

Taunton, MA
Wastewater Treatment Facility
Phase I Improvements
CWSRF 4605
Addendum No. 5
August 11, 2021

This Addendum No. 5 forms a part of the Contract Documents and modifies the Bidding Documents dated July 2nd, 2021 as noted below. Acknowledge receipt of this Addendum in the space provided in the Bid Form. Failure to do so may subject the Bidder to disqualification.

Item 1: Section 09900 PAINTING

DELETE Section 09900 PAINTING in its entirety, pages 09900-01 through 09900-10 and **ADD the attached** Section 09900 PAINTING (REVISED PER ADDENDUM), pages 09900-01 through 09900-08

Item 2: Requests for Information and Clarification: The following questions were received regarding the bidding documents and subsequent addendums. **Responses are in red.**

1. Drawing SG-1 General Note 15 and Specification Section 02200-2.01-C. Structure Backfill. Please provide the desired width of gravel borrow backfill to be placed and compacted at foundation walls. **A particular width of backfill is not required – however, it should be sufficiently wide to allow for appropriate compaction.**
2. Regarding the Temporary Pavement called out on drawings C-1.8, C-1.9, and C-1.10 is it the intent of the Phase 1 Improvements to provide Temporary Pavement only or to provide a final base course and asphalt product as indicated in Specification Section 02500 – 1.03 Pavement Schedule? **Phase 1 pavement is intended to be temporary, with final pavement installed during Phase 2.**
3. Trenching for Yard Pipe on drawings C-1.14 and C-1.15 will be in existing plant access roads. Is it the intent of the Phase 1 Improvements to provide Temporary Pavement only or to provide a final base course and asphalt product as indicated in Specification Section 02500 – 1.03 Pavement Schedule? **Phase 1 pavement is intended to be temporary, with final pavement installed during Phase 2.**
4. Drawing CD-3 – Please show the location(s) of the Bituminous Concrete Berm. **There is no berm being installed on this project, the berm is intended for the Phase 2 project.**
5. Specifications 16060 Grounding Systems, 16080 – Underground Systems, Addendum #3 Item 1 Specification 16000-1.5.B, and Addendum #2 Q/A #16. Specifications 16060 and 16080 appear to be for the Electrical Contractor to perform the Grounding Systems

and Underground Systems complete and in place. The response in Addendum #2 Q/A #16 confirms this. Is Addendum #3 Item 1 – 16000-1.5B referring the Electrical Contractors to Division 3 for further information regarding concrete items? Is this a similar scenario for excavations and backfilling? **The referenced addendum #3 item is indicating that all concrete work is the responsibility of the general contractor, not the electrical contractor. This item was correcting an answer given in Addendum #2.**

6. Drawing M-1.3 section 4 shows a new 24" DI pipe penetrating the frost wall of the headworks and the bypass channel wall. Drawing SG-2 lists the channel penetration as P-1.1 and requires a flush flange x flush flange wall pipe. Since the pipe sits flush on the channel bottom, this would require cutting into the channel footing to install a wall pipe. Please confirm that a wall pipe is not required, and that water stop can be installed around the pipe opening and the wall re-cast using repair mortar. **Correct - detail 413 on Sheet MD-1 may be used in this area.**
7. Spec 11961 section 2.03.12 requires ductile iron pipe to be painted in accordance with spec 09900. Spec 09900 is silent in regards to ductile iron pipe. Please confirm interior and exterior exposed ductile iron pipe is required to be painted, and provide the prep, primer, and finish painting requirements. An incorrect version of Section 09900 was included in the spec. **The revised spec is attached (Item 1). Ductile Iron pipe is required to be painted in accordance with Part 3.10 (A) of the spec.**
8. Please confirm that existing, undisturbed piping does not require painting. **Confirmed**
9. Spec 09900 section 1.06.D refers to spec 10427 for pipe identification. This spec was not provided. Please provide this spec or provide details on the type of process pipe labels required (snap on, stenciled, stick-on, etc.). **Pipes shall be painted according to the color schedule as part 3.06 of the revised section 09900. Labels shall be in accordance with Part 3.04 (C) of the revised spec.**
10. Spec 11961 section 2.06.L requires ball valves to be 316L stainless steel except for those valves specified to be PVC or installed in PVC piping. Please confirm that all ball valves for non-PVC systems are to be 316L stainless steel. **Confirmed**
11. Drawing M-2.3 requires demolition of sampler sink, associated sampler, and sink drain piping, etc. There are approximately twenty (20) carbon steel sample pipes of various sizes feeding this sample sink, but there is no mention of demolishing these pipes. Please confirm that the existing sample piping is to be abandoned in place. If it is to be removed, please confirm how far back the piping is to be removed (e.g., to nearest wall) and if the piping is required to be plugged or capped. **Existing sample piping is to be abandon in place**
12. Drawing M-2.3 requires demolition of existing duplex water seal unit. The limits of pipe demolition are to be coordinated with Owner and Engineer. This is an indeterminate amount of demolition since the seal water piping runs the length of the pumps station and feeds all the existing pumps. Please clarify the limits of the associated pipe demo. **Intent is to only remove pipe that is in the way of other construction.**

13. Drawing M-5.1 requires demolition of the plastic lined Parshall flume and associated concrete fill. Drawing M-5.2 seems to indicate that there is only a very thin amount of concrete fill required in section 3. The scope required for this demolition is unclear. Please confirm that the intent is to demolish the entire Parshall flume and associated concrete to the limits shown on M-5.2 and that the only concrete fill required is to match the existing effluent channel dimensions after flume removal. **Confirmed. Concrete fill is only to repair that removed during demolition of the flume.**
14. Please confirm that the call out for detail 18/S-5.3 located on the footing plan on S-5.4 should have been labeled detail 42/S-5.4 **No. Detail 18/S-5.3 should have been labeled 18/S-5.4. Section 42 is cut through the plan view of Detail 18 as shown.**
15. What is the required film thickness for the 30,000 square feet of 09880 Concrete Protective Coating? **Application thickness will be per manufacturer's recommendations and will vary**
16. Please confirm the soils for Phase 1 of this project does not contain any asbestos related materials, as per Specification Section 02082 Asbestos Abatement. **All known asbestos containing materials are identified in the spec. No soil containing asbestos is known to exist, but no guarantees can be made.**
17. Please confirm the temporary pavement detail shown on drawing CD-3 is to be used for any and all trench repair for Phase 1. **Confirmed**
18. On drawing C-1.9 Note 5 states, cut steel sheeting in place 12" below finished grade elevation, however, Specification Section 02160 1.01 C states to cut the steel sheeting 6 feet below finished grade. Please clarify the depth of cut for the steel sheeting to be left in place. **Steel sheeting is to be cut 6' below grade per the spec.**
19. Spec 11330 section 2.02.B. requires embedded angles to support checker plate/grating covers upstream and downstream of the fine screens. This work is not shown on the project plans. Is the intent to replace the existing embedded angles and grating upstream and downstream of the fine screens? If so, please provide details on the angle size, plate/grating, and extent of the work. **Dis- regard this section, it is intended for new installations rather than replacements.**
20. Questions from an HVAC sub:
 - a. Is the duct in the Admin building required to be aluminum? **Supply and return ductwork for the Admin Building Office Space HVAC can be galvanized steel. Detail #15 on dwg H-0.6 requires internally lined duct at the FCUs. Lined ductwork is called out for the first 10 feet of the supply duct and the return plenum at each FCU. Liner shall be 1 inch thick equal to Johns Mansville Linacoustic. Increase duct and plenum dimensions to maintain clear dimensions as per specifications and drawings.**
 - b. Is there a schedule? **If the question pertains to thickness of the duct material, the specifications call out ductwork to comply with the thickness tables contained in the**

SMACNA Duct Construction Standards for the pressure class called out in the specifications.

c. What duct material is required for the duct associated with 9LEF-1 lab exhaust?
Provide aluminum exhaust ductwork as per specification 15500.2.11.A.

21. Bypassing will be required to complete the scope of work. Please provide a specification to clarify the level of redundancy required, if bypass systems require operators, if auto-dialers are acceptable, if diesel pumps or electric pumps are required, etc.
Previously answered - bypass is not anticipated to be necessary.
22. Spec 11311 section 2.06 makes reference to a 132 gallon expansion tank for the plant water pumps. The scope provided by the named vendor has included this tank. This tank is not shown on any drawings. Please provide interconnecting pipe size, tie-in location to the PW piping, location in the building for installation, and whether a housekeeping pad is required. The plant water system shown does not require an expansion tank.
Disregard this section.
23. Drawing M-2.3 requires demolition of the duplex water seal unit and an undisclosed amount of seal water piping. The scope of the named primary sludge pump vendor requires seal water to the shaft seal. Please provide details on a source of seal water for the new pumps with specific tie-in location, as well as requirements for the seal water flow control to each pump (solenoid valves, pressure regulators, flow indicators, isolation valves, etc.). The seal water unit and associated piping is not currently used - rather all pumps are connected to plant water lines with solenoid valves to control flow. The intent is to re-use these plant water connections.
24. Drawing C-1.15 shows an existing 6" PW pipe to be cut and capped outside the north face wall of the Chlorination Tank, however, there is no depiction on the balance of the pipe run. Please clarify where the pipe ends and if the remaining pipe is required to be removed. The new 16" PW follows the same path as the old 6" PW from the point of cap, so installation of the new 16" will include demo of the old 6".
25. Please confirm the 4" W under slab pipe calling to be removed can be flow filled, capped and left in place. Confirmed
26. Drawing M-1.2 gate schedule lists self contained slide gates for the headworks and distribution box gates. The headworks gates are drawn (mostly) as self-contained slide gates. However, drawing M-1.2 section 5 shows the distribution box gates are non-self contained slide gates. The existing gates in the distribution box are self contained. Please confirm the new headworks slide gates are self contained and the new distribution box slide gates are non-self contained. The gates on M-1.3 are shown incorrectly. All gates shall be self contained per schedule on M-1.2.
27. Drawing M-5.2 gate schedule lists the chlorine contact tanks as self contained. However, section 1 is drawn as a non-self contained gate. Please clarify whether self contained or non-self contained gates are required in the chlorine contact tanks. Gates shall be self contained per schedule.

28. Please provide a pipe material, pipe size, and any required valves and instruments for the air piping between the screw type air compressor and the vendor supplied air connection on the lime silo. **Compressed air pipe is 3/4" stainless steel. No valves or instruments are required.**
29. Drawing I-0.4 shows only discharge gauges on the primary scum and primary sludge pumps. Drawings M-2.6 and M-2.7 show suction and discharge gauges. Please confirm the M-drawings are correct with two gauges per pump. **Correct - suction and discharge gauges are required.**
30. Spec 13320 instrument list calls out for pressure indicator/transmitters PIT-1203 and PIT-1204 for the grit blower inlet air pressure. Spec 11372 makes no provision for this instrument. There is no intake air manifold for the blowers since the blowers are installed outdoors. Please confirm if these instruments are required, and if so, where they are to be mounted. **These instruments are integral with the blower.**
31. Spec 13320 instrument list calls out for sodium hypo tank level switch LSH-5101 and LAH-5101. This device is not shown on I-0.17. Please confirm this device is required, and if so, where is it to be mounted? There is no tank schedule in spec 11400 to identify instrument ports. **Yes this device is required, as shown on E-5.4. Mounting is to be coordinated with the tank manufacturer.**
32. Spec 13320 instrument list calls out for level switch LSH-5102. The sodium hypo tank is a double wall tank, and there is no other secondary containment. Is this switch supposed to be installed in the tank? I-0.17 indicates that this switch is to be installed outside the tank. **This instrument is the leak detector unit provided with the tank. See Specification Section 11400, Part 2.10 (C)**
33. Spec 13320 instrument list calls out LE/LIT-5301 for the sodium bisulfite tank. This is not shown on M-drawings. Is LE/LIT-5301 being installed as part of the scope of work? **No. This is an existing piece of instrumentation shown for integration with the new SCADA system.**
34. Spec 13320 instrument list calls out LSH-5302 for the sodium bisulfite tank room. This is not shown on M-drawings. Is LSH-5302 part of the scope of work? **No. This is an existing piece of instrumentation shown for integration with the new SCADA system.**
35. Spec 13320 instrument list calls out for sodium bisulfite tank level switch LSH-5301 and LAH-5301. This device is not shown on I-0.17. Please confirm this device is required, and if so, where is it to be mounted? **No. This is an existing piece of instrumentation shown for integration with the new SCADA system.**
36. Spec 13320 instrument list calls out AE/AIT-5504 and AE/AIT-5505. There is no mention of replacing these instruments on the M drawings. Please confirm whether these instruments are being replaced, and if the installation work is part of the electrical

contractor's work or the GC's work? **No. This is an existing piece of instrumentation shown for integration with the new SCADA system.**

37. Spec 13320 instrument list calls out LE/LIT-9203 in the chem building scum/sanitary wet well. There is no mention of this instrument on M drawings. Is this instrument part of the scope of work? If so, please confirm who is responsible for mounting this instrument? Also, please confirm that the instrument is located in the manhole outside the south end of the chemical storage building. **Yes, this instrument is part of the scope. Correct, the wet well is on the south side of the chemical handling building (shown on sheet C-1.15)**
38. Spec 13320 instrument list has two level switches LSH-9350 and LSH-9351. These are not shown on M drawings. Is the electrical contractor or GC responsible for installing these instruments? **Instrument is the EC's responsibility to install as shown on Sheet E-2.4**
39. Please confirm when backfilling structures, a 2' wide perimeter band of gravel adjacent to the structure filled to grade is sufficient prior to backfilling with suitable excavated material. **Confirmed**

END OF DOCUMENT

SECTION 09900

PAINTING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements for preparation and finishing of surfaces to be painted.

1.02 REFERENCES

- A. American Society for Testing and Materials (ASTM).
 - 1. D16, Standard Terminology Relating to Paint, Varnish, Lacquer, and Related Products
- B. Steel Structures Painting Council (SSPC).
 - 1. SP-1, Solvent Cleaning.
 - 2. SP-2, Hand Tool Cleaning.
 - 3. SP-3, Power Tool Cleaning.
 - 4. SP-5, White Metal Blast Cleaning.
 - 5. SP-6, Commercial Blast Cleaning.
 - 6. SP-7, Brush-Off Blast Cleaning.
 - 7. SP-10, Near-White Blast Cleaning
 - 8. SP-13, Surface Prep of Concrete
 - 9. SP-16, Brush-off Blast Cleaning of Non-Ferrous Metals

1.03 DEFINITIONS

- A. In accordance with ASTM-D16.
- B. Wherever the words “solvent cleaning”, “hand tool cleaning”, “wire brushing”, or “blast cleaning”, or words of similar intent are used in these specifications, it shall be understood to refer to the applicable SSPC Specification.
- C. The term “paint” or “coating” as used in this specification includes emulsions, enamels, paints, stains, varnishes, sealers, and other coatings, organic or inorganic, used as prime, intermediate or finish coats.

1.04 SUBMITTALS

- A. Shop Drawings
 - 1. Submit product data and manufacturers application instructions in accordance with SECTION 01300.
- B. Samples
 - 1. Colors as required.

1.05 QUALITY ASSURANCE

A. Qualifications

1. Manufacturer specializing in the production of paint and coatings for 10 years, minimum.
2. Applicator specializing in commercial, industrial and municipal painting for 5 years, minimum.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Packing, Shipping, Handling, and Unloading

1. In accordance with manufacturers recommendations.

B. Acceptance at Site

1. Products to be delivered to site in sealed, labeled and unopened containers.
2. Labels to include Name, type, code, coverage, surface preparation, drying time, color, clean up procedure, and mixing and reducing instructions.
3. Remove unacceptable products immediately.

C. Storage and Protection

1. Store materials between minimum ambient temperature of 45 degrees F. and a maximum of 90 degrees F.
2. Storage area to be well ventilated, or as required by manufacturer.

1.07 PROJECT/SITE CONDITIONS

A. Environmental Requirements

1. Provide continuous ventilation and maintain ambient temperature above 45 degrees F., for 24 hours before, during, and 48 hours after application of finishes, unless otherwise required by coating manufacturer.
2. Do not apply coatings when exposed to rain or snow, or when relative humidity is above 50 percent.
3. Minimum application temperature for Latex paints:
 - a. 45 degrees F. for interiors.
 - b. 50 degrees F., for exteriors
4. Minimum application temperatures for other coatings:
 - a. 65 degrees for interior and exterior.
5. Lighting levels to be 80 ft. candles, measured mid height at substrate surface.

1.08 MAINTENANCE

A. Extra Materials

1. Provide 1 gallon each color to Owner.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Paints by the Tnemec Company, Kansas City, Missouri have been used as the basis for the paint schedule, other manufactures considered equal:
 - 1. Valspar Coatings,
 - 2. Carboline.
 - 3. or product deemed equivalent by the Engineer.

2.02 MATERIALS

- A. Coatings
 - 1. Ready Mixed, except field catalyzed coatings.
 - 2. Process pigments to a soft paste like consistency, capable of being dispersed to a uniform coating.
 - 3. Readily applied by spray or brush.
 - 4. Dry free of streaks or sags.
- B. Accessories
 - 1. Linseed Oil, Shellac, Turpentine, Thinners to be of commercial quality, compatible to coatings used.

2.03 COLORS AND FINISHES

- A. Colors selected by the Owner from color chips submitted by the Contractor for review. The selection shall be in the form of a color schedule indicating the colors to be used on the various surfaces. The colors used in the final Work shall match the selected color chips.
- B. In general the finish coat shall be gloss or semi-gloss on metal work and flat finish on masonry, wood and drywall surfaces.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Site Verification of Conditions
 - 1. Verify surfaces are ready to receive work in accordance with manufacturers recommendations.
 - 2. Report conditions which may affect proper application to Engineer.
 - 3. Measure moisture content of substrates.
 - 4. Do not apply coatings when moisture exceeds levels below:
 - a. Plaster and Gypsum wallboards 12 percent.
 - b. Masonry and Concrete 12 percent
 - c. Wood 14 percent

3.02 PREPARATION

A. Protection

1. Protect elements surrounding the Work required by this section from damage or marking.
2. Repair damage to other surfaces caused by Work of this section.
3. Furnish drop cloths, shields, and protective methods to prevent spray or paint spatter from disfiguring other surfaces.

B. Preparation of surfaces to be coated

1. General
 - a. Remove electrical plates, light fixtures, hardware, and fittings.
 - b. Correct minor defects and clean surfaces.
 - c. Seal marks which may bleed through surface finish.
2. Impervious Surfaces
 - a. Remove mildew by scrubbing with solution of tri-sodium phosphate and bleach.
 - b. Rinse with clean water.
 - c. Allow to dry.
3. Aluminum
 - a. Remove surface contamination by steam or high pressure water.
 - b. Remove oxidation by sanding and solvent washing.
4. Insulated coverings
 - a. Remove dirt, grease, and oil from canvas and cotton.
5. Concrete
 - a. Blast-trak or brush blast.
 - b. Reference SSPC SP #13 Standard.
6. Wood
 - a. Remove dirt, oil, and other soil with scrapers, mineral spirits, and sand paper.
 - b. Sand surfaces exposed to view, and remove all sanding dust.
7. Gypsum board
 - a. Fill minor defects with latex fill.
 - b. Prime repaired areas.
8. Galvanized surfaces
 - a. Remove contamination and oils with solvent wash.
 - b. Reference SSPC SP #16 Standard.
9. Masonry and Concrete
 - a. Allow 28 days curing prior to coating application.
 - b. Remove dirt, loose mortar, scale, salt, alkali powder or other foreign matter.
 - c. Remove oil and grease with solution of tri-sodium phosphate.
 - d. Rinse with water.
 - e. Allow to dry.
 - f. Remove stains caused by weathering of corroding metals with a solution of sodium metasilicate after thoroughly wetting with water.
 - g. Allow to dry.
10. Uncoated steel and iron
 - a. Prepare all ferrous metals per coating manufacturer requirements.
 - B. Spot prime repaired areas.
11. Shop primed steel
 - a. Remove loose primer and rust by sanding or scraping.
 - b. Feather edges to make touch-up patches inconspicuous.
 - c. Clean surfaces per SSPC SP #1 Standard.

- d. Prime bare steel.
- 12. Stainless steel surfaces shall not be painted.

3.03 COATING APPLICATION

A. General

- 1. Apply in accordance with manufacturers recommendations.
- 2. Apply each coat to uniform finish.
- 3. Apply each coat slightly darker than preceding coat, unless instructed otherwise by the Engineer.
- 4. Sand lightly between coats.
- 5. Allow preceding coat to dry prior to application of next coat.
- 6. Prime back surfaces of all woodwork.

3.04 MECHANICAL AND ELECTRICAL EQUIPMENT

A. General

- 1. Paint shop primed equipment with compatible finish coat.
- 2. Remove or mask items not to be painted.
- 3. Prime and finish all associated pipes, and ducts, both insulated and exposed, all hangers, brackets, collars and supports, unless items are pre finished.
- 4. Do not paint identification markings or tags on equipment.
- 5. Paint exposed conduit and piping in finished areas.
- 6. Paint both sides and edges of plywood mounting boards.
- 7. Reinstall all trim, fittings, plates ect. After painting is complete.

B. Color Code

- 1. Piping and equipment in accordance with Article 3.06 of this specification.

C. Identification

- 1. Label piping by contents and arrows indicating direction of flow.
- 2. Labels to be twenty feet (20) apart maximum, and within each space through which pipe line passes.
- 3. Adjacent to each side of walls which pipeline penetrate.
- 4. Adjacent to valves, equipment, and pumps.
- 5. Locate labels where they are unobstructed from view and visible from valves.
- 6. Colors to be white or black as appropriate for the substrate.
- 7. Letters, numbers and flow arrows to be stenciled to pipeline and equipment or die cut from vinyl film as approved by the Engineer.

8. Lettering size as follows:	Pipe Diameter in Inches	Size of Letters in Inches
	3/4 to 1-1/4	1/2
	1-1/2 to 2	3/4
	2-1/2 to 6	1-1/2
	8 to 10	2-1/2
	Over 10	3

D. Metal tags

- 1. Pipelines smaller than 3/4 inches in diameter and for valves, securely fasten brass tags, 2-1/2 inches x 1/2 inches, with etched lettering filled with enamel paint.

3.05 CLEANING

- A. Promptly remove spilled, splashed and/or spattered paint.
- B. Maintain premises free of clutter, tools, equipment and material.
- C. Collect waste cloths and material which may constitute a fire hazard and and remove daily from site.

3.06 COLOR SCHEDULES

A. Architectural

- 1. Chosen by Owner.

B. Piping

- 1. Water lines Raw.....Olive Green
 Settled or Clarified.....Aqua
 Finished or Potable.....Dark Blue
- 2. Chemical Lines Chlorine.....Yellow
 Polymers.....Orange with Green Band
 Sodium Bisulfite.....Grey
 Lime Slurry.....Violet
- 3. Waste Lines Raw.....Gray
 Sludge.....Brown
- 4. Miscellaneous Compressed Air.....Dark Green
 Fuel Oil.....Red

3.07 EXTERIOR COATING SYSTEM SCHEDULE

A. Miscellaneous Ferrous Metal Items

- 1. Shop surface preparation: SSPC-SP-10, Blast profile 1.5 - 2.5 mils.
- 2. 1st coat; (Shop applied)-Tnemec Series 94-H20, DFT 2.5-3.0 mils.
- 3. 2nd coat (Field applied)-Tnemec Series V69 Epoxoline, DFT 4.0-6.0 mils.
- 4. 3rd coat (Field applied)-Tnemec Series V69 Epoxoline, DFT 4.0 to 6.0 mils.

B. Ferrous Metals Scheduled for Immersion Service

- 1. Shop surface preparation: SSPC-SP-10, Blast profile 1.5 - 2.0 mils.
- 2. 1st coat; (Shop applied)-Tnemec V69-1211 Red Primer, DFT 3.0 mils.
- 3. 2nd coat (Field applied)-Tnemec 104 H.S. Epoxy, DFT 6.0 to 10.0 mils.
Scarify 1st coat prior to 2nd coat application.
- 4. 3rd coat (Field applied)- Tnemec 104 H.S. Epoxy, DFT 6.0 to 10.0 mils.

C. Ferrous Metals Scheduled for Immersion Service in Potable Water, NSF approved

- 1. Surface preparation: SSPC-SP-10, Blast profile 1.5 - 2.0 mils.
- 2. 1st coat; (Shop applied)-Tnemec Series 94H20, DFT 2.5 to 3.5 mils.
- 3. 2nd coat (Field applied)-Tnemec Series 22 DFT 15.0 mils.
- 4. 3rd coat (Field applied)- Tnemec Series 22 White, DFT 15.0 mils.

D. Galvanized Metal

- 1. Surface preparation: SSPC SP #16 Standard.

2. 1st coat: V69 Epoxoline, DFT 2.0 to 4.0 mils.
 3. 2nd coat: 1095 Endurashield, DFT 1.5 to 3.0 mils.
- E. Concrete, and Concrete Block Masonry (New)
1. 1st coat: Tnemec Series 180 Tneme-Crete WB, DFT 8.0 mils.
 2. 2nd coat: Tnemec Series 180 Tneme-Crete WB, DFT 8.0 mils.
- F. Concrete, and Concrete Block Masonry (New), (Clear finish)
1. 1st coat: Tnemec Prime-A-Pell H20.
 2. 2nd coat: Tnemec Prime-A-Pell H20.
- G. Asphalt
1. 1 coat Traffic Marking Paint.

3.08 INTERIOR COATING SYSTEM SCHEDULE

- A. Concrete Block
1. 1st coat: Tnemec 130-6602 Spray then back roll.
 2. 2nd coat: Tnemec V69 Epoxoline, DFT 6.0 mils.
 3. 3rd coat: Tnemec V69 Epoxoline, DFT 6.0 mils.
- B. Concrete Walls and Ceilings
1. 1st coat: Tnemec V69 Epoxoline, DFT 6.0 mils.
 2. 2nd coat: Tnemec V69 Epoxoline, DFT 6.0 mils.
- C. Drywall
1. 1st coat: Tnemec 151 Elasto-Grip Sealer
 2. 2nd coat: Tnemec Series 1029 Enduratone.
 3. 3rd coat: Tnemec Series 1029 Enduratone.
- D. Wood (to be painted)
1. 1st coat: Tnemec 151 Elasto-Grip.
 2. 2nd coat: Tnemec Series 1029 Enduratone.
 3. 3rd coat: Tnemec Series 1029 Enduratone.
- E. Metals, Structural Steel, Piping, Railways, Equipment, ect.
1. Shop surface preparation: SSPC-SP-6, Blast profile 1.5 - 2.0 mils.
 2. 1st coat; (Shop applied)-Tnemec 1 Omnithane, DFT 3.0 mils.
 3. 2nd coat (Field applied)-Tnemec Series N69 Epoxoline, DFT 3.0 to 4.0 mils.
 4. 3rd coat (Field applied)-Tnemec Series 1095 Endura Shield, DFT 1.5 to 2.5 mils.
- F. PVC Piping
1. Surface preparation: Scarify prior to coating.
 2. 1st coat: Tnemec Series N69 Epoxoline, DFT 1.5 to 2.0 mils.
 3. 2nd coat: Tnemec Series N69 Epoxoline, DFT 1.5 to 2.0 mils.
- G. Non-ferrous Metals (Galvanized, Copper, ect.)
1. Surface preparation: Per SSPC SP #16 Standard.
 2. 1st coat: Tnemec N69 Epoxoline, DFT 1.5 to 3.0 mils.
 3. 2nd coat: Tnemec 1095 Endurashield, DFT 2.0 to 3.0 mils.

H. Canvas and Cotton Insulation Coverings.

1. 1st coat: Tnemec 151 Elasto-Grip.
2. 2nd coat: Tnemec Series 1026 Enduratone.
3. 3rd coat: Tnemec Series 1026 Enduratone.

I. Interior concrete tanks in contact with potable water.

1. Surface preparation: SSPC-SP-13, with ICRI CSP #4
2. 1st coat: Surface entire concrete with Tnemec 217 or 218 Surfacer.
3. 2nd coat: Tnemec Series 22 Epoxoline white, DFT 25.0-35.0 mils.

3.09 CHEMICAL MIXING, FEED AND STORAGE AREA

A. Concrete Containment walls, tank pads and floors.

1. Surface preparation: SSPC-SP-13, with ICRI CSP #4
2. 1st coat: Fill large voids with Tnemec 215 Filler/Surfacer.
3. 2nd coat: Prime all surfaces with Tnemec Series 201 Epoxoline, DFT 6.0-8.0.
4. 3rd coat: Tnemec Series 282 Tnemec-Glaze Gray DFT 8.0-10.0.
5. 4th coat: Tnemec Series 282 Tnemec-Glaze Gray DFT 8.0-10.0.

Note: Detail all cracks per Tnemec Stratashield Detail requirements.

3.10 PIPING COATING SYSTEM SCHEDULE

A. Ductile Iron

1. Surface preparation: Per DIPRA DIP Standard.
2. 1st coat: (Shop Applied) Tnemec Series 1 Omnithane, DFT. 3.0 mils.
3. 2nd coat: (Field Applied) Tnemec V69 Color, DFT 4.0 mils.
4. 3rd coat (Field Applied) Tnemec Series V69 Color DFT 4.0 mils.

B. PVC

1. Surface preparation: Lightly sand to de-gloss finish
2. 1st coat: Tnemec series V69, Hi-Build Epoxoline, DFT 4.0 to 6.0 mils.

C. Carbon Steel

1. Surface preparation: Immersion Service- SSPC-SP-10.
2. 1st coat: (Shop Applied) Tnemec Series 1 Omnithane, DFT. 3.0 mils.
3. 2nd coat: (Field Applied) Tnemec V69, Color, DFT 4.0 mils.
4. 3rd coat (Field Applied) Tnemec Series V69 Color DFT 4.0 mils.

END OF SECTION