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ADDENDUM #1

Project No.:	16-0053.03	**Date:**	October 24, 2016
Project:	Owosso Wastewater Treatment Plant	**A/E Firm:**	C2AE
	Clarifier Equipment Replacement	**Project Manager:**	Jim Minster, PE
Owner:	City of Owosso		
	301 W. Main Street		
	Owosso, Michigan 48867		

The following changes, revisions, modifications, etc. shall be incorporated into the contract documents, specifications, and plans.

BID FORM

A1.1 Refer to page 13, Signature Page and Legal Status. The Bidder shall acknowledge receipt of Addenda #1 by indicating so in the spaces provided on page 13.

SPECIFICATIONS

A1.2 Refer to Technical Specifications): Add Section 099710 Special Coatings (attached) to the technical specifications.

A1.3 Section 464321, Part 2-Products,

a. Paragraph 2.1A: Revise text: All circular clarifier mechanisms shall be furnished and warrantied by a single equipment supplier.

b. Paragraph 2.1B: Add ClearStream as an approved manufacturer.

c. Paragraph 2.11: Delete item C

PLANS

A1.4 Sheet M-100 - Delete:
a. Remove 8” Cleanouts
b. Remove ½” Polymer + 1” Process Water and HB’s
c. Remove Mechanical Flocculator
d. Remove 4” Recirculated Sludge CL Elev. 727.75

A1.5 Sheet M-101 – Delete:
a. Install 8” Cleanouts
b. Install ½” + 1” Process Water and HB’s
c. Install 4” Re-circulated Sludge Piping
d. Installation of measuring device

SECTION 099710 – SPECIAL COATINGS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Coating systems for wastewater processing facilities.

B. Surface preparation.

C. Field application of special coatings.

D. Surfaces to receive high performance coating are indicated in the Coating Application Schedule.

1.2 RELATED SECTIONS

A. Section 01 3000 – Administrative Requirements

B. Section 05 5213 - Mechanical Identification: Identification of mechanical equipment.

1.3 REFERENCES

A. ANSI/NSF 61 - Drinking Water System Components - Health Effects.

B. ASTM D 16 - Terminology Relating to Paint, Varnish, Lacquer, and Related Products.

C. ASTM D 4263 - Indicating Moisture in Concrete by the Plastic Sheet Method.

D. ASTM F 1869 - Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.

E. AWWA C 652 - Disinfection of Water-Storage Facilities.

F. AWWA D 102 - Painting Steel Water Storage Tanks.

G. International Concrete Repair Institute (ICRI) Guideline No. 03732 - Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays.

H. SSPC-SP 1 - Solvent Cleaning.

I. SSPC-SP 2 - Hand Tool Cleaning; Society for Protective Coatings; 1982 (Ed. 2004).

J. SSPC-SP 3 - Power Tool Cleaning; Society for Protective Coatings; 1982 (Ed. 2004).

K. SSPC-SP 5/NACE 1 - White Metal Blast Cleaning; Society for Protective Coatings; 2000 (Ed. 2004).

L. SSPC-SP 6/NACE 3 - Commercial Blast Cleaning; Society for Protective Coatings; 2000 (Ed. 2004).

M. SSPC-SP 7 - Brush-Off Blast Cleaning; Society for Protective Coatings; 2000 (Ed. 2004).

N. SSPC-SP 10/NACE 2 - Near-White Blast Cleaning; Society for Protective Coatings; 2000 (Ed. 2004).

O. SSPC-SP 11 - Power Tool Cleaning to Bare Metal; Society for Protective Coatings; 1987 (Ed. 2004).

P. SSPC-SP 13/NACE 6 - Surface Preparation of Concrete.

1.4 DEFINITIONS

A. Definitions of Painting Terms: ASTM D 16, unless otherwise specified.

B. Dry Film Thickness (DFT): Thickness of a coat of paint in fully cured state measured in mils (1/1000 inch).

1.5 SUBMITTALS

A. Submit in accordance with Section 01 3000 - Administrative Requirements, and the General and Supplementary Conditions.

B. Product Data: Submit manufacturer's product data for each coating, including generic description, complete technical data, surface preparation, and application instructions.

1. Cross-reference products to coating system and locations of application areas. Use same designations indicated on Drawings and in schedules.

C. Schedule of surface preparation, by surface to be coated, for the project.

1. Cross-reference surface preparation to coating system and locations of application areas. Use same designations indicated on Drawings and in schedules.

D. Color Samples: Submit manufacturer’s color samples showing full range of standard colors.

E. Manufacturer’s Quality Assurance: Submit manufacturer’s certification that coatings comply with specified requirements and are suitable for intended application.

F. Applicator's Quality Assurance: Submit list of a minimum of 5 completed projects of similar size and complexity to this Work. Include for each project:

1. Project name and location.
2. Name of owner.
3. Name of contractor.
4. Name of engineer.
5. Name of coating manufacturer.
6. Approximate area of coatings applied.
7. Date of completion.

1.6 QUALITY ASSURANCE

A. Applicator Qualifications: Engage an experienced applicator who has successfully completed coating system applications similar in material and extent to those indicated for the Project.

1. Experienced in application of specified coatings for a minimum of 5 years on projects of similar size and complexity to this Work.
2. Applicator's Personnel: Employ persons trained for application of specified coatings.

B. Manufacturer's Qualifications:

1. Single-Source Responsibility: Provide primers, undercoat and finish coat materials from a single manufacturer for the entire project. Use only thinners recommended by the manufacturer and only within recommended limits.
2. Specialize in manufacture of coatings with a minimum of 10 years successful experience.
3. Able to demonstrate successful performance on comparable projects.

C. Mockups: Apply benchmark samples of each coating system indicated to verify preliminary selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.

1. Engineer will select one surface to represent surfaces and conditions for application of each type of coating and substrate.

    a. Wall and Ceiling Surfaces: Provide samples of at least 100 sq. ft.
    b. Other Items: Engineer will designate items or areas required.

2. Apply benchmark samples after permanent lighting and other environmental services have been activated.
3. Final approval of color selections will be based on benchmark samples.

    a. If preliminary color selections are not approved, apply additional benchmark samples of additional colors selected by Engineer at no added cost to Owner.

4. .

1.7 PROJECT CONDITIONS

A. Apply special coatings in accordance with the manufacturer’s requirements.

B. Weather:

1. Apply coatings only when temperature of surfaces to be coated and surrounding air temperatures are within manufactures requirements.
2. Do not apply coatings in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.
3. Wind: Do not spray coatings if wind velocity is above manufacturer’s limit.

C. Ventilation: Provide ventilation during coating evaporation stage in confined or enclosed areas in accordance with AWWA D 102.

D. Dust and Contaminants:

1. Schedule coating work to avoid excessive dust and airborne contaminants.
2. Protect work areas from excessive dust and airborne contaminants during coating application and curing.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to the job site in the manufacturer's original, new, unopened packages, and containers bearing manufacturer's name and label, and the following information:

1. Coating or material name.
2. Manufacturer.
3. Color name and number.
4. Batch or lot number.
5. Date of manufacture.
6. Mixing and thinning instructions.

B. Storage:

1. Store materials in a clean dry area and within temperature range in accordance with manufacturer's instructions.
2. Keep containers sealed until ready for use.
3. Do not use materials beyond manufacturer’s shelf life limits.

C. Handling: Protect materials during handling and application to prevent damage or contamination.

PART 2 - PRODUCTS

2.1 SPECIAL COATINGS, GENERAL

A. Material Compatibility:

1. Provide products of a single manufacturer for the project.

2.2 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the Work include the following:

1. Tnemec Company Incorporated, 6800 Corporate Drive, Kansas City, Missouri 64120-1372. Toll Free (800) 863-6321. Phone (816) 483-3400. Fax (816) 483-3969. Web Site: www.tnemec.com.
2. Or approved equal.

2.3 COATING SYSTEMS FOR INTERIOR CONCRETE FLOORS AND STAIR TREADS

A. Two-Component, Polyamide-Epoxy Coatings for new construction.

1. Surface Preparation: SSPC-SP 13/NACE 6. Shot blast or mechanically abrade.
2. Primer: Series 201 Epoxoprime. DFT 6.0 to 8.0 mils.
3. Finish Coat: Series 280 Tneme-Glaze. DFT 6.0 to 8.0 mils. Orange peel finish.
4. Total DFT: 12.0 to 16.0 mils.

B. Clear Sealer/Hardener for new construction.

1. First Coat: Series 629 CT Densifyer. 300-350 Sq.ft./Gal.
2. Second Coat: Series 629 CT Densifyer. 350-400 Sq.ft./Gal.
3. Or approved equal.

C. Two-Component, Polyamide-Epoxy Coatings for existing painted construction.

1. Surface Preparation: SSPC-SP 13/NACE 6. Shot blast or mechanically abrade.
2. Primer: Series 201 Epoxoprime. DFT 6.0 to 8.0 mils.
3. Finish Coat: Series 280 Tneme-Glaze. DFT 6.0 to 8.0 mils. Orange peel finish.
4. Total DFT: 12.0 to 16.0 mils.

2.4 COATING SYSTEMS FOR INTERIOR CONCRETE

A. Two-Component, Polyamide-Epoxy Coatings for new construction.

1. Surface Preparation: SSPC-SP 13/NACE 6. Abrasive blast.

2. Primer: Series 218 MortarClad. Patching and filling voids and bugholes.
3. Intermediate Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.
4. Finish Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.
5. Total DFT: 8.0 to 12.0 mils plus filler.

B. Two-Component, Polyamide-Epoxy Coatings for existing painted construction.

1. Surface Preparation: Clean, dry and free of oil, grease and other contaminants.
2. Primer: Series 218 MortarClad. Patching and filling voids and bugholes.
3. Intermediate Coat: 27 F.C. Typoxy. DFT 4.0 to 6.0 mils.
4. Finish Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.
5. Total DFT: 8.0 to 12.0 mils.

2.5 COATING SYSTEMS FOR SUBMERGED OR INTERMITTENTLY SUBMERGED CONCRETE

A. Two-Component, Polyamide-Epoxy, Coal Tar Coating for new construction.

1. Surface Preparation: SSPC-SP 13/NACE 6. Brush-off blast.
2. Primer: Series 218 MortarClad. Patching and filling voids and bugholes.
3. Intermediate Coat: 46H-413 Hi-Build Tneme-Tar. DFT 14.0 to 20.0 mils.
4. Finish Coat: 46H-413 Hi-Build Tneme-Tar. DFT 14.0 to 20.0 mils.
5. Total DFT: 28.0 to 40.0 mils.

B. Two-Component, Polyamide-Epoxy, Coal Tar Coating for existing painted surfaces.

1. Surface Preparation: SSPC-SP 13/NACE 6. Abrasive blast. Completely remove existing coatings.
2. Primer: Series 218 MortarClad. Patching and filling voids and bugholes.
3. Intermediate Coat: 46H-413 Hi-Build Tneme-Tar. DFT 14.0 to 20.0 mils.
4. Finish Coat: 46H-413 Hi-Build Tneme-Tar. DFT 14.0 to 20.0 mils.
5. Total DFT: 28.0 to 40.0 mils.

C. Modified polyurethane coating for new construction.

1. Surface Preparation: SSPC-SP 13/NACE 6. Brush-off blast.
2. Primer: Series 218 MortarClad. Patching and filling voids and bugholes.
3. Intermediate Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.
4. Finish Coat: Series 262 Elasto-Shield. DFT 50.0 mils minimum.
5. Total DFT: 54.0 mils minimum.

D. Modified polyurethane coating for existing painted surfaces.

1. Surface Preparation: SSPC-SP 13/NACE 6. Abrasive blast. Completely remove existing coatings.
2. Primer: Series 218 MortarClad. Patching and filling voids and bugholes.
3. Intermediate Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.
4. Finish Coat: Series 262 Elasto-Shield. DFT 50.0 mils minimum.

5. Total DFT: 54.0 mils minimum.

2.6 COATING SYSTEMS FOR INTERIOR CONCRETE MASONRY

A. Two-Component, Polyamide-Epoxy Coatings for new construction.

1. Surface Preparation: SSPC-SP 13/NACE 6. Clean and dry.
2. Primer: Series 130 Envirofill. Spreading rate 60 to 80 sq ft/gal.
3. Intermediate Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.
4. Finish Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.
5. Total DFT: 8.0 to 12.0 mils plus filler.

B. Two-Component, Polyamide-Epoxy Coatings for existing painted construction.

1. Surface Preparation: Clean, dry and free of oil, grease and other contaminants.
2. Primer: 27 F.C. Typoxy. DFT 4.0 to 6.0 mils.
3. Finish Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.
4. Total DFT: 8.0 to 12.0 mils.

2.7 COATING SYSTEMS FOR EXTERIOR CONCRETE

A. Two-component, modified epoxy coating for new construction.

1. Surface Preparation: Clean, dry and free of oil, grease, form release agents and other contaminants.
2. First Coat: Series 156 Enviro-Crete. DFT 4.0 to 8.0 mils.
3. Finish Coat: Series 156 Enviro-Crete. DFT 4.0 to 8.0 mils.

B. Two-component, modified epoxy coating for existing painted construction.

1. Surface Preparation: Remove chalk and old paint not tightly bonded to the surface. Apply test patch to check adhesion.
2. First Coat: Series 156 Enviro-Crete. DFT 4.0 to 8.0 mils.
3. Finish Coat: Series 156 Enviro-Crete. DFT 4.0 to 8.0 mils.

2.8 COATING SYSTEMS FOR INTERIOR FERROUS METAL

A. Two-Component, Polyamide-Epoxy Coatings for new construction.

1. Surface Preparation: SSPC-SP 13/NACE 6. Clean and dry.
2. Primer: Tneme-Zinc Series 90-97. DFT 2.5 to 3.5 mils.
3. Intermediate Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.
4. Finish Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.
5. Total DFT: 10.5 to 15.5 mils.

B. Two-Component, Polyamide-Epoxy Coatings for existing painted construction.

1. Surface Preparation: Clean, dry and free of oil, grease and other contaminants.
2. Primer: 27 F.C. Typoxy. DFT 4.0 to 6.0 mils.
3. Finish Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.
4. Total DFT: 8.0 to 12.0 mils.

2.9 COATING SYSTEMS FOR EXTERIOR FERROUS METAL

A. Two-component, pigmented, aliphatic, polyurethane coating for new construction.

1. Surface Preparation: SSPC-SP 6.
2. Primer: 90-97 Tneme-Zinc. DFT 2.5 to 3.5 mils.
3. Intermediate Coat: Series 66 Hi-Build Epoxoline. DFT 2.0 to 3.0 mils.
4. Finish Coat: Series 1074 Endura-Shield II. DFT 2.0 to 5.0 mils.
5. Total DFT: 6.5 to 11.5 mils.

B. Two-component, pigmented, aliphatic, polyurethane coating for existing painted construction.

1. Surface Preparation: In accordance with manufacturer's instructions.
2. Primer: 27 F.C. Typoxy. DFT 4.0 to 6.0 mils.
3. Intermediate Coat: Series 66 Hi-Build Epoxoline. DFT 2.0 to 3.0 mils.
4. Finish Coat: Series 1074 Endura-Shield II. DFT 2.0 to 5.0 mils.
5. Total DFT: 8.0 to 14.0 mils.

2.10 COATING SYSTEMS FOR SUBMERGED OR INTERMITTENTLY SUBMERGED FERROUS METAL

A. Two-Component, Polyamide-Epoxy Coal Tar for new construction.

1. Surface Preparation: SSPC-SP 6.
2. Primer: 90-97 Tneme-Zinc. DFT 2.5 to 3.5 mils.
3. Intermediate Coat: 46H-413 Hi-Build Tneme-Tar. DFT 14.0 to 20.0 mils.
4. Finish Coat: 46H-413 Hi-Build Tneme-Tar. DFT 14.0 to 20.0 mils.
5. Total DFT: 30.5 to 43.5 mils.

B. Two-Component, Polyamide-Epoxy Coal Tar for existing painted construction.

1. Surface Preparation: SSPC-SP 6. Completely remove existing coating.
2. Primer: 90-97 Tneme-Zinc. DFT 2.5 to 3.5 mils.
3. Intermediate Coat: 46H-413 Hi-Build Tneme-Tar. DFT 14.0 to 20.0 mils.
4. Finish Coat: 46H-413 Hi-Build Tneme-Tar. DFT 14.0 to 20.0 mils.
5. Total DFT: 30.5 to 43.5 mils.

2.11 COATING SYSTEMS FOR INTERIOR CAST OR DUCTILE IRON PIPE AND FITTINGS

A. Two-Component, Polyamide-Epoxy Coatings for new construction.

1. Surface Preparation: In accordance with manufacturer's instructions.
2. Primer: Series 37H Chem-Prime HS. DFT 2.0 to 3.0 mils.
3. Intermediate Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.
4. Finish Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.
5. Total DFT: 10.0 to 15.0 mils.

B. Two-Component, Polyamide-Epoxy Coatings for existing painted construction.

1. Surface Preparation: Clean, dry and free of oil, grease and other contaminants.
2. Primer: 27 F.C. Typoxy. DFT 4.0 to 6.0 mils.
3. Finish Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.
4. Total DFT: 8.0 to 12.0 mils.

2.12 COATING SYSTEMS FOR EXTERIOR CAST OR DUCTILE IRON PIPE AND FITTINGS

A. Two-component, pigmented, aliphatic, polyurethane coating for new construction.

1. Surface Preparation: In accordance with manufacturer's instructions.
2. Primer: Series 66 Hi-Build Epoxoline. DFT 3.0 to 5.0 mils.
3. Intermediate Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.
4. Finish Coat: Series 1074 Endura-Shield II. DFT 2.0 to 3.0 mils.
5. Total DFT: 9.0 to 14.0 mils.

B. Two-component, pigmented, aliphatic, polyurethane coating for existing painted construction.

1. Surface Preparation: In accordance with manufacturer's instructions.
2. Primer: 27 F.C. Typoxy. DFT 4.0 to 6.0 mils.
3. Intermediate Coat: Series 66 Hi-Build Epoxoline. DFT 2.0 to 3.0 mils.
4. Finish Coat: Series 1074 Endura-Shield II. DFT 2.0 to 5.0 mils.
5. Total DFT: 8.0 to 14.0 mils.

2.13 COATING SYSTEMS FOR SUBMERGED OR INTERMITTENTLY SUBMERGED CAST OR DUCTILE IRON PIPE AND FITTINGS

A. Two-Component, Polyamide-Epoxy Coal Tar for new construction.

1. Surface Preparation: In accordance with manufacturer's instructions.
2. Primer: Series 37H Chem-Prime HS. DFT 2.0 to 3.0 mils.
3. Intermediate Coat: 46H-413 Hi-Build Tneme-Tar. DFT 14.0 to 20.0 mils.
4. Finish Coat: 46H-413 Hi-Build Tneme-Tar. DFT 14.0 to 20.0 mils.

5. Total DFT: 30.5 to 43.5 mils.

B. Two-Component, Polyamide-Epoxy Coal Tar for existing painted construction.

1. Surface Preparation: In accordance with manufacturer's instructions.
2. Primer: Series 37H Chem-Prime HS. DFT 2.0 to 3.0 mils.
3. Intermediate Coat: 46H-413 Hi-Build Tneme-Tar. DFT 14.0 to 20.0 mils.
4. Finish Coat: 46H-413 Hi-Build Tneme-Tar. DFT 14.0 to 20.0 mils.
5. Total DFT: 30.5 to 43.5 mils.

2.14 COATING SYSTEMS FOR SECONDARY CONTAINMENT

A. Two-Component, Cycloaliphatic Amine Epoxy Coatings for Sodium Hypochlorite Containment: Provide two coats with a total dry film thickness of 16 to 24 mils.

1. Surface Preparation: SSPC-SP 13/NACE 6. Brush-off blast.
2. Primer: Series 218 MortarClad. Patching and filling voids and bugholes.
3. First and Finish Coats: Tnemec: Series 61 Tneme-Liner.

2.15 COATING SYSTEMS FOR SECONDARY CONTAINMENT

A. Two-Component, Polyamide-Epoxy and pigmented, aliphatic, polyurethane coatings for ferric or ferrous chloride containment.

1. Surface Preparation: SSPC-SP 13/NACE 6. Brush-off blast.
2. Primer: Series 218 MortarClad. Patching and filling voids and bugholes.
3. First Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.
4. Second Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.
5. Finish Coat: Series 290 CRU. DFT 2.0 to 3.0 mils.
6. Total DFT: 10.0 to 15.0 mils plus filler.

2.16 COATING SYSTEMS FOR PLASTER AND GYPSUM BOARD

A. Two-Component, Polyamide-Epoxy Coatings for new construction.

1. Surface Preparation: Clean and dry.
2. Primer-sealer: Series 115 Uni Bond DF. DFT 1.0 to 2.0 mils.
3. Intermediate Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.
4. Finish Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.
5. Total DFT: 5.0 to 8.0 mils.

B. Two-Component, Polyamide-Epoxy Coatings for existing painted construction.

1. Surface Preparation: Clean and dry.
2. Primer: 27 F.C. Typoxy. DFT 4.0 to 6.0 mils.
3. Finish Coat: Series 66 Hi-Build Epoxoline. DFT 4.0 to 6.0 mils.

4. Total DFT: 8.0 to 12.0 mils.

2.17 COATING SYSTEMS FOR GALVANIZED STEEL, NONFERROUS METALS, STAINLESS STEEL, INSULATED PIPE AND PVC

A. Exterior Exposed: Two-component, pigmented, aliphatic, polyurethane coating.

1. Surface Preparation: In accordance with manufacturer's instructions.
2. Primer: Series 66 Hi-Build Epoxoline. DFT 2.0 to 3.0 mils.
3. Finish Coat: Series 1074 Endura-Shield II. DFT 2.0 to 3.0 mils.
4. Total DFT: 4.0 to 6.0 mils.

B. Interior Exposed: Two-Component, Polyamide-Epoxy Coatings.

1. Surface Preparation: In accordance with manufacturer's instructions.
2. Primer: Series 66 Hi-Build Epoxoline. DFT 2.0 to 3.0 mils.
3. Finish Coat: Series 66 Hi-Build Epoxoline. DFT 2.0 to 3.0 mils.
4. Total DFT: 4.0 to 6.0 mils.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.

1. Maximum Moisture Content of Substrates: In accordance with the manufacturer's requirements.
2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
3. Verify that new concrete surfaces have been properly cured.
4. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
5. Coating application indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Comply with manufacturer's written instructions and recommendations applicable to substrates indicated.

B. Remove plates, machined surfaces, and similar items already in place that are not to be coated. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and coating.

1. After completing coating operations, reinstall items that were removed; use workers skilled in the trades involved.

C. Clean substrates of substances that could impair bond of coatings, including dirt, oil, grease, and incompatible paints and encapsulants.

1. Remove incompatible primers and reprime substrate with compatible primers as required to produce coating systems indicated.

D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.

E. CMU Substrates: Remove efflorescence and chalk. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.

F. Steel Substrates: Remove rust and loose mill scale.

1. Clean using methods recommended in writing by coating manufacturer.

3.3 APPLICATION

A. Apply special coatings according to manufacturer's written instructions.

1. Use applicators and techniques suited for coating and substrate indicated.
2. Coat surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, coat surfaces behind permanently fixed equipment or furniture.
3. Coat back sides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.

B. If undercoats or other conditions show through final coat, apply additional coats until cured film has a uniform coating finish, color, and appearance.

C. Apply coatings to produce surface films without cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections. Produce sharp glass lines and color breaks.

D. Galvanized Steel, Nonferrous Metals, Stainless Steel, Insulated Pipe And PVC:

1. Surfaces to be painted unless otherwise approved by the Owner in writing:

a. Insulated pipe and surface-mounted conduit and boxes shall be coated to match the adjacent surfaces.
b. Piping shall be color coded.

2. Surfaces not to be painted unless otherwise approved by the Owner in writing:

a. All remaining galvanized steel, nonferrous metals, stainless steel and PVC surfaces.

3.4 FIELD QUALITY CONTROL

A. Manufacturer's Field Services: Manufacturer's representative shall provide technical assistance and guidance for surface preparation and application of coating systems.

3.5 CLEANING AND PROTECTION

A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.

B. After completing coating application, clean spattered surfaces. Remove spattered coatings by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.

C. Protect work of other trades against damage from coating operation. Correct damage by cleaning, repairing, replacing, and recoating, as approved by Engineer, and leave in an undamaged condition.

D. At completion of construction activities of other trades, touch up and restore damaged or defaced coated surfaces.

E. Protect equipment manufacturer's nameplates, tags, labels, etc.

3.6 COATING APPLICATION SCHEDULE

A. Provide the following coating systems for substrates indicated:

1. Where undercoats or other conditions show through final coat, apply additional coats until the cured film is of uniform coating finish, color, and appearance.

B. Interior Concrete Floors and Stair Treads:

1. Polyamide-Epoxy

a. None

C. Interior Concrete:

1. None.

D. Submerged or Intermittently Submerged Concrete:

1. None.

E. Interior Concrete Masonry:

1. None.
2. None.

F. Exterior Concrete:

1. None.

G. Interior Ferrous Metal:

1. None.

H. Exterior Ferrous Metal:

1. Existing and non-galvanized railings and supports.

I. Submerged or Intermittently Submerged Ferrous Metal:

1. None.

J. Interior cast or ductile iron pipe and fittings:

1. None.

K. Exterior cast or ductile iron pipe and fittings:

1. All new construction.

L. Submerged or Intermittently Submerged cast or ductile iron pipe and fittings:

1. All new construction not galvanized.

M. Secondary Containment:

1. None.

N. Interior Gypsum Board and Wood Trim:

1. None.

O. Galvanized Steel, Nonferrous Metals, Stainless Steel, Insulated Pipe, and PVC:

1. None.

END OF SECTION 099710