



CITY OF RIO RANCHO
DEPARTMENT OF FINANCIAL SERVICES
PURCHASING DIVISION
3200 Civic Center Circle NE – Suite 300
Rio Rancho, New Mexico 87144
Telephone: (505) 891-5064 Fax: (505) 891-5762

ADDENDUM NUMBER (3) THREE
IFB 21-PW-001
WASTEWATER TREATMENT PLANT 2 SOLIDS HANDLING IMPROVEMENTS

August 19, 2020

Addendum Number (3) Three forms part of the contract documents and modifies them in the manner set forth below.

ATTENTION CONTRACTORS

- Questions and Answers
- Clarification: Specification Modifications
- Attachments to the Addendum:
 - 1994 – Dewatering Drain Dwg

Questions and Answers:

1. Question: Sheet E-3 – Note 6

Note 6 states: “Power existing sludge pumps from new Belt Press Control Panel.” Specification Section 46 76 21 does not have this same language or mention sludge pumps in same panel. Does BFP manufacturer need VFD’s for multiple pumps in new BFP panel? Please clarify and if so what horsepower?

Answer: The existing sludge pump panels are powered from the existing belt press panels and shall be powered from the new control panels. The pumps are 7.5 HP each.

2. Question: Sheet E-4 – Note 2

Note 2 states: “Provide touchscreen control of belt presses.” Note 2 on Sheet E-3 infers a local control panel. Is this a local touchscreen panel? There was no mention of this in specification section 46 76 21. Please clarify what is required.

Answer: A touch screen shall be provided factory installed by the control panel manufacturer within the cover of the control panel. Specification section 46 76 21 paragraph 2.05 indicates that “An Operator Interface Terminal (OIT) shall be included for control and monitoring of the Belt Filter Press System.” The interface shall provide the function indicated.

3. Question: Sheet I-03A – Note 1

Is the BFP manufacturer to provide Belt Break limit switches along with the belt tracking limit switch?

Answer: The BFP manufacturer shall provide belt break limit switches along with the belt tracking limit switch. The belt break system is part of life safety protection for operation of the belt press equipment.

4. Question: Sheet I-03A – Note 3

Keyed Notes number 3 states “Provide LCD Touch screen and wireless tablet control and monitoring.” Specification 46 76 21 makes no mention of wireless tablet controller in belt press specification. Please clarify if this OIT in a LCP. Please clarify if BFP manufacturer is to supply a single NEMA 4X panel with VFD, PLC and OIT. Drawings and comments are not clear in relationship to BFP specification section.

Answer: A touch screen shall be provided factory installed by the control panel manufacturer within the cover of the control panel. The wireless tablet shall be a portable OIT that will be mounted to the observation platform’s post near the belt press. The wireless tablet shall be capable of performing the same functions as the included touch screen interface. All VFD, PLC and OIT shall be supplied by the BFP manufacturer.

5. Question: Specification 40 23 13.01 Process Valves and Appurtenances:

- Part 2.01.I.1 Describes options for Manual Operators for Eccentric Plug Valves including Worm Gearboxes, Handwheels, Chainwheels, and Extension Stems with Floor stands where indicated.
- Part 3.02.A requires that valves installed in horizontal piping have shafts in the horizontal so plugs can open up out of the flow path.
- However, PV-03 and PV-04 are shown on Sheet M-2 First Floor Plan in horizontal piping and described by Keyed Note 9 as having “extended operator stem to the platform”.
- Since this would require an extension in a horizontal plane, it is unclear where the gearbox is intended to be. The length and weight of any extension that size would create a significant cantilever that could damage the equipment.
- To maintain the integrity of the valve, the most conventional solution would be to supply chainwheels and chain to allow for the valves to be operated from the floor instead of the platform.
- An alternative option would be using directly mounted electric actuators to operate these valves. Control heads with pushbuttons and selector switch can be remotely mounted near the platform.

Answer: Provide stem guide and gearbox for each valve. Stem guides can be mounted on an additional steel post between both stems. The additional post can be installed on the platform or on the floor based on manufacturer’s recommended spacing required for the guides. Attached are the photos of existing installation (for reference only).

- 6. Question:** Has the equipment for the belt press and polymer feed system, been verified to be able to provide the equipment within the completion time frame given for the project?

Answer: The time frames are typical and based on input received from various product manufacturers.

- 7. Question:** How much does existing belt press weigh? Is there an existing crane inside that can be utilized?

Answer: Existing belt filter press info has been provided in the Addendum #2. There is no existing crane inside the building.

- 8. Question:** What is the access within the existing Dewatering Building, to remove belt press?

Answer: The Owner does not specify the means and methods of the construction. However, the engineer thinks that the belt presses can be removed through the existing overhead door openings after the existing platform is removed as shown in the demolition drawings. Another option (not preferred) is to remove a portion of the southwest wall.

- 9. Question:** New trench drains are shown in the floor, is there any electrical or other utilities located in or below the existing slab?

Answer: Contractor shall verify exiting utilities location and depth. A drawing sheet from the year of 1994 has been attached reference purpose only.

- 10. Question:** Plans indicate to remove bottom portion of metal building and install CMU block can we remove all the metal building portion at one time, or will we need to sequence the removal and installation in sections? If sequence is required provide detail.

Answer: The intent is to remove the metal building panel and miscellaneous framing and replace with CMU all at one time. As a reminder, the Contractor is responsible for the security of the building during construction.

- 11. Question:** Will additional time be added for completion of Alternate? If so how long?

Answer: No additional time will be provided for alternate bid.

- 12. Question:** Section 46 33 33.01, Subsection 2.01, Paragraph B. Polymer Blend Feed Systems – General: Point 6. Polymer blend feed system shall be housed in a fiberglass reinforced polyester (FRP) or Type 326 stainless steel enclosure. Please advise why we need to put the polymer mixing system within a fiberglass and or a stainless-steel enclosure since the polymer liquid blending unit is already shown located within a building. Reference M-2 Dewatering System Plan and M-5 New Polymer System.

Answer: Polymer blend feed system does not need to be housed in a fiberglass reinforced polyester or stainless steel enclosure.

13. Question: Section 46 33 33.01, Subsection 2.01, Paragraph B. Polymer Blend Feed Systems – General: Point 7. Polymer blend feed system capable of operating with a water supply pressure of 40 psi (275 KPA). If system furnished requires additional water pressure to operate, the supplier to furnish in-line booster pump of sufficient capacity and pressure to operate and to interlock pump to operate when the polymer system is activated. All shall be done at no additional cost to the Owner. Please advise what is the available plant potable water supply to operate the polymer mixing system and what is the maximum back pressure at the polymer point of injection.

Answer: Available potable water pressure is about 60-70 psi.

14. Question: Section 46 33 33.01, Subsection 2.03, Paragraph E. Polymer Blend Feed Mixing Chamber – Point 1. Provide a hydro-mechanical blending device capable of operating at its capacity with a plant water pressure alone at 30 PSI (200 KPA). Again, please advise what is the available plant water pressure for the dilution water supply to the liquid polymer blending system. The UGSI Dynablend liquid polymer blending system will require a water supply must be able to provide the maximum flow rate of 0.5 to 5 GPM at 35 to 50 PSI greater than the pressure at the point of use. Typically, a belt filter press system has less than 10 to 15 PSI back pressure at the polymer injection valve. assembly. However, please note that contract drawings I-03 and I-03A Control P&ID shows the polymer system injection after flowmeter FE-01 ahead of an in-line static mixer which is located ahead of a flow splitter which goes to the respective New Belt Filter Presses BPT-01 and BPT-02. Question regarding the new belt filter presses. Why are they not using a typical polymer injection assembly along with a polymer injection valve assembly? Please advise.

Answer: Available potable water pressure is about 60 – 70 psi.

Polymer solution shall be injected into a 4-port polymer injection ring that is listed in the section 46 76 21 Belt filter presses and appurtenance, 2.03 Materials. Injection ring shall be installed prior to the static mixer. Polymer injection Isolation valve shall be provided on the feed line at the injection assembly.

15. Question: Section 46 33 33.01, Subsection 2.03, Paragraph E. Polymer Blend Feed Mixing Chamber – Point 2. Provide the mixing chamber with a Type 304 stainless steel motor adapter with flange, Type 316 steel mixing chamber, Clear Lexan front cover to view the mixing action and blending effectiveness (Clear pipe is not acceptable to meet this requirement) and PVC water flow control and hydrodynamic mixing valve. Please advise if a the Dynablend Liquid Blending System using our standard non-mechanical mixing chamber technology will be acceptable in lieu of mechanical mixing technology. Please refer to the attached Dynablend Liquid Polymer Blending System brochure; please refer to page 5 which explains the non-mechanical Hydro Action mixing Technology.

Answer: Non-mechanical hydro action mixing is acceptable.

16. Question: Section 46 33 33.01, Subsection 2.03, Paragraph E. Polymer Blend Feed Mixing Chamber – Point 4. Provide two (2) neat polymer check valves specifically designed to isolate neat polymer from the dilution water. B. valve body: Teflon with Viton Seals. Please be advised that the neat polymer check valve assemblies now have a PVC body wit Viton Seals

in lieu of Teflon body. This was based upon an engineering design improvement that we had made several years ago.

Answer: PVC body with Viton seals is acceptable.

17. Question: Section 46 33 33.01, Subsection 2.03, Paragraph G. Progressive Cavity Neat Polymer Metering Pump. Please advise if we need to provide a single liquid polymer blending system with two (2) neat polymer metering pumps (i.e. duty/standby neat polymer metering pumps) the contract drawing only show one neat polymer progressive cavity metering pump assembly.

Answer: Provide one (1) neat polymer progressive cavity metering pump with each polymer blending system.

18. Question: Section 46 33 33.01, Subsection 2.04 Accessories, Point A. I.B.C. (Intermediate Bulk Container) Tote
Contract Drawings: I-03 Control P&ID and I-03A Control P&ID Alternate Please confirm the actual capacity of the IBC Totes. The written specification states 120 Gallon IBC Totes. Typically, an IBC tote assembly have a higher capacity. i.e.350 gallons or more. Please confirm and check the capacity of the IBC Totes that are going to be offered with the liquid polymer feed system.

Answer: Two (2) 120 gallon totes shall be supplied. Paragraph has been revised in this addendum.

19. Question: Contract Drawing: M-2 Dewatering System Plan and Contract Drawing: Sheet M-5 New Polymer System Please reconfirm the actual location of the point of the polymer injection with respect to the two (2) belt filter presses.

Answer: Location of new static mixer is shown on sheet M – 4. The injection ring shall be installed immediately prior to the static mixer.

20. Question: Contract Drawing: G-07 Process Flow Diagram and G-07A Process Flow Diagram Please refer to the attached drawing number 301-P-I3 (NO) Process Diagram Series in lieu of the Polymer Process Flow Diagram as shown on Contract drawings G-07 and G0-07A Process flow diagram.

Answer: Dynablend series process flow diagram is acceptable.

Clarification: Drawing and Specification Modifications:

Specification section 46 33 33 .01, Polymer Blend Feed Equipment and Appurtenances,

Subsection 2.01 system description, Paragraph B. Polymer Blend Feed Systems – General shall be replaced with the following:

- “1. Polymer blend feed system is a complete integrated system and, as such, furnished by one supplier who will provide all equipment and appurtenances, regardless of manufacturer and be responsible for satisfactory operation of entire system.
2. Polymer blend system to have the capability of diluting and activating emulsions, dispersions and solutions of polymer. Furnish the polymer blend feed system designed to mix a 20-50 percent concentrated liquid polymer solution, with viscosities up to 3,500 cps with water and automatically produce a metered polymer solution with capacities indicated hereinafter and to convey the diluted polymer solution to application points shown on the drawings.
3. Polymer blend unit with provisions for mixing, blending and aging the polymer solution. This may be with mixers not to exceed 600 rpm or in-line static mixers. The solution to be mixed in a low shear environment and to be homogenous.
4. The polymer blend dilution and feed system shall be capable of effectively activating and fully blending with water a homogenous polymer solution ranging from 0.1 percent to 1 percent concentration of emulsion polymers with active contents up to 75 percent to the application point(s) shown on the drawings.
5. Provide polymer system with rotameters and integral rate adjusting valve to control amount of dilution/mixing water.
6. Provide adjustable controls provided for polymer dosage rate in pounds per day (gallons per day) and dilution water in gallons per hour (minute).
7. Polymer blend feed system capable of operating with a water supply pressure of 60-70 psi. If system furnished requires additional water pressure to operate, then supplier to furnish in-line water booster pump of sufficient capacity and pressure to operate system and to interlock pump to operate when polymer system is activated. All shall be done at no additional cost to the Owner.
8. Polymer blend feed system shall be factory assembled and pre-wired, capable of being floor or floor stand mounted as indicated.”

Subsection 2.03 Polymer Blend Components, Paragraph F.1 shall be replaced with the following:

- "1. Provide the dilution water flow rate monitored by a rotameter type flow meter having a range of 2 to 20 gpm."

Subsection 2.03 Polymer Blend Components, Paragraph G.1 and G.1.a shall be replaced with the following:

- “1. Provide liquid polymer mixing system with one (1) neat polymer metering pumps.
 - a. Emulsion polymer pump range: 0.6-6 GPH”

Subsection 2.03 Polymer Blend Components, Paragraph G.2 shall be replaced with the following:

- “2. Provide one (1) calibration column valved with two full port PVC ball valves having Viton o-rings. Provide the columns calibrated for a one minute draw-down for each pump and read in gph [L/h].”

Subsection 2.03 Polymer Blend Components, Paragraph G.3 shall be replaced with the following:

“3. Provide a pressure gauge, pressure switch with pressure sensor to monitor polymer line pressure and a flow meter with totalizer to monitor polymer utilization.”

Subsection 2.03 Polymer Blend Components, Paragraph H shall be replaced with the following:

”H. Polymer Blend Feed Solution Injection and Mixing Assembly

1. Provide a static mixer and a 4-port polymer injection disk for secondary mixing of polymer solution.
2. Provide a 2-1/2 inch (65 mm) diameter non-liquid filled pressure gauge 316 stainless steel diaphragm seal to monitor system discharge pressure.
4. Provide an isolation ball valve prior to the injection disk and a swing check valve to prevent back flow. Valves shall be made of PVC and Viton.
5. Provide the solution discharge connection located as indicated.”

Subsection 2.04, Paragraph A. shall be replaced with the following:

“A. I.B.C. (Intermediate Bulk Container) Tote:

1. Provide two (2) 120 gallon IBC Totes. Each polyethylene tote dimension shall be 45” x 45” x 36.5” and have 4-way forklift channels base, 6” Threaded lid opening and 2” Drain valve with male quick disconnect coupler. Manufactured by Snyder Industries or equal.”

As provided on page 57 of the Revised Bid Form, Bidders shall acknowledge receipt of Addendum Number (3) Three. All other provisions of the Contract Documents shall remain unchanged.