August 7, 2020

RE: ITB 26-20 South Beach Pumping Station Upgrades
ADDENDUM No. 1

To prospective vendors:

The Utilities Commission is issuing the following addendum. As such it becomes an integral part of the proposal and must be acknowledged by the return of this signed form, with your proposal form, acknowledging receipt of the addendum.

VENDORS ARE ENCOURAGED NOT TO ATTEND BID OPENINGS IN PERSON BUT TO ATTEND BY DIALING 1 (646) 570-1040 PIN: 924-5593

THE UTILITIES COMMISSION, CITY OF NEW SMYRNA BEACH TAKES THIS STEP IN AN ABUNDANCE OF CAUTION FOR THE SAFETY AND WELLBEING OF OUR STAFF AND COMMUNITY.

IF YOU ARE DROPPING OFF A BID PLEASE RING THE BELL AND THE SECURITY GUARD WILL TAKE IT FROM YOU.
Question 1: As per drawing E4.0, Cat, Onan (Which is now Cummins) and Kohler are listed as acceptable, however Generac is not listed. That said, I wanted to see if Generac can be considered as an acceptable manufacturer as well?

Response: In regard to this project, Generac will not be considered as an acceptable manufacturer.

Question 2: Do you have a specification for the VFDs that are being requested?

Response: Yaskawa is the VFD of choice for the UCNSB.

Question 3: Ref: Drawing E2.0, Keyed Plan Note 2: [NEW] FUEL SYSTEM – TO PROVIDED BY UCNSB. What does this note mean? Is the NEW ENVIRONSAFE FUEL SYSTEM TANK and HANDPUMP provided by UCNSB?

Response: UCNSB shall provide the Fuel Tank. EC shall provide hand pump - Bosworth Delrin GH-0400D Guzzler Horizontal Hand Pump w/ Aluminum Clamp Ring - 3/4 in. FNPT.

Question 4: REF: Drawing E4.0, 2.07.H UL LISTED 500 GALLON FUEL STORAGE TANK and 2.07.I MECHANICAL CONTRACTOR OR GENERATOR MANUFACTURER SHALL PROVIDE ANY FUEL PIPING NEEDED FOR GENERATOR OPERATIONS. The GENERATOR specifications indicate that the CONTRACTOR will be providing the NEW FUEL TANK and FUEL PIPING. Is this correct?

Response: UCNSB shall provide the Fuel Tank. Generator manufacturer shall provide fuel piping from exterior tank to interior genset.

Question 5: REF: Drawing M1.0 Note 12 FUEL PIPING DESIGN: GENERATOR FUEL PIPING DESIGN NEEDS TO BE COMPLETED BY MECHANICAL CONTRACTOR OR GENERATOR INSTALLER. THE CONVAULT TANK IS AN EXISTING TANK MOVED FROM DIFFERENT LOCATION TO HERE. SOME COMPONENTS ALREADY INSTALLED ON THE CONVAULT TANK MAY BE RE-USABLE INCLUDING A VENT, CHECK VALVE AND FILLER. Is this the NEW FUEL SYSTEM to be PROVIDED BY UCNSB in question 3?

Response: UCNSB shall provide the Fuel Tank that includes the following: vent, valve, and overfill.

Question 6: Will UCNSB be responsible for filling the FUEL TANK?

Response: Once start-up and commissioning is complete; contractor shall fill tank.
Question 7: Which Bid Item Line on the BID TABULATION form should include the cost of the NEW MASONRY INFILL WALL?

**Response:** Line item No. 5

Question 8: REF: Drawing E2.0, Keyed Plan Note 7: [NEW] SECURITY CAMERA (BY OTHERS – TYP. FOR 3) -near camera symbol. CONTRACTOR TO PROCURE AND INSTALL CAMERAS. UCNSB SHALL PROVIDE CAMERA SPECS TO EC – within the note below. Who is supplying the cameras to be installed by the CONTRACTOR?

**Response:** Per UCNSB Cameras have been removed from scope, however EC shall still install conduits per camera layout on plans. Conduits shall route back to DFS location for future connection.

Question 9: REF: Drawing E2.0 Keyed Riser Note 7 –Who is to provide the NEW WEATHERHEAD mentioned in the note? Is that part of the UCNSB scope?

**Response:** Weatherhead shall be provided by EC.

Question 10: Bid Item 3a New UCNSB Electrical Service – is this the cost for the CONTRACTOR’S portion of the Service from the NEW CT CABINET through MAIN BREAKER and on to the ATS?

**Response:** It’s the responsibility of the EC to provide all electrical equipment downstream of the weatherhead.

Question 11: Is there a Special Coatings/Painting specification for the plumbing pipe connections at the new pump-motors?

**Response:** The ductile iron piping should be shop primed with Tnemec Series N140. The topcoat should consist of two coats of Tnemec Series N69 Hi-Build Epoxoline II (3 to 5 mils per coat).

Question 12: Per the scope of work provided, there are three new 75hp pumps to be furnished & installed with this bid. Are these pumps a direct replacement with the same suction & discharge diameters and same flange to flange heights/lengths as the existing? If not, can a detail be provided to estimate any additional flange spools or spacers?

**Response:** The new pumps are not a direct replacement of the existing. The Contractor should allow for potential spool pieces and reducers. The height, length, and size will
depend on the pump/manufacturer chosen. Paco Pumps, Patterson Pumps, and Peerless Pumps are acceptable manufacturers.

Question 13: What is the engineer's estimate or City's budget for this project?

**Response:** The engineer’s estimate is $786,993.00.

Question 14: Sheet M1.0, General Note #12, states that a Convault fuel tank will be moved & installed on the new concrete slab shown. Is the Utilities Commission moving the fuel tank & installing it on the slab? Is there a day tank being provided with the fuel tank? Typically new generators this close to fuel tanks don't need a day tank. Can a detail be provided for any fuel piping required for the General Contractor to furnish & install? If the General Contractor is to move the fuel tank, can a location, picture & weight be provided?

**Response:** UCNSB shall move existing Fuel Tank, Contractor shall coordinate the delivery and offload. Pictures of the fuel tank are attached. Day tank is not required.

Question 15: The project manual page one calls for a Bard AC unit. Sheet M1.0 calls for a 10 Ton Airpak Model APK AC unit to be furnished & installed. Are both brands, Bard & Airpak acceptable?

**Response:** Both are acceptable manufacturers.

Question 16: Sheet AS.1 shows a detail for a new masonry wall that receives a 3 coat stucco system on the interior & exterior of the wall. Does the new wall get painted on the exterior & interior? If so, can a spec be provided for the painting?

**Response:** Attached is the spec for PPG, Amerlock Series Epoxy Coating for use on all new masonry surfaces. The exterior and interior of the wall are to be painted.

Question 17: Does any of the existing perimeter masonry wall or pump building get painted?

**Response:** No, neither the existing perimeter masonry wall nor the pump building will be painted as part of this project.

Question 18: The SCADA system is connected to a large number of I/O. At the on-site visit, it was not possible to identify all I/O. When will the listing of required I/O be published?

**Response:** Attached please find a screen shot of the existing I/O. The screen shot has been marked-up to show items no longer needed, as well as items to be added.
Question 19: Drawing E4.0 Control Scope, Note 2. (REO-032) is noted, the expected products to be used are different. All references to (REO-032) should be removed.

**Response: Noted.**

Question 20: Drawing E4.0 Control Scope, Note 2. At the on-site visit, the existing antenna tower was noted. Please confirm this is to be reused?

- A bucket truck/lift will be required if antenna/coax replacement is needed
- Please advise if UCNBS would supply lift.

Should these costs be included, as determination will be made after award?

**Response: The existing antenna tower will be reused.**

Question 21: Drawing E4.0 Control Scope, Note 4. UCNBS uses a VT SCADA frontend. This work is outside the scope of DFS. Does UCNBS intend to have these services provided outside of this project, or is the GC required to contract with the Utility’s VT SCADA preferred vendor/supplier for these services?

**Response: The GC will need to contract with Trihedral Inc, the UCNSB VT SCADA representative. Contact Information:**

- Bryan Sinkler – Technical Sales
  - 7380 Sand Lake Road, Suite 160
  - Orlando, FL 32819
  - Bryan.sinkler@trihedral.com
  - 407-888-8203 phone
  - 407-403-3785 cell

Question 22: Drawing E4.0 Control Scope, Note 5. Typically Control panel would be 4X SS, please confirm NEMA 12?

**Response: Nema-4X SS**

Question 23: Drawing E4.0 Control Scope, Note 6. At the on-site visit, it was determined the site would contain local automation, PLC, including VFD speed control. When will the control narrative of expected control be published to understand the operation?

**Response: See attached screenshot of contacts, status indicators, controls that UCNSB would like to be monitored by the DFS.**

Question 24: Drawing E4.0 Control Scope, Note 6. Some of the existing Modules, due to age, will not operate at optimal bus speed with a new PLC800. Should ALL NEW modules be provided under this project?
Response: All new modules shall be provided.

Question 25: Drawing E4.0 Control Scope, Note 8. For clarification to the DFS and VFD supplier, please confirm the interface between DFS RTU and VFD are to be hardwired.

Response: Correct, the interface between the DFS and VFDs shall be hardwired.

Question 26: Drawing E4.0 Control Scope, Note 11. This note could be misunderstood as relocating the existing RTU equipment. Clarification is needed that a NEW RTU provided by DFS will be located in the new location. All Control Wiring/Conduit is to be routed to this new location. It is not recommended to penetrate the top of the RTU; all conduit entries should be from the bottom of the RTU. Analog and Discrete signals should not be mixed in the same conduits.

Response: The new RTU will be located in the new location shown on the plans. All Control Wiring/Conduit is to be routed to this new location.

Question 27: Is there a Special Coatings/Painting specification for the plumbing pipe connections at the new pump-motors?

Response: The ductile iron piping should be shop primed with Tnemec Series N140. The top coat should consist of two coats of Tnemec Series N69 Hi-Build Epoxoline II (3 to 5 mils per coat).

Question 28: Will alternate manufacturers be accepted for AC-1?

Response: Or equal is acceptable.

Question 29: Will the louvers require a Miami Dade certification?

Response: Due to the integrity of the system and close proximity to the ocean, louvers shall remain as specified.
Additional Plan and Note Changes:

Sheet E 2.0, Note 4: The note has been revised to indicate the demo of all four existing pumps (2) 50 HP, (1) 75 HP, (1) 100 HP.

Sheet E 2.0, Note 4: The list of preferred pump manufacturers has been revised. Paco Pumps, Patterson Pumps, and Peerless Pumps are acceptable manufacturers. The UCNSB will select the pump based on review of the pump curves submitted. The selected pump may have a 60 HP motor and subsequent VFD, however the maximum HP motor and VFD will be 75 HP.

Sheet E 2.0, Note 8: Contractor shall follow the detail on Sheet E 3.0, Detail 4 for bollards. All references to removable bollards, have been removed.

A Copy of This Signed Form Must Accompany Your Proposal

Acknowledgment of Receipt of Addenda No. 1

Company_______________________________________
Title___________________________________________
Signature_______________________________________
SOUTH BEACH PUMP STATION
GENSET REPLACEMENT
ITB# 2-19

SITE MAP
APPROXIMATE DIMENSIONS

BUILDING AND EQUIPMENT DIMENSIONS ARE 'APPROXIMATE ONLY'. PRIOR TO THE START OF ANY WORK FIELD VERIFY ACTUAL EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO ENGINEER.
EXISTING CONDITIONS ARE DENOTED BY 'LITE LINES', NEW WORK BY 'DARK LINES'.

VERSUS NEW ELEC CHANGEOVER

INSTALL ALL [NEW] ELEC EQUIPMENT, BREAKERS, CONDUITS, WIRES, ETC PRIOR TO 'ELECTRICAL CHANGEOVERS'. ALL WORK SHALL BE PERFORMED WHILE THE OWNER IS OCCUPYING THIS FACILITY. CONTRACTOR SHALL OUTLINE THEIR MEANS & METHODS WHICH WILL ALLOW THE OWNER TO CONTINUE TO MAINTAIN FACILITY ELEC FUNCTIONS DURING EXECUTION OF THIS WORK.

ENGINEERING INC
www.ersengineering.com
5775 Timuquana Road
Jacksonville, Florida 32210
Engineering Business No. 7984
Ph (904) 777-3089

REVISED NOTES
AMERLOCK® 400 / SIGMACOVER™ 400

DESCRIPTION
Two-component, high solids epoxy coating

PRINCIPAL CHARACTERISTICS
- High performance self priming universal epoxy
- High solids, low VOC
- Surface tolerant and abrasion resistant
- Compatible with prepared, damp surfaces
- Good adhesion on most existing coatings
- Available in MIO or conventional pigmented grade
- Good resistance to splash and spillage of chemicals
- Meets NSF Standard 61 for valves (US manufacturing only)

COLOR AND GLOSS LEVEL
- Standard primer colors and custom colors
- Semi-gloss

Note: Epoxy coatings will chalk and fade with exposure to sunlight. Light colors are prone to ambering to some extent. Note that product tinted to custom colors are not recommended for immersion service. Only use factory grind batches for immersion.

BASIC DATA AT 20°C (68°F)

<table>
<thead>
<tr>
<th>Data for mixed product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of components</td>
</tr>
<tr>
<td>Mass density</td>
</tr>
<tr>
<td>Volume solids</td>
</tr>
<tr>
<td>VOC (Supplied)</td>
</tr>
<tr>
<td>Temperature resistance (Continuous)</td>
</tr>
<tr>
<td>Temperature resistance (Intermittent)</td>
</tr>
<tr>
<td>Recommended dry film thickness</td>
</tr>
<tr>
<td>Theoretical spreading rate</td>
</tr>
<tr>
<td>Dry to touch</td>
</tr>
<tr>
<td>Overcoating Interval</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
AMERLOCK® 400 / SIGMACOVER™ 400

Data for mixed product

| Shelf life          | Base: at least 36 months when stored cool and dry
|                    | Hardener: at least 36 months when stored cool and dry

Notes:
- See ADDITIONAL DATA – Spreading rate and film thickness
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time
- For compliance with regulations which require VOC less than 100 g/L, AMERLOCK 400 VOC can be specified interchangeably
- AMERLOCK 400 VOC is available only in US and Canada
- Intermittent temperature resistance should be less than 5% of the time, and maximum 24 hours
- Temperature resistance is in atmospheric condition. Please contact your PPG representative for immersion condition.

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Coating performance is proportional to the degree of surface preparation. Remove all loose paint, mill scale, and rust.
  - The surface to be coated must be dimensionally stable, dry, clean and free of grease, oil, and other foreign materials.
  - When proper abrasive blast surface preparation is not practical, surfaces should be chipped clean and wire brushed to bare, clean material

Carbon steel
- For immersion service: steel; blast cleaned to ISO-Sa2½ (SSPC-SP-10)
- For atmospheric service, abrasive blast to ISO-Sa2½ or minimum SSPC SP-6; power tool cleaned to ISO-St3 (SSPC SP-3) or hand tool cleaned to ISO-St2 (SSPC SP-2) or ultra high pressure water jet to SSPC SP WJ-2(L) / NACE WJ-2(L)

Concrete / Masonry
- Remove grease, oil and other penetrating contaminants according to ASTM D4258
- Abrade the surface per ASTM D4259 to remove all chalk and surface glaze or laitance. Achieve surface profile - ICRI CSP 3 to 5
- Fill voids as necessary with AMERCOAT 114 A epoxy filler
- Maximum recommended moisture transmission rate is 3 lbs / 1,000 ft2 / 24 hours by moisture transmission test (ASTM F1869, calcium chloride test or by ASTM D4263, plastic sheet test)
- Alternatively, ASTM D4944 (Calcium Carbide Gas method) can be used, moisture content should not exceed 4%

Galvanized steel
- Remove oil or soap film with detergent or emulsion cleaner
- Lightly abrasive blast with a fine abrasive in accordance with SSPC SP-16 guidelines to achieve a profile of 40 - 75 μm (1.5 - 3.0 mils). When light abrasive blasting is not possible, galvanizing can be treated with a suitable zinc phosphate conversion coating
- Galvanizing that has had at least 12 months of exterior weathering may be coated after power washing to remove all contaminants and white rust
AMERLOCK® 400 / SIGMACOVER™ 400

Non-ferrous metals and stainless steel
- Remove all rust, dirt, moisture, grease or other contaminants from the surface
- LIGHTLY abrasive blast with a fine abrasive in accordance with SSPC SP-16 guidelines to achieve a profile of 40 - 100 µm (1.5 - 4.0 mils)

Aged coatings and repairs
- Aged suitable coating must be dry and free from any contamination
- For single-pack coatings, extra precautions are necessary

Substrate temperature
- Substrate temperature during application and curing should be between 5°C (41°F) and 50°C (122°F)
- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point

SYSTEM SPECIFICATION
- Primers: Direct to substrate; DIMETCOTE Series, AMERCOAT 68 Series, AMERLOCK 2 / 400 Series, SIGMAZINC Series, AMERCOAT Epoxies and SIGMA Epoxies
- Topcoats: AMERCOAT 450 Series, SIGMADUR Series, SIGMACOVER Epoxies, AMERCOAT Epoxies, AMERSHIELD and PSX 700

INSTRUCTIONS FOR USE
Mixing ratio by volume: base to hardener 50:50 (1:1)
- The paint should be stirred well before use, preferably by means of a mechanical mixer, to ensure homogeneity
- Add hardener to base and continue stirring until homogeneous

Induction time
None

Pot life
2 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

Air spray

Recommended thinner
THINNER 91-92 FOR GLOBAL, THINNER 21-06 (AMERCOAT 65) FOR NSF/ANSI 61, THINNER 21-25 (AMERCOAT 101) FOR NON NSF/ANSI 61 and > 90°F (32°C)

Volume of thinner
0 - 10%, depending on required thickness and application conditions
AMERLOCK® 400 / SIGMACOVER™ 400

**Airless spray**

**Recommended thinner**
THINNER 91-92 FOR GLOBAL, THINNER 21-06 (AMERCOAT 65) FOR NSF/ANSI 61, THINNER 21-25 (AMERCOAT 101) for NON NSF/ANSI 61 and > 90°F (32°C)

**Volume of thinner**
0 - 5%, depending on required thickness and application conditions

**Nozzle orifice**
Approx. 0.48 mm (0.019 in)

**Nozzle pressure**
15.0 - 18.0 MPa (approx. 150 - 180 bar; 2176 - 2611 p.s.i.)

**Brush/roller**
- Brush: apply evenly using a clean, well-loaded brush
- Application by brush or roller will provide approximately 80 µm (3.1 mils) DFT in a single-coat application

**Cleaning solvent**
THINNER 90-53, THINNER 90-58 (AMERCOAT 12) OR THINNER 21-06 (AMERCOAT 65)

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**ADDITIONAL DATA**

<table>
<thead>
<tr>
<th>Spreading rate and film thickness</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DFT</strong></td>
<td><strong>Theoretical spreading rate</strong></td>
</tr>
<tr>
<td>100 µm (4.0 mils)</td>
<td>8.5 m²/l (341 ft²/US gal)</td>
</tr>
<tr>
<td>125 µm (5.0 mils)</td>
<td>6.8 m²/l (273 ft²/US gal)</td>
</tr>
<tr>
<td>200 µm (8.0 mils)</td>
<td>4.3 m²/l (170 ft²/US gal)</td>
</tr>
</tbody>
</table>
# AMERLOCK® 400 / SIGMACOVER™ 400

## Overcoating interval for DFT up to 125 μm (5.0 mils)

<table>
<thead>
<tr>
<th>Overcoating with...</th>
<th>Interval</th>
<th>10°C (50°F)</th>
<th>20°C (68°F)</th>
<th>30°C (86°F)</th>
<th>40°C (104°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>itself and various two-pack epoxy coatings</td>
<td>Minimum</td>
<td>36 hours</td>
<td>16 hours</td>
<td>6 hours</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>Maximum</td>
<td>3 months</td>
<td>3 months</td>
<td>2 months</td>
<td>1 month</td>
</tr>
<tr>
<td>urethane and PSX</td>
<td>Minimum</td>
<td>36 hours</td>
<td>16 hours</td>
<td>6 days</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>Maximum</td>
<td>1 month</td>
<td>1 month</td>
<td>14 days</td>
<td>7 days</td>
</tr>
</tbody>
</table>

Notes:
- PPG 861 (AMERCOAT 861) accelerator (1 pint per 5 gallons) will reduce min. and max. recoat interval to half (US supply only)
- Surface should be dry and free from any contamination
- A detergent wash with PREP 88, SIGMARITE 86 or equivalent is required prior to application of topcoats after 30 days of exposure
- If maximum recoat time has been exceeded, roughen surfaces
- Alkyd coatings and waterborne acrylic coatings should be applied after the film is dry to handle and not greater than three times dry to handle time
- Maximum recoating time is highly dependent upon actual surface temperature - not simply air temperatures. Sun-exposed or otherwise heated surface will shorten the maximum recoat window

## Curing time for DFT up to 125 μm (5.0 mils)

<table>
<thead>
<tr>
<th>Substrate temperature</th>
<th>Dry to touch</th>
<th>Dry to handle</th>
<th>Full cure</th>
</tr>
</thead>
<tbody>
<tr>
<td>10°C (50°F)</td>
<td>24 hours</td>
<td>48 hours</td>
<td>21 days</td>
</tr>
<tr>
<td>20°C (68°F)</td>
<td>6 hours</td>
<td>20 hours</td>
<td>7 days</td>
</tr>
<tr>
<td>30°C (86°F)</td>
<td>3 hours</td>
<td>12 hours</td>
<td>4 days</td>
</tr>
<tr>
<td>40°C (104°F)</td>
<td>1 hour</td>
<td>8 hours</td>
<td>3 days</td>
</tr>
</tbody>
</table>

Notes:
- Adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1433 and 1434)
- PPG 861 (AMERCOAT 861) accelerator (1 pint per 5 gallons) will reduce curing time to half (US supply only)

## Pot life (at application viscosity)

<table>
<thead>
<tr>
<th>Mixed product temperature</th>
<th>Pot life</th>
</tr>
</thead>
<tbody>
<tr>
<td>10°C (50°F)</td>
<td>3 hours</td>
</tr>
<tr>
<td>21°C (70°F)</td>
<td>2 hours</td>
</tr>
<tr>
<td>32°C (90°F)</td>
<td>1 hour</td>
</tr>
<tr>
<td>40°C (104°F)</td>
<td>30 minutes</td>
</tr>
</tbody>
</table>

Note: PPG 861 (AMERCOAT 861) accelerator (1 pint per 5 gallons) will reduce pot life to half (US supply only)
AMERLOCK® 400 / SIGMACOVER™ 400

Product Qualifications
- Compliant with USDA Incidental Food Contact Requirements
- NFPA Class A for Flame Spread and Smoke Development
- Qualified for ANSI/NSF Standard 61 (potable water) for valves only. For NSF application instructions, please visit the following website: http://www.nsf.org/certified-products-systems/
- MPI Category #108
- Nuclear Service Level 2 (ANSI N 5.12, ANSI N 101.2)
- LEED's compliant for Anti-corrosive Paint category

SAFETY PRECAUTIONS
- For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets
- This is a solvent-borne paint and care should be taken to avoid inhalation of spray mist or vapor, as well as contact between the wet paint and exposed skin or eyes

WORLDWIDE AVAILABILITY
It is always the aim of PPG Protective and Marine Coatings to supply the same product on a worldwide basis. However, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.

REFERENCES
- CONVERSION TABLES
- INFORMATION SHEET 1410
- EXPLANATION TO PRODUCT DATA SHEETS
- INFORMATION SHEET 1411
- SAFETY INDICATIONS
- INFORMATION SHEET 1430
- SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD – TOXIC HAZARD
- INFORMATION SHEET 1431
- SAFE WORKING IN CONFINED SPACES
- INFORMATION SHEET 1433
- DIRECTIVES FOR VENTILATION PRACTICE
- INFORMATION SHEET 1434
- CLEANING OF STEEL AND REMOVAL OF RUST
- INFORMATION SHEET 1490
- SPECIFICATION FOR MINERAL ABRASIVES
- INFORMATION SHEET 1491
- SURFACE PREPARATION OF CONCRETE (FLOORS)
- INFORMATION SHEET 1496
- RELATIVE HUMIDITY – SUBSTRATE TEMPERATURE – AIR TEMPERATURE
- INFORMATION SHEET 1650

WARRANTY
PPG warrants (1) its title to the product, (2) that the quality of the product conforms to PPG's specifications for such product in effect at the time of manufacture and (3) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.
LIMITATIONS OF LIABILITY

IN NO EVENT WILL PPG BE LIABLE UNDER ANY THEORY OF RECOVERY (WHETHER BASED ON NEGLIGENCE OF ANY KIND, STRICT LIABILITY OR TORT) FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO, ARISING FROM, OR RESULTING FROM ANY USE MADE OF THE PRODUCT. The information in this sheet is intended for guidance only and is based upon laboratory tests that PPG believes to be reliable. PPG may modify the information contained herein at any time as a result of practical experience and continuous product development. All recommendations or suggestions relating to the use of the PPG product, whether in technical documentation, or in response to a specific inquiry, or otherwise, are based on data, which to the best of PPG’s knowledge, is reliable. The product and related information is designed for users having the requisite knowledge and industrial skills in the industry and it is the end-user’s responsibility to determine the suitability of the product for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk. PPG has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. Therefore, PPG does not accept any liability arising from any loss, injury or damage resulting from such use or the contents of this information (unless there are written agreements stating otherwise). Variations in the application environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results. This sheet supersedes all previous versions and it is the Buyer’s responsibility to ensure that this information is current prior to using the product. Current sheets for all PPG Protective & Marine Coatings Products are maintained at www.ppginc.com. The English text of this sheet shall prevail over any translation thereof.

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PPG AMERLOCK® series
Versatile epoxy for the toughest applications
High performance epoxy combining corrosion protection with minimal surface preparation.

Amerlock is the high-solids, high-build epoxy protective coating that has revolutionized painting in tough industrial, marine and offshore environments around the world. Amerlock series coatings are especially formulated to solve complex corrosion problems—with minimal surface preparation. These coatings are designed to permit application directly to tightly adhering rust and intact old paint without blast cleaning.

With its proprietary blend of penetrants and surface tension-control agents, Amerlock has superior wetting action and creates a tight bond to the underlying metal. The result is a tough, durable coating with excellent resistance to weather, moisture, sunlight and chemical fumes. Amerlock’s low-solvent formula will typically not lift or wrinkle old paint, and it is also an excellent direct-to-metal protective coating for new, unpainted surfaces. It meets existing VOC regulations, and it even meets requirements for drinking water and indirect food contact.

Amerlock’s low-solvent formula penetrates to the underlying metal to form a tight bond allowing it to be applied over most old paint and even tightly adhered rust. Amerlock products can also be combined with PPG’s other value-added products such as the AMERCOAT® 450 series or PSX® products to serve specific asset protection needs.

**AMERLOCK**® 2 and **AMERLOCK**® 400
Tough coatings that seal and protect in one coat

- **Self-priming**
  Primer and topcoat in one no downtime, less costly to apply

- **Fastdry**
  Amerlock 2 dries to the touch in just 2 hours. In certain temperatures 2 coats can be applied in the same day

- **Multiple substrates**
  Can be used on steel, concrete, galvanizing, zinc or even as a concrete floor coating

- **Choice of any color**
  Unlike competitive products that have limited color options

- **Can be applied at low temperatures**
  Applied down to freezing temperatures if the surface is free of ice

- **Minimal surface preparation**
  Can be applied over intact old paint and tight rust, convenient where blast cleaning is impossible or impractical

- **Adheres to damp surfaces**
  Allows for painting in less than perfect conditions

- **Excellent edge retention**
  Can be applied in thicknesses of up to 8 mils in one coat, a significant advantage for coating angular surfaces

- **Single coat**
  A single 5 mil coat delivers better performance than competitors’ two- or even three-coat systems

- **Dry temperature resistance to 450°F (232°C)**
  When combined with AMERCOAT® 80 glass flake offers high temperature protection for both insulated and uninsulated surfaces

**AMERLOCK**® 400
When the need calls for a tough coating that seals and protects in just one application, choose Amerlock 400. Besides its suitability as a maintenance coating on existing steel structures, it is an excellent all-in-one primer and topcoat for new, unpainted steel in industrial facilities, on bridges, tank exteriors, offshore facilities, marine, piping, roofs, water towers and other exterior weathered exposures. It resists high humidity and moisture, and is compatible with prepared damp surfaces where pre-application blasting is impractical or impossible.

Amerlock 400 cures through a wide temperature range, and is available in a variety of colors. While it is a self-priming topcoat over most existing coatings, it can be overcoated with a wide range of topcoats for extended weatherability or special situations. Its chemical resistance to spillage, fumes and immersion in neutral, fresh and salt water makes Amerlock 400 an excellent choice for a wide variety of general maintenance applications.

**AMERLOCK**® 2
Choose Amerlock 2 for its fast drying time—dry to touch in as few as two hours at 70°F (21°C) —and recoat in three hours. It also offers the last amount of odor and temperature cure down to 50°F (10°C), superior chemical resistance and, of course, all of the other qualities such as high surface tension for excellent adhesion, that make Amerlock products stand out against the competition. Amerlock 2 is ANSI/NSF 61 (potable water) approved for immersion in tanks, pipes, valves and fittings. Amerlock 2 is compliant with USDA incidental food contact requirements and meets FDA requirements for direct food contact.

**AMERLOCK**® sealer
The same proprietary epoxy technology of Amerlock 400 and Amerlock 2 is also available in a solvent-free sealer and topcoat that penetrates rust and adheres to aged coatings. Amerlock sealer is a clear, thin film 1.5 ml/g 38 microns, 100% solids epoxy sealer that is compatible with many other coatings as well as damp substrates. Like other products in the Amerlock series, Amerlock sealer resists moisture and corrosion.

**AMERLOCK**® 400 VOC/2 VOC
These products have all of the attributes of Amerlock 400 and Amerlock 2 but in a low VOC version. These products meet guidelines requiring VOCs to be <100 g/L. Amerlock 400 VOC — (98 g/L) Amerlock 2 VOC — (84 g/L)

**AMERSHIELD**® topcoat
Applying Amershield (aluminum polyurethane) topcoat over Amerlock 400, Amerlock 400 VOC, Amerlock 2 or Amerlock 2 VOC results in a superior system that is as rugged as it is aesthetically pleasing. This easy-to-apply system is ideal for direct application to both metal and concrete, and offers good chemical, abrasion and stain resistance. When applied to a wire brush-cleaved surface, this system complies with world-recognized standards such as ISO 12944, CSi-high and CS-M-C.
We want to add these items:

1. Hypo Pump #1 leak (alarm/normal)
2. Hypo Pump #2 leak (alarm/normal)
3. #1 Pump VFD Set Speed (set 0%-100%)
4. #2 Pump VFD Set Speed (set 0%-100%)
5. #3 Pump VFD Set Speed (set 0%-100%)
6. 3-phase power (alarm/normal)
7. Tank Ladder (alarm/secure)
8. SBPS Rear Door (alarm/secure)