ADDENDUM NO. 1
INVITATION FOR BIDS AND TECHNICAL SPECIFICATIONS
NORTH WTP HIGH SERVICE PUMPS, MOTORS VFD'S
AND CONTROLS PROJECT
HENDERSON WATER UTILITY
HENDERSON, KENTUCKY
MARCH 2022

Date of Addendum: Friday, February 25, 2022
Bid Opening: Thursday, March 3, 2022, 1:30 p.m. Central Time

1. Solicitation Instructions and Conditions, Paragraph 10. Award of Contract, Item e., Page 5:

   Modify this item to read as follows:

   "e. The bidder agrees to hold the proposed pricing for up to ***60*** days after bid proposal is opened, or for such time as specified on the Bid Form, if different."

2. Technical Specifications, Paragraph 7. Painting, Page 4:

   Modify this paragraph as shown.

   "7. Painting

   All ferrous components of equipment and machinery shall be cleaned and painted at the Vendor's facility prior to shipment to the project site. Touch up painting shall be performed by the Owner after equipment and machinery are installed.

   Specified painting products are those manufactured by Tnemec Company, Inc. and are specified as the standard of quality required for use on this project. Equivalent products by other manufacturers are acceptable, providing they meet or exceed all performance criteria of the specified materials. Products that would decrease film thicknesses or offer a change in the generic type of coating specifically shall not be considered. Paint coating data shall be furnished with shop drawings.

   Unless specified otherwise in the Technical Specifications section of this Request for Proposals, ferrous components of all machinery and equipment shall be thoroughly cleaned and shall have one prime

coat of Series 160 TNEME-Fasprime (2.0 to 3.0 mils DFT) ***and one finish coat of Tnemec Epoxyline Series 141 (2.0 to 3.0 mils DFT***) applied in the Vendor's shop.

3. Technical Specifications, Sub-Paragraph 11.g. Vertical Hollow Shaft Electric Motor, Item (5) Mechanical Design and Item (6) Accessories, Pages 9 and 10:

Modify these items as shown.

"(5) Mechanical Design

The driven equipment shall not cause any motor to exceed its rated horsepower at any possible operating condition.

Bearings utilized in motor construction shall be rated for a five-year minimum L-10 life at the specified operating condition of the driven equipment. Bearings shall be the anti-friction type and may be either ball or roller as necessary to obtain the hereinbefore described five-year minimum L-10 life under specified operating conditions.

Motors utilizing oil lubricated bearings shall include an externally visible sight glass to view the oil level. Oil-fill ports shall be located to prevent over-filling. Synthetic oil shall be used as the lubricant when spherical roller bearings are utilized. Grease lubricated bearings shall be specially designed for use in electric motors. Grease lubricated bearings shall be factory lubricated with Exxon Polyrex EM or equal grease product. Fittings to apply grease to bearings shall be Alemite™ type and not smaller than one-quarter inch size. All grease exits shall be the automatic pressure relief-type not smaller than one-quarter inch in size.

The maximum vibration of the motor measured in any direction on the bearing housing when tested in accordance with the requirements of NEMA MG 1 shall not exceed ***0.17*** inches per second peak velocity.

The motor sound power load when measured at a "no load" condition shall not exceed 90 dBA when determined in accordance with the requirements of IEEE Standard 85.

All motors shall have permanent lifting eyes or lugs capable of supporting ten times the weight of the motor when in tension.

All external fasteners shall be hexagon-head, cadmium plated steel rated Class 5 or harder. Internal fasteners may be slotted-head, Phillips head, or socket head. All fasteners shall be sized in English units.

All airway openings on weather protected enclosures shall be covered with stainless steel screen having a one-quarter inch maximum screen opening.

The shop applied paint finish of all cast iron components of motors shall be corrosive resistant and the coating shall be capable of passing a 250-hour salt spray test in accordance with the requirements of ASTM B117.

(6) Accessories

Motors shall be fitted with shaft grounding brushes equal to Aegis. Opposite drive and bearing pockets shall be insulated.

All motors with power ratings greater than 20 horsepower shall be fitted with anti-condensation heaters capable of maintaining motor windings at a temperature at least 10ºF above ambient temperature. Anti-condensation heaters shall be for single-phase, 60 Hertz, 120 volt electrical power supply and a separate auxiliary outlet box shall be provided for termination of the heater leads.

All motors with power ratings greater than 20 horsepower shall be furnished with winding thermostats. One winding thermostat shall be furnished for each phase, normally closed, connected in series. A separate auxiliary outlet box shall be provided for termination of the thermostat leads.

The main terminal box for all motors shall include provisions for grounding.

Resistance Temperature Detectors (RTDs) shall be furnished and installed on motors. RTDs shall consist of a sensing element consisting of a precision wound wire coil of pure metal. RTDs shall be precision platinum using three wires with a maximum resistance of 100 ohms at 0ºC."

4. Technical Specifications, Sub-paragraph 11.j. Pump Materials and Construction, Item (6) Column Pipe, Page 14:

Modify this item as shown.

"(6) Column Pipe

The column pipe shall be epoxy coated inside and outside. Column assembly shall be of flanged type construction. **The outer column shall be a butt welded *flanged* steel pipe and in interchangeable sections, not more than 5 feet in length.** The ends of each section shall be machined parallel. Register fit circles shall be machined on the flanges on each end and positive alignment shall be assured by accurately machined bearing retainers with register fit circles. The column size shall be such that the friction loss will not exceed 5 feet per 100 feet of length at the rated capacity of the pump and shall not be smaller than the minimum size specified. The column pipe should be A53, Grade B and of sufficient wall thickness for the application. ***All fasteners shall be 316 stainless steel.***

5. Technical Specifications, Sub-paragraph 11.j. Pump Materials and Construction, Item (9) Sole Plate, Page 14:

Add Item (9) to this sub-paragraph as indicated below.

"***(9) Sole Plate***

Each vertical turbine pump shall be equipped with a sole plate to which the discharge head shall be mounted. The sole plate shall be manufactured of A36 steel and shall be minimum of 1-inch thick which shall be verified by the pump manufacturer. Each sole plate shall be sized at least 8-inches larger than existing openings to allow a 4-inch overhang along each side of existing openings."

J. R. WAUFORD & COMPANY,
CONSULTING ENGINEERS, INC.

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