

# 810-2006 ADDENDUM 2

NEWPCC - SUPPLY AND DELIVERY OF CIRCULAR PRIMARY CLARIFIER EQUIPMENT

# **URGENT**

## PLEASE FORWARD THIS DOCUMENT TO WHOEVER IS IN POSSESSION OF THE BID OPPORTUNITY

ISSUED: January 26, 2007j BY: Rudy Derksen, P. Eng. TELEPHONE NO. (204) 896-1209

THIS ADDENDUM SHALL BE INCORPORATED INTO THE BID OPPORTUNITY AND SHALL FORM A PART OF THE CONTRACT DOCUMENTS

Please note the following and attached changes, corrections, additions, deletions, information and/or instructions in connection with the Bid Opportunity, and be governed accordingly. Failure to acknowledge receipt of this Addendum in Paragraph 10 of Form A: Bid may render your Bid non-responsive.

## PART B – BIDDING PROCEDURES

Revise: B2.1 to read: The Submission deadline is 4:00pm. Winnipeg time, January 31, 2007.

## PART E - SPECIFICATIONS

Revise: Section 11000 Item 2.12 to read:

## 2.12 Effluent Weir and Scum Baffle

- .1 The equipment supplier shall select effluent weir plates to suite the elevations of the existing clarifiers. The effluent plates shall consist of 6 mm thick, 316ss sections. The equipment supplier shall establish the number or spacing and their depth to provide a peak flow at ½" below the top edge of the weir plate. The weir sections shall be fastened to the tank wall using 316 stainless steel cinch anchor bolts, hex nuts, and stainless steel clamps, allowing for vertical adjustment.
  - A. The following elevations are taken from drawing NEP-94 (Provided within the bid opportunity) :
    - 1. Top Water Level = 30.827' (9.396 m)
    - 2. Top of Launder = 30.271' (9.227 m)
    - 3. Bottom Water Level (Clarifier 1 & 2) = 30.607' (9.329 m)
    - 4. Bottom Water Level (Clarifier 3) = 30.271' (9.227 m)
  - B. The equipment supplier shall field confirm the elevations prior to supplying Shop Drawings.
  - C. The weir plates shall have vertical and radial adjustment capabilities of 1" in either direction.
- .2 The scum baffle plates shall consist of 300 mm deep x 6 mm thick 316ss sections supported from the tank wall by 316ss clamps and adhesive anchor rods and hex nuts, allowing for vertical and radial adjustment. In the area of the scum pipe the baffle shall extend 600 mm deep starting approximately 1.8 m preceding and ending 1.8m following the scum pipe.
- Revise: Section 11000 Item 2.13 to read:

## 2.13 PAINTING AND PROTECTIVE COATINGS

2.13.1 PART 1-GENERAL

## 2.13.1.1 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
  - 1. American Standard for Testing and Materials:
    - a. D4138, Standard Test Method for Measurement of Dry Film Thickness of Protective Coating Systems by Destructive Means.
    - b. D4541, Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers.
  - National Association of Corrosion Engineers (NACE): RP 0188-99, Standard Recommended Practice

     Discontinuity (Holiday) Testing of New Protective Coatings on Conductive Substrates.
  - 3. Occupational Safety and Health Act (OSHA).
  - 4. The Society for Protective Coatings (SSPC) (formerly Steel Structures. Painting Council):
    - a. SP 1, Surface Preparation Specification No. 1, Solvent Cleaning.
      - b. SP 2, Hand Tool Cleaning.
      - c. SP 3, Power Tool Cleaning.
      - d. SP 5, White Metal Blast Cleaning.
      - e. SP 6, Commercial Blast Cleaning.
      - f. SP 7, Brush-Off Blast Cleaning.
      - g. SP 10, Near-White Blast Cleaning.
      - h. SP 11, Power Tool Cleaning to Bare Metal.
      - i. Guide No. 3, PA, Guide to Safety in Paint Applications.
      - j. SSPC-PA2: Guide to Measurement of Dry Paint Thickness.
      - k. SSPC Manual Volume 1: Good Painting Practice.
      - I. SSPC: VIS1-89.
      - m. Guide No. 2, PA: Measurement of Dry Film Paint Thickness with Magnetic Gauges.
      - n. Guide 15, Field Methods for Retrieval and Analysis of Soluble Salts on Steel and Other Nonporous Substrates.

## 2.13.1.2 DEFINITIONS

- A. Terms used in this Section:
  - 1. Coverage: Total minimum dry film thickness in mils, or square feet per gallon.
  - 2. g/cm<sup>2</sup>: Grams per centimeter squared.
  - 3. MDFT: Minimum Dry Film Thickness.
  - 4. MDFTPC: Minimum Dry Film Thickness Per Coat.
  - 5. Mil: Thousandth of an inch.
  - 6. MSDS: Material and Safety Data Sheet.
  - 7. PSDS: Paint System Data Sheet.
  - 8. SFPG: Square Feet Per Gallon.
  - 9. SFPGPC: Square Feet Per Gallon Per Coat.
  - 10. SP: Surface Preparation.
  - 11. SSPC: Society for Protective Coatings (formerly Steel Structures Painting Council).

### 2.13.1.3 SUBMITTALS

- A. Shop Drawings:
  - 1. Data Sheets:
    - a. For each paint system, furnish a Paint System Data Sheet (PSDS), Material Safety Data Sheets (MSDS), the manufacturer's Technical Data Sheets, and paint colors available (where applicable) for each product used in the paint system. The PSDS form is appended to the end of this section.
    - b. Submit required information on a system-by-system basis.
    - c. Furnish copies of paint system submittals to the coating applicator.
    - d. Indiscriminate submittal of manufacturer's literature only is not acceptable.
    - e. Coating manufacturer's written verification that submitted products are suitable for the intended use.

- f. Provide letter from coating manufacturer stating that coating applicator is certified or approved to apply the specified products.
- B. Quality Control Submittals:
  - 1. Applicator's Qualification: List of references substantiating experience.
  - 2. Manufacturer's written instructions and special details for applying each type of paint.
  - 3. Applicators quality control program, including, but not limited to:
    - a. Environmental test procedures and frequency.
    - b. Surface preparation testing, such as degree of cleanliness and profile.
    - c. Record keeping forms.
  - 4. Field Testing: Inspection and test records.
  - 5. Manufacturers' Certificate of Proper Application.

## 2.13.1.4 QUALITY ASSURANCE

- A. Qualifications:
  - 1. Applicator: Minimum 5 years' experience in application of high performance protective coatings.
  - 2. Applicator: Approved by manufacturer of specified coating systems where required by manufacturer.
- B. Regulatory Requirements:
  - 1. Meet federal, and local requirements limiting the emission of volatile organic compounds.
  - 2. Perform surface preparation and painting in accordance with recommendations of the following:
    - a. Paint manufacturer's instructions.
    - b. SSPC-PA Guide No. 3, Guide to Safety in Paint Applications.
    - c. Federal, state, and local agencies having jurisdiction.
- C. Delivery Acceptance: The equipment supplier, coating manufacturer's technical representative and installation contractor shall observe and test the protective coatings after the equipment has been delivered and unloaded at the Site. To determine locations where the protective coatings are damaged, all coated surfaces shall be visually observed and all submerged surfaces shall be holiday tested by the equipment supplier in accordance with NACE 0188. Perform additional tests as necessary or appropriate, as determined by the coating manufacturer's technical representative. All areas of defective coating shall be repaired in accordance with these specifications and the coating manufacture's written recommendations. All testing shall be completed in the presence of the Contract Administrator. The equipment supplier shall submit a letter to the Contract Administrator summarizing the test results and the repairs that were made.
- D. Installation Acceptance: The equipment supplier, coating manufacturer's technical representative and installation contractor shall observe and test the protective coatings after the equipment has been installed. To determine locations where the protective coatings are damaged for warranty purposes, all coated surfaces shall be visually observed and all submerged surfaces shall be holiday tested by the equipment supplier in accordance with NACE 0188. Perform additional tests as necessary or appropriate, as determined by the coating manufacturer's technical representative. All testing shall be completed in the presence of the Contract Administrator. The equipment supplier shall submit a letter to the Contract Administrator summarizing the test results for warranty purposes.
- E. Forty-Sixth Month Inspection: The Contract Administrator will conduct an inspection of coated surfaces prior to the end of the extended warranty period. The equipment supplier will be notified in advance of this inspection and may attend at its option and at no additional cost to the City. A list of all coating defects and failures identified during the inspection will be prepared and transmitted to the equipment supplier. The list will serve as notice of repairs required under warranty at no additional cost to the City.
- F. Repairs:
  - 1. All defective coatings shall be repaired by the equipment supplier using coating materials, equipment, and methods similar to those used in the original work. Materials shall be of fresh manufacture and

within the manufacturer's stated shelf life at the time of application. The equipment supplier shall provide an extended warranty of 1 year for all repairs.

- 2. Equipment supplier shall complete all required coating repairs within 30 calendar days of the 46th Month Inspection.
- 2.13.1.5 DELIVERY, STORAGE, AND HANDLING
  - A. Store products in a protected area that is heated or cooled to maintain temperatures within the range recommended by paint manufacturer.
- 2.13.1.6 ENVIRONMENTAL REQUIREMENTS
  - A. Provide dehumidification, heating, and other environmental controls necessary to meet application and curing requirements of the coatings used.
  - B. Do not apply paint in temperatures outside of manufacturer's recommended maximum or minimum allowable, or in dust, smoke-laden atmosphere, damp or humid weather.
  - C. Do not perform abrasive blast cleaning whenever relative humidity exceeds 85 percent, or whenever surface temperature is less than 5 degrees F above dew point of ambient air.

#### 2.13.1.7 SPECIAL GUARANTEE

A. Provide extended guarantee or warranty for a period of 5 years after the date of Substantial Completion.

### 2.13.2 PART 2 - PRODUCTS

### 2.13.2.1 MANUFACTURERS

- A. Nationally recognized manufacturers of paints and protective coatings who are regularly engaged in the production of such materials for the intended service conditions.
- B. Minimum of 5 years verifiable experience in manufacture of the specified product.
- C. Each of the following manufacturers is capable of supplying the products required for exposed, above water metals of the clarifier:
  - 1. A.W. Chesterton Products (ARC), Woburn MA.
  - 2. Carboline Coatings, St. Louis, MO.
  - 3. ICI Devoe, Louisville, KY.
  - 4. Sherwin-Williams, Cleveland, OH.
  - 5. Tnemec Coatings, Kansas City, MO.
- D. The following manufacturers are capable of supplying products required for submerged metals:
  - 1. A.W. Chesterton Products (ARC), Woburn, MA.
  - 2. Or approved equal.

### 2.13.2.2 PAINT MATERIALS

- A. General:
  - 1. Material Quality: Manufacturer's highest quality products and suitable for intended service.
  - 2. Materials Including Primer and Intermediate Finish Coats: Produced by same manufacturer.
  - 3. Thinners, Cleaners, Driers, and Other Additives: As recommended by manufacturer of the particular coating.
- B. Coatings for Submerged Metals. Provide coating system for submerged metals that are suitable for exposure to primary wastewater. The primary wastewater at the treatment plant consists of domestic

sewage with some contribution from light industrial and food processing plants, including rendering plants. Previous experience at the plant indicates that coal tar epoxy will soften at the waterline where scum and grease accumulate.

- C. Coating manufacturer shall verify suitability of proposed protective coating using steel coupons prepared and coated with the submitted coating and submerged in the wastewater so that they are exposed to scum at the waterline, or other methods as deemed necessary by the coating manufacturer to verify coating performance, prior to application of the protective coating. Coordinate installation of coupons in the existing primary clarifiers at the plant with the Contract Administrator.
- D. Coating Materials:
  - 1. 100-Percent Solids Epoxy: 100-percent solids, two-component, chemical resistant epoxy suitable for the intended service, as manufactured by A.W. Chesterton, or approved equal.
  - 2. Epoxy Primer and Epoxy Intermediate Coat: Polyamide or polyamidoamine epoxy, minimum 69 percent solids volume, suitable for application to exposed metals and compatible with the specified finish coat.
  - 3. Polyurethane Enamel: Two-component aliphatic or acrylic based polyurethane, semi-gloss finish.

## 2.13.2.3 COLORS

- A. Formulate paints with colorants free of lead, lead compounds, or other materials that might be affected by presence of hydrogen sulfide or other gas likely to be present at the Site.
- 2.13.2.4 ABRASIVE MATERIAL
  - A. Select abrasive type and size to produce a surface profile that meets coating manufacturer's recommendations for specific primer and coating to be applied. Some portions of submerged metal may have coatings that are difficult to fully remove. A more dense blast material may be required for some portions of the blasting work.

### 2.13.3 PART 3- EXECUTION

### 2.13.3.1 GENERAL

- A. Metal components of the clarifiers shall be shop blasted and finished with the complete coating system specified herein.
- B. Metal components with protective coating that are excessively damaged in handling or shipment, in the opinion of the Contract Administrator, shall be completely abrasive blasted and re-coated with the appropriate coating system specified herein.

## 2.13.3.2 EXAMINATION

- A. Surface Preparation Verifications:
  - 1. Inspect and provide substrate surfaces prepared in accordance with these Specifications and the printed directions and recommendations of paint manufacturer whose product is to be applied. The more stringent requirements shall apply.
  - 2. Provide Contract Administrator minimum 7 days' advance notice to start of shop or field surface preparation work and coating application work.
  - 3. Perform such work only in presence of Contract Administrator, unless Contract Administrator grants prior approval to perform such work in Contract Administrator's absence.
- B. Schedule inspection with Contract Administrator in advance for cleaned surfaces and all coats prior to succeeding coat.
- 2.13.3.3 BLASTING AND EQUIPMENT PROTECTION
  - A. Preblast Cleaning Requirements:

- 1. Remove oil, grease, welding fluxes, and other surface contaminants prior to blast cleaning.
- 2. Cleaning Methods: Steam, open flame, hot water, or cold water with appropriate detergent additives followed with clean water rinsing.
- 3. Clean small isolated areas as above or solvent clean with suitable solvents and clean cloths.
- B. Field Abrasive Blasting:
  - 1. Perform blasting for items and equipment where specified and as required to restore damaged surfaces previously shop or field blasted and primed.
  - 2. Field abrasive blasting of existing steel parts to be repainted shall conform to the specified blast finish under Article PREPARATION OF SURFACES.
  - 3. Test abrasive blast waste for characterization as hazardous or dangerous. Dispose of abrasive blast waste in legal manner, following characterization of blast waste. All costs of disposal are the responsibility of the Contractor.
- C. Protection of Items not to be Painted:
  - 1. Remove, mask, or otherwise protect aluminum surfaces, couplings, shafts, bearings, nameplates on machinery, and other surfaces not intended to be painted.
  - 2. Provide drop cloths to prevent paint materials from falling on or marring adjacent surfaces.
  - 3. Protect working parts of mechanical and electrical equipment from damage during surface preparation and painting process.
  - 4. Mask openings in motors to prevent paint and other materials from entering the motors.
  - 5. Cover and enclose or otherwise protect clarifier drive mechanisms to prevent damage caused by blasting operations. The drive unit must be fully covered and sealed off to protect against grit and dust when sandblasting in the vicinity. All external openings and areas between the rotating main gear and the stationary base shall be taped closed, covered with polyethylene film and/or stuffed with rag waste. After sandblasting and before mechanical operation of the equipment, remove all inspection ports of the drive unit and visually inspect for any sign of grit. In the event of contamination, contact the drive manufacturer for instructions.
  - 6. Protect all surfaces adjacent to or downwind of work area from overspray. Contractor shall be responsible for any damage resulting form overspray.

### 2.13.3.4 PREPARATION OF SURFACES

- A. Metal Surfaces:
  - 1. Where indicated, meet requirements of the following SSPC Specifications:
    - a. Solvent Cleaning: SP 1.
    - b. Hand Tool Cleaning: SP 2.
    - c. Power Tool Cleaning: SP 3.
    - d. White Metal Blast Cleaning: SP 5.
    - e. Commercial Blast Cleaning: SP 6.
    - f. Brush-Off Blast Cleaning: SP 7.
    - g. Near-White Blast Cleaning: SP 10.
    - h. Power Tool Cleaning to Bare Metal: SP 11.
  - 2. The words "solvent cleaning," "hand tool cleaning," "wire brushing," and "blast cleaning," or similar words of equal intent in these Specifications or in paint manufacturer's specifications refer to the applicable SSPC Specifications.
  - Where OSHA or EPA regulations preclude standard abrasive blast cleaning, wet or vacu-blast methods may be required. Coating manufacturers' recommendations for wet blast additives and first coat application shall apply.
  - 4. Ductile Iron and Cast Iron Pipe and Fittings:
    - a. Use DIPRA Surface Preparation Specification equivalent to SSPC grade specified.
    - b. Follow additional recommendations of pipe and coating manufacturers.
    - c. Prior to blast cleaning, grind smooth surface imperfections, including, but not limited to delaminating metal or oxide layers.
  - 5. Hand tool clean areas that cannot be cleaned by power tool cleaning.

- 6. Preblast Cleaning Requirements:
  - a. Remove oil, grease, and other surface contaminants prior to blast cleaning.
  - Remove salts and other water-soluble contaminants. Test for water soluble contaminants in accordance with SSPC Guide 15. The contaminant level shall not exceed 10 g/cm2 for sulfates and 5 g/cm2 chlorides.
  - c. Cleaning Methods: Steam, open flame, hot water, or cold water with appropriate detergent additives followed with clean water rinsing, or as required by the coating manufacturers procedural guide.
  - d. Clean small isolated areas as above or solvent clean with suitable solvents and clean cloths.
  - e. Round or chamfer sharp edges and grind smooth burs, jagged edges, and surface defects.
  - f. Welds and Adjacent Areas:
    - i. Prepare such that there is:
      - 1. No undercutting or reverse ridges on weld bead.
      - 2. No weld spatter on or adjacent to weld or other area to be painted.
      - 3. No sharp peaks or ridges along weld bead.
  - ii. Grind embedded pieces of electrode or wire flush with adjacent surface of weld bead. Blast Cleaning Requirements:
    - a. Type of Equipment and Speed of Travel: Design to obtain specified degree of cleanliness. Minimum surface preparation is as specified herein and takes precedence over coating manufacturer's recommendations.
    - b. Select type and size of abrasive to produce a surface profile that meets coating manufacturer's recommendations for particular primer to be used.
    - c. Use only dry blast cleaning methods.
    - d. Do not reuse abrasive, except for designed recyclable systems.
    - e. Meet applicable federal, state, and local air pollution and environmental control regulations for blast cleaning, confined space entry, and disposition of spent aggregate and debris.
  - Post-Blast Cleaning and Other Cleaning Requirements:
    - a. Clean surfaces of dust and residual particles from cleaning operations by dry (no oil or water vapor) air blast cleaning or other method prior to painting. Vacuum clean enclosed areas and other areas where dust settling is a problem and wipe with a tack cloth.
    - b. Paint surfaces the same day they are blasted. Reblast surfaces that have started to rust before they are painted.

### 2.13.3.5 APPLICATION

8.

7.

- A. General:
  - 1. The intention of these Specifications is for new exposed and submerged metal surfaces to be painted, whether specifically mentioned or not, except as specified otherwise.
  - 2. For coatings subject to immersion, obtain full cure for completed system. Consult coatings manufacturer's written instructions for these requirements. Do not immerse coating for any purpose until completion of curing cycle.
  - 3. Apply coatings in accordance with these Specifications and the paint manufacturers' printed recommendations and special details. The more stringent requirements shall apply. Allow sufficient time between coats to assure thorough drying of previously applied paint.
  - 4. Vacuum clean surfaces free of loose particles. Use tack cloth just prior to applying next coat.
  - 5. Coat units or surfaces to be bolted together or joined closely to structures or to one another prior to assembly or installation.
  - 6. Keep paint materials sealed when not in use.
- B. Film Thickness, Coverage, and Adhesion:
  - 1. Number of Coats: Minimum required without regard to coating thickness. Additional coats may be required to obtain minimum required paint thickness, depending on method of application, differences in manufacturers' products, and atmospheric conditions.
  - 2. Maximum film build per coat shall not exceed coating manufacturer's recommendations.
  - 3. Film Thickness Measurements and Electrical Inspection of Coated Surfaces
    - a. Perform with properly calibrated instruments.
      - b. Recoat and repair as necessary for compliance with the Specifications.

- c. All coats are subject to inspection by Contract Administrator and coating manufacturer's representative.
- 4. Visually inspect nonferrous metal, and plastic surfaces to ensure proper and complete coverage has been attained. Measure wet film thickness, using a wet film thickness gauge, to ensure proper coating thickness during application.
- 5. Give particular attention to edges, angles, flanges, and other similar areas, where insufficient film thicknesses are likely to be present, and ensure proper millage in these areas.
- 6. Apply additional coats as required to achieve complete hiding of underlying coats. The hiding shall be so complete that the addition of additional coats would not increase the hiding.
- 7. Thickness and Electrical Testing:
  - a. After repaired and recoated areas have dried sufficiently, final tests will be conducted by the Contract Administrator.
  - b. Measure coating thickness specified in mils with a magnetic type dry film thickness gauge, per SSPC PA2.
  - c. Check each coat for correct millage. Do not make measurement before a minimum of 8 hours after application of coating.
  - d. Measure coating thickness on ferrous metals with a magnetic thickness gauge in accordance with the procedures of SSPS PA 2, with the exception that the coating thickness shall meet or exceed the values specified herein.
  - e. Check each coat for correct millage. Do not make measurements before a minimum of 8 hours after application of the coating.
- 8. Electrical Testing:
  - f. Holiday detect coatings 25 mils thick or less, except zinc primer and galvanizing, with a low voltage wet sponge electrical holiday detector in accordance with NACE RP0188-99.
  - g. Use water with 1 ounce per gallon of Kodak Photo-Flow solution as wetting agent. Holiday testing of exterior coated surfaces not subject to immersion is not required unless specifically directed by the Contract Administrator.
- C. Damaged Coatings, Pinholes, and Holidays:
  - 1. Feather edges and repair in accordance with recommendations of paint manufacturer.
  - Hand or power sand visible areas of chipped, peeled, or abraded paint, and feather the edges. Follow with primer and finish coat. Depending on extent of repair and appearance, a finish sanding and topcoat may be required.
  - 3. Apply finish coats, including touchup and damage-repair coats in a manner which will present a uniform texture and color-matched appearance.
- D. Unsatisfactory Application:
  - 1. If item has an improper finish color, or insufficient film thickness, clean surface and topcoat with specified paint material to obtain specified color and coverage. Obtain specific surface preparation information from coating manufacturer.
  - 2. Evidence of runs, bridges, shiners, laps, or other imperfections is cause for rejection.
  - 3. Repair defects in accordance with written recommendations of coating manufacturer.
- E. Access:
  - 1. Provide access for inspection by the Contract Administrator as required and when requested. Provide a dust free, suitable environment for inspection by the Contract Administrator.
  - 2. Leave staging and lighting up until Contract Administrator has inspected surface or coating. Replace staging removed prior to approval by Contract Administrator. Provide additional staging and lighting as requested by Contract Administrator.

## 2.13.3.6 FIELD QUALITY CONTROL

- A. Testing Gauges:
  - 1. Provide a magnetic type dry film thickness gauge to test coating thickness specified in mils, as manufactured by Nordson Corp., Anaheim, CA, Mikrotest.

2. Provide an electrical holiday detector, low voltage, wet sponge type to test finish coat, except zinc primer, high-build elastomeric coatings, and galvanizing, for holidays and discontinuities as manufactured by Tinker and Rason, San Gabriel CA, Model M-1.

## 2.13.3.7 MANUFACTURER'S SERVICES

- A. The coating manufacturer's technical representative shall be present at the shop and at the construction Site as follows:
  - 1. On the first day of application of any coating.
  - 2. A minimum of 6 hours additional Site inspection visits, each for a minimum of 4 hours, and as required to provide Manufacturer's Certificate of Proper Installation.
  - 3. As required to resolve field problems attributable to, or associated with the manufacturer's product.
  - 4. To verify full cure of coating prior to coated surfaces being placed into immersion service.

### 2.13.3.8 CLEANUP

- A. Place cloths and waste that might constitute a fire hazard in closed metal containers or destroy at the end of each day.
- B. Upon completion of the Work, remove staging, scaffolding, and containers from the Site or destroy in a legal manner.
- C. Completely remove paint spots, oil, or stains upon adjacent surfaces and floors and leave entire job clean.

### 2.13.3.9 PROTECTIVE COATINGS SYSTEMS

A. System No. 2 Submerged Metal:

| Surface Prep.  | Paint Material              | Min. Coats, Cover                         |
|--|-----------------------------|---|
| Abrasive Blast or<br>Centrifugal Wheel Blast<br>(SP-5) | 100-Percent Solids<br>Epoxy | 2 coats, 250 microns (10<br>mils) MDFT PC |

1. Total Coating Thickness: 500 microns (20 mils) MDFT.

- 2. Application Schedule: All exposed and submerged metal surfaces below the drive head.
- B. System No. 4 Exposed Metal Highly Corrosive:

| Surface Prep.   | Paint Material          | Min. Coats, Cover                   |
|---|-------------------------|-------------------------------------|
| Abrasive Blast or<br>Centrifugal Wheel Blast<br>(SP-10) | Epoxy Primer            | 1 coat, 75 microns (3 mils)<br>MDFT |
|   | Epoxy Intermediate Coat | 1 coat, 75 microns (3 mils)<br>MDFT |
|   | Polyurethane Enamel     | 1 coat, 75 microns (3 mils)<br>MDFT |

- 1. Total Coating Thickness: 225 microns (9 mils) MDFT.
- 2. Application Schedule: All exposed metal surfaces above the drive head, including, but not limited to, motors, gear boxes, and non-galvanized metal components.

### 2.13.3.10 SUPPLEMENTS

- A. The supplements listed below, following "END OF SECTION," are a part of this Specification.
  - 1. Paint System Data Sheet.
  - 2. Paint Product Data Sheet.

## **END OF SECTION**

## PAINT SYSTEM DATA SHEET

Complete this PSDS for <u>each</u> coating system, include all components of the system (surface preparation, primer, intermediate coats, and finish coats). Include all components of a given coating system on a single PSDS.

| Paint System Number (from    | Spec.):                              |                      |  |  |  |
|------------------------------|--------------------------------------|----------------------|--|--|--|
| Paint System Title (from Spe | ec.):                                |                      |  |  |  |
| Coating Supplier:            |                                      |                      |  |  |  |
| Representative:              |                                      |                      |  |  |  |
| Substrate:                   |                                      |                      |  |  |  |
| Surface Preparation:         |                                      |                      |  |  |  |
| Paint Material<br>(Generic)  | Product Name/Number<br>(Proprietary) | Min. Coats, Coverage |  |  |  |
|                              |                                      |                      |  |  |  |
|                              |                                      |                      |  |  |  |
|                              |                                      |                      |  |  |  |
|                              |                                      |                      |  |  |  |
|                              |                                      |                      |  |  |  |
|                              |                                      |                      |  |  |  |
|                              |                                      |                      |  |  |  |

## PAINT PRODUCT DATA SHEET

Complete and attach manufacturer's Technical Data Sheet to this PDS for each product submitted. Provide manufacturer's recommendations for the following parameters at temperature (F)/relative humidity:

|                                   |       | 51    |       |  |  |  |
|-----------------------------------|-------|-------|-------|--|--|--|
| Paint System Number (from Spec.): |       |       |       |  |  |  |
| Manufacturer's Product:           |       |       |       |  |  |  |
|                                   |       |       |       |  |  |  |
| Temperature/RH                    | 50/50 | 70/30 | 90/25 |  |  |  |
| Induction Time                    |       |       |       |  |  |  |
| Pot Life                          |       |       |       |  |  |  |
| Shelf Life                        |       |       |       |  |  |  |
| Drying Time                       |       |       |       |  |  |  |
| Curing Time                       |       |       |       |  |  |  |
| Min. Recoat Time                  |       |       |       |  |  |  |

Provide manufacturer's recommendations for the following:

Mixing Ratio:\_\_\_\_\_

Maximum Permissible Thinning:\_\_\_\_\_ min.:\_\_\_\_\_ max.:\_\_\_\_\_ Ambient Temperature Limitations:

min.:\_\_\_\_\_ max.:\_\_\_\_\_ Surface Temperature Limitations:

Surface Profile Requirements:

min.:\_\_\_\_\_ max.:\_\_\_\_ Attach additional sheets detailing manufacturer's recommended storage requirements and holiday

testing procedures.

Max. Recoat Time