expandable abrasive or recyclable steel grit. (applies only for work on tank to be repainted)
          4. The abrasive for the exterior surfaces shall be recyclable steel grit. Use of abrasive on the tank exterior shall be based not only on its compliance with the technical application of the coatings, but also on its lack of nuisance to surrounding properties. (applies only for work on tank to be repainted)
          5. Steel grit shall meet the requirements of SSPC-AB3, Steel abrasives. Submit Certification that the steel grit materials have total lead levels less than 600 ppm (<0.06%).
2. EXECUTION
3. Environmental Requirements
   * + - 1. Ensure that no spent blasting material, and dust, or emissions of any kind escape to the atmosphere and travel off the site. Tanks shall be encapsulated with a containment system used to contain blast materials, dust, emissions, and removed materials. The ground under and adjacent to the tank shall be protected from dust, debris, removed materials, blasting materials, etc. by the use of impervious membranes. The Contractor is responsible for all materials and systems used to contain dust, emissions, debris, removed materials, etc.
         2. In addition to air monitoring requirements of the NYSDEC, USEPA, and OSHA required for the Work under this project,
         3. The Contractor shall install a containment system for each tank that conforms to a Class “A” containment enclosure as specified by the New York State Department of Transportation. All containment systems shall be designed by a Professional Engineer registered in the State of New York. Installation, use, and maintenance of the containment systems are the responsibility of the Contractor.

The design of containment systems shall account for the loadings imposed on the tank structure. The containment system shall be submitted for approval prior to installation on the tank structure.

Tarps, when used for containment, shall be of impervious, solid, translucent, flame-resistant material.

The containment system shall be removed in winds in excess of 55 mph to preclude damage to the tank.

The containment enclosure shall not be welded to the tank or structure without the approval of the Director’s Representative. (applies only for work on tank to be repainted)

Negative pressure shall be maintained within the enclosure while any coating removal work is in progress. The negative pressure shall be maintained through an appropriately sized self-cleaning dust collection unit suited for abrasive blasting operations. All air removed from the contained area shall be filtered through the dust collection equipment so as to not release any debris into the environment.

All waste materials resulting from abrasive blasting and paint removal operations shall be cleaned up by vacuuming. Sweeping, shoveling, or other mechanical means to remove the waste materials will not be allowed.

It is the responsibility of the Contractor to ensure that the containment, collection and storage of waste materials is done in strict accordance with all current federal, state, and local regulations.

The Director’s Representative reserves the right to stop work or to require additional or different containment methods if the Contractor’s operations create a nuisance beyond the tank site in the sole opinion of the Director’s Representative, the Director’s Representative, any regulatory agency or neighbor. All costs of providing an adequate containment system shall be included in the Contractor’s bid.

* + - * 1. When abrasive blast cleaning is used, the Contractor shall consider all areas subject to any abrasive blast cleaning to be of a Class “A” containment nature, and subject to all health and safety standards and practices set forth by any and all federal, state, and local agencies, authorities, departments, or governing body involved.
        2. The Contractor shall consider **all** old paint, dust, and sludge waste materials as hazardous.
      1. INSPECTION
         1. Contractor and his applicator shall examine the areas and conditions under which painting work is to be performed and notify the Director’s Representative in writing of conditions detrimental to the proper and timely completion of the Work. Do not proceed with the Work until unsatisfactory conditions have been corrected to the satisfaction of the Director’s Representative. (applies only for work on tank to be repainted)
      2. PAINT REMOVAL
         1. All surfaces to be repainted shall be blast cleaned according to the modified SSPC-SP6, Commercial Blast Cleaning Specifications; latest revision. Minimum standards will be determined using the SSPC visual standards. Tanks to be demolished in this contract only need to be cleaned to the extent that paint remaining will not fall/flake or blow off during removal and transport of painted steel to scrap yard.
         2. No blast cleaning will be allowed when the surface temperature is less that 5 degrees F above the dew point, or when relative humidity exceeds 90%. Surface areas exposed to condensation or moisture prior to receiving primer coat shall be re-blast cleaned. Surface areas where sections of steel plate are replaced or a pit welded shall be re-blast cleaned; all new welds shall be ground smooth. (tanks to be demolished are exempt from this requirement)
         3. The Owner will shut down and drain the tank. The Contractor shall assist the Owner when shutting down the tank and the Contractor is responsible to dewater any standing water remaining in the tank. The Contractor shall be responsible to clean the interior of the tank of all water, dirt, sediment, ice and debris prior to starting the Work. Removed sediment and debris shall be suitably stored in watertight containers and disposed of in accordance with governing laws, rules, and regulations. Cleaning of the tank interior is the entire responsibility of the Contractor.
         4. Blasting equipment shall be in good operating condition and oil and moisture traps shall be used. These shall be frequently cleaned and checked by using a blotter test. Failure to pass the compressed air blotter test will cause rejection of the abrasive blasting performed that day. (tanks to be demolished are exempt from this requirement)
         5. Thickness of paint may vary. All thicknesses that are encountered are to be removed.
      3. VENTILATION
         1. Ventilation shall conform to all applicable requirements of AWWA D102.
         2. Forced air ventilation at a rate of at least one (1) air change every four (4) hours shall be provided for at least 48 hours after coating application is completed or until coating is completely cured in accordance with the paint manufacturer's recommendations. Tank manholes shall be kept open for a minimum of additional seven- (7) days.
      4. DISPOSAL OF MATERIALS
         1. Removed paint, cleaning debris, and abrasive materials shall be contained in new or reconditioned 55-gallon drums or roll-off containers. Drums or containers shall be sealed (watertight) to prevent rain infiltration and leakage. The Contractor shall label the Drums or containers in accordance with federal and state regulations.
         2. All waste materials shall be disposed of in accordance with the requirements of the USEPA and NYSDEC.
         3. Unless otherwise specified, all waste materials shall become the property of the Contractor. The Contractor shall be responsible for the safe and proper removal of all waste materials and the disposal of such waste materials at a licensed waste disposal facility approved by the Director’s Representative.
         4. All fees, transportation costs, are the responsibility of the Contractor. The Contractor shall bear full responsibility for any and all fines or assessments levied against the project due to improper handling and disposal of the waste material.

END OF SECTION 028334