Stennis International Airport
Aircraft Hangar Facility
Fire Protection Sytem Repairs

Scope of Work

1. Provide repairs to the fire pumping system as shown on the Plans and Specifications. Work includes but is not limited the following: Repairing leaks, replacing flange gaskets, painting pipes, installing louvers, repairing damage sheet metal, repair drain lines, repair door, and etc. Flange gaskets shall be Garlock Blue-Gard Style 3000, John Crane Style 2160 or approved equal.

2. Provide identification signs/nameplates on the fire protection system as required by NFPA. Attach properly lettered approved metal signs conforming to NFPA 13 to each valve and alarm device. Permanetly affix design data nameplates to the riser of each system. Provide permanent labels in foam rooms, spaced at 20 maximum intervals along pipe, indicating “WATER”, “FOAM CONCENTRATE”, and “FOAM SOLUTION” on corresponding piping.

Any technical questions regarding the work contact John Stein, P.E., Digital Engineering at (228)463-0130 or jstein@deii.net.

To arrange a site visit, please contact Roland from Selex Galieo at (228)493-0403.

STENNIS INTERNATIONAL AIRPORT AIRCRAFT HANGER FACILITY - FIRE PROTECTION SYTEM REPAIRS
HANCOCK COUNTY, MISSISSIPPI

CDBG PROJECT NO. R-128-023-06-HCED
DEII PROJECT NO. 711-06-HNGR

Schedule of Bid Items

ITEM NO.	ITEM	UNIT	ESTIMATED QUANTITY	UNIT PRICE	AMOUNT
1	Identification Signs/Nameplates - Mechanical Room/Foam System	LS	100%		
2	Fire Pump House Repairs	LS	100%		
3	Identification Signs/Nameplates - Fire Pump House	LS	100%		
	TOTAL QUOTE			$	

TOTAL QUOTE PRICE (in words): $_____

_____Dollars
(Base Bid Unit Price Sum in words)

SECTION 09900

PAINTING

PART 1 – GENERAL

1.01 SCOPE OF WORK

A. The work of this section consists of furnishing all materials, labor, equipment and incidentals required and performing all the painting necessary to complete this contract in its entirety.

B. It is the intent of these specifications to paint all exposed pipe, fittings, fire hydrants, valves, and pumping equipment. Minor items omitted in the schedule of work shall be included in the work of this section when they come within the general intent of the specifications as stated herein. Painting of pump station proper is not required by this section.

1.02 RELATED WORK NOT INCLUDED

Shop priming and surface preparation of equipment and piping are specified in the respective section with the item to be primed.

1.03 QUALITY ASSURANCE

Include on label of containers:

A. Manufacturer's name.

B. Type of paint.

C. Manufacturer's stock number.

D. Color.

E. Instructions for reducing, where applicable.

F. Label analysis.

G. Federal specification number.

1.04 SUBMITTALS

Submit to the Engineer as provided in the General Conditions and Section 01340, shop drawings, manufacturer's specifications, and printed technical data on the proposed paint systems and detailed surface preparation, application procedures and dry film thickness.

1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Delivery of Materials

1. Deliver sealed containers with labels legible and intact and with batch codes indicating when the coating was manufactured.
2. Deliver to project site or segregate at source of supply in advance of need so as to allow 15 days for testing.

B. Storage Materials

1. Store only acceptable project materials on project site.
2. Store in a suitable location.
3. Restrict storage to paint materials and related equipment.
4. Comply with health and fire regulations.
5. No paint shall be stored on site or applied which exceeds the product shelf life at time of application.

1.06 JOB CONDITIONS

A. Environmental Requirements

1. Comply with manufacturer's recommendations as to environmental conditions under which coating systems can be applied.
2. Do not apply finish in areas where dust is being generated.

B. Protection

Cover or otherwise protect finished work of other trades or surfaces not being painted concurrently or not to be painted.

PART 2 – PRODUCTS

2.01 MATERIALS

A. All painting materials shall be fully the equal to those manufactured by the Tnemec Co. or Dupont. The painting schedule has been prepared on the basis of Tnemec products (unless otherwise noted) and Tnemec recommendations for application. No brand other than those named will be considered for approval unless the brand and type of paint proposed for each item in the following schedule, together with sufficient data substantiated by certified tests conducted at no expense to the Owner, to demonstrate its equality to the paint(s) named, is submitted in writing to the Engineer for approval within 30 days after the signing of the Notice to Proceed. The type and number of tests performed shall be subject to the Engineer's approval. Minimum standards for testing shall be in accordance with the applicable testing methods of the American Society for Testing Material (ASTM) and Federal Standard No. 141 or other approved methods when not covered by the preceding.

B. All painting materials shall be delivered in unbroken packages bearing the manufacturer's brand and name. They shall be used without adulteration and mixed, thinned, and applied in strict accordance with manufacturer's directions for the applicable materials and surface and with the Engineer's approval before using.

C. Shop priming shall be done with primers that are guaranteed by the manufacturer to be compatible with the finish paints to be used.

D. No paint containing lead will be allowed. All thinners used shall be supplied from the coating manufacturer.

E. All recommendations of the paint manufacturer in regard to the health and safety of workers shall be followed.

F. All pipe support floor stands shall be painted.

2.02 FABRICATED EQUIPMENT

A. Unless otherwise indicated below, all fabricated equipment shall be shop primed and shop or field finished.

B. All items to be shop primed shall be thoroughly cleaned of all loose material prior to priming. If, in the opinion of the Engineer, any prime coating shall have been improperly applied or if material contrary to these specifications shall have been used, that coating shall be removed by sandblasting to white metal and reprimed in accordance with these specifications.

C. All shop prime coats shall be of the correct materials and applied in accordance with these specifications. The Contractor shall remove any prime coats not in accordance with these specifications by sand-blasting and apply the specified prime coat at no additional cost to the Owner.

D. Shop primed surfaces shall be cleaned thoroughly and retouched with the specified primer before the application of successive paint coats in the field.

E. Shop finish coats may be the standard finish as ordinarily applied by the manufacturer when approved by the Engineer.

F. The Contractor shall be responsible for and take whatever steps are necessary to properly protect the shop prime and finish coats against damage from weather or any other cause.

G. If, in the opinion of the Engineer, a shop finish coat does not give the protection quality of other work of similar nature, the Contractor shall apply the coat or coats of paint as directed by the Engineer to accomplish the desired protection quality. The Engineer may request proof of purchase of specified materials by the Contractor and/or fabricator if the need arises.

2.03 EXTRA PAINT

Furnish one clearly marked unopened gallon can or kit, if coating is a catalyzed type coating, of each type and each color of paint used.

PART 3 – EXECUTION

3.01 PREPARATION OF SURFACES

A. All surfaces to be painted shall be prepared as specified herein and shall be dry and clean before painting.

B. All surfaces to be coated shall be power tool cleaned in accordance with SSPC-SP3 prior to priming. All metal welds, blisters, and other defects shall be ground and sanded smooth in accordance with SSPC-SP-3 and feather-edged to create a smooth transition between the new and the existing coatings. All pits and dents shall be filled and all imperfections shall be corrected so as to provide a smooth surface for painting. All rust, loose scale, oil, grease, and dirt shall be removed by use of approved solvents, wire brushing, or sanding.

C. Exposed Pipe: Bituminous coated pipe shall not be used in exposed locations. Pipe which shall be exposed after project completion shall be primed in accordance with the requirements herein. Any bituminous coated pipe which is inadvertently installed in exposed locations shall be sandblasted clean before priming and painting. After installation of all exterior pipe, exposed flanged joints shall have the gap between adjoining flanges sealed with a single component Thiokol caulking to prevent rust stains.

D. Shop-Finished Surfaces: All shop-coated surfaces shall be protected from damage and corrosion before and after installation by treating damaged areas immediately upon detection. Abraded or corroded spots on shop-coated surfaces shall be "Hand Cleaned" and then touched up with the same materials as the shop coat. All shop coated surfaces which are faded, discolored, or which require more than minor touchup, in the opinion of the Engineer, shall be repainted.

3.02 PAINTING SYSTEMS

A. All colors will be selected by the Engineer based on the color numbers contained in the color code schedule. The color for all piping, both interior and exterior, shall be Desert Tan, or approved equal, unless otherwise instructed by the Owner.

B. The following surfaces shall have the types of paint schedule below applied at the dry film thickness (DPT) in mils per coat noted.

1. Exterior non-submerged ferrous metals.
   a. One (1) coat No. 1 Omnithane on properly prepared unprimed metal or touchup (2.5-3.5 Dry Film Mils)
   b. One (1) coat No. 66 Epoxoline (3.0-5.0 D.F.M./coat)
   c. One (1) coat No. 1074 Endura-Shield II (3.0-5.0 D.F.M./coat)

2. Interior non-submerged ferrous metals.
   a. One (1) coat No. 1 Omnithane on properly prepared unprimed metal or touchup (2.5-3.5 D.F.M.)
   b. Two (2) coats No. 66 Epoxoline (3.0-5.0 D.F.M./coat)

3. Gypsum Board:
   a. Primer: Latex-based, interior primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.2 mils (0031 mm).
   b. First and Second Coats: Latex enamel paint with an Eggshell finish applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.8 mils (0.071mm).
      1. PPG: 89 Lineor Man Hall Eggshell Latex Wall and Trim Paint.
      2. Devoe: 34XX Wonder-Tones Interior Latex Eggshell Enamel.
      3. Moore: Moore’s Regal AquaVelvet #319.
      4. P & L: Z/F 4000 Series Accolade Interior Velvet.

3.03 WORKMANSHIP

A. General

1. Primer (spot) and paint used for a particular surface shall, in general, be as scheduled for that type of new surface. Confirm with the paint manufacturer that the paint proposed for a particular repaint condition will be compatible with the existing painted surface. Sample repainted areas on the actual site will be required to ensure this compatibility. Finished repainted areas shall be covered by the same guarantee specified for the remainder of work.

2. At the request of the Engineer, samples of the finished work prepared in strict accordance with these specifications shall be furnished and all painting shall be equal in quality to the approved samples. Finished areas shall be adequate for the purpose of determining the quality of workmanship. Experimentation with color tints shall be furnished to the satisfaction of the Engineer where standard chart colors are not satisfactory.

3. On metal surfaces, apply each coat of paint at the rate specified by the manufacturer to achieve the minimum dry mill thickness required. If material has thickened or must be diluted for application by spray gun, the coating shall be built up to the same film thickness achieved with undiluted material. One gallon of paint, as originally furnished by the manufacturer, shall not cover a greater area when applied by spray gun than when applied unthinned by brush. Deficiencies in film thickness shall be corrected by the application of an additional coat(s).

4. Paints shall be mixed in proper containers of adequate capacity. All paints shall be thoroughly stirred before use and shall be kept stirred while using. No unauthorized thinners or other materials shall be added to any paint.

B. Field Priming

1. Steel members, metal castings, mechanical and electrical equipment, and other metals which are shop primed before delivery at the site, will not require a prime coat on the job, provided the Contractor and/or subcontractor apply only the brand and type of coating specified as the "Standard of Quality" for the total coating system applied. All piping and other bare metals to be painted shall receive one (1) coat of primer before exposure to the weather, and this prime coat shall be the first coat as specified in the painting schedule.

2. Surfaces that have been shop painted and have been damaged, or where the shop coats or coats of paint have deteriorated, shall be properly cleaned and retouched before any successive painting is done on them in the field. All such field painting shall match as nearly as possible the original finish.

C. Field Painting

1. All painting at the site shall be designated as Field Painting and shall be under the direct and complete control of the Engineer, and only skilled painters and specialists, where required, shall be used on the work.

2. All paint shall be in environmental conditions that are in accordance with manufacturer’s instructions. Unless coating manufacturer's technical information states otherwise, no paint shall be applied unless the surface and air temperature is 5°F above the dew point.

3. Successive coats of paint shall be tinted so as to make each coat easily distinguishable from each other with the final undercoat tinted to the approximate shade of the finished coat.

4. Finish surfaces shall not show brush marks or other irregularities. Undercoats shall be thoroughly and uniformly sanded with No. 100 sandpaper or equal to remove defects and provide a smooth even surface. Top and bottom edges of doors shall be painted and all exterior trim shall be back-primed before installation.

5. Painting shall be continuous and shall be accomplished in an orderly manner so as to facilitate inspection.

6. All materials shall be brush painted unless spray painting is specifically approved by the Engineer.

7. All surfaces to be painted, as well as the atmosphere in which painting is to be done, shall be kept warm and dry by heating and ventilation, if necessary, until each coat of paint has hardened. Any defective paint shall be scraped off and repainted in accordance with the Engineer's directions.

8. Before final acceptance of the work, all damaged surfaces of paint shall be cleaned and repainted as directed by the Engineer.

9. Valves and fittings shall be painted the same color as the pipe.

10. It shall be the responsibility of the coating manufacturer's representative to provide on site technical assistance to the Engineer and Contractor and to report his findings from the on-site inspection as to surface preparation, application procedures, and dry film thickness to the Engineer on a timely basis unless deemed unnecessary by the Engineer.

3.04 CLEANUP

A. The premises shall at all times be kept free from accumulation of waste material and rubbish caused by employees or work. At the completion of the painting, remove all tools, surplus materials, and all rubbish from and about the site.

B. Upon completion, remove all paint where it has been spilled, splashed, or splattered on floors, fixtures, equipment, and all other surfaces, leaving the work ready for inspection.

(End of Section)