

Proctors Creek WWTP Centrifuge Dewatering Facility

| | | | |
|-----------------------------|-------------------------------------|-----------------------------|--|
| Category: | Water and Sewage Treatment Plants | Project ID #: | 1004712590 |
| Street Address: | 1200 Coxendale Rd. Chester VA 23836 | Staff Estimate Value | \$500,000.00 |
| County: | Chesterfield | Stage: | BIDDING - Biddate Set |
| Bid Date: | 4/24/2018 , 02:00PM | | |
| Architect: | | | |
| Documents Available: | Plans, Specs available in Insight | | Plans available from Bizport Ltd. |
| Last Update: | 4/6/2018 | | Project reviewed, Stage confirmed as Biddate Set |

Project Events

| Event | Date | Details |
|-----------------|---------------------|--|
| Bid Date | 4/24/2018 , 02:00PM | 9901 Lori Road, Lane B. Ramsey Building, Room 303, Chesterfield, Virginia 23832-0001 Crowder Construction requests quotes by Friday April 20, 2018 at close of business. |
| Pre-Bid Meeting | 4/11/2018 , 09:00AM | A Non-Mandatory Pre-Bid Conference will be held on April 11, 2018 at 9 AM in the Proctors Creek conference room located at 1200 Coxendale Road, Chester, VA 23836 |
| Start Date | 5/24/2018 | Actual Start Date |

Notes

Scope Site work and renovation of a water / sewer project in Chester, Virginia. Completed plans call for the renovation of a water / sewer project; and for site work for a water / sewer project.

Notes Pre-Bid Meeting: 04/11/2018 09:00AM A Non-Mandatory Pre-Bid Conference will be held on April 11, 2018 at 9 AM in the Proctors Creek conference room located at 1200 Coxendale Road, Chester, VA 23836 Bid Date: 04/24/2018 02:00PM 9901 Lori Road, Lane B. Ramsey Building, Room 303, Chesterfield, Virginia 23832-0001 Crowder Construction requests quotes by Friday April 20, 2018 at close of business. Development include(s): Renovation, Site Work

Details [Division 2]: Clearing, Dewatering, Shoring, Earthwork, Grading, Slope Protection & Erosion Control, Marine Work, Paving & Surfacing, Water Systems, Landscaping. [Division 3]: Concrete Formwork, Concrete Reinforcement, Structural Concrete, Architectural Concrete, Post-Tensioned Concrete, Structural Precast Concrete. [Division 4]: Concrete Unit Masonry. [Division 5]: Structural Steel, Metal Decking, Metal Fabrications, Metal Stairs, Metal Railings, Expansion Joints. [Division 6]: Finish Carpentry, Architectural Woodwork, Plastic Fabrications. [Division 7]: Waterproofing, Dampproofing, Insulation, Firestopping. [Division 8]: Metal Doors, Coiling Doors and Grilles, Sectional Overhead Doors, Hardware, Glass & Glazing. [Division 9]: Ceiling Suspension Systems, Tile, Acoustical Ceilings, Resilient Flooring, Carpet, Painting. [Division 10]: Louvers & Vents, Interior Signs, Partitions. [Division 13]: Pre-Engineered Structures, Ground Storage Tanks. [Division 14]: Elevators, Material Handling Systems, Hoists & Cranes. [Division 15]: Mechanical Insulation, Plumbing Piping, Plumbing Fixtures, Water Heaters, Hydronic Piping, Steam & Steam Condensate Piping, Packaged A/C Units, Air Handling, Ductwork, Testing & Balancing. [Division 16]: Service/Distribution, Interior Lighting, Emergency Lighting, Standby Power Generator Systems, Lightning Protection Systems, Alarm & Detection Systems.

Additional Details

| | | | |
|------------------------------|---------------|--------------------------------------|------------|
| Listed On: | 3/29/2018 | Floor Area: | |
| Contract Type: | | Work Type: | Alteration |
| Stage Comments 1: | | Floors Below Grade: | |
| Stage Comments 2: | | Owner Type: | County |
| Bid Date: | 4/24/2018 | Mandatory Pre Bid Conference: | |
| Invitation #: | ADMN 18000231 | Commence Date: | 5/24/2018 |
| Structures: | 2 | Completion Date: | |
| Single Trade Project: | | Site Area: | |
| Floors: | | LEED Certification Intent: | |
| Parent Project ID: | | Units: | |
| Parking Spaces: | | | |

Project Participants

| Company Role | Company Name | Contact Name | Address | Phone | Email | Fax |
|----------------------|--------------|--------------|---------------------------------------|----------------|--|----------------|
| Plans Representative | Bizport Ltd. | | 9 N. Third St., Richmond, VA 23219 | (804) 780-1060 | largeformat@bizportdoes.com | (804) 780-3103 |

| | | | | | | |
|----------------|--|---------------------|---|----------------|--|----------------|
| Civil Engineer | Hazen And Sawyer | Glenn F. Rogers III | 1555 Roseneath Road , Richmond, VA 23230 | (804) 266-1400 | grogers@hazenandsawyer.com | (804) 298-7294 |
| Owner | Chesterfield County - Thomas Smith Purchasing Department | | 9901 Lori Road Rm.303, Chesterfield, VA 23832 | (804) 748-1702 | purchasing@chesterfield.gov | (804) 717-6378 |

Bidders

| Company Name | Contact Name | Added Date | Address | Phone | Email | Bidding Role | Bid Rank | Bid Value | Fax Number |
|---|----------------|------------|--|----------------|--|---|----------|-----------|----------------|
| Crowder Construction Company | | 4/4/2018 | 1111 Burma Dr. , Apex, NC 27539 | (800) 849-5449 | | Bidder - General Contractor | | | (919) 367-2096 |
| Southwood Building Systems, Inc | Stuart Spencer | 4/4/2018 | P.O. Box 1016 , Ashland, VA 23005 | (804) 798-9225 | sspencer@southwoodbuilders.com | Prospective Bidder - General Contractor | | | (804) 798-8702 |
| Instrumentation & Control Systems Engineering, Inc. | | 4/4/2018 | 10991 Leadbetter Road , Ashland, VA 23005 | (804) 550-5770 | sales@icseinc.com | Prospective Bidder - General Contractor | | | (804) 550-5779 |
| Ulliman Schutte Construction LLC - Virginia | | 4/4/2018 | 306 6th St SW , Roanoke, VA 24016 | (540) 342-2112 | roanoke@ullimanschutte.com | Bidder - General Contractor | | | (540) 342-5111 |
| Mid Eastern Builders (MEB) General Contractors - Chesapeake | | 4/4/2018 | 4016 Holland Blvd. , Chesapeake, VA 23323 | (757) 487-5858 | info@mebgc.com | Prospective Bidder - General Contractor | | | (757) 487-5089 |
| Sargent Corporation - Mid Atlantic Operations | | 4/4/2018 | 11139 Air Park Road Suite 1, Ashland, VA 23005 | (804) 368-7118 | | Prospective Bidder - General Contractor | | | (804) 368-7387 |

Planholders

| Company Name | Contact Name | Address | Phone | Email | Fax |
|---|--------------|---|----------------|-------|----------------|
| Rudy L. Hawkins Electrical Contractor, Inc. | | 600 West Hundred Road , Chester, VA 23836 | (804) 748-7200 | | (804) 796-9100 |

Contracts

| Classification | Conditions | Bonding | Bid Date | Bids To | Bid Type |
|--------------------|------------|---------|-----------|---------|--------------|
| General Contractor | | | 4/24/2018 | Owner | Open Bidding |

History

| User | Viewed | First Viewed Date | Currently Tracked? | Date Tracked |
|------------|--------|-------------------|--------------------|--------------|
| Adam Sweet | True | 4/9/2018 | True | 4/9/2018 |

SECTION 13209

FIBERGLASS REINFORCED PLASTIC STORAGE TANKS

PART 1 -- GENERAL

1.01 THE REQUIREMENT

- A. The Contractor shall furnish, deliver, install, test and place in satisfactory operation fiberglass reinforced plastic storage tanks, complete with all necessary accessories, as shown on the Drawings and as specified herein.
- B. Equipment shall be provided in accordance with the requirements of Section 11000, Equipment General Provisions.

1.02 CONDITIONS OF SERVICE/STORAGE TANK SCHEDULE

| Material Stored | Emulsion Polymer |
|---|-------------------------|
| Max Solution Concentration | 40% |
| Specific Gravity | 1.03 |
| Number of Tanks | Two (2) |
| Type | Vertical, Cylindrical |
| Bottom Configuration | Flat Bottom |
| Top Configuration | Dome Top |
| Useable Capacity (to invert of overflow) | 6,000 gallons |
| Maximum Diameter | 10'-0" |
| Maximum Straight Shell Height | 11'-0" |
| Maximum Overall Height | 13'-8" |
| Connection Openings: | |
| 1) Fill Line ** | 3" |
| 2) Tank Outlet | 3" |
| 3) Drain Line | 3" |
| 4) Overflow Line** | 4" |
| 5) Vent | 4" |
| 6) Manway Diameter (Top) | 2'-0" |
| 7) Manway Diameter (Side) | 2'-0" |
| 8) Ultrasonic Level Instrument* | * |
| Heating Panels and Insulation | No |
| Materials of Construction for Metal Parts | 316 SST |
| Materials of Construction for Elastomers | Viton |

* Coordinate material compatibility, connections and mounting with Instrumentation Supplier

**External pipe support to be provided by tank manufacturer

1.03 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. Shall be as specified in Section 01090, Reference Standards.
- B. ASTM C 581 - Chemical Resistance of Thermosetting Resins Used in Glass Fiber Reinforced Structures

- C. ASTM C 582 – Contact-Molded Reinforced Thermosetting Plastic Laminates for Corrosion-Resistant Equipment
- D. ASTM D 3299-00a – Filament-Wound Glass-Fiber-Reinforced Thermoset Resin Corrosion-Resistant Tanks
- E. ASTM D 4097 – Contact-Molded Glass-Fiber-Reinforced Thermoset Resin Corrosion - Resistant Tanks
- F. ASME RTP-1 – Reinforced Thermoset Plastic Corrosion Resistant Equipment
- G. All reference specifications, codes, and standards shall be the current version available at the time of Bid.

1.04 SUBMITTALS

- A. The following items shall be submitted with the Shop Drawings in accordance with, or in addition to the submittal requirements specified in Section 01300, Submittals; and Section 11000, Equipment General Provisions:
 - 1. List of at least five similar installations of the tank type, size, chemical service, and location conditions being proposed, including date installed, contact name, address and phone number
 - 2. Warranty
 - 3. Dimensions of tank and dimensions and location of fittings and attachments
 - 4. Weight of tanks
 - 5. A complete manufacturer's specification of the resins used
 - 6. Statement that materials, resins, and fittings used are suitable for intended service
 - 7. Statement that fabrication is in accordance with these Specifications
 - 8. Instructions for handling, storage, loading and unloading, and installation of tanks. These instructions shall include bolt torque values and detailed instructions for pipe connections.
 - 9. Inspection and testing reports as specified in Part 3 – Execution.

1.04 WARRANTY AND GUARANTEE

- A. Warranty and Guarantee shall be as specified in Section 11000 with the exception that the warranty period shall be for five (5) years.

PART 2 -- PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. The fiberglass reinforced plastic storage tanks shall be as manufactured by Justin, Belco, Ershigs, or Plas-Tanks.
- B. The fiberglass reinforced plastic tank manufacturer shall specialize in manufacture, assembly, and field service of FRP chemical storage tanks with a minimum of ten years experience.

2.02 MATERIALS AND CONSTRUCTION

- A. The Contractor is responsible for the coordination and selection of corrosion resistant materials for the chemical solutions specified below. The fiberglass reinforced plastic storage tank manufacturers shall inform themselves of the characteristics of the specified chemical solutions and guarantee the suitability of the materials used in manufacturing of the tank and appurtenances. The Contractor and manufacturer shall include all features as necessary for satisfactory operation of the tank system for all specified chemical solutions.
- B. All tank capacities (volumes) specified shall include only that volume in the straight shell below the overflow pipe invert elevation and above the top of the outlet pipe. At least four inches of freeboard shall be provided between the invert elevation of the overflow pipe and the top of the straight shell.
- C. Resin
 - 1. The resin for fiberglass reinforced plastic storage tanks shall be a commercial-grade, corrosion-resistant thermoset that has either been evaluated in a laminate by testing in accordance with ASTM C-581 or that has been determined by previous documented service to be acceptable for the service conditions.
 - 2. The resin used shall not contain any fillers, pigments, dyes, or colorants, which may interfere with visual inspection of laminate quality, except as required for viscosity control. The limit of filler shall be 5 percent by weight. No fillers or bulking agents shall be used in the exterior structural layer to decrease the glass loading ratio. Resin pastes used to fill crevices before overlay are permitted.
 - 3. The initiators used will be of the type, manufacturing origin, and amounts specified by the resin manufacturer.
 - 4. Resin shall be Ashland Derakane 510A, Hetron FR992 (with 3% antimony pentoxide added to the structural layer only), or equal. The resin shall conform with a Class 1 flame spread, as specified by the National Fire Protection Agency No. 91.
- D. Reinforcement
 - 1. The reinforcing material shall be a commercial grade glass fiber having a coupling agent which shall provide a suitable bond between the glass reinforcement and the resin and shall be suitable for the fabrication method used. The reinforcing material shall be comparable to that used to generate corrosion resistance.

2. Chopped Strand Mat – Chopped strand mat shall be constructed from chopped commercial-grade E-type glass strands bonded together using a binder. The strands should be treated with a sizing that is chemically compatible with the resin system used.
3. Continuous Roving – Continuous roving shall be a commercial-grade E-type glass fiber with a sizing that is chemically compatible with the resin system used.
4. Woven Roving – Woven roving shall be in accordance with ASTM Specification D2150.
5. Surface Mat – The reinforcement used for the inner surface shall be either a commercial-grade chemical resistant glass surface mat as recommended by the resin manufacturer for the intended service.

E. Laminate Construction

1. The laminate comprising the structural tank (bottom, cylindrical shell, top head) shall consist of a corrosion-resistant barrier comprised of an inner surface, interior layer, and a structural layer. The tank manufacturer shall provide a resin manufacturer's recommendation which includes the type of veil, plies of veil, and total thickness of the corrosion barrier and any post cure requirements.
2. The inner surface exposed to the chemical environment shall be resin-rich, not less than 0.02-inch thick, and reinforced with chemically resistant surfacing material. The surface shall be smooth, glossy, and free of pits. Material used as reinforcing on the surface exposed to chemical attack shall be a commercial grade chemical resistant glass fiber having a coupling agent.
3. The interior layer shall be not less than 0.1-inch thick and composed of resin, reinforced only with noncontinuous glass strands applied in a minimum of two plies of chopped strand mat or in a minimum of two passes by the spray-up process. Glass strands shall not be shorter than 1.0 inch or longer than 2.0 inches. Glass content of the inner liner and interior layer combined shall be 27% +/- 5% by weight.
4. Before the reinforcement of the exterior layer is applied, the interior layer shall be allowed to cure completely so that the thickness of the corrosion barrier, consisting of the inner surface and interior layer, will not be reduced. The degree of cure of the laminate, after post cure, shall be such as to exhibit a Barcol hardness on the inner surface of at least 90% of the resin manufacturer's minimum specified hardness for the cured laminate.
5. The structural layer shall provide additional strength necessary to meet the tensile and flexural requirements. The reinforcement shall be filament wound, contact molded or a combination of both and may consist of continuous roving, woven roving, chopped strand mat or chopped strands. Where separate layers of reinforcement are used, all layers shall be lapped a minimum of 1.0 inch. Laps shall be staggered as much as possible. If woven roving or cloth is used in successive layers, it shall be alternated with a layer of chopped strand glass.

Glass content of the filament-wound structural layer shall be 50 to 80 percent by weight. The thickness of the filament wound portion of the tank shell may vary with tank height, provided that all stress and other requirements are met at any height level. All reinforcement used shall be resistant to corrosion by the particular chemical stored in the tank.

6. The outer surface shall consist of chopped strands or surfacing mat, or both, over which shall be applied a resin-rich coating. The outer surface shall not be pigmented, painted or dyed except to prevent ultraviolet degradation of the tank contents. This surface shall be at least 0.02 inch thick.
7. Tanks shall be dry heat post cured in accordance with resin manufacturer's guidelines.
8. The tank top shall be domed with openings and connections as shown and specified. The tank top shall be able to support a 250-pound load on a 4-inch by 4-inch area.
9. Tank bottom shall be seamless and shall have a seamless attachment to the tank wall. No joints shall be allowed within the bottom 7'0" of the tank wall.

2.03 CONNECTIONS AND ACCESSORIES

- A. All flanged nozzles shall be of hand lay-up construction with pipe stub molded integrally with the pipe flange. All connections/openings shall be flanged in accordance with ANSI B16.5 150 pounds and provided with flanged gasket. Flanged connections, nozzles, and openings shall be FRP gusseted and flat face. All pipe supports, hardware, accessories, etc., shall be provided. All piping connected to the tanks shall be perpendicular or parallel to the straight shell of the tanks. All piping into the tanks shall be supported such that no weight is placed on the tank and its connections. Piping supports requiring holes through the side wall of the tanks shall not be allowed
- B. If recommended by the tank manufacturer, each tank shall be provided with a flexible connector resistant to the specified chemical to allow for expansion and contraction of the tank and to isolate the tank from vibration. Flexible connectors shall be provided for each connection located at the bottom of the tank by the tank manufacturer.
- C. Tank drain connections shall be siphon drain connections. Each tank drain line shall be provided with a ball valve.
- D. Vent lines shall be top-mounted. Each vent shall be extended to the atmosphere and shall have a 180 degree return and a fiberglass vent insect screen. Vent lines shall be supplied and furnished by the Contractor as required or as directed by the Engineer.
- E. Each storage tank fill line shall be provided with a camlock type quick connect coupling with downstream ball valve as shown on the Drawings for connection to the delivery vehicle. The dry quick connections shall be resistant to corrosion by the specified chemicals and shall be provided with fittings, quick lock coupling and dust cap and chain. Quick connect couplings shall be as specified in Section 15000. The Contractor shall furnish and install a sign at each chemical fill station to identify the chemical filled. The signage shall be as specified in Section 10400.

- F. Each tank shall be provided with an overflow pipe as specified and indicated on the Drawings. The tank manufacturer shall provide Flange Insert Check Valves (FIV's) for the overflow pipe of interior storage tanks as shown on the Drawings. The FIVs shall be complete with unions, liquid traps, and flanges as indicated in the Drawings. The valves shall be flanged check valve type inserted between two mating flanges. The valves shall be the same size as the tank overflow line. Each valve shall have a cracking pressure of 1/2 psig. The valve bodies shall be constructed of PVC, and valve seats and metal springs shall be as specified in the Tank Schedule. The flange insert valves shall be as manufactured by Check-All Valves Manufacturing Company, or equal.
- G. Each tank shall be provided with level instruments in accordance with Division 17, Control and Information Systems. The mounting and connecting requirements, including mounting flange diameter, required clearance between mounting flange and tank wall, and height above liquid level, shall be coordinated with the Instrument Supplier.
- H. Each tank shall be provided with flat-faced flanged manways with gaskets, blind flanges and bolts that are chemically resistant as shown in the Tank Schedule.
- I. Each tank shall be provided with a minimum of four lifting lugs. Lifting lugs shall be capable of withstanding weight of an empty tank with a safety factor of 3 to 1.
- J. Each tank shall be provided with a minimum of six tie-down lugs and all necessary anchor bolts. The tank shall withstand horizontal loadings of 40 pounds per square foot, wind load or seismic load calculated in accordance with the applicable building code, whichever is greater. The tank manufacturer shall submit calculations, sealed by a Professional Engineer, to verify that tie-down lugs can withstand seismic activity and wind load.
- K. The tank shall be provided with a permanently attached label providing the following information:
 - 1. Type of material stored
 - 2. Concentration of material stored
 - 3. Specific gravity
 - 4. Maximum temperature
 - 5. Type of liner resin and reinforcement
 - 6. Type of surface veil
 - 7. Tank capacity
 - 8. Manufacturer
 - 9. Date of manufacture
- L. All metallic parts, fasteners, brackets, mounting hardware, and accessories provided by the tank manufacturer shall be constructed of corrosion resistant metals as specified in the Tank Schedule.

2.04 PIPING SUPPORT

- A. All horizontal sections of piping inside the containment area and trench shall be supported by thermoplastic pads at maximum 5 foot intervals as shown in the Drawings to prevent the piping from resting directly on concrete.
- B. For vertical piping exterior and interior to the tank, all pipe supports, hardware, accessories, etc., shall be provided for connections as shown in the Tank Schedule. Vertical piping into the tanks shall be supported every five feet and shall be parallel to the tank wall. External vertical piping shall be not less than 6 inches from the tank wall. Support locations for piping installed within the tank shall be coordinated with equipment to be installed within the tank and shall be as shown in the Drawings. All piping into the tanks shall be supported such that no weight is placed on the tank or its connections.

PART 3 -- EXECUTION

3.01 MANUFACTURER'S FIELD SERVICES

- A. The services of a qualified manufacturer's technical representative shall be provided in accordance with Section 11000, Equipment General Provisions and shall include the following site visits for each series of tanks:

| Service | Number of Trips | Number of Days/Trip |
|---------------------------------------|-------------------------|----------------------------|
| Installation, Inspection and Testing | 1 per tank installation | 1 |
| Final Inspection/Startup and Training | 1 | 1 |
| Annual Inspections | 5 | 1 |

3.02 INSTALLATION

- A. The Contractor shall furnish and install the Fiberglass Reinforced Plastic storage tanks, and related items in accordance with the manufacturers' recommendations and in accordance with Section 11000, Equipment General Provisions.
- B. A manufacturer's field representative shall be on site when each tank is installed to observe installation and verify that each tank has been installed per manufacturer's recommendations. The manufacturer shall provide a report certifying that each tank has been installed properly.
- C. All piping, valves, fittings, conduit, wiring, etc., required to interconnect system components shall be furnished and installed by the Contractor. Unless otherwise noted, piping shall be Schedule 80 CPVC.
- D. All metallic fasteners, brackets, mounting hardware, and accessories located in chemical storage and feed areas shall be constructed of corrosion-resistant metals as specified in the Tank Schedule.
- E. The Contractor shall install a minimum of 2 layers of roofing felt between each concrete pad and storage tank. The tanks shall be installed on level pads.

3.03 INSPECTION AND TESTING

- A. A 3-stage inspection process shall be performed on the tank during various stages in the construction process. The first inspection shall be performed at the completion of the corrosion barrier and before structural winding occurs. The second inspection will be performed after the tank is removed from the mandrel and before any nozzles are attached. The third inspection shall be a final inspection prior to shipment of the tank. These inspections shall be performed by an independent inspector with at least 5 years of experience with FRP vessels.
- B. Field testing shall be performed in accordance with Section 11000, Equipment General Provisions.
- C. Upon completion of installation of tank and prior to connecting piping, the Contractor shall provide blind flanges or other suitable plugs for all openings in the tank, fill tank with potable water from a source approved by the Engineer and conduct a leakage test. Tank shall be filled up to the top of the straight shell and left to sit over a 5 consecutive day test period. There shall be no leakage over the test period. Upon satisfactory completion of leakage test, Contractor shall drain the tank and dispose of water in a suitable manner.
- D. Quality control for visual defects shall be per ASME RTP-1, Level 1 in the liner with 10% repair allowed and Level 2 in the structure with 10% repair allowed.
- E. After the tank has completed a successful hydrostatic test, the tank shall undergo a mechanical integrity test using Acoustical Emission Test (AE Test) in accordance with the latest version of ASTM E 1067. The Contractor shall secure the services of Non-Destructive Evaluation International (Indian Trail, NC) or an equally qualified firm to perform the AE testing. Firms shall be considered equally qualified by demonstrating the following:
 - 1. The firm shall specialize in AE testing.
 - 2. The firm shall have all necessary equipment to perform AE testing.
 - 3. The firm shall have a minimum of five (5) years experience in AE testing and shall provide a list of AE tests performed to demonstrate experience.
 - 4. The firm's testing staff shall have a minimum of five (5) years experience with AE testing.

Contractor shall provide all labor and materials necessary for completing AE testing including water to fill tanks with during testing. After testing is completed, a final report shall be submitted to the Engineer. In the event the AE test results indicate repairs are required; the tank manufacturer shall promptly repair all faulty areas of the tank as identified by the test.

The tank shall then be re-tested using the hydrostatic test and the AE test. The second AE test report shall be submitted to the Engineer. Any tank failing the second hydrostatic test or the AE test shall be removed from the project site and replaced with a new tank at no cost to the Owner. The replacement tank shall undergo hydrostatic and AE testing and shall be subject to the same acceptance criteria as the initial tank. This process shall be repeated until all tanks provided to the project pass the AE test.

- END OF SECTION -