

ADDENDUM NO. 1
September 25, 2023

**PROJECT: CITY OF KEENE
GENERATOR IMPROVEMENTS**

BID DATE: OCTOBER 5, 2023

The following changes and/or additions shall be made to the Plans, Specifications, and Contract Documents for the above referenced project. Bidder shall acknowledge receipt of this Addendum by signing below and returning this Addendum with the Bid.

- 1) The bid date for this contract will be revised to be October 5, 2023 at 3:00 PM. The location for submitting bids and the bid opening will not change.**
- 2) There will be one, 200 kW Trailer Mounted Generator to be provided under this contract. Additional generators and concrete pads will be provided on a future contract.**
- 3) Acceptable manufacturers for the supply of the generator are Generac, Caterpillar, Kohler, Cummins, MTU, Taylor, LJ Power, ASKA. Other manufacturers may be considered per the specifications.**
- 4) Electrical stand structural members shall be hot-dipped galvanized cold galvanized at welds or sandblasted and epoxy coated per the attached Specification Item 09 03 01.**

Prepared by:

JACOB | MARTIN
TBPE Firm No. 2448

Bidder's Acknowledgment

Date

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Keene Generator Improvements 23183		COATING & PAINTING FOR WATER TREATMENT PLANTS

SECTION 09 03 01 - COATING & PAINTING FOR WATER TREATMENT PLANTS

PART 1 GENERAL

1.1 REFERENCE STANDARDS

ASTM D2200 - Standard Practice for Use of Pictorial Surface Preparation Standards and Guides for Painting Steel Surfaces Latest Edition.

ASTM D4263 - Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method 1983 (Reapproved 2012).

ASTM D4417 - Standard Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel Latest Edition.

ASTM D520 - Standard Specification for Zinc Dust Pigment Latest Edition.

ASTM D6386 - Standard Practice for Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Painting Latest Edition.

ASTM F1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride 2011.

AWWA D102 - Coating Steel Water Storage Tanks 2011.

NACE No. 1 - Joint Surface Preparation Standard White Metal Blast Cleaning Latest Edition.

NACE No. 2 - Joint Surface Preparation Standard Near-White Metal Blast Cleaning 1994 (Reaffirmed 2006).

NACE No. 3 - Joint Surface Preparation Standard Commercial Blast Cleaning 1999 (Reaffirmed 2006).

NACE No. 4 - Brush-Off Blast Cleaning Latest Edition.

NACE No.6 - Surface Preparation of Concrete Latest Edition.

NACE SP0178 - Design, Fabrication, and Surface Finish Practices for Tanks and Vessels to Be Lined for Immersion Service Latest Edition.

NACE SP0188 - Discontinuity (Holiday) Testing of New Protective Coatings on Conductive Substrates Latest Edition.

NACE SP0287 - Field Measurement of Surface Profile of Abrasive Blast-Cleaned Steel Surfaces Using a Replica Tape Latest Edition.

NSF 61 - Drinking Water System Components - Health Effects 2014 (Errata 2015).

SSPC VIS 1 - Guide and Reference Photographs for Steel Surfaces Prepared by Dry Abrasive Blast Cleaning Latest Edition.

SSPC-PA 1 - Shop, Field, and Maintenance Painting of Steel 2004.

SSPC-PA 2 - Procedure For Determining Conformance To Dry Coating Thickness Requirements 2015.

SSPC-Paint 36 - Two-Component Weatherable Aliphatic Polyurethane Topcoat, Performance-Based. 2013.

SSPC-SP 1 - Solvent Cleaning 2015.

SSPC-SP 10 - Near-White Blast Cleaning 2007.

SSPC-SP 11 - Power Tool Cleaning to Bare Metal 2012 (Ed. 2013).

SSPC-SP 13 - Surface Preparation of Concrete; (Reaffirmed 2015). 2003.

SSPC-SP 2 - Hand Tool Cleaning 1982 (Ed. 2004).

SSPC-SP 3 - Power Tool Cleaning 1982 (Ed. 2004).

SSPC-SP 5 - White Metal Blast Cleaning 2007.

SSPC-SP 6 - Commercial Blast Cleaning 2007.

SSPC-SP 7 - Brush-Off Blast Cleaning 2007.

ICRI 03732 (1997) Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays

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1.2 WORK INCLUDED

- A. The work of this section includes the coating of all interior surfaces, and the painting of all exterior surfaces.

1.3 RELATED WORK

Electrical Support Stands and Facilities

1.4 CONTRACTOR QUALIFICATIONS

- A. The CONTRACTOR shall have three years practical experience and successful history in the application of specified product to surfaces of steel water tanks. Upon request, he shall substantiate this requirement by furnishing a list of references and job completions.
- B. The CONTRACTOR shall submit with his bid a written statement by the coatings manufacturer stating that the CONTRACTOR is familiar with the materials specified and has workers capable of performing the work specified herein.
- C. The personnel performing the work shall be knowledgeable and have the required experience and skill to adequately perform the work for this project, in accordance with SSPC-PA 1.

1.5 QUALITY ASSURANCE

- A. General: Quality assurance procedures and practices shall be utilized to monitor all phases of surface preparation, application and inspection throughout the duration of the project. Procedures or practices not specifically defined herein may be utilized provided they meet recognized and accepted professional standards and are approved by the ENGINEER.
- B. Surface Preparation: Surface preparation will be based upon comparison with: SSPC VIS 1, ASTM D2200, ASTM D4417 or NACE SP0287. In all cases the written standard shall take precedence over the visual standard. In addition, NACE SP0178, along with the Visual Comparator, shall be used to verify the surface preparation of welds.
- C. Application: No coating or paint shall be applied when: 1) the surrounding air temperature or the temperature of the surface to be coated or painted is below the minimum surface temperature for the products specified herein, 2) rain, snow, fog or mist is present, 3) the surface temperature is less than 5F above the dew point, 4) the air temperature is expected to drop below the minimum temperature for the products specified within six hours after application of coating. Dewpoint shall be measured by use of an instrument such as a Sling Psychrometer in conjunction with U.S. Department of Commerce Weather Bureau Psychrometric Tables. If any of the above conditions are prevalent, coating or painting shall be delayed or postponed until conditions are favorable. The day's coating or painting shall be completed in time to permit the film sufficient drying time prior to damage by atmospheric conditions.
- D. Coating Thickness: Thickness of coatings and paint shall be measured checked according to the procedures outlined in SSPC-PA 2 with a non-destructive, magnetic-type thickness gauge that has been calibrated according to the procedures outlined in SSPC-PA 2. Pass/fail criteria shall require that ninety (90) percent of the spot measurements (average of 3 gauge readings within a 1.5 inch diameter area) be at or above the minimum specified dry film thickness. Of the remaining ten (10) percent of the spot measurements (average of 3 gauge readings within a 1.5 inch diameter area) that are below the minimum specified dry film thickness, they shall be no less than ninety (90) percent of the minimum specified dry film thickness. Areas that fail to meet these criteria shall be corrected at no expense to the OWNER. Use of an instrument such as a Tooke Gauge, precision groove grinder, etc. is permitted if a destructive test is deemed necessary by the ENGINEER and the total DFT is less than 50 mils.
- E. Holiday (Pinhole) Testing: The integrity of interior coated surfaces shall be tested for holidays in accordance with NACE SP0188. For dry films less than 20 mils, a non-destructive holiday

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detector shall not exceed 67.5 volts, nor shall destructive holiday detector exceed the voltage recommended by the manufacturer of the coating system. A solution of 1 ounce non-sudsing type wetting agent, such as Kodak Photo-Flo, and 1 gallon of tap water shall be used to perform the holiday testing. For coating thickness at 20 mils and greater, a high voltage Tinker & Rasor AP/W holiday tester shall be used. Contact coating manufacturer for voltage recommendations and curing parameters.

All pinholes and/or holidays shall be marked and repaired in accordance with the manufacturer's printed recommendations and retested. No pinholes or other irregularities will be permitted in the final coating.

- F. Inspection Devices: The CONTRACTOR shall furnish, until final acceptance of coating and painting is accepted, inspection devices in good working condition for detection of holidays and measurement of dry film thickness of coating and paint. The CONTRACTOR shall also furnish U.S. Department of Commerce, National Bureau of Standards certified thickness calibration plates and/or plastic shims, depending upon the thickness gauge used, to test the accuracy of dry film thickness gauges and certified instrumentation to test the accuracy of holiday detectors. Dry film gauges and holiday detectors shall be made available for the ENGINEER's use at all times until final acceptance of application. Holiday detection devices shall be operated in the presence of the ENGINEER.
- G. Inspection: Inspection for this project shall consist of 'hold point' inspections. The ENGINEER or his representative shall inspect the surface prior to abrasive blasting, after abrasive blasting but prior to application of coating materials, and between subsequent coats of material. Final inspection shall take place after all coatings are applied, but prior to placing the tank in service. CONTRACTOR will insure that sufficient rigging is in place so that the ENGINEER or his representative shall be able to conduct the required inspections.
- H. Warranty Inspection: Warranty inspection shall be conducted during the eleventh month following acceptance of all coating and painting work. All defective work shall be repaired in accordance with this specification and to the satisfaction of the ENGINEER and/or OWNER. Specifier Note: The warranty inspection must be scheduled and coordinated by the ENGINEER or the OWNER.

1.6 SAFETY AND HEALTH REQUIREMENTS

- A. General: In accordance with requirements set forth by regulatory agencies applicable to the construction industry and manufacturer's printed instructions and appropriate technical bulletins and manuals, the CONTRACTOR shall provide and require use of personal protective lifesaving equipment for persons working on or about the project site.
- B. Head and Face Protection and Respiratory Devices: Equipment shall include protective helmets which shall be worn by all persons while in the vicinity of the work. In addition, workers engaged in or near the work during sandblasting shall wear eye and face protection devices and air purifying halfmask or mouthpiece respirators with appropriate filters. Barrier creams shall be used on any exposed areas of skin.
- C. Ventilation: Where ventilation is used to control hazardous exposure, all equipment shall be explosion-proof. Ventilation shall reduce the concentration of air contaminants to a degree a hazard does not exist. Air circulation and exhausting of solvent vapors shall be continued until coatings have fully cured.
- D. Sound Levels: Whenever the occupational noise exposure exceeds maximum allowable sound levels, the CONTRACTOR shall provide and require the use of approved ear protection devices.
- E. Illumination: Adequate illumination shall be provided while work is in progress, including explosion-proof lights and electrical equipment. Whenever required by the ENGINEER, the

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CONTRACTOR shall provide additional illumination and necessary supports to cover all areas to be inspected. The level of illumination for inspection purposes shall be determined by the inspector.

- F. Temporary Ladders and Scaffolding: All temporary ladders and scaffolding shall conform to applicable safety requirements. They shall be erected where requested by the ENGINEER to facilitate inspection and be moved by the CONTRACTOR to locations requested by the ENGINEER.

1.7 DELIVERY, STORAGE AND HANDLING

- A. All materials shall be brought to the jobsite in original sealed containers. They shall not be used until the ENGINEER has inspected the contents and obtained data from information on containers or label. Materials exceeding storage life recommended by the manufacturer shall be rejected.
- B. All coatings and paints shall be stored in enclosed structures to protect them from weather and excessive heat or cold. Flammable coatings and paints must be stored to conform with City, County, State and Federal safety codes for flammable coating or paint materials. At all times coatings and paints shall be protected from freezing.

PART 2 PRODUCTS

2.1 GENERAL

- A. All materials shall be lead-free as defined by the Consumer Product Safety Act, Part 1303.
- B. All zinc dust pigment contained in any zinc-rich material shall meet the requirements of ASTM D520 as regards zinc content and purity.
- C. All materials for the interior wetted portion of the tank shall meet the requirements of NSF 61 for potable water contact.
- D. All catalyzed polyurethane products shall meet the minimum requirements of SSPC-Paint 36, Level 3 Performance Level.
- E. No products containing MOCHA shall be allowed.

2.2 ACCEPTABLE MANUFACTURERS

- A. Materials specified are those that have been evaluated for the specific service. Products of the Tnemec Company, Inc. are listed to establish a standard of quality. Equivalent materials of other manufacturer's may be submitted on written approval of the ENGINEER. As part of the proof of equality, the ENGINEER will require at the cost of the CONTRACTOR, certified test reports from a nationally known, reputable and independent testing laboratory conducting comparative tests as directed by the ENGINEER between the product specified and the requested substitution.
- B. Requests for substitution shall include manufacturer's literature for each product giving name, product number, generic type, descriptive information, solids by volume, recommended dry film thickness and certified lab test reports showing results to equal the performance criteria of the products specified herein. In addition, a list of five projects shall be submitted in which each product has been used and rendered satisfactory service.
- C. All requests for product substitution shall be made at least 10 days prior to the bid date.
- D. Any material savings shall be passed to the OWNER in the form of a contract dollar reduction.
- E. Manufacturer's color charts shall be submitted to the ENGINEER at least 30 days prior to coating and/or paint application. General CONTRACTOR and Painting CONTRACTOR shall coordinate work so as to allow sufficient time (normally seven to ten days) for paint to be delivered to the job site.

2.3 MATERIAL PREPARATION

- A. Mix and thin materials according to manufacturer's latest printed instructions.

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- B. Do not use materials beyond manufacturer's recommended shelf life.
- C. Do not use mixed materials beyond manufacturer's recommended pot life.
- D. Do not split kits of multi-component products.

2.4 NON SUBMERGED PAINTING SCHEDULE

The number of coats called for in this schedule shall be considered minimum. If more coats are required for complete coverage and uniform appearance, they shall be applied. Colors will be selected by the OWNER from standard manufacturer's color samples.

- A. Exterior Exposed Ferrous Metal.
 - 1. Surface Preparation Prior to Abrasive Blast Cleaning: Weld flux and spatter shall be removed by power tool cleaning. Sharp projections shall be ground to a smooth contour. All welds shall be ground to a smooth contour as per NACE SP0178, Designation D.
 - 2. Surface Preparation: SSPC-SP 6 Commercial Blast Cleaning. Anchor profile shall be 1.5 to 2.0 mils as per ASTM D4417, Method C or NACE SP0287.
 - 3. Coating System:
 - 1st Coat: Tnemec Series 90-97 Tneme-Zinc applied at 2.5 to 3.5 dry mils.
 - Stripe Coat: Tnemec Series 27WB Typoxy applied by brush and scrubbed into all weld seams. In addition to weld seams, all edges, corners, bolts, rivets, pits, etc. shall receive a stripe coat.
 - 2nd Coat: Tnemec Series 27WB Typoxy applied at 4.0 to 6.0 dry mils. (Application by brush or roller may require two coats to achieve specified film thickness.)
 - 3rd Coat: Tnemec Series 740 Endura-Shield applied at 3.0 to 5.0 dry mils. (Application by brush or roller may require two coats to achieve specified film thickness.)
- B. Interior Exposed Structural & Miscellaneous Steel, Piping, Valves, Etc.
 - 1. Surface Preparation Prior to Abrasive Blast Cleaning: Weld flux and spatter shall be removed by power tool cleaning. Sharp projections shall be ground to a smooth contour. All welds shall be ground to a smooth contour as per NACE SP0178, Designation D for Lap, Butt & Fillet Welds.
 - 2. Surface Preparation: SSPC-SP 6/NACE No. 3. Anchor profile shall be 1.5 to 2.0 mils as per ASTM D4417, Method C or NACE SP0287.
 - 3. Coating System:
 - 1st Coat: Tnemec Series 90-97 Tneme-Zinc applied at 2.5 to 3.5 dry mils.
 - 2nd Coat: Tnemec Series applied at 4.0 to 6.0 dry mils.
 - 3rd Coat: Tnemec Series N69 Hi-Build Epoxoline II applied at 4.0 to 6.0 dry mils.
- C. Exterior Exposed Factory Primed Metal.
 - 1. Surface Preparation: All surfaces shall be dry, clean and free of all contaminants. Clean all surfaces as per SSPC-SP 2 or SSPC-SP 3. Prepare damaged areas as per SSPC-SP 11. Apply a test patch to ensure compatibility.
 - 2. Coating System:
 - 1st Coat: Tnemec Series 1 Omnithane applied at 2.5 to 3.5 dry mils.
 - 2nd Coat: Tnemec Series 740 Endura-Shield applied at 3.0 to 5.0 dry mils.
- D. Interior Exposed Factory Primed Metal.
 - 1. Surface Preparation: All surfaces shall be dry, clean and free of all contaminants. Clean all surfaces as per SSPC-SP 2 or SSPC-SP 3. Prepare damaged surfaces as per SSPC-SP 11. Apply a test patch to ensure compatibility.
 - 2. Coating System:
 - 1st Coat: Tnemec Series 1 Omnithane applied at 2.5 to 3.5 dry mils.
 - 2nd Coat: Tnemec Series N69 Hi-Build Epoxoline II applied at 4.0 to 6.0 dry mils.

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PART 3 EXECUTION

3.1 GENERAL

- A. All surface preparation, coating and painting shall conform to applicable standards of the Society for Protective Coatings, NACE International and the manufacturer's printed instructions. Materials applied to the surface prior to the approval of the ENGINEER shall be removed and re-applied to the satisfaction of the ENGINEER at the expense of the CONTRACTOR.
- B. All work shall be performed by skilled craftsmen qualified to perform the required work in a manner comparable with the best standards of practice. Continuity of personnel shall be coordinated with the ENGINEER.
- C. The CONTRACTOR shall provide a supervisor at the work site during cleaning and application operations. The supervisor shall have the authority to sign and change orders, coordinate work and make decisions pertaining to the fulfillment of the contract.
- D. Dust, dirt, oil, grease or any foreign matter that will affect the adhesion or durability of the coating or paint must be removed by washing with clean rags dipped in an approved cleaning solvent and wiped dry with clean rags.
- E. Coating and painting systems include surface preparation, prime coating and finish coatings. Unless otherwise approved in writing by the ENGINEER, prime coating shall be field applied. Where prime coatings are shop applied, the CONTRACTOR shall instruct suppliers to provide the prime coat compatible with the specified finish coat. Any off-site work which does not conform to this specification, is subjected to damage during transportation, construction or installation shall be thoroughly cleaned and touched-up in the field as directed by the ENGINEER. The CONTRACTOR shall use repair procedures which insure the complete protection of all adjacent primer. The specified repair method and equipment may include wirebrushing, hand or power tool cleaning, or dry air blast cleaning. In order to prevent injury to surrounding painted surfaces, blast cleaning may require use of lower air pressure, smaller nozzle and/or abrasive blast particles, or shorter blast nozzle distances from surface shielding and masking. If damage is too extensive or uneconomical to touch-up, the entire item shall be blasted and then coated or painted as directed by the ENGINEER.
- F. The CONTRACTOR's coating and painting equipment shall be designed for application of materials specified and shall be maintained in first class working condition. Compressors shall have suitable traps and filters to remove water and oils from the air. CONTRACTOR's equipment shall be subject to approval of the ENGINEER.
- G. Application of the first coat shall follow immediately after surface preparation and cleaning and stripe coat, if applicable, before rust bloom occurs or the same day, whichever is less. Any cleaned areas not receiving first coat within this period shall be recleaned prior to application of first coat. Use of dehumidification equipment shall be first reviewed by the ENGINEER and coatings manufacturer prior to deviating from this provision.
- H. Prior to assembly, all surfaces made inaccessible after assembly shall be prepared as specified herein and shall receive the coating or paint system specified.

3.2 SURFACE PREPARATION

- A. The latest revision of the following surface preparation specifications of the Society for Protective Coatings (SSPC) shall form a part of this specification. The summaries listed below are for informational purposes; consult the actual SSPC specification for full detail.
 1. Solvent Cleaning (SSPC-SP 1): Removal of oil, grease, soil and other contaminants by use of solvents, emulsions, cleaning compounds, steam cleaning or similar materials and methods which involve a solvent or cleaning action.
 2. Hand Tool Cleaning (SSPC-SP 2): Removal of loose rust, loose mil scale and other detrimental foreign matter to a degree specified by hand chipping, scraping, sanding and

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- wirebrushing.
3. Power Tool Cleaning (SSPC-SP 3): Removal of loose rust, loose mil scale and other detrimental foreign matter by power wirebrushing, power impact tools or power sanders.
 4. White Metal Blast Cleaning (SSPC-SP 5/NACE No. 1): Air blast cleaning to a gray-white uniform metallic color until each element of surface area is free of all visible residues.
 5. Commercial Blast Cleaning (SSPC-SP 6/NACE No. 3): The removal of all visible oil, grease, dirt, dust, mil scale, rust, paint, oxides, corrosion products and foreign matter by compressed air nozzle blasting, centrifugal wheels or other specified method.
Discoloration caused by certain stains shall be limited to no more than 5% of each square inch of surface area.
 6. Brush-Off Blast Cleaning (SSPC-SP 7/NACE No. 4): Air blast cleaning to remove loose rust, loose mil scale and other detrimental foreign matter to a degree specified.
 7. Near-White Metal Blast Cleaning (SSPC-SP 10/NACE No. 2): The removal of all visible oil, grease, dirt, dust, mil scale, rust, paint, oxides, corrosion products and foreign matter by compressed air nozzle blasting, centrifugal wheels or other specified method.
Discoloration caused by certain stains shall be limited to no more than 5% of each square inch of surface area.
 8. Power Tool Cleaning to Bare Metal (SSPC-SP 11): Power tool cleaning to produce a bare metal surface and to retain or produce a minimum of 1.0 mil surface profile. This standard is suitable where a roughened, clean, bare metal surface is required, but where abrasive blasting is not feasible or permissible.
 9. Surface Preparation of Concrete (SSPC-SP 13/NACE No.6): Surface preparation of concrete by mechanical, chemical, or thermal methods prior to the application of bonded protective coating or lining systems.
- B. Slag, weld metal accumulation and spatters not removed by the Fabricator, Erector or Installer shall be removed by chipping and/or grinding. All sharp edges shall be peened, ground or otherwise blunted as required by the ENGINEER. All grinding and finishing of welds, edges, etc. shall be performed prior to solvent cleaning and abrasive blasting. Welds shall be prepared as per NACE SP0178 for all interior and exterior surfaces.
- C. Concrete surfaces shall be abrasive blasted to produce a minimum surface profile of equal to 40 grit sandpaper with no loose concrete remaining. This preparation will be followed by vacuum cleaning to remove all dust, dirt or friable substances leaving clean, dust free surfaces for resurfacing. Concrete surfaces rubbed smooth shall not be considered an acceptably prepared surface.
1. Prepare concrete surfaces in accordance with manufacturer's instructions, SSPC-SP 13/NACE No.6 and ICRI 03732.
 2. Allow concrete to cure for a minimum of 28 days.
 3. Test concrete for moisture in accordance with ASTM D4263 and ASTM F1869.
 4. Abrasive blast surface to remove laitance and solid contaminants and to provide clean, sound substrate with uniform anchor profile.
 5. Fill holes, pits, voids, and cracks with Tnemec Series 218 MortarClad.
 6. Ensure surfaces are clean, dry, and free of oil, grease, chalk, form release agents, and other contaminants.
- D. Field blast cleaning for all surfaces shall be by dry method unless otherwise directed. Blast nozzles shall be venturi-type nozzles with a minimum pressure at the nozzle of 90 psi.
- E. Particle size of abrasives used in blast cleaning shall be that which will produce a 1.5 - 2.5 mil (37.5 microns - 65.0 microns) surface profile or in accordance with recommendations of the manufacturer of the specified coating or paint system to be applied.
- If the profile of the blasted steel exceeds the profile specified above, the CONTRACTOR shall be required to do one or both of the following:
1. Reblast the surface using a finer aggregate in order to produce the required profile.
 2. Apply a thicker prime coat, if possible given the limitations of the products being applied, in order to adequately cover the blast profile.

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- F. Abrasive used in blast cleaning operations shall be new, washed, graded and free of contaminants that would interfere with adhesion of coating or paint and shall not be reused unless specifically approved in writing by the ENGINEER.
- G. During blast cleaning operations, caution shall be exercised to insure that existing coatings or paint are not exposed to abrasion from blast cleaning.
- H. The CONTRACTOR shall keep the area of his work and the surrounding environment in a clean condition. He shall not permit blasting materials to accumulate as to constitute a nuisance or hazard to the accomplishment of the work, the operation of the existing facilities or to the surrounding environment.
- I. Blast cleaned surfaces shall be cleaned prior to application of specified coatings or paint. All surfaces shall be free of dust, dirt, and other residue resulting from the abrasive blasting operation. No coatings or paint shall be applied over damp or moist surfaces.
- J. All welds shall be neutralized with a suitable chemical compatible with the specified coating or paint.
- K. Pitted areas on ferrous metal scheduled for immersion shall be repaired by either filling with Tnemec Series 63-1500 Epoxy Filler and Surfacer or by welding. Epoxy filler shall be feathered smooth. No protrusions or spatter will be allowed. Pits deeper than 1/8" shall be filled by welding.
- L. Specific Surface Preparation: Surface preparation for the specific system shall be as noted in Sections 2.04, 2.05.

3.3 APPLICATION - GENERAL

- A. Coating and paint application shall conform to the requirements of SSPC-PA 1, latest revision, for "Shop, Field and Maintenance Painting".
- B. Thinning shall be permitted only as recommended by the manufacturer and approved by the ENGINEER, and utilizing the thinners stated in Sections 2.04, 2.05.
- C. Each application of coating or paint shall be applied evenly, free of brush marks, sags, runs, with no evidence of poor workmanship. Care shall be exercised to avoid lapping on glass or hardware. Coatings and paints shall be sharply cut to lines. Finished surfaces shall be free from defects or blemishes.
- D. Protective coverings or drop cloths shall be used to protect floors, fixtures and equipment. Care shall be exercised to prevent coatings or paints from being spattered onto surfaces which are not to be coated or painted. Report to the ENGINEER surfaces from which materials cannot be satisfactorily removed.
- E. When two coats of coating or paint are specified, where possible, the first coat shall contain sufficient approved color additive to act as an indicator of coverage or the two coats must be of contrasting color.
- F. Film thickness per coat as specified in Sections 2.04, 2.05 are the minimum required. If roller application is deemed necessary, the CONTRACTOR shall apply additional coats as to achieve the specified thickness.
- G. All material shall be as specified.

3.4 COATING SYSTEMS APPLICATION

- A. After completion of surface preparation as specified for the specific system, materials shall be applied as noted in Sections 2.04, 2.05.
- B. Care shall be taken so as to eliminate overspray and dry spray on the tank interior. Where such conditions are encountered, the surface shall be cleaned of all over spray and dry spray prior to the application of the succeeding coat.
- C. Areas rendered inaccessible after tank erection such as the spaces between roof plates and rafters shall receive the full coating system prior to erection and/or assembly.

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3.5 COLOR SCHEME

- A. The ENGINEER shall select colors for the project. The CONTRACTOR shall submit current charts of the manufacturer's available colors to the ENGINEER thirty (30) days prior to the start of coating and painting.

3.6 SOLVENT VAPOR REMOVAL

- A. All solvent vapors shall be completely removed by suction-type exhaust fans and blowers before placing tank in operating service.
- B. All solvent vapors will be exhausted both during and after coating application as per AWWA D102 to allow the proper curing of the coating material.
- C. Ventilation shall be continued until such time as the coating has reached "full cure" as specified by the coating manufacturer.

3.7 CLEAN UP

- A. Upon completion of the work, all staging, scaffolding and containers shall be removed from the site or destroyed in a manner approved by the ENGINEER. Coating or paint spots or oil stains upon adjacent surfaces shall be removed and the jobsite cleaned. All damage to surfaces resulting from the work of this section shall be cleaned, repaired or refinished to the satisfaction of the ENGINEER at no cost to the OWNER.

-- END OF SECTION --