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Addendum # 3 Riddle Farm Wastewater Treatment Plant Upgrades

Date of Addendum: 5/15/2024

NOTICE TO ALL BIDDERS AND PLANHOLDERS

The Bid Documents for the above-referenced Project are modified as set forth in this Addendum. The original Bid Documents and any previously issued addenda remain in full force and effect, except as modified by this Addendum, which is hereby made part of the Bid Documents. Vendors will take this Addendum into consideration when preparing and submitting a bid and shall acknowledge receipt of this Addendum in the space provided in the Bid Documents.

BID SUBMITTAL DEADLINE

The bid submittal time has not been changed.

1.0 – ATTACHMENTS

Item	Description
1.1	Project Manual Section 11315, Backwash Pump Control Panel

2.0 – CLARIFICATIONS

The following clarifications are provided as a matter of information to clarify issues raised about the Bid Documents.

Item	Description
2.1	Project Manual Section 00200, REVISE Information to Bidders Section 00200 Article 21.01, to the following: “Contractor shall be responsible for the payment of states taxes, if any, assessed in relation to the work, including but not limited to gross receipts taxes.”
2.2	Project Manual Section 13100, 2.02, E.2, REVISE from “120 mph/IBC 2018” to “133 mph”.
2.3	Project Manual Section 13100, 3.01.D., INSERT 2. “Supply two (2) roof openings. One located over the emergency overflow funnel-type flared outlet fitting and the other over the operating overflow funnel-type flared outlet fitting.”
2.4	Project Manual Section 13100, 3.01.F.2, a. REVISE Supply two (2) outside ladders and walkways shall be furnished and installed at the locations of each roof opening.
2.5	Project Manual Section 13100, 3.01.F.2, INSERT “f. At top of ladder shall be walkway and handrail extending to the center of the dome of tank.”
2.6	Project Manual Section 13100, 3.01.F.3.b, INSERT “Manway shall be 304 stainless steel material”.
2.7	Sheet Q-3.0, REVISE Plan & Section views to indicate walkway and handrail to extend from the top of the ladder to the center of the dome of the tank. The overflow and emergency overflow fittings shall be funnel-type flared end and located internally in the tank.
2.8	Project Manual Section 11308, 2.05, REPLACE “DIVISION 16” with “Section 11315”.
2.9	INSERT the attached Project Manual Section 11315 – Backwash Pump Control Panel

3.0 – QUESTIONS AND ANSWERS	
The following questions and answers are provided as a matter of information to clarify issues raised about the Bid Documents.	
Item	Questions and Answers
3.1	Q. Can you clarify the tax status of the project. Are we to include tax in the bid or is the job tax exempt? <i>A. Refer to Project Manual Section 00200, Article 21.01; Contractor shall be responsible for sales tax.</i>
3.2	Q. Project Manual Section 11601, Safety Equipment; Does the safety line go down the 4' wide catwalk above chambers 1 to 2-B? What, where and how does it anchor? Please clarify. <i>A. No, it does not go down the 4' catwalk. The safety line is for membrane cassette tanks and the attachment is to be anchored to the steel tube columns at each end using a coated 6-inch by 6-inch by 5/8 inch knife plate in two locations selected by Owner.</i>
3.3	Q. There is currently no way to access the roof of the tank and get to the vent. For tanks with this type of roof, it is standard to have the walkway below go from the top of the ladder to the center of the dome. This is our recommendation. Please let us know if you would like this to be included. <i>A. Walkway to be included.</i>
3.4	Q. Project Manual Section 13100, it says the manway on the tank is to be stainless steel; is it to be 304 or 316 stainless? <i>A. Tank manway shall be 304 stainless steel.</i>
3.5	Q. The backwash tank manufacturer believes the wind design in the area, using Risk Category 2 and other local parameters, is 126 mph according to ATC Hazards. This being the case, we would design to 130 mph. The Project Manual specification calls out 120 mph and may not be enough for the location. <i>A. The ATC Hazard shall be "Risk Category 3" and therefore designed for 133 mph wind velocity.</i>
3.6	Q. Specification Section 14300 – Hoists and Cranes: I didn't see anything in the spec unless I missed it, but is the conductor bar or festoon system that is currently powering the existing bridge crane being updated also? Then the new monorail will obviously need a conductor bar, or a festoon system installed also to power that hoist. Should the new hoists be quoted with wired pendant controls or radios and or both? Are there any feet per minute requirements for the hoist and trolley? <i>A. For the existing bridge crane, see Keynotes 13, 14, 15 and 17 on Sheet E-2 for updating conductor bar connectors and SEOW conduit cord. For the new monorail, use the festoon system and pendant control as described in Keynote 10 on Sheet E-2.</i>
3.7	Q. Project Manual Section 17001, 3.03, A.3. Please confirm the System Integrator will not furnish PLC hardware. <i>A. The successful System Integrator is not required to provide PLC hardware.</i>
3.8	Q. Project Manual Section 17001, Please confirm the integrator is responsible for programming the PLC's and OIT's. <i>A. Programming for the PLC's and OIT's will be addressed by the County or Veolia.</i>
3.9	Q. Sheet E-8, The drawings show a new Control Cabinet in the Lab with an OIT Display. Please provide clarification of the expectations for this cabinet. <i>A. The Lab Control Cabinet (WWTP SCADA Panel) is an existing Control Panel. The scope is to install a new OIT in the door of the existing WWTP SCADA Panel to communicate with the Veolia PLC for monitoring and control from the Lab. No interface is required in the existing WWTP SCADA Panel other than power for the new OIT.</i>
3.10	Q. Sheet E-8, Additional I/O is shown being terminated at the existing WTP SCADA Panel. Are we to assume that adequate spares are available. Please provide as-built documentation and photographs for confirmation. <i>A. The I/O space requirements have been confirmed with the County. The Division 16 /Division 17 Contractor is required to provide the conductors indicated on the bid drawings to the existing WTP Control Panel. The County will update the existing PLC program as required.</i>
3.11	Q. Sheet E-8, Clarification is needed for the hardware in the WTP SCADA Panel, including make/model of the Controller and OIT. <i>A. The existing PLC is a SCADAPack 32 with five modules. The OIT is a Red Lion Controls GL300T. The County will address the programming changes.</i>
3.12	Q. Sheet E-8 & Section 17001, Clarification is needed for the hardware in the WWTP SCADA Panel. Please provide as-built documentation and photographs for confirmation. <i>A. As-built documentation will be provided to the successful Contractor.</i>

3.13	<p>Q. Sheet E-8 & Section 17001, Judging by 17001, 2.01, it is assumed that an Allen-Bradley SLC platform controller is currently in use. Please provide a full BOM, including quantities, of all Veolia provided hardware.</p> <p>A. <i>The existing Riddle Farm WWTP PLC's:</i></p> <ul style="list-style-type: none"> • <i>WWTP SCADA Panel – Schneider SCADAPack 334</i> • <i>WWTP Process Panel – Allen Bradley SLC 5/03</i> <p><i>The existing Riddle Farm WTP PLC:</i></p> <ul style="list-style-type: none"> • <i>WTP SCADA Panel – SCADAPack 32</i>
3.14	<p>Q. Sheet E-8 & Section 17001, Can it be assumed the existing programs will be made available to the integrator for both the WTP and WWTP?</p> <p>A. <i>The County will address programming requirements for the WTP SCADA Panel (PLC). Veolia's contract will include the programming for Riddle Farm WWTP Process PLC.</i></p>
3.15	<p>Q. Can you provide the make and model for the MCC-WWTP and MCC-WTP?</p> <p>A. <i>The MCCs at both facilities are "Square D, Model 6".</i></p>
3.16	<p>Q. Would Raychem be an acceptable heat trace manufacturer?</p> <p>A. <i>Yes</i></p>
3.17	<p>Q. Is there a preferred manufacturer for the festoon cable system?</p> <p>A. <i>Duct-O-Wire or equal</i></p>
3.18	<p>Q. Sheet E-2, Note 14, states to provide new crane conductor bar connectors. What is the preferred manufacturer?</p> <p>A. <i>Duct-O-Wire or equal</i></p>
3.19	<p>Q. Sheet E-2, Keynote 11state Div 16 contractor shall install PLC and associated hardware supplied by Veolia. Div. 16 contractor shall replace internal components with new. The internal components mentioned in Sheet E-1 Keynote 11, will these be separate from the Veolia furnished PLC and associated hardware.</p> <p>A. <i>Contractor shall replace internal components with new as supplied by Veolia.</i></p>
3.20	<p>Q. Is it possible to provide wiring schematics associated with the existing SCADA system?</p> <p>A. <i>To the extent available, wiring schematics associated with the existing SCADA can be provided.</i></p>
3.21	<p>Q. Will off-hours work be acceptable to keep the project schedule and what are the parameters?</p> <p>A. <i>Off-hours work to maintain the project schedule will be considered based on individual and specific circumstances occurring at the time of the request.</i></p>

END OF ADDENDUM

DIVISION 11 - EQUIPMENT

SECTION 11315

PUMP STATION CONTROL PANEL

PART 1 – GENERAL

1.01 GENERAL

A. The control system shall be designed to operate the required number of pumps specified on the drawing at the power characteristics shown on the plans.

B. The control function shall provide for the operation of the pumps under normal conditions, and shall alternate the pumps on each pump down cycle to equalize the run time. In the event the incoming flow exceeds the pumping capacity of the lead pump, subsequent pumps shall automatically start to handle the increased flow. As the flow decreases, the pumps shall cut off at the elevations as shown on the plans.

C. The control shall function as described below. The equipment listed below is a guide and does not relieve the supplier from supplying a system that will function as required.

1.02 CONTROL PANEL

A. The enclosure shall be Type 4X rated stainless steel. The material to be 16 gauge Type 304 stainless steel. Seams to be continuously welded and ground smooth. The enclosure shall be designed for wall mounting. Entry shall be via a three-point latch with pad lockable operating handle.

B. Inner Door:

1. The enclosure shall be provided with an anodized aluminum Inner Door to provide mounting of the pump HAND-OFF-AUTO switches, pump run, pump fail, seal fail lights, ventilation fan ON/OFF switch, fan fail light, hour meters and all other operator-accessed or viewed devices. The door shall also provide cut-outs to allow access to the Pump motor circuit breakers, Fan motor circuit breaker and control power circuit breaker operators.
2. The inner door shall be connected via an aluminum piano hinge.
3. The inner door shall be provided with quarter turn latches to securely hold the door in a closed position against a doorstop.

C. Data Pocket:

1. The control panel shall be provided with a data pocket mounted to the inside surface of the enclosure door.

D. Alarm Light:

1. A Type 4X flashing Alarm Light shall be provided and should be mounted on the top center of the enclosure. The alarm light shall be a flashing LED red light.

E. Audible Alarm

1. The audible alarm shall be a piezo type that is rated type 4X and should be mounted on the top right side of the enclosure.
2. The audible alarm shall be a minimum of 75dB sound output at two feet.

F. Silence/Test push button

1. The SILENCE/TEST pushbutton should be Type 4X rated and mounted on the top right side of the enclosure below the audible alarm.
2. The pushbutton should have an integrated printed label insert stating "SILENCE". The label shall be white with black lettering.

G. Indicators and switches.

1. Indicator to be 22 mm LED industrial devices.
2. There shall be a green running light to indicate the run status of each pump and fan.
3. There shall be a yellow seal fail light to indicate the status of each pumps seal probes.
4. There shall be a red pump fail light to indicate the status of each pump and fan.
5. There shall be a three position switch for each pump. The positions shall be HAND-OFF-AUTO.
6. There shall be a two position ON/OFF switch for the ventilation fan.
7. All indicators and switches are to be labeled with a white legend plate with black letters. Labels are to be mechanically fastened or held in place by the device; labels with adhesive are not acceptable.

H. Elapsed Time Meter

1. There shall be an individual elapsed time meter (ETM) for each pump.
2. The ETM's shall have a 7-digit display which includes 1 decimal space and shall not be resettable.

I. Motor Starter

1. An IEC rated motor starter with adjustable overload shall be furnished for each pump and fan. The motor starter shall offer single phase and overload protection.
2. Thermal-magnetic circuit breakers shall be furnished as a disconnect and short circuit protection device for each pump and control circuits.

J. Control Transformer (if required by site voltage)

1. The control transformer shall be capable of being multi-tapped to allow for 208v, 230v, and 460v on the primary side. The secondary voltage shall be 115v.
2. The control transformer shall be sized to supply the proper power requirements for the control circuit components.

K. Control Relay & Alternating Relay

1. Control relays shall be plug-in style.
2. Relay contacts should be rated for a minimum 12amp @ 250VAC or 28VDC.
3. Alternating relay shall have lead pump selection capability

L. Timer Relay

1. The timer relay shall be plug-in style, 4 pole relay.
2. The time range shall be adjustable from 0.1 seconds to 100 hours
3. Relay contacts should be rated for a minimum 3amp @ 250VAC.

M. Flasher

1. The flasher shall be solid-state with totally encapsulated circuitry.
2. Timing range shall be factory set at 75 flashes per minute.

N. Auxiliary Dry Contacts & Analog Output

1. There shall be auxiliary, non-energized, Form-A contact wired to terminal blocks to indicate the following:
 - a. Pump Running 1&2 status
 - b. Pump Fail 1 & 2 status
 - c. Pump Overtemp 1 & 2
 - d. Ventilation Fan Fail
 - e. High Level Alarm
 - f. Voltage Alarm – phase or power loss
2. Auxiliary Dry Contact rating shall be 3amp, 30vdc or 240vac minimum.

- O. There shall be individual terminal blocks to allow for connections to Thermal Heat Sensor switches and dual Seal Fail probes from each pump.
- P. Pump float level logic controller
 - 1. Controller:
 - a. A level controller with features hereinafter listed shall be provided. It shall be powered by a 120 VAC circuit breaker and use four direct-acting level-responsive float switches as described.
 - b. The alarm/controller must be UL508 LISTED and the control panel equipment shall be designed to UL508 Industrial Control Panel standards and shall provide the backup controller a separate 120VAC circuit independent of the primary controller power. The controller shall incorporate transient circuit protection, and limit the power supplied to the level sensing float(s) to 12 VDC.
 - c. Under normal operating conditions the pumps shall cycle between the common stop float and start lead float. If the level rises to the start lag float the lag pump shall start and run in parallel with the lead pump until the stop float opens. If the level continues to rise the high level float shall close, causing the external alarm light to flash, and both pumps shall continue to run. If an alarm horn and silence circuit is provided the horn shall sound until silenced or the alarm condition is cleared. When provided the horn silence pushbutton shall be provided adjacent to the external alarm horn. Pressing the silence pushbutton shall silence the alarm horn and cause the external alarm light to go to a steady on state.
 - d. The front face of the controller shall incorporate: green LED Power status; green LED's Pump 1 call-to-run and Pump 2 call-to-run, red flashing LED when in control mode, amber LED's for Float 1 (low/stop level), Float 2 (start level), Float 3 (lag pump start), and Float 4 (high/start level); Adjustable dual purpose pump run or lag timer, pump run timer (0-600 seconds) Mode 1 only, and lag pump timer (0-60 seconds) Modes 2, 3, & 4; Pump selector switch (alternate, pump 1 lead always, pump 2 lead always); Four Mode selector switch.
 - e. The controller shall provide five relay outputs rated 5 amps @ 240VAC. The relays shall provide independent contact closures for the following indications: Backup Mode activated, High Float activated, Low Float activated, Pump 1 call-to-run, and Pump 2 call-to-run.
 - f. The controller must be capable to operate with anywhere from one to four float switches depending on the project requirements. The controller will have a four mode selector switch to select the operational configuration and provide acknowledgement of the mode selection via LEDs flashing the number of the selected mode. Mode 4: 4 float primary duplex controller operation.

- g. The logic/relay assembly and level-sensing means to perform the described functions shall be a STH PUMP-DPC-4F – TAH Duplex Controller.

Q. PUMP CONTROLLER OPERATION

1. The control system shall be controlled via four floats.
 - a. Pumps off float
 - b. Lead pump ON float
 - c. Lag pump ON float
 - d. High Level alarm float
2. The float switches shall be furnished with the control panel. They shall be a standard product of the control panel manufacturer.
3. When the HAND-OFF-AUTO switch is in the HAND position, the corresponding pump will run, bypassing the float control until the operator turns the switch to the OFF position. If the motor heat sensor is faulted or an overload is present, the motor will not be permitted to run.
4. When the HAND-OFF-AUTO switch is in the OFF position, the corresponding pump will be off and not permitted to run.
5. When both HAND-OFF-AUTO switches are in “Auto” position, the pumps shall be controlled via floats. When the water level rises to the “Lead Pump On” float, the lead pump shall be called, and shall run until the water level goes below the “Pumps Off Level” float. When the lead pump shuts down, the alternating relay shall index to the other pump for the next pumping cycle. If the water level continues to rise to the “Lag Pump On” float, the lag pump will be called, after a time delay, to run along with the lead pump. Both pumps will run until the water level reaches the “Pumps Off Level” float. The “Lag Pump On” float shall override the “Lead Pump On” float in case of a lead float failure.
6. If the pump motor heat sensor fault and/or an overload is present, the corresponding motor will not be permitted to run.
7. If the water level rises to the “High Level” float, a flashing alarm beacon and audible alarm shall be activated. The beacon and audible alarm shall remain active until the water level goes below the “High Level” float.
8. There shall be an external “Silence/Test” pushbutton that will; when pressed in normal condition, test the audible and alarm light, and when pressed in a high level condition, silence the audible alarm.

*** END OF SECTION ***