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### ADDENDUM NO. 6

Date:	January 9, 2024
Project Name:	Coddle Creek WTP Sodium Hypochlorite System Upgrades
Owner:	City of Concord, NC
Owner Bid No.:	2606
Garver Project No.	22W41300

This addendum shall be a part of the Plans, Contract Documents and Specifications to the same extent as though it were originally included therein, and it shall supersede anything contained in the Plans, Contract Documents, and Specifications with which it might conflict. This addendum, including all attachments, shall become part of the Contract and all provisions of the Contract shall apply thereto, with exception of the items listed under "Other Project Information" at the end of this Addendum No. 6, which are supplements provided for the Contractor's convenience. The time provided for completion of the Contract has not been changed as noted in this addendum. Acknowledgement of receipt of this addendum must be noted in the appropriate section of the Bid Form and included with the Contract Documents.

- A. SPECIFICATIONS Volume #1
  - 1. Replace SECTION 40 73 13 PRESSURE AND DIFFERENTIAL PRESSURE GAUGES with the attached revised specification of the same title.
- B. STANDARD DETAILS Volume #1
  - 1. No items for Standard Details are included in this addendum.
- C. DRAWINGS Volume #1
  - 1. Remove the following drawing in its entirety, and replace with the same, attached hereto.
    - a. Sheet 15, I102 SODIUM HYPOCHLORITE FEED SYSTEM 2 P&ID
- D. OTHER PROJECT INFORMATION
  - 1. Responses to General Contractor questions submitted on 01.08.2024 and 01.09.2024 are provided in the included attachment.

By:



Jonathan Williams, P.E. Project Manager

Digitally Signed on 01.09.2024

Attachments: Revised Section 40 73 13 – PRESSUE AND DIFFERENTIAL PRESSURE GAUGES, Revised Drawing I102 – SODIUM HYPOCHLORITE FEED SYSTEM 2 P&ID, and Responses to General Contractor Questions Submitted on 01.08.2023 and 01.09.2023.



10735 David Taylor Drive Concord, NC 28262

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# Responses to General Contractor Questions Submitted 01.08.2023

- 1. I see there is an overhead door, but it only gives a width of 12'. Can you provide the height? **RESPONSE**: The height of the door is 12'.
- 2. Are we to demo the existing? **RESPONSE: Yes, the existing door, including all appurtenances, is to** be removed.
- 3. Structural drawing call for a 120 mph wind load but the spec call for 90mph. Which is correct? RESPONSE: They are both correct. The 120 mph listed in the structural drawings is correct for the design of buildings and other facilities per the IBC code. This uses "strength level" forces. The 90 mph in the door spec is what the door is designed for by the manufacturer, which is using "service level" forces. To order the door, use the 90 mph loading.
- 4. 083323 1.2C calls for operability under load. This is not possible as this design is to keep the door in place, stationary, while under a load. Please clarify. RESPONSE: Not required.
- 5. 083323 2.1A4 gasket seal. This is not available on coiling doors due to design. Please clarify. **RESPONSE:** Not required as long as slats are insulated.
- 6. 083323 2.1D1 removable post. Does this belong on this spec? **RESPONSE: Not Required.**
- 7. 083323 2.3 and 2.7H Locking devices. Are these required on this door? **RESPONSE: Yes.**
- 083323 2.7F Wear strips. Not available on wind loaded door as wind bars are already in the guides. 8. Please clarify if these are needed. RESPONSE: Not required.
- 9. 083323 2.7F Galvanized. Please be aware galvanized guide cannot be painted or powder coated. We can offer a Zinc base with the powder coating if that is acceptable. **RESPONSE: Zinc base with powder** coating is acceptable.
- 10. 083323 3.3A3 Testing fire release. Is this door to be a fire rated door? **RESPONSE: No.**

# Responses to General Contractor Questions Submitted 01.09.2023

- 1. There are 22 gauges listed in the attached spec table, but we do not see any gauges for the Sodium Hypochlorite mix system listed. RESPONSE: The table in Section 40 73 13 has been updated, see revised specification, attached. The original number and locations were incorrect and should be discarded.
- 2. The specification call for a 6" gauge. 4.5" is the industry standard. Also, when trying to mount a 6" gauge on the chem skid it changes the layouts and supports due to the size and weights. Is there a reason for the 6"? RESPONSE: 4.5" gauge is acceptable for pressure gauges on the chem skid.
- 3. A snubber is called for on the gauges but all liquid filled gauges are inherently snubbed. But what we don't see is a diaphragm seal to isolate the gauge from the fluid. This is a must on chemical feed. Could you clarify for us? **RESPONSE: Provide diaphragm seal for the pressure gauges in contact with sodium** hypochlorite for both the temporary chemical skid and permanent.
- 4. Also, on the temporary chemical feed system there is a 4 pump chemical skid specified with all controls etc. Our question is - Is this skid in addition to the 4-pump skid that is going into the plant? Or will this skid be moved to the long term location. Just looking for clarification on this skid so we know what to scope. See below spec section regarding this skid. RESPONSE: The temporary feed skid is in addition to the 4-pump chemical skid being installed in the plant. This chemical feed system is temporary that is to be leased until substantial completion of the facility and will not be retained by the client, lower quality pumps will be considered. The temporary feed skid only needs controls to be manually operated locally, no automated control required such as residual or flow pacing.

## SECTION 40 73 13 - PRESSURE AND DIFFERENTIAL PRESSURE GAUGES

#### GENERAL

- 1.1 SUMMARY
  - A. Section Includes: Pressure gauges.
  - B. Related Requirements:
    1. Section 40 70 00 Instrumentation for Process Systems

#### 1.2 REFERENCE STANDARDS

- A. ASME International:1. ASME B40.100 Pressure Gauges and Gauge Attachments.
- B. NSF International:
  - 1. NSF 61 Drinking Water System Components Health Effects.
  - 2. NSF 372 Drinking Water System Components Lead Content.
- 1.3 COORDINATION
  - A. Refer to Specification 40 70 00 for requirements.

#### 1.4 SUBMITTALS

- A. Refer to Specification 40 70 00 for requirements.
- 1.5 CLOSEOUT SUBMITTALS
  - A. Refer to Specification 40 70 00 for requirements.
- 1.6 DELIVERY, STORAGE, AND HANDLING
  - A. Refer to Specification 40 70 00 for requirements.

#### 1.7 WARRANTY

A. Furnish five-year manufacturer's warranty for pressure gauges.

#### 1.8 SPARE PARTS

- A. Gauges Other Than Diaphragm Protected: Furnish 20 percent spare gauges, with a minimum of one gauge for each range used.
- B. Diaphragm-Protected Gauges: Furnish 20 percent spare gauges, with a minimum of one gauge for each range used, complete with diaphragm seals.

## PART 2 - PRODUCTS

#### 2.1 PRESSURE GAUGES

A. Manufacturers:1. Ametek U.S. Gauge.

- 2. Ashcroft, Inc.
- 3. Omega Engineering, Inc.
- 4. Wika.

### B. Dials:

- 1. Nominal Diameter: 4.5 6 inches.
- 2. Face: White, laminated plastic dials with black graduations.
- 3. Scale: Extend over arc not less than 270 degrees.
- 4. Ranges and Graduation Units: As indicated on pressure gauge schedule.

## C. Cases:

- 1. Liquid filled.
- 2. Material: Aluminum. Stainless steel for chemical applications.
- 3. Type: Blowout protected.
- 4. Provide removable rear plate.
- Windows: Material: Clear, shatterproof glass. Thickness: 1/8 inch. Provide gasket.

## D. Connection:

- 1. Location: Bottom.
- Socket: 1/4-inch or ½-inch NPT male thread. Material: Brass forging. Extend minimum 1-1/4 inches below gage cases. Provide wrench flats.
- 3. Mounting: As indicated on Drawings.

## E. Measuring Element:

- Bourdon Tubes: Material: Phosphor bronze, to brass socket. Stainless steel for chemical applications. Provide welded, stress-relieved joints.
- 2. Movement: Rotary geared. Material: Stainless steel.
- Accuracy: Comply with ASME B40.100. Plus and minus 0.5 percent of full-scale range.
- F. Adjustment:
  - 1. Provide for zero-reading adjustment.
  - 2. Adjusting Screws: Accessible from rear of case without need for disassembly.
- G. Accessories:
  - 1. Pressure Snubber: Material: Type 316 stainless steel. Provide isolation valve.
  - 2. Shutoff Cocks: Furnished by gage manufacturer.

## PART 3 - EXECUTION

## 3.1 EXAMINATION

A. Refer to Specification 40 70 00 for requirements.

## 3.2 INSTALLATION

- A. Coordinate location and orientation of gauges and seal assemblies with final piping and equipment installations.
- B. Ensure that gauges are located to be easily read during operation and easily accessible for maintenance.
- C. Where a 90-degree fitting is required, install a tee-fitting with a plug.
- D. Refer to Specification 40 70 00 for additional requirements.
- 3.3 FIELD QUALITY CONTROL
  - A. Refer to Specification 40 70 00 for requirements.

### 3.4 DEMONSTRATION

A. Refer to Specification 40 70 00 for requirements.

## 3.5 ATTACHMENTS

A. Pressure Gauge Schedule:

Instrument Tag	Application	Measurement
04PI101	Pump HFP-1 Discharge Gauge	Range <b>0-100 psi</b>
04PI201	Pump HFP-2 Discharge Gauge	0-100 psi
04PI301	Pump HFP-3 Discharge Gauge	0-100 psi
04PI402	Pump HFP-4 Discharge Gauge	0-100 psi
1 <del>52PI01-04</del>	Intermediate Booster Pumps 01-04 Pressure Gauge	<del>0-300 psi</del>
1 <del>52PI05</del>	Intermediate Booster Pump Discharge Header Pressure Gauge	<del>0-300 psi</del>
261 PI01-03	Raw Water Pumps 01-03 Pressure Gauge	<del>0-60 psi</del>
261PI05	Raw Water Pump Discharge Header Pressure Gauge	<del>0-60 psi</del>
421PI01-03	GAC Feed Pumps 01-03 Pressure Gauge	<mark>0-60 psi</mark>
421PI05	GAC Feed Pump Discharge Header Pressure Gauge	<mark>0-60 psi</mark>
552PI01-03	East Pressure Plane Pumps 01-03 Pressure Gauge	<del>0-100 psi</del>
<del>552Pl05</del>	East Pressure Plane High Service Pump Discharge Header Pres- sure Gauge	<del>0-100 psi</del>
<del>553PI01-03</del>	West Pressure Plane Pumps 01-03 Pressure Gauge	<del>0-100 psi</del>
<del>553Pl05</del>	West Pressure Plane High Service Pump Discharge Header Pres- sure Gauge	<del>0-100 psi</del>
611Pl01-02	Zinc Orthophosphate Transfer Pumps 01-02 Discharge Pressure Gauge	<del>0 – 30 psi</del>
<del>621 PI02</del>	Coagulant Transfer Pump #1 Discharge Pressure Gauge	<del>0 – 30 psi</del>
<del>622PI02</del>	Coagulant Transfer Pump #2 Discharge Pressure Gauge	<del>0 – 30 psi</del>
<del>631Pl01-02</del>	Sodium Hydroxide Transfer Pumps 01-02 Discharge Pressure Gauge	<del>0 – 30 psi</del>

641Pl01-02	Hydrogen Peroxide Transfer Pumps 01-02 Discharge Pressure Gauge	<del>0 – 30 psi</del>
741Pl01-02	Hydrofluorosilicic Acid Transfer Pumps 01-02 Discharge Pres- sure Gauge	<del>0 – 30 psi</del>
743PI01A-04A	Chlorine Ejector Inlet Pressure Gauge	<del>0 – 200 psi</del>
743PI01B-04B	Chlorine Ejector Discharge Pressure Gauge 01-04	<del>0 – 100 psi</del>
744PI05A-09A	Chlorine Ejector Inlet Pressure Gauge	<del>0 – 200 psi</del>
744PI05B-09B	Chlorine Ejector Discharge Pressure Gauge 05-06	<del>0 – 100 psi</del>
<del>751Pl01-03</del>	Backwash Pumps 01-03 Pressure Gauge	<del>0- 30 psi</del>
<del>751 Pl04</del>	Backwash Pump Discharge Header Pressure Gauge	<del>0-30 psi</del>

END OF SECTION



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