

DATE: June 20, 2014

BID #: WS 56-14

ADDENDUM NO. 1

TO THE CONTRACT DOCUMENTS:

MCC & Control Panel (Equipment Only Bid)

East County Repump Project
Okaloosa County Water and Sewer System
Okaloosa County, Florida

To All Document Holders:

The following changes, additions, and or deletions are hereby made a part of the Bidding Documents for the **East County Repump - MCC and Control Panel Package(Equipment Only Bid)** Project, Bid # WS 56-14 as fully and completely as if the same were fully set forth therein:

CONTRACT DOCUMENTS

QUESTIONS

Q: What is the utility company transformer data for the site supply power?

A: Power for the site will be supplied by Gulf Power Co through a new Transformer. Please contact Jan Orr (at 850-420-4827 or jjorr@southernco.com) for transformer and power system data in relation to the project.

Q: Is there any special split requirements for the MCC?

A: Currently there are no special MCC split requirements.

Q: Does the Coordination study need to be stamped by a FL PE?

A: See the 'Technical Specification' clarifications below.

Q: What software version does the customer have?

A: See the 'Technical Specification' clarifications below.

Q: What surge suppression is needed for signals i.e. Discrete and analog?

A: See the 'Technical Specifications' clarifications below.

Q: Can VFD Speed feedback be retrieved via Ethernet communication or is 4-20mA required?

A: A 4-20mA signal is required for speed feedback.

Q: Can the fluorescent enclosure light be replaced with an LED equivalent?

A: Yes

Q: Do you have a more defined Pressure Transducer Specification?

A: See the 'Technical Specifications' Clarification below.

Q: Which communication protocol is to be used i.e. ControlNet or EthernetIP?

A: Ethernet communication is required such that the SCADA system can retrieve and control all necessary items. Ethernet communication is the preferred method to achieve the redundant PLC portion of the project. However, if controlnet, devicenet or another protocol is necessary to achieve the desired level of redundancy it is acceptable.

Q: During the Factory Acceptance Test (FAT) do the VFD's have to be run with an inductive load?

A: Yes. However, since the actual motor load will be 125HP a small inductive load (approximately 1 - 5 HP) will suffice.

Q: Is an Inverse time type circuit breaker acceptable as the 'Circuit-Breaker Disconnecting Means' for the FVNR spare starter shown on drawing E0.10?

A: Yes.

Q: Should network switch(es) be provided in the MCC?

A: No network switches are required to be installed in the MCC. The only network switch required for the site shall be installed in the control panel as called out in specification section 16900.

TECHNICAL SPECIFICATIONS

16900 – Instrumentation and Controls

1) Surge Suppression Devices:

- a. **ADD** –16900.2.20 (A): “All incoming power to the control panel shall be protected by Phoenix Contacts “Trabtech” surge protectors or Engineered approved equal rated for the voltage being supplied. Protection shall be provided for all phase and neutral conductors.”
- b. **ADD** – 16900.2.20 (B): “All digital I/O signals that enter or exit the electrical building shall be protected from surges at the control panel with suitable surge suppression devices. Panel mounted surge protection shall be Plug in Style & DIN rail mounted to allow for easy replacement. The power and digital I/O signals shall be protected with solid state surge suppression devices manufactured by Phoenix Contact or Engineer approved equal. MOV only type surge suppression is not acceptable.”
- c. **ADD** – 16900.2.20 (C): “All analog I/O signals shall be protected by loop powered isolators manufactured by Phoenix Contact or Engineer approved equal.”

2) Redundant PLCs:

- a. **REPLACE** –16900.2.2 (A) Programmable Logic Control System (PLC): “As subject to compliance with the contact documents, the PLCS shall be Allen Bradley CompactLogix series with individual dedicated power supplies. The PLCs shall be configured in a

manufacturer recognized redundant “Hot Backup” fashion so that the failure of one controller will not prevent the operation of the station. A “Bumpless” transition is not necessary but the “Bump” shall be 5 seconds in duration or less. The redundant PLCs shall utilize a common set of Allen Bradley 1794 Flex I/O modules. In the event of a PLC failure (primary or secondary) the failure should be transmitted to the SCADA system. During operation, all setpoint changes initiated by the operator(s) at the site or remotely through SCADA should be updated on both the primary PLC and secondary PLCs. The PLCs should be supplied with Ethernet communication such that the SCADA system can access the necessary data from the site.”

3) Software:

- a. **MODIFY** – 16900.2.5 (A) PLC Software: “The system integrator shall provide a licensed copy of Allen Bradley’s RSLogix5000 with all of the functionality necessary such that the client can upload, download, modify and monitor the application developed by the system integrator for the PLCs. The firmware version shall be at least equal to or greater than the revision used by the system integrator to program and configure the PLCs.”
- b. **ADDITION** – 16900.2.5 (B) HMI Software: “The system integrator shall provide a licensed copy of Allen Bradley’s FactoryTalk View Studio ME with all of the functionality necessary such that the client can upload, download, modify and monitor the application developed by the system integrator for the HMI. The version provided shall be at least equal to or greater than the version used by the system integrator used to program and configure the HMI.”
- c. **ADDITION** – 16900.2.5 (C) Networking Software: “The system integrator shall provide a licensed copy of any networking software necessary for the configuration and programming of the PLCs (i.e. RSNetWorkx for DeviceNet, ControlNet, Ethernet, etc...). The version provided shall be at least equal to or greater than the version used by the system integrator used to program and configure the network.”

4) Instruments:

- a. **MODIFY** – 16900.2.14 (A) Pressure Transducers: “Shall be Endress Hauser Cerabar PMC71-SBC1P6RAA or engineer approved equal. Shall be supplied with all necessary accessories (external diaphragm seals) for wastewater applications as well as 316SS block and bleed valves as shown on the mechanical drawing details for pressure gauges or switches.
- b. **REMOVE** – 16900.2.14 (B) Electromagnetic Flow Meter

16443 – Motor Control Center

1) Device Coordination:

- a. **MODIFY** –16443 1.6 (E) Coordination: “Provide selective coordination of all overcurrent devices including: circuit breakers, fuses, overload relays, and motor circuit protectors. The selective coordination shall

be from the generator circuit breaker, through the low voltage transfer switch, through the MCC, to the motors/low voltage panelboard breakers. The coordination study shall be performed, signed and sealed by a licensed P.E.”

Plan Drawings

- 1) Ethernet Cables:
 - a. **ADD** – Plan Drawings E0.80 Conduit and Conductor Schedule & E2.2 Electrical Controls Plan: One (1) Cat5e cable shall be pulled and terminated in a 1” conduit between each VFD in the MCC and the control panel to provide Ethernet communication between the PLC and the VFDs.
- 2) MCC:
 - a. **MODIFY** – Plan drawing E0.10:
 - i. The MCC should be provided with main lugs. No main circuit breaker in the MCC is necessary.
 - ii. The rating of the MCC shall be 1200A.
 - b. **MODIFY** – Plan drawing E0.30:
 - i. The distribution panel shall be mounted in the MCC. ‘Surface’ mounting shall be replaced with ‘MCC’ mounting.
 - ii. The main breaker for the distribution panel shall be omitted. The panel shall be provided with main lugs.

All Plan Holders shall acknowledge receipt and acceptance of Addendum No. 1 in the Proposal or by submitting the executed Addendum to Constantine Engineering prior to Proposal Submittal.

Constantine Engineering

 //Signed//
Joey G. Crews

Receipt acknowledged and conditions agreed to this

_____ day of _____, 2014

BIDDER

By

END OF ADDENDUM NO. 1