

INVITATION TO BID
September 12, 2016

BID TITLE: WATER TANK PAINTING

BID #: PU161012

BID OPENING DATE: Wednesday, October 12, 2016 at 2:00 p.m.

SUBSTANTIAL COMPLETION DATE: December 30, 2016

BID BOND REQUIRED: Yes

Southampton County is seeking bids from qualified contractors for general repairs, surface preparation, painting of all interior/exterior surfaces and disinfection of three (3) potable water storage tanks at the following locations:

1. Newsoms Elevated Tank - 200,000 gallons capacity
2. Southampton Business Park Elevated Tank - 150,000 gallons capacity
3. Branchville Ground Storage Tank - 103,650 gallons capacity

Questions regarding the specifications for this bid should be directed to Julien Johnson, Director of Public Utilities, at the following:

- Office - (757) 742-6233
- Mobile - (757) 653-8562
- Email - jjohnson@southamptoncounty.org

Southampton County reserves the right to reject any or all bids, to waive informalities or irregularities, to negotiate contract terms and options with the successful low bidder, and to award the contract in the best interest of Southampton County to the extent allowable by law.

All bids must be submitted in a sealed envelope plainly marked, "**Bid No. PU161012 – WATER TANK PAINTING**", with the name and address of the bidder in the upper left hand corner and accompanied by complete specifications for the items offered. **E-Mail and facsimile responses are not acceptable.** No responsibility will attach the Owner or any official or employee thereof for the pre-opening of, post-opening of, or the failure to open a proposal not properly addressed and identified.

BIDS RECEIVED AFTER THE DATE AND TIME SPECIFIED WILL BE REJECTED
BIDS MUST BE SEALED, MARKED, AND DELIVERED TO:

Mail To:
Southampton County
Michael W. Johnson
County Administrator
P.O. Box 400
Courtland, VA 23837-0400
Phone: (757) 653-3015

Overnight To:
Southampton County
Michael W. Johnson
County Administrator
26022 Administration Center Drive
Courtland, VA 23837
(757) 653-3015

1. **SUBMISSION AND RECEIPT OF BIDS:**

- A. To receive consideration, bids must be received prior to the specified time and date of opening as designated in the invitation. E-mail and facsimile submittals are not acceptable.
- B. Unless otherwise specified, bidders must use the bid form furnished by the County. Failure to do so may cause bid to be rejected. Removal of any part of the bid form may invalidate the bid.
- C. Bids having any erasures, corrections, or typewriter opaquing fluid are not acceptable and will result in rejection of the bid. Prior to submission or opening, errors may be crossed out, corrections entered in ink and initialed in ink by the person signing the bid. No bid shall be altered or amended after the specified time for opening.
- D. All bids shall be either typewritten or filled in with ink in order to be considered. Also, all bids must be signed in ink in order to be considered.
- E. Each bid shall be accompanied by a bid bond with surety satisfactory to the County or a cashier's or certified check, made payable to the Treasurer, Southampton County, in an amount equal to 5 per cent of the total bid price. In the event of default by the bidder the 5 per cent deposit shall be and represent liquidated damages to the County.
- F. The successful bidder shall purchase and maintain in force, at his own expense, such insurance as will protect him and the County from claims which may arise out of or result from the Bidder's execution of the work. The Bidder shall name Southampton County as an additional insured by endorsement to the policy and shall maintain the following coverage limits:
 - Commercial Liability - \$1,000,000 combined single limit per occurrence
 - Automobile Liability - \$1,000,000 combined single limit per occurrence
 - Workers Compensation - Virginia statutory limits
 - Employer's Liability - \$100,000 per accident
 - Umbrella Liability Insurance - \$2,000,000 each occurrence

2. **PRICING:**

- A. Bidder warrants by virtue of bidding that prices, terms, and conditions quoted in his bid will be firm for acceptance for a period of sixty (60) days from the date of bid opening unless otherwise stated by the County or bidder.
- B. Only firm pricing shall be given consideration. General terms such as "Price in effect at time of delivery" shall be cause for rejection of bid.

3. **PERFORMANCE BOND:** The County shall require the successful bidder to furnish a performance bond and labor and material payment bond with surety satisfactory to the County in the amount of contract price at the time of or prior to execution of the contract. If no bond is furnished by the successful bidder, the County reserves the right to award the contract to the next lowest responsible bidder with the next lowest responsive bid.

4. **BRAND NAMES:** Unless otherwise provided in the invitation for bid, the name of a certain brand, make, or manufacturer does not restrict bidders to the specific brand, make, or manufacture mentioned; it conveys the general style, type, character, and quality of the material desired. The County shall determine in its sole discretion material bid to be equal of that specified, considering quality, workmanship, economy of operation, and suitability for the purpose intended, shall be accepted.

7. **SPECIFICATIONS:** The bidders must also indicate any variances from our specification and/or conditions, NO MATTER HOW SLIGHT. If variations are not stated in the bid, it will be assumed that the product or service fully complies with our specifications. The County Administrator is not responsible for locating or securing any information which is not included in the bid. Accordingly, to insure that sufficient information is available, the bidder must furnish as part of his bid all descriptive material, (i.e., Catalog Cuts, illustrations, drawings, specifications, or other information) necessary for the County Administrator to determine whether the goods or services offered meet the salient characteristic requirements of the bid.

8. **NOTICE OF AWARD:** Notice of award will be emailed to all bidders.

9. **GENERAL SPECIFICATIONS**

9.01 SCOPE

A. The work of this section includes general repairs, surface preparation and painting of all surfaces related to the following water storage tanks:

<u>Tank</u>	<u>Address</u>	<u>Capacity</u>
Newsoms Elevated WST	Newsoms, VA	200,000 Gallons
Agri-Business Park Elevated WST	Courtland, VA	150,000 Gallons
Branchville Ground WST	Branchville, VA	103,650 Gallons

B. The following general repairs shall be completed as part of this project:

Newsoms Elevated WST

- Install anti-climb gate to leg ladder to prevent unauthorized personal access to the tank.
- Install (2) safety chains to corral entrance or gate to meet OSHA safety standards.
- Install safety climb system to the leg/dome ladders to meet OSHA safety standards.
- Drill extra holes in catwalk flooring to allow ponding water to drain off properly.
- Install new screen to vent system to prevent possible contamination to the stored water and allow proper ventilation to the tank.
- Repair float system to assure an accurate visual reading of the water level.
- Install safety climb system to interior ladder to meet OSHA safety standards.
- Install pressure gauge on riser to be able to calculate water level.

Agri-Business Park Elevated WST

- Install anti-climb gate to leg ladder to prevent unauthorized personal access to the tank.
- Install safety chain to catwalk entrance to meet OSHA safety standards.
- Install safety climb system to the leg/dome ladders to meet OSHA safety standards.
- Drill extra holes in catwalk flooring to allow ponding water to drain off properly.
- Remove FAA lighting system per owners request.
- Install new screen to vent system to prevent possible contamination to the stored water and allow proper ventilation to the tank.
- Install lock to primary hatch to meet AWWA Standards and prevent possible contamination to the stored water.
- Install new screen to overflow system to meet AWWA standards.
- Repair float system to assure an accurate visual reading of the water level.
- Install safety climb system to interior ladder to meet OSHA safety standards.
- Install pressure gauge on riser to be able to calculate water level.

Branchville Ground WST

- Install anti-climb gate to caged ladder to prevent unauthorized personal access to the tank.
- Caulk around foundation.
- Install (3) new 12" vents to prevent possible contamination to the stored water and allow proper ventilation to the tank.
- Install lock and repair hinges to primary hatch & secondary hatch to meet AWWA Standards and prevent possible contamination to the stored water.
- Remove FAA lighting from tank per customer request.
- Install new interior ladder to meet OSHA safety standards.
- Remove and replace fourteen (14) interior roof support beams as outlined in the inspection report.

9.02 REFERENCE SPECIFICATIONS AND STANDARDS

- A. Without limiting the general aspects of other requirements of these specifications, all surface preparation, coating and painting of surfaces shall conform to the applicable requirements of the Steel Structures Painting Council, NACE, ICRI, CSP and the manufacturer's printed instructions.
- B. The Owner's decision shall be final as the interpretation and/or conflict between any of the referenced specifications and standards contained herein.

9.03 CONTRACTOR

- A. The Contractor shall have five years practical experience and successful history in the application of specified products in similar projects. He/she shall substantiate this requirement by furnishing a list of references and job completions.
- B. Applicator must successfully demonstrate to the product manufacturer the ability to apply the material correctly and within the confines of the specifications. The Contractor must provide a letter from the manufacturer stating their acceptance of the Contractor for this project to apply these products.
- C. The Contractor shall possess the applicable license to perform the work as herein described and as specified by local, state and federal laws. The Contractor's licenses shall appear in the lower left-hand corner of the envelope containing the bids.
- D. The Contractor shall provide a site mock up with each paint system as a representative of how the systems shall be installed and their final appearance, which is to be approved by the Owner before any work is started. For overcoat projects this mock up shall be used to test for adequate adhesion. This approved mock up shall be the quality standard for the rest of the project.

9.04 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 Owner.
- B. Surface Preparation: Surface preparation will be based upon comparison with: "Pictorial Surface Preparation Standards for Painting Steel Surfaces", SSPC-Vis-1 and ASTM Designation D2200; "Standard Methods of Evaluating Degree of Rusting on Painted Steel Surfaces" SSPC-Vis-2 and ASTM Designation D610; "Visual Standard for Surfaces of New Steel Airblast Cleaned with Sand Abrasive" or "Guideline for Selecting and Specifying Concrete Surface Preparation for Sealers, Coating and and Polymer Overlays" and ICRI CSP Surface Profile Chips.
- C. Application: No coating or paint shall be applied when the surrounding air temperature or the temperature of the surface to be coated is below the minimum required temperature for the specified product; to wet or damp surfaces or in fog or mist; when the temperature is less than 5 degrees F. above the dewpoint; when the air temperature is expected to drop below 40 degrees F. 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 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. Thickness and Holiday Checking: Thickness of coatings and paint shall be checked with a non-destructive, magnetic type thickness gauge. The integrity of coated interior surfaces shall be tested with an approved inspection device. Non-destructive holiday detectors shall not exceed the

voltage recommended by the manufacturer of the coating system. For thicknesses between 10 and 20 mils (250 microns and 500 microns), a non-sudsing type wetting agent, such as Kodak Photo-Flo, may be added to the water prior to wetting the detector sponge. All pinholes shall be marked, repaired in accordance with the manufacturer's printed recommendations, and retested. No pinholes or other irregularities will be permitted in the final coating.

- E. Inspection Devices: The Contractor shall furnish, until final acceptance of coating and painting, 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 Standard certified thickness calibration plates to test accuracy of dry film thickness gauges and certified instrumentation to test accuracy of holiday detectors.
- F. All necessary testing equipment shall be made available for the Owner's use at all times until final acceptance of application. Holiday detection devices shall be operated in the presence of the Owner.
- G. All parties, to include the owner or owners representative, contractor, applicator, installer, any subs and the product manufacture, shall meet prior to any work is started to review the spec and discuss job specific expectations, need and requirements.

9. 05 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 personnel 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 contaminant to the 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 protective devices.
- E. Illumination: Adequate illumination shall be provided while work is in progress, including explosion-proof lights and electrical equipment. Whenever required by the Owner, the Contractor shall provide additional illumination and necessary supports to cover all areas to be inspected. The Owner shall determine the level of illumination for inspection purposes.
- F. Confined Space: When applicable it is mandatory that all work be performed in compliance with OSHA'S rules and regulations for working in confined space. Atmospheres within confined spaces as defined by the Occupational Safety and Health Administration are classified as being either a Class A, Class B or Class C environment.

10. **PRODUCTS**

10.01 GENERAL

- A. Materials specified are those that have been evaluated for the specific service. Products of the Tnemec Co. are listed to establish a standard of quality. Equivalent materials of other manufacturers may be substituted on written approval of the Owner.

**Tnemec Company, Incorporated 101 Rice Bent Way Suite 5 Columbia, SC 29229
(919)830-6816. Contact is Mr. Joseph Saleeby or jsaleeby@tnemec.com.**

Requests for substitution shall include manufacturer's literature for each product giving the name, product number, generic type, descriptive information, solids by volume, recommended dry film thickness and certified test reports showing results to equal the performance criteria of the products specified herein. No request for substitution shall be considered that will decrease film thickness or offer a change in the generic type of coatings specified. In addition, a list of five similar projects shall be submitted in which each product has been used and rendered satisfactory service.

Requests for product substitution shall be made at least fourteen (14) days prior to bid date.

Any material savings shall be passed to the owner in the form of a contract dollar reduction.

Manufacturer's color charts shall be submitted to the Owner at least 30 days prior to paint application. General contractor and painting contractor shall coordinate work so as to allow sufficient time (five to ten days) for paint to be delivered to the jobsite.

- B. All materials shall be brought to the jobsite in original, sealed containers. They shall not be used until the Owner has inspected contents and obtained data from information on containers or labels. Materials exceeding storage life recommended by the manufacturer shall be rejected.
- C. All coatings and paints shall be stored in enclosed structures to protect them from weather and excessive heat or cold. Flammable coatings or paint must be stored to conform to State and Federal safety codes for flammable coating or paint materials. At all times, coating and paints shall be protected from freezing.
- D. Hold-Point Inspections: A NACE Level 3 Certified Coating Inspector and technical representative from the paint manufacturer shall visit the job site to climb the tank and to support the Contractor's personnel or the Owner as needed and/or requested. Visits shall be made on a weekly basis as a minimum or as needed to review hold points for the Owner. Additional visit shall be made as needed and/or requested by Owner or Contractor. 48 hours' notice is required by the Contractor for each hold point inspection.
- E. Pre-Paint Meeting: All parties, to include the owner or owners representative, contractor, installer, any subs and the manufacturers NACE Certified Representative shall meet prior to any work is started to review the spec and discuss job specific expectations, needs and requirements.
- F. Coating Systems

SOUTHAMPTON BUSINESS PARK AND NEWSOMS ELEVATED WATER STORAGE TANKS

Interior Wet: Full Removal

Surface Preparation: SSPCSP10/NACE No. 2 Near White Metal Blast Cleaning and provide a minimum angular anchor profile of 2.0 mils. All unwelded seams will be filled. The surface shall be clean and dry before painting.

1st Coat: Polyamioamine Epoxy applied at 6.0 – 8.0 dry mils.
(or performance equal to Tnemec Series N140 Pota-Pox Plus)

Stripe Coat: Polyamioamine Epoxy applied to all sharpe angles, edges and weld seams at 4.0 – 6.0 dry mils. (or performance equal to Tnemec Series N140 Pota-Pox Plus)

2nd Coat: Polyamidoamine Epoxy applied at 6.0 – 8.0 dry mils.
(or performance equal to Tnemec Series N140 Pota-Pox Plus)

Caulking: Seal all inaccessible surfaces under interior wet conditions using NSF approved caulk.

Exterior: Overcoat

Surface Preparation: Pressure wash using Simple Green solution to remove all loose paint, dirt, dust, rust and other foreign matter. SSPC SP2 Hand Tool Cleaning to all bare metal surfaces. Sand and feather smooth edges of tightly adhered existing coating.

Spot Prime: Mastic Waterborne Acrylic applied at 6.0 – 8.0 dry mils.
(or performance equal to Tnemec Series 118 Uni-Bond Mastic)

1st Full Coat: Mastic Waterborne Acrylic applied at 6.0 – 8.0 dry mils.
(or performance equal to Tnemec Series 118 Uni-Bond Mastic)

2nd Full Coat: Mastic Waterborne Acrylic applied at 6.0 – 8.0 dry mils.
(or performance equal to Tnemec Series 118 Uni-Bond Mastic)

Finish Coat: HDP Acrylic Polymer applied at 2.0-3.0 dry mils.
(or performance equal to Tnemec Series 1028 Enduratone)

Lettering / Logo: Two coats of HDP Acrylic Polymer shall be used for the lettering/ logo applied at a dry film thickness of 2.0-3.0 per coat.

BRANCHVILLE GROUND WATER STORAGE TANK

Interior: Full Removal

Surface Preparation: SSPCSP10/NACE No. 2 Near White Metal Blast Cleaning and provide a minimum angular anchor profile of 2.0 mils. All unwelded seams will be filled. The surface shall be clean and dry before painting.

1st Coat: Polyamioamine Epoxy applied at 6.0 – 8.0 dry mils.
(or performance equal to Tnemec Series N140 Pota-Pox Plus)

Stripe Coat: Polyamioamine Epoxy applied to all sharpe angles, edges and weld seams at 4.0 – 6.0 dry mils. (or performance equal to Tnemec Series N140 Pota-Pox Plus)

2nd Coat: Polyamidoamine Epoxy applied at 6.0 – 8.0 dry mils.
(or performance equal to Tnemec Series N140 Pota-Pox Plus)

Caulking: Seal all inaccessible surfaces under interior wet conditions using NSF approved caulk.
Structural I-Beams: Shall receive a full additional coat of Polyamioamine Epoxy applied at 4.0 – 6.0 dry mils. (or performance equal to Tnemec Series N140 Pota-Pox Plus)

Stripe Coat: As listed above shall also be applied using a roll application to areas where pitted steel is difficult to cover using a spray method.

Exterior: Overcoat

Surface Preparation: Pressure wash using Simple Green solution to remove all loose paint, dirt, dust, rust and other foreign matter. Uniformly sand to abrade and dull the sheen of the existing aluminum paint. SSPC SP2 Hand Tool Cleaning to all bare metal surfaces. Sand and feather smooth edges of tightly adhered existing coating.

Spot Prime: Mastic Waterborne Acrylic applied at 6.0 – 8.0 dry mils.
(or performance equal to Tnemec Series 118 Uni-Bond Mastic)

1st Full Coat: Mastic Waterborne Acrylic applied at 6.0 – 8.0 dry mils.
(or performance equal to Tnemec Series 118 Uni-Bond Mastic)

2nd Full Coat: Mastic Waterborne Acrylic applied at 6.0 – 8.0 dry mils.
(or performance equal to Tnemec Series 118 Uni-Bond Mastic)

Finish Coat: HDP Acrylic Polymer applied at 2.0-3.0 dry mils.
(or performance equal to Tnemec Series 1028 Enduratone)

Lettering / Logo: Two coats of HDP Acrylic Polymer shall be used for the lettering/ logo applied at a dry film thickness of 2.0-3.0 per coat.

11. **EXECUTION**

11.01 GENERAL

- A. All surface preparation, coating and painting shall conform to applicable standards of the Steel Structures Painting Council, NACE ICRI, CSP and the manufacturer's printed instructions. Material applied prior to approval of the surface by the Owner shall be removed and reapplied to the satisfaction of the Owner 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 maintained and transfers of key personnel shall be coordinated with the Owner.
- C. The Contractor shall provide an English speaking supervisor at the work site during cleaning and application operations. The supervisor shall have the authority of sign change orders, coordinate work, and make decisions pertaining to the fulfillment of the contract.
- D. Dust, dirt, oil, grease, rust or any foreign matter that will affect the adhesion or durability of the finish must be removed by washing with clean rags dipped in an approved cleaning solvent and wiped dry with clean rags.
- E. 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 Owner.
- F. Application of the first coat shall follow immediately after surface preparation and cleaning and before rust bloom or flash rusting occurs. Any cleaned areas not receiving first coat within this period shall be re-cleaned prior to application of first coat.

11.02 SURFACE PREPARATION

- A. The latest revision of the following surface preparation specifications of the Steel Structures Painting Council and NACE shall form a part of this specification:
1. Solvent Cleaning (SSPC-SP1): 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-SP2): Removal of loose rust, loose mill scale and other detrimental foreign matter to degree specified by hand chipping, scraping, sanding and wire brushing.
 3. Brush-Off Blast Cleaning (SSPC-SP7/NACE 4): Brush-off blast cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, loose mill scale, loose rust, and loose coating. Tightly adherent mill scale, rust, and coating may remain on the surface. Mill scale, rust, and coating are considered tightly adherent if they cannot be removed by lifting with a dull putty knife after abrasive blast cleaning has been performed.
 4. Near White Blast Cleaning (SSPC-SP10/NACE 2): Blast cleaning to nearly white metal cleanliness, until at least 95 percent of each element of surface area is free of all visible residues.
 5. Power Tool Cleaning to Bare Metal (SSPC-SP11): This standard covers the requirements for power tool cleaning to produce a bare metal surface and to retain or produce a minimum 25 micrometer (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.
- B. Blast cleaning for all surfaces shall be by dry method unless otherwise directed.
- C. Particle size of abrasives used in blast cleaning shall be that which will produce a 1.5 – 2.0 mil (37.5 microns - 50.0- microns) surface profile or in accordance with recommendations of the manufacturer of the specified coating or paint system to be applied.
- D. 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 by the Owner.
- E. During blast cleaning operations, caution shall be exercised to insure that surrounding existing coatings or paint are not exposed to abrasion from blast cleaning.
- F. 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 nuisance to the surrounding environment.
- G. Blast cleaned surfaces shall be cleaned prior to application of specified coatings or paint. No coatings or paint shall be applied over damp or moist surfaces.
- H. Specific Surface Preparation: Surface preparation for the specific system shall be as noted in Section 2.01 Paragraphs D.
- I. During the blast operations the steel may exhibit flash rusting, turning or blackening. Testing for chlorides and chloride remediation will be required at no extra cost to the owner.

11.03 CONTAINMENT

- A. Containment and disposal of debris and/or paint chips is required.
 - 1. All debris generated from the pressure washing of the tank shall be disposed of in the proper manner by the Contractor. Application for the necessary approvals and permits shall be made by the Contractor and coordinated with the Owner.
- B. Interior Surface:
 - 1. Clean all areas of the interior of the tank, including the riser, underside of the roof, and all wetted areas, to conform to the requirements for Near White Blast Cleaning, SSPC-SP10/NACE 2, to remove all rust, mill scale, old coating and foreign matter.
 - 2. The Contractor will be required to collect, analyze and dispose of all debris generated during the removal of the existing coating as outlined above.
- C. Exterior Surface:
 - 1. Provisions shall be made to contain all the pressure washing debris and paint chips generated from the cleaning operations. The Contractor will be required to protect the ground surface and collect and dispose of all debris generated during the removal of the existing coating as outlined above.

11.04 APPLICATION, GENERAL

- A. Coating and paint application shall conform to the requirements of the Steel Structures Painting Council Paint Application Specification SSPC-PA1, latest revision, for "Shop, Field and Maintenance Painting," and the manufacturer of the coating and paint materials.
- B. Thinning shall be permitted only as recommended by the manufacturer approved by the Owner, and utilizing the thinners stated in Section 2.01 Paragraphs D.
- 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 paint from being spattered onto surfaces that are not to be coated or painted. Surfaces from which materials cannot be removed satisfactorily shall be recoated or repainted as required to produce a finish satisfactory to the Owner.
- 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 specified in Section 2.01 Paragraphs D are 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 applied as specified.
- H. All welds, edges and other irregular surfaces shall receive a brush and/or roll coat of the specified product prior to application of the first complete coat.

11.05 COATING SYSTEMS APPLICATION

- A. After completion of surface preparation as specified for the specific system, materials shall be applied as noted in Section 2.01 Paragraphs D.

11.06 COLOR SCHEME

- A. Colors: Submittals will be made to the Owner for approval prior to application.

11.07 SOLVENT VAPOR REMOVAL

- A. Where appropriate all solvent vapors shall be completely removed by suction-type exhaust fans and blowers before placing in operating service.

11.08 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 Owner. Coating or paint spots and oil or 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 Owner at no cost to the Owner.

11.09 WARRANTY

- A. The Contractor will warrant the work free of defects in material and workmanship for a period of 1 years from the acceptance of the work. At the end of one year, the Contractor will return for a one-year anniversary inspection of the work. The Contractor will correct any deficiencies found with no cost to the owner. Inspections shall be conducted in to conform to owners spec.

**SOUTHAMPTON COUNTY
BID FORM**

DESCRIPTION

TOTAL COST

All material, equipment, labor and supervision associated with general repairs, surface preparation, painting of all interior/exterior surfaces and disinfection of three (3) potable water storage tanks at the following locations: Newsoms, Southampton Business Park and Branchville. All work shall be completed in accordance with the attached project specifications.

\$ _____

PER ATTACHED SPECIFICATIONS

OFFER

In compliance with the bid information, the undersigned offers and agrees, if this offer is accepted within _____ calendar days (30 calendar days unless a different period is inserted by the bidder) from the bid opening date specified above, to furnish any and all items upon which prices are offered, at the price set opposite each item, delivered at the designated points(s) within the time specified.

BIDDER/COMPANY NAME: _____

BY (SIGNATURE): _____

TYPED NAME OF BIDDER: _____

STREET ADDRESS: _____

CITY/STATE: _____

FEDERAL ID NUMBER: _____

EMAIL ADDRESS _____

DATE: _____ PHONE: _____ FAX: _____

LUMP SUM BID BREAKDOWN

COST	
Newsoms Tank	
Exterior Renovation	\$
Interior Renovation	\$
Repairs	\$
Total:	\$
Southampton Business Park Tank	
Exterior Renovation	\$
Interior Renovation	\$
Repairs	\$
Total:	\$
Branchville Ground Tank	
Exterior Renovation	\$
Interior Renovation	\$
Repairs	\$
Total:	\$
GRAND TOTAL:	\$



UNI-BOND MASTIC SERIES 118

PRODUCT PROFILE

GENERIC DESCRIPTION Mastic Waterborne Acrylic

COMMON USAGE A high-build, rust-inhibitive, elastomeric coating formulated for exceptional adhesion and corrosion resistance over minimally prepared aged coating systems. Series 118 is an excellent choice for projects where abrasive blast cleaning of the substrate is not possible and an anti-corrosive coating is needed. Uni-Bond Mastic accepts a variety of high-performance topcoats for the creation of a long-term protective and aesthetic coating system.

COLORS 1281 White, 03BR Washed Khaki, 06WH Albatross, 18YW Sponge, 19RD Salmon, 20GN Fairway, 25BL Fountain Bleu, 30GR Comet, 34GR Deep Space, 36BL Touch of Blue, 45GR Captain Hook, 83BR Kindling.

FINISH Matte

COATING SYSTEM

PRIMERS **Steel:** Self-priming

TOPCOATS Series 30, 72, 73, 700, V700, 701, V701, 740, 750, 1026, 1028, 1029, 1070, 1070V, 1071, 1071V, 1072, 1072V, 1074, 1074U, 1075, 1075U or 1095. **Note:** Series 118 is not intended to be a finish coat. A topcoat is strongly recommended for aesthetics and avoidance of dirt accumulation.

SURFACE PREPARATION

STEEL Minimum surface preparation of bare steel or previously painted steel requires a cleanliness level as defined by SSPC-SP WJ-4/NACE WJ-4 Light Cleaning by use of Low Pressure Water Cleaning (LP WC) between 3,500 and 5,000 psi using a 0 degree rotating nozzle. If all visible contaminants, loose mill scale, loose rust and other corrosion products, and loose paint have not been removed, SSPC-SP2 Hand Tool Cleaning or SSPC-SP3 Power Tool Cleaning should be employed until the surface cleanliness definition is met.

GALVANIZED STEEL & ALUMINUM Surface preparation recommendations will vary depending on substrate and exposure conditions. Consult the latest version of Tnemec Technical Bulletin 10-78 or contact your Tnemec representative or Tnemec Technical Services.

ALL SURFACES Must be clean, dry and free of dust, dirt, oil, grease and other contaminants.

TECHNICAL DATA

VOLUME SOLIDS 55.0 ± 2.0% †

RECOMMENDED DFT 6.0 to 8.0 mils (150 to 205 microns) per coat. **Note:** Two coats are required over bare steel. Overcoating an aged system that is mostly intact and tightly adhered can be achieved by spot priming prior to applying a full coat.

CURING TIME

Temperature	To Touch	To Handle	To Recoat
75°F (24°C)	30 minutes	4 hours	8 hours

Curing time varies with surface temperature, air movement, humidity and film thickness.

VOLATILE ORGANIC COMPOUNDS **Unthinned:** 0.26 lbs/gallon (31 grams/litre) †

HAPS **Unthinned:** 0.02 lbs/gal solids

THEORETICAL COVERAGE 882 mil sq ft/gal (21.6 m²/L at 25 microns). See APPLICATION for coverage rates. †

NUMBER OF COMPONENTS One

PACKAGING 5 gallon (18.9L) pails and 1 gallon (3.79L) cans.

NET WEIGHT PER GALLON 11.51 ± 0.25 lbs (5.1 ± .11 kg) †

STORAGE TEMPERATURE Minimum 45°F (7°C) Maximum 110°F (43°C)

TEMPERATURE RESISTANCE (Dry) Continuous 170°F (77°C) Intermittent 200°F (93°C)

SHELF LIFE 6 months at recommended storage temperature

FLASH POINT - SETA N/A

HEALTH & SAFETY Paint products contain chemical ingredients which are considered hazardous. Read container label warning and Material Safety Data Sheet for important health and safety information prior to the use of this product.
Keep out of the reach of children.

UNI-BOND MASTIC | SERIES 118

APPLICATION

COVERAGE RATES

	Dry MILS (Microns)	Wet MILS (Microns)	Sq Ft/Gal (m ² /Gal)
Suggested	7.0 (175)	13.0 (330)	126 (11.7)
Minimum	6.0 (150)	11.0 (280)	147 (13.7)
Maximum	8.0 (205)	15.0 (380)	110 (10.2)

Allow for overspray and surface irregularities. Wet film thickness is rounded to the nearest 0.5 mil or 5 microns. Application of coating below minimum or above maximum recommended dry film thicknesses may adversely affect coating performance. †

MIXING

Mix by stirring to uniform consistency without creating air bubbles. Stir thoroughly, making sure no pigment remains on the bottom of the can.

THINNING

DO NOT THIN.

APPLICATION EQUIPMENT

Airless Spray

Tip Orifice	Atomizing Pressure	Mat'l Hose ID	Manifold Filter
0.015"-0.027" (380-685 microns)	2500-3000 psi (172-206 bar)	3/8" (9.5 mm)	30 mesh (600 microns)

Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions.

Roller: Rolling is an acceptable method of building a film to the proper thickness, however it will not produce an aesthetically pleasing finish. Use 3/8" to 3/4" (9.5 mm to 19.0 mm) synthetic woven nap covers. Multiple coats may be required to achieve recommended film thickness, depending on applicator technique and roller nap size.

Brush: Recommended for small areas only. Use a stiff nylon brush. Work material into voids and avoid brushing out too thin. **Note:** Applying this product by roller or brush will result in a film with stiple and/or brush marks.

SURFACE TEMPERATURE

Minimum 45°F (7°C) Maximum 120°F (49°C)
The surface should be dry and at least 5°F (3°C) above the dew point.

CLEANUP

Flush and clean all equipment immediately after use with clean tap water. Finish by flushing all spray equipment with isopropyl alcohol.

† Values may vary with color.

CAUTION

Dry overspray can be wiped or washed from most surfaces. Satisfactory dry-fall performance depends upon height of work, weather conditions and equipment adjustment. Low temperature and high humidity are of particular concern. Test for each application as follows: Spray from 15 to 25 feet towards paint container. The material then should readily wipe off. **Note:** Heat can fuse-dry overspray to surfaces. Always clean dry overspray from hot surfaces before fusing occurs. Be aware that exterior surface temperatures can be higher than air temperature.

WARRANTY & LIMITATION OF SELLER'S LIABILITY: Tnemec Company, Inc. warrants only that its coatings represented herein meet the formulation standards of Tnemec Company, Inc. THE WARRANTY DESCRIBED IN THE ABOVE PARAGRAPH SHALL BE IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. The buyer's sole and exclusive remedy against Tnemec Company, Inc. shall be for replacement of the product in the event a defective condition of the product should be found to exist and the exclusive remedy shall not have failed its essential purpose as long as Tnemec is willing to provide comparable replacement product to the buyer. NO OTHER REMEDY (INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY, ENVIRONMENTAL INJURIES OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS) SHALL BE AVAILABLE TO THE BUYER. Technical and application information herein is provided for the purpose of establishing a general profile of the coating and proper coating application procedures. Test performance results were obtained in a controlled environment and Tnemec Company makes no claim that these tests or any other tests, accurately represent all environments. As application, environmental and design factors can vary significantly, due care should be exercised in the selection and use of the coating.



PRODUCT PROFILE

- GENERIC DESCRIPTION** HDP Acrylic Polymer
- COMMON USAGE** Water-based, low VOC, High Dispersion Pure acrylic polymer coating providing excellent long term protection in both interior/exterior exposures. May be applied by spray, brush or roller over a variety of solvent and waterborne steel primers. May also be used over many aged coatings. It is mildew resistant and exhibits very good gloss and color stability. Application methods include "dry-fall" under certain conditions (See Application). **Note:** Series 1028's "dry-fall" characteristics help to reduce the potential for overspray problems on buildings and surrounding property.
- COLORS** Refer to Tnemec Color Guide. **Note:** Certain colors may require multiple coats depending on method of application and finish coat color. When feasible, the preceding coat should be in the same color family (blue, gray, etc.), but noticeably different.
- FINISH** Gloss - **Note:** Final gloss level of topcoat can vary depending on number of coats applied. One coat will generally result in a lower sheen than two coats of the material.

COATING SYSTEM

- PRIMERS**
 - Wood:** Series 10-99W, V10-99W or 151-1051
 - Steel:** Series 1, 10, 22, 30, 37H, 66, L69, L69F, N69, N69F, V69, V69F, 90-97, 90G-1K97, 91-H₂O, 94-H₂O, 113, 115, 135, L140, L140F, N140, N140F, V140, V140F, 141, 161, 287, 394. **Note:** Allow Series 10, V10 and 37H to cure three days before topcoating. Additionally, Series 1, 90-97, 90G-1K97, 91-H₂O, 94-H₂O and 394 must be exterior exposed for three days prior to topcoating. **Note:** This product exhibits direct-to-metal capabilities for dry interior environments. Contact Tnemec Technical Service for more information.
 - Aluminum & Galvanized:** Series 66, L69, L69F, N69, N69F, V69, V69F, 115, 135
 - Concrete:** Self-priming or Series 6, 54, 66, L69, L69F, N69, N69F, V69, V69F, 130, 151, 156, 180, 287, 1254
 - CMU:** Series 54, 130, 1254
 - Drywall:** Series 51, 151-1051, 287
- TOPCOATS** Series 1029, 1080, 1081

SURFACE PREPARATION

- STEEL**
 - Weather Exposed:** SSPC-SP6 Commercial Blast Cleaning.
 - Enclosed, Protected & Mild Environments:** SSPC-SP2 Hand Tool or SSPC-SP3 Power Tool Cleaning.
- GALVANIZED STEEL & ALUMINUM** Surface preparation recommendations will vary depending on substrate and exposure conditions. Consult the latest version of Tnemec Technical Bulletin 10-78 or contact your Tnemec representative or Tnemec Technical Services.
- PAINTED SURFACES** Remove chalk and old paint not tightly bonded to the surface. Clean all visible rust using SSPC-SP3 Power Tool Cleaning (interior dry) or to bare metal using SSPC-SP11 Power Tool Cleaning to Bare Metal (weather exposed).
- PRIMED SURFACES** Must be clean, dry and free of dust, dirt, oil, grease and other contaminants. Existing water soluble stains in the substrate or upon the surface must be removed or sealed. Allow new concrete to cure 28 days.

TECHNICAL DATA

- VOLUME SOLIDS** 40.0 ± 2.0% †
- RECOMMENDED DFT** 2.0 to 3.0 mils (50 to 75 microns) per coat.
- CURING TIME**

Temperature	To Touch	To Handle	To Recoat	To Resist Moisture
75°F (24°C)	30 minutes	2 hours	2 hours	6 hours

Curing time varies with surface temperature, air movement, humidity and film thickness.
- VOLATILE ORGANIC COMPOUNDS**
 - Unthinned:** 0.79 lbs/gallon (94 grams/litre)
 - Thinned 5%:** 0.79 lbs/gallon (94 grams/litre) †
- HAPS**
 - Unthinned:** 0.35 lbs/gal solids
 - Thinned 5%:** 0.35 lbs/gal solids
- THEORETICAL COVERAGE** 633 mil sq ft/gal (15.5 m²/L at 25 microns). See APPLICATION for coverage rates. †
- NUMBER OF COMPONENTS** One
- PACKAGING** 5 gallon (18.9L) pails and 1 gallon (3.79L) cans.
- NET WEIGHT PER GALLON** 10.16 ± 0.25 lbs (4.61 ± .11 kg) †
- STORAGE TEMPERATURE** Minimum 35°F (2°C) Maximum 120°F (49°C)
Protect from freezing.
- TEMPERATURE RESISTANCE** (Dry) Continuous 170°F (77°C) Intermittent 200°F (93°C)
- SHELF LIFE** 12 months at recommended storage temperature.
- FLASH POINT - SETA** N/A
- HEALTH & SAFETY** Paint products contain chemical ingredients which are considered hazardous. Read container label warning and Material Safety Data Sheet for important health and safety information prior to the use of this product.
Keep out of the reach of children.

ENDURATONE® | SERIES 1028

APPLICATION

COVERAGE RATES

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m ² /Gal)
Suggested	2.5 (65)	6.5 (165)	257 (23.9)
Minimum	2.0 (50)	5.0 (125)	321 (29.8)
Maximum	3.0 (75)	7.5 (190)	214 (19.9)

Allow for overspray and surface irregularities. Wet film thickness is rounded to the nearest 0.5 mil or 5 microns. Application of coating below minimum or above maximum recommended dry film thicknesses may adversely affect coating performance. †

**MIXING
THINNING
APPLICATION EQUIPMENT**

Stir to uniform consistency without creating air bubbles or foam. Avoid vigorous agitation, boxing or shaking.
Thinning is not normally required, but when needed, thin up to 5% or 1/4 pint (190 mL) per gallon with clean tap water.

Air Spray

Gun	Fluid Tip	Air Cap	Air Hose ID	Mat'l Hose ID	Atomizing Pressure	Pot Pressure
DeVilbiss JGA	E	765 or 704	5/16" or 3/8" (7.9 or 9.5 mm)	3/8" or 1/2" (9.5 or 12.7 mm)	65-75 psi (4.5-5.2 bar)	15-25 psi (1.0-1.7 bar)

Low temperatures or longer hoses require higher pot pressure.

Airless Spray

Tip Orifice	Atomizing Pressure	Mat'l Hose ID	Manifold Filter
0.013"-0.017" (330-430 microns)	2200-3000 psi (152-207 bar)	1/4" or 3/8" (6.4 or 9.5 mm)	60 mesh (250 microns)

Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions.

Note: On projects involving spray equipment being used over consecutive days, follow Cleanup Instructions below and then leave xylol in the system overnight, flushing thoroughly with clean water before each start-up.

Roller: Use 3/8" (9.5 mm) synthetic woven nap roller cover.

Brush: Use high quality nylon or synthetic bristle brushes.

Note: Floetrol may be used at up to 32 ounces per gallon for improved application properties. Dry-fall and cure properties may be affected. For more information, contact Tnemec Technical Service.

SURFACE TEMPERATURE

Minimum 40°F (4°C) Maximum 120°F (49°C)
The surface should be dry and at least 5°F (3°C) above the dew point.

CLEANUP

Flush and clean all equipment immediately after use with water, then use alcohol or Methyl Ethyl Ketone (MEK) on any dried portions.

CAUTION

Dry overspray can be wiped or washed from most surfaces. Satisfactory dry-fall performance depends upon height of work, weather conditions and equipment adjustment. Low temperature and high humidity are of particular concern. Test for each application as follows: Spray from 15 to 25 feet towards paint container. The material then should readily wipe off. **Note:** Heat can fuse-dry overspray to surfaces. Always clean dry overspray from hot surfaces before fusing occurs. Be aware that exterior surface temperatures can be higher than air temperature.

† Values may vary with color.

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POTA-POX® PLUS SERIES N140

PRODUCT PROFILE

- GENERIC DESCRIPTION** Polyamidoamine Epoxy
- COMMON USAGE** Innovative potable water coating which offers high-build edge protection and allows for application at a wide range of temperatures (down to 35°F or 2°C with 44-700 Accelerator). For use on the interior and exterior of steel or concrete tanks, reservoirs, pipes, valves, pumps and equipment in potable water service.
- COLORS** 1211 Red, 1255 Beige, 00WH Tnemec White, 15BL Tank White, 35GR Black and 39BL Delft Blue. **Note:** Epoxies chalk with extended exposure to sunlight. Lack of ventilation, incomplete mixing, miscatalyzation or the use of heaters that emit carbon dioxide and carbon monoxide during application and initial stages of curing may cause yellowing to occur.
- SPECIAL QUALIFICATIONS** Certified by **NSF International** in accordance with **ANSI/NSF Std. 61**. Ambient air cured Series N140 (with or without 44-700 Epoxy Accelerator) is qualified for use on tanks and reservoirs of 1,000 gallons (3,785 L) capacity or greater, pipes 18 inches (46 cm) in diameter or greater, valves four (4) inches (10 cm) in diameter or greater and fittings four (4) inches (10 cm) in diameter or greater. Conforms to **AWWA D 102 Inside Systems No. 1 and No. 2** (with or without 44-700). Conforms to **AWWA C 210** (without 44-700). Contact your Tnemec representative for systems and additional information. A two-coat system at 4.0-6.0 dry mils (100-150 dry microns) per coat passes the performance requirements of MIL-PRF-4556F for fuel storage. Reference the "Search Listings" section of the NSF website at www.nsf.org for details on the maximum allowable DFT.
- PERFORMANCE CRITERIA** Extensive test data available. Contact your Tnemec representative for specific test results.

COATING SYSTEM

- SURFACER/FILLER/PATCHER** 215, 217, 218
- PRIMERS** Self-priming, 22, 91-H₂O, 94-H₂O, L140, L140F, N140F, V140, V140F, 141
- TOPCOATS** **Interior:** Series 22, FC22, L140, L140F, N140, N140F, V140, V140F, 141, 406.
Exterior: Series 27, 66, L69, L69F, N69, N69F, V69, V69F, 72, 73, L140, L140F, N140, N140F, V140, V140F, 156, 157, 161, 175, 180, 181, 446, 740, 750, 1028, 1029, 1074, 1074U, 1075, 1075U, 1077, 1078, 1080, 1081. Refer to COLORS on applicable topcoat data sheets for additional information. **Note:** The following recoat times apply for Series N140: Immersion Service—Surface must be scarified by blasting with fine abrasive after 60 days. Atmospheric Service—After 60 days, scarification or an epoxy tie-coat is required. When topcoating with Series 740 or 750, recoat time for N140 is 21 days. Contact your Tnemec representative for specific recommendations.

SURFACE PREPARATION

- PRIMED STEEL** **Immersion Service:** Scarify the epoxy prime coat surface by abrasive blasting with fine abrasive before topcoating if it has been exterior exposed for 60 days or longer and N140 is the specified topcoat.
- STEEL** **Immersion Service:** SSPC-SP10/NACE 2 Near-White Blast Cleaning with a minimum angular anchor profile of 1.5 mils. **Non-Immersion Service:** SSPC-SP6/NACE 3 Commercial Blast Cleaning with a minimum angular anchor profile of 1.5 mils.
- CAST/DUCTILE IRON** Contact your Tnemec representative or Tnemec Technical Services.
- CONCRETE** Allow new concrete to cure 28 days. For optimum results and/or immersion service, abrasive blast referencing SSPC-SP13/NACE 6, ICRI-CSP 2-4 Surface Preparation of Concrete and Tnemec's Surface Preparation and Application Guide. Fill all holes, pits, voids and cracks with 215, 217 or 218.
- ALL SURFACES** Must be clean, dry and free of oil, grease and other contaminants.

TECHNICAL DATA

- VOLUME SOLIDS** 67.0 ± 2.0% (mixed—A, B & 44-700 Epoxy Accelerator) †
- RECOMMENDED DFT** 2.0 to 10.0 mils (50 to 225 microns) per coat. **Note:** MIL-PRF-4556F applications require two coats at 4.0-6.0 mils (100-150 microns) per coat. Otherwise, the number of coats and thickness requirements will vary with substrate, application method and exposure. Contact your Tnemec representative.

CURING TIME AT 5 MILS DFT Without 44-700 Accelerator:

Temperature	To Handle	To Recoat	Immersion
90°F (32°C)	5 hours	7 hours	7 days
80°F (27°C)	7 hours	9 hours	7 days
70°F (21°C)	9 hours	12 hours	7 days
60°F (16°C)	16 hours	22 hours	9 to 12 days
50°F (10°C)	24 hours	32 hours	12 to 14 days

Curing time varies with surface temperature, air movement, humidity and film thickness. **Note:** For valve applications allow 14 days cure at 75°F (24°C) prior to immersion. For pipe applications allow 30 days cure at 75°F (24°C) prior to immersion. **Ventilation:** When used in enclosed areas, provide adequate ventilation during application and cure. **Note:** Refer to product listing on www.nsf.org for specific potable water return to service information. **Note:** For faster curing and low temperature applications, add No. 44-700 Epoxy Accelerator, see separate product data sheet for cure information.

- VOLATILE ORGANIC COMPOUNDS** **Unthinned:** 2.4 lbs/gallon (285 grams/litre)
Thinned 5% (#60): 2.6 lbs/gallon (311 grams/litre)
Thinned 10% (#4): 2.8 lbs/gallon (334 grams/litre) †
- HAPS** **Unthinned:** 2.4 lbs/gal solids **Thinned 5% (#60):** 2.4 lbs/gal solids
Thinned 10% (#4): 3.3 lbs/gal solids
- THEORETICAL COVERAGE** 1,070 mil sq ft/gal (27.2 m²/L at 25 microns). See APPLICATION for coverage rates. †
- NUMBER OF COMPONENTS** Two: Part A (amine) and Part B (epoxy) — One (Part A) to one (Part B) by volume.

POTA-POX® PLUS | SERIES N140

PACKAGING	5 gallon (18.9L) pails and 1 gallon (3.79L) cans - Order in multiples of 2. Reference 44-700 Epoxy Accelerator product data sheet for its packaging information.
NET WEIGHT PER GALLON	12.66 ± 0.25 lbs (5.82 ± .11 kg) (mixed) †
STORAGE TEMPERATURE	Minimum 20°F (-7°C) Maximum 110°F (43°C)
TEMPERATURE RESISTANCE	(Dry) Continuous 250°F (121°C) Intermittent 275°F (135°C)
SHelf LIFE	Part A: 24 months; Part B: 12 months at recommended storage temperature.
FLASH POINT - SETA	Part A: 82°F (28°C) Part B: 80°F (27°C) 44-700: None
HEALTH & SAFETY	Paint products contain chemical ingredients which are considered hazardous. Read container label warning and Material Safety Data Sheet for important health and safety information prior to the use of this product. Keep out of reach of children.

APPLICATION

COVERAGE RATES	Dry MILS (MICRONS)	Wet MILS (MICRONS)	Sq Ft/Gal (m ² /Gal)
Suggested	6.0 (150)	9.0 (230)	179 (16.6)
Minimum	2.0 (50)	3.0 (75)	537 (49.9)
Maximum	10.0 (225)	15.0 (375)	107 (10.0)

Note: Roller or brush application requires two or more coats to obtain recommended film thickness. Allow for overspray and surface irregularities. Wet film thickness is rounded to the nearest 0.5 mil or 5 microns. Application of coating below minimum or above maximum recommended dry film thicknesses may adversely affect coating performance. Reference the "Search Listings" section of the NSF website at www.nsf.org for details on the maximum allowable DFT. †

- MIXING**
1. Start with equal amounts of both Parts A & B.
 2. Using a power mixer, separately stir Parts A & B.
 3. (For accelerated version. If not using 44-700, skip to No. 4.) Add four (4) fluid ounces of 44-700 per gallon of Part A while Part A is under agitation.
 4. Add Part A to Part B under agitation, stir until thoroughly mixed.
 5. Both components must be above 50°F (10°C) prior to mixing. For application of the unaccelerated version to surfaces between 50°F to 60°F (10°C to 16°C) or the accelerated version to surfaces between 35°F to 50°F (2°C to 10°C), allow mixed material to stand 30 minutes and restir before using.
 6. For optimum application properties, the material temperature should be above 60°F (16°C).
- Note:** The use of more than the recommended amount of 44-700 will adversely affect performance.

THINNING

Use No. 4 or No. 60 Thinner. For air spray, thin up to 10% or 3/4 pint (380 mL) per gallon with No. 4 Thinner or thin up to 5% or 1/4 pint (190 mL) per gallon with No. 60 Thinner. For airless spray, roller or brush, thin up to 5% or 1/4 pint (190 mL) per gallon. **Caution: Series N140 NSF certification is based on thinning with No. 4 or No. 60 Thinner for tanks and only No. 60 Thinner for pipe, valves and fittings.** Use of any other thinner voids ANSI/NSF Std. 61 certification.

POT LIFE

Without 44-700 6 hours at 50°F (10°C) 4 hours at 75°F (24°C) 1 hour at 100°F (38°C)
With 44-700 2 hours at 50°F (10°C) 1 hour at 75°F (24°C) 30 minutes at 100°F (38°C)

SPRAY LIFE

Without 44-700: 1 hour at 77°F (25°C) With 44-700: 30 minutes at 75°F (24°C)
Note: Spray application after listed times will adversely affect ability to achieve recommended dry film thickness.

APPLICATION EQUIPMENT

Air Spray

Gun	Fluid Tip	Air Cap	Air Hose ID	Mat'l Hose ID	Atomizing Pressure	Pot Pressure
DeVilbiss JGA	E	765 or 704	5/16" or 3/8" (7.9 or 9.5 mm)	3/8" or 1/2" (9.5 or 12.7 mm)	75-100 psi (5.2-6.9 bar)	10-20 psi (0.7-1.4 bar)

Airless Spray

Tip Orifice	Atomizing Pressure	Mat'l Hose ID	Manifold Filter
0.015"-0.019" (380-485 microns)	3000-4800 psi (207-330 bar)	1/4" or 3/8" (6.4 or 9.5 mm)	60 mesh (250 microns)

Low temperatures or longer hoses require higher pot pressure. Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions.

Roller: Use 3/8" or 1/2" (9.5 mm to 12.7 mm) synthetic woven nap roller cover. Use longer nap to obtain penetration on rough or porous surfaces.

Brush: Recommended for small areas only. Use high quality natural or synthetic bristle brushes.

SURFACE TEMPERATURE

Without 44-700: Min. 50°F (10°C), Max. 135°F (57°C) With 44-700: Min. 35°F (2°C), Max. 135°F (57°C)
The surface should be dry and at least 5°F (3°C) above the dew point. Coating will not cure below minimum surface temperature.

CLEANUP

Flush and clean all equipment immediately after use with the recommended thinner or MEK.
† Values may vary with color.

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TNEMEC INDUSTRIAL TANK COATING ASSESSMENT & RECOMMENDATION

Assessment Date	September 11, 2014	Tank Capacity	200,000gl
Tank Name	Newsome Tank	Tank Style	Multi-leg Elevated 123'9" HR 28'3"
City, State	Newsome, VA	Tank Fabricator	Phoenix Tanks
Owner	South Hampton County Dept. of Public Utilities	Year Constructed	1995
Designated Use	Potable Water		

EXTERIOR COATINGS

Existing Coating	Utility Service to verify Generic ID.		
Clear Coat Present	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Sample Applied
			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Overall Condition	
<input type="checkbox"/> Excellent	No chalking, fading, cracking, peeling or delamination. Few spot rust areas and excellent adhesion.
<input type="checkbox"/> Good	Minor chalking, fading, cracking, peeling or delamination. Few spot rust areas and good adhesion.
<input checked="" type="checkbox"/> Fair	Widespread chalking, fading, cracking, peeling or delamination. Widespread rust areas and fair adhesion.
<input type="checkbox"/> Poor	Cracking of the coating has exposed the steel. Widespread rust, chalking, peeling and poor adhesion.

Dry Film Thickness			
Exterior Ground	10.7 mil avg	Shell	8.4 mil avg
Exterior Roof	8.3 mil avg	Belly	N/A

Tests Performed	Result
ASTM D 3359 Tape Test	N/A
ASTM D 6677 Knife	6 - Coating is somewhat difficult to remove. Coating chips from 1/8" x 1/8" to 1/4" x 1/4" removed with slight difficulty.
Field Lead Test*	N/A
Test Patch	N/A

**Note: This is a field lead test performed with LeadCheck swabs. We recommend sending a sample to be lab tested.*

Exterior Notes

The exterior coating is cracking, checking, chalking, fading and delaminating. There is a significant amount of rust on the handrails, catwalk, shell and roof with some spot corrosion visible on the roof, rods, legs and belly. There is a significant amount of corrosion on the shell from the hand rail level down. This tank is not a good candidate to receive an overcoat.

INTERIOR COATINGS

Existing Coating:	The interior coating is in poor condition. There is visible corrosion along the welds in multiple areas as well as some pinpoint rusting along the flat plate in and above the water service line. I recommend a full removal of the existing coatings.
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Condition	
<input type="checkbox"/> Excellent	No cracking, peeling, blistering or delamination. Less than 5% rust areas along weld seams and adhesion appears to be good.
<input type="checkbox"/> Good	No cracking, peeling, blistering or delamination. Less than 10% rust areas along weld seams and adhesion appears to be good.
<input checked="" type="checkbox"/> Fair	No cracking, peeling, or delamination. Minor blistering. Less than 20% rust areas along weld seams and adhesion appears to be good.
<input type="checkbox"/> Poor	Blistering and delamination is apparent. 30% or more rust visible.

Dry Film Thickness			
Interior Dry	N/A		
Interior Wet	6.7 mil avg		

MISCELLANEOUS

Lock on Roof Hatch	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Recommended
Overflow Vent Screen	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Roof Vent Screen	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Functioning Water Level Indicator	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Safety Climb Equipment Operational	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Recommend updating every 10 years.

Coating Recommendation:

Exterior Surfaces (Full Removal)

Surface Preparation: SSPC-SP 6/NACE No. 3 Commercial Blast Cleaning to remove the existing coating and provide a 2.0 mil angular anchor profile.

Prime: Series 91H20 Hydro-Zinc applied at 2.5-3.5 dry mils.

Intermediate: Series N69 Hi-Build Epoxoline II applied at 3.0-4.0 dry mils.

Finish: Series 72 Endura-Shield applied at 2.0-3.0 dry mils.

Total of 7.5-10.5 dry mils.

Note: Brush and roller apply an additional coat of Series N69 to all sharp angles, edges and weld seams.

Interior Immersion (Full Removal)

Surface Preparation: SSPC-SP10/NACE 2 Near White Blast Cleaning to remove the existing coating and provide a 2.0 mil angular anchor profile.

Prime: Series 91H20 Hydro-Zinc applied at 2.5-3.5 dry mils.

Intermediate: Series N140 Pota-Pox Plus applied at 4.0 -6.0 dry mils.

Finish: Series N140 Pota-Pox Plus applied at 4.0 - 6.0 dry mils.

Total of 10.5 -15.5 dry mils.

Note: Brush and roller apply an additional coat of Series N140 Pota-Pox Plus to all sharp angles, edges and weld seams.

PICTURES

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<https://www.dropbox.com/sh/moamvv5317hukhe/AABtxRhkgXoyniY5uqjxTH-za?dl=0>

Completed by:



9/17/2014

Joseph Saleeby

Date

NACE Level III Certified Coating Inspector # 13069

TNEMEC INDUSTRIAL TANK COATING ASSESSMENT & RECOMMENDATION

Assessment Date	September 11, 2014	Tank Capacity	150,000gl
Tank Name	Industrial Park Tank	Tank Style	Multi-leg Elevated 151' OF
City, State	Courtland, VA	Tank Fabricator	Caldwell Tanks
Owner	South Hampton County Dept. of Public Utilities	Year Constructed	1996
Designated Use	Potable Water		

EXTERIOR COATINGS

Existing Coating	Utility Service to verify Generic ID.		
Clear Coat Present	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Sample Applied
			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Overall Condition	
<input type="checkbox"/> Excellent	No chalking, fading, cracking, peeling or delamination. Few spot rust areas and excellent adhesion.
<input type="checkbox"/> Good	Minor chalking, fading, cracking, peeling or delamination. Few spot rust areas and good adhesion.
<input checked="" type="checkbox"/> Fair	Widespread chalking, fading, cracking, peeling or delamination. Widespread rust areas and fair adhesion.
<input type="checkbox"/> Poor	Cracking of the coating has exposed the steel. Widespread rust, chalking, peeling and poor adhesion.

Dry Film Thickness			
Exterior Ground	10.8 mil avg	Shell	7.0 mil avg
Exterior Roof	8.4 mil avg	Belly	N/A

Tests Performed	Result
ASTM D 3359 Tape Test	N/A
ASTM D 6677 Knife	6 - Coating is somewhat difficult to remove. Coating chips from 1/8" x 1/8" to 1/4" x 1/4" removed with slight difficulty.
Field Lead Test*	N/A
Test Patch	N/A

**Note: This is a field lead test performed with LeadCheck swabs. We recommend sending a sample to be lab tested.*

Exterior Notes

The exterior coating is cracking, checking, chalking, fading and delaminating. There is a significant amount of rust on the handrails, catwalk, shell and roof with some spot corrosion visible on the rods, legs and belly. This tank is not a good candidate to receive an overcoat.

INTERIOR COATINGS

Existing Coating:	The interior coating is in poor condition. There is visible corrosion along the welds in multiple areas as well as some pinpoint rusting along the flat plate in and above the water service line. I recommend a full removal of the existing coatings.
--------------------------	---

Condition	
<input type="checkbox"/> Excellent	No cracking, peeling, blistering or delamination. Less than 5% rust areas along weld seams and adhesion appears to be good.
<input type="checkbox"/> Good	No cracking, peeling, blistering or delamination. Less than 10% rust areas along weld seams and adhesion appears to be good.
<input checked="" type="checkbox"/> Fair	No cracking, peeling, or delamination. Minor blistering. Less than 20% rust areas along weld seams and adhesion appears to be good.
<input type="checkbox"/> Poor	Blistering and delamination is apparent. 30% or more rust visible.

Dry Film Thickness			
Interior Dry	N/A		
Interior Wet	9.6 mil avg		

MISCELLANEOUS

Lock on Roof Hatch	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Recommended
Overflow Vent Screen	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Roof Vent Screen	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Needs replacement.
Functioning Water Level Indicator	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Safety Climb Equipment Operational	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Recommend updating every 10 years.

Coating Recommendation:

Exterior Surfaces (Full Removal)

Surface Preparation: SSPC-SP 6/NACE No. 3 Commercial Blast Cleaning to remove the existing coating and provide a 2.0 mil angular anchor profile.

Prime: Series 91H20 Hydro-Zinc applied at 2.5-3.5 dry mils.

Intermediate: Series N69 Hi-Build Epoxoline II applied at 3.0-4.0 dry mils.

Finish: Series 72 Endura-Shield applied at 2.0-3.0 dry mils.

Total of 7.5-10.5 dry mils.

Note: Brush and roller apply an additional coat of Series N69 to all sharp angles, edges and weld seams.

Interior Immersion (Full Removal)

Surface Preparation: SSPC-SP10/NACE 2 Near White Blast Cleaning to remove the existing coating and provide a 2.0 mil angular anchor profile.

Prime: Series 91H20 Hydro-Zinc applied at 2.5-3.5 dry mils.

Intermediate: Series N140 Pota-Pox Plus applied at 4.0 -6.0 dry mils.

Finish: Series N140 Pota-Pox Plus applied at 4.0 - 6.0 dry mils.

Total of 10.5 -15.5 dry mils.

Note: Brush and roller apply an additional coat of Series N140 Pota-Pox Plus to all sharp angles, edges and weld seams.

PICTURES

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Completed by:



9/17/2014

Joseph Saleeby

Date

NACE Level III Certified Coating Inspector # 13069

TNEMEC INDUSTRIAL TANK COATING ASSESSMENT & RECOMMENDATION

Assessment Date	September 11, 2014	Tank Capacity	103,650
Tank Name	Branchville Tank	Tank Style	Ground Storage: D-24' -3" H-30' -2"
City, State	Branchville, VA	Tank Fabricator	Richmond Engineering
Owner	South Hampton County Dept. of Public Utilities	Year Constructed	1975
Designated Use	Potable Water		

EXTERIOR COATINGS

Existing Coating	Possibly an oil based aluminum. Utility Service to verify generic ID.		
Clear Coat Present	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Sample Applied
			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Overall Condition	
<input type="checkbox"/> Excellent	No chalking, fading, cracking, peeling or delamination. Few spot rust areas and excellent adhesion.
<input type="checkbox"/> Good	Minor chalking, fading, cracking, peeling or delamination. Few spot rust areas and good adhesion.
<input type="checkbox"/> Fair	Widespread chalking, fading, cracking, peeling or delamination. Widespread rust areas and fair adhesion.
<input checked="" type="checkbox"/> Poor	Cracking of the coating has exposed the steel. Widespread rust, chalking, peeling and poor adhesion.

Dry Film Thickness			
Exterior Ground	3.6 mil avg	Shell	3.1 mil avg
Exterior Roof	2.5 mil avg	Belly	N/A

Tests Performed	Result
ASTM D 3359 Tape Test	N/A
ASTM D 6677 Knife	4 - Coating is somewhat difficult to remove. Coating chips in excess of 1/4" x 1/4" removed using light pressure with knife blade.
Field Lead Test*	N/A Samples taken for testing. Report to come from Utility Service.
Test Patch	N/A

**Note: This is a field lead test performed with LeadCheck swabs. We recommend sending a sample to be lab tested.*

Exterior Notes

The exterior coating is chalking, fading and delaminating. The coating on the roof has weathered away and the steel is exposed to the elements and corrosion is visible. This tank is not a good candidate to receive an overcoat.

INTERIOR COATINGS

Existing Coating:	The interior coating is in poor condition. The roof beams are severely corroded and may be in need of replacement. I recommend a full removal of the existing coatings.
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Condition	
<input type="checkbox"/> Excellent	No cracking, peeling, blistering or delamination. Less than 5% rust areas along weld seams and adhesion appears to be good.
<input type="checkbox"/> Good	No cracking, peeling, blistering or delamination. Less than 10% rust areas along weld seams and adhesion appears to be good.
<input type="checkbox"/> Fair	No cracking, peeling, or delamination. Minor blistering. Less than 20% rust areas along weld seams and adhesion appears to be good.
<input checked="" type="checkbox"/> Poor	Blistering and delamination is apparent. 30% or more rust visible.

Dry Film Thickness			
Interior Dry	N/A		
Interior Wet	9.4 mil avg		

MISCELLANEOUS

Lock on Roof Hatch	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Recommended.
Overflow Vent Screen	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Recommended.
Roof Vent Screen	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Functioning Water Level Indicator	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Safety Climb Equipment Operational	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Ladder Cage is in good shape.

Coating Recommendation:

Exterior Surfaces (Full Removal)

Surface Preparation: SSPC-SP 6/NACE No. 3 Commercial Blast Cleaning to remove the existing coating and provide a 2.0 mil angular anchor profile.

Prime: Series 91H20 Hydro-Zinc applied at 2.5-3.5 dry mils.

Intermediate: Series N69 Hi-Build Epoxoline II applied at 3.0-4.0 dry mils.

Finish: Series 72 Endura-Shield applied at 2.0-3.0 dry mils.

Total of 7.5-10.5 dry mils.

Note: Brush and roller apply an additional coat of Series N69 to all sharp angles, edges and weld seams.

Interior Immersion (Full Removal)

Surface Preparation: SSPC-SP10/NACE 2 Near White Blast Cleaning to remove the existing coating and provide a 2.0 mil angular anchor profile.

Prime: Series 91H20 Hydro-Zinc applied at 2.5-3.5 dry mils.

Intermediate: Series N140 Pota-Pox Plus applied at 4.0 -6.0 dry mils.

Finish: Series N140 Pota-Pox Plus applied at 4.0 - 6.0 dry mils.

Total of 10.5 -15.5 dry mils.

Note: Brush and roller apply an additional coat of Series N140 Pota-Pox Plus to all sharp angles, edges and weld seams.

PICTURES

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