

ADDENDUM NO. 1

TO

PORTLAND WATER DISTRICT

BIDDING AND CONTRACT REQUIREMENTS AND SPECIFICATIONS
SRF NO. 230123-09

FOR

EAST END WASTEWATER TREATMENT FACILITY
DISINFECTION & DECHLORINATION SYSTEMS UPGRADE

FEBRUARY 2005

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ADDENDUM NO. 1

**PORTLAND WATER DISTRICT
PORTLAND, MAINE**

**BIDDING AND CONTRACT REQUIREMENTS AND SPECIFICATIONS
SRF NO. 230123-09**

**EAST END WASTEWATER TREATMENT FACILITY
DISINFECTION & DECHLORINATION SYSTEMS UPGRADE**

This Addendum amends and/or supplements the Bid Documents as indicated below. Only these items alter the Bid Documents; any verbal discussions or responses are hereby declared null and void.

GENERAL NOTES

1. The pre-bid conference held on March 15, 2005 was a mandatory pre-bid. Only General Contractors in attendance may submit a bid to the Portland Water District on this project. A listing of participants is attached to this Addendum.

GENERAL CLARIFICATIONS

In response to questions from prospective bidders, please note the following clarifications/additional information:

1. Several questions were raised regarding the delivery of the chemical feed pumps specified for the project, Watson-Marlow. The Contractor may rely on the following information:
 - a. Shop drawing submittal package for all equipment specified in Chemical Feed Pumping System, Section 11235, will be available to the Contractor no later than May 1, 2005. Release of shop drawings to the Contractor will be contingent upon a fully executed purchase order between the vendor and the Contractor.
 - b. Delivery of chemical feed pumps will occur within the following timeframes:
 1. Sodium Bisulfite Feed Pumps (Watson Marlow Model 520DUS/R2):
Within 4 weeks after approved shop drawing submittals.
 2. Sodium Hypochlorite Feed Pumps (Watson Marlow Model 621V/RE):
Within 8 weeks after approved shop drawing submittals.
2. All interior walls common to the areas referenced in note 19 on drawing S-1 are considered fire rated and need fire stopping.

3. Several questions were raised during the site walk with respect to salvage items, as discussed in Specification Section 02050. To provide clarification as to what the contractor may rely on for salvage value and/or disposal, the Owner wishes to retain the following items removed from operation:
 - a. Motor Operated Ball Valves located in the Existing Chlorine Building
 - b. Existing PLC-based panels in the existing Chlorine and Dechlorination Buildings.
 - c. Existing Sample Water Pumps in the Chlorine Contact Tank.
 - d. Existing Carrier Water pumps in the Chlorine Contact Tank.

All other demolished items shall become the responsibility of the Contractor to dispose of or salvage as they see fit. Items removed must be taken offsite within 3 days of its removal.

SPECIFICATIONS

The following changes are to be made to the specifications:

1. In Section 00310, **REPLACE** page 00310-3 of the Bid Form with the page attached. Contractor to note that the Cash Allowance on Bid Item No. 2 has **CHANGED FROM** \$15,000 **TO** \$20,000.
2. In Section 00500, Agreement, page 00500-2, Article 4, Contract Times, paragraph 4.02.A, **CHANGE** "...will be substantially completed within **300** calendar days" **TO** "will be substantially completed within **360** calendar days".
3. In Section 00500, Agreement, page 00500-2, Article 4, Contract Times, paragraph 4.02.A, **CHANGE** "...and ready for final payment in accordance with paragraph SC-14.07 of the Supplementary Conditions within **330** calendar days" **TO** "and ready for final payment in accordance with paragraph SC-14.07 of the Supplementary Conditions within **400** calendar days".
4. In Section 01500, Temporary Facilities and Controls, paragraph 1.1.A ADD the following line item:
 - "4. Contractor may utilize the existing power at the MCCs in the existing Chlorine Building and Dechlorination Building, if the Contractor determines that sufficient electrical capacity exists. Refer to discussion below."
5. In Section 01500, Temporary Facilities and Controls, paragraph 2.1.A.1 **ADD** the following sentence to the end of the line item "The Contractor may utilize the existing MCCs in the Chlorination and Dechlorination Building for temporary power for the temporary dechlorination facility and associated electrical loads. However, the Contractor must certify to the Engineer that the existing MCCs have sufficient capacity for the loads from the temporary facilities (power, heat and light) on top of the current loads."

6. In Section 01500, Temporary Facilities and Controls, paragraph 2.1.A.2 **ADD** the following item:
- "(f) **Heat** - Provide appropriately sized breaker(s) and feed(s) to unit heaters located in the temporary dechlorination building. Heat system shall be designed by the Contractor to maintain building temperature at a minimum of 40 degrees F. Outside ambient temperature assumption shall be -20 degrees F."
7. In Section 01150, Measurement and Payment, paragraph 1.9, Description of Pay Items, **ADD** the Following Item:
- "Item 3, City of Portland Building Permit**
- A. Method of Measurement:
1. Cash Allowance.
 2. This cash allowance covers the cost of the all purpose building permit through the City of Portland. Plumbing, HVAC and electrical permits are not included in this item and are to be included in the Lump Sum Bid Item No. 1. Any City of Portland Building permits associated with the temporary dechlorination building, if needed, are to be included in the lump sum bid item 1.
- B. Basis of Payment: Owner will assist the Contractor in establishing the basis of the permit fee with the City of Portland. Adjustment to the final cost for this item will be in accordance with Paragraph 11.02 of the General Conditions."
8. In Section 06600, Fiberglass Reinforced Plastic Fabrications, paragraph 2.2.A, first sentence **DELETE** "either an isophthalic polyester or".
9. In Section 06600, Fiberglass Reinforced Plastic Fabrications, paragraph 2.4.C. first sentence, **DELETE** "1-1/2 inch deep bearing bar" and **REPLACE** with "1-inch deep bearing bar".
10. In Section 11234, Temporary Dechlorination System, paragraph 1.1.A.2 **ADD** the following sentence to this line item: "Contractor may also use a permanent bisulfite storage tank for the temporary dechlorination system."
11. In Section 11234, Temporary Dechlorination System, paragraph 2.1.A. **ADD** the following sentences to this line item: "The Contractor may, at their own discretion, elect to provide temporary dechlorination facilities within the existing building(s) and forgo the need to construct a temporary dechlorination building. If so, the Contractor must comply with the following requirements:
- a. Contractor shall comply with remaining items listed in paragraph 2.1.
 - b. Sodium Bisulfite and Sodium Hypochlorite chemicals may not be stored in the same building, at the same time.
 - c. Temporary facilities cannot interfere with the Owner's operations, delivery of existing chemicals, or hinder the daily operations or access to the facilities."

12. In Section 11234, Temporary Dechlorination System, paragraph 2.1.B. **ADD** the following sentence to this line item "Heating system provided shall maintain Building Temperature above 40 degrees F at all times."
13. In Section 11234, Temporary Dechlorination System, paragraph 2.4.A.1 **DELETE** "providing a minimum of 5000 gallons of storage." and **REPLACE** with " providing a minimum of 4,100 gallons of storage".
14. In Section 11235, Chemical Feed Pumping Systems, paragraph 3.3.B.1.a, **DELETE** "8 sets" and **REPLACE** with "4 sets".
15. In Section 11235, Chemical Feed Pumping Systems, paragraph 3.3.B.2.a, **DELETE** "6" and **REPLACE** with "3".
16. In Section 11235, Chemical Feed Pumping Systems, paragraph 3.3.B.2.b, **DELETE** the entire sentence and **REPLACE** with "Two (2) fifty foot rolls of Marprene tubing".
17. In Section 11235, Chemical Feed Pumping Systems, **DELETE** paragraph 2.4.B in its entirety.
18. In Section 15061, Steel Pipe & Fittings, paragraph 2.1.A.1, **DELETE** this in its entirety.
19. In Section 15061, Steel Pipe & Fittings, paragraph 2.1.A.2, **DELETE** "ASTM A-120 carbon steel, lapwelded or"

DRAWINGS

The following changes need to be made to the drawings:

1. On Drawing PR-2, Hypochlorite System Schematic, chemical feed pumps HYP-3, 4, and 5 are shown as duplex head type pumps with corresponding suction lines and valves. The pumps are specified to be Simplex head type pumps. **CHANGE** HYP-3, 4 and 5 to **MATCH** the suction arrangement shown for HYP-1.
2. On Drawing PR-9, Chemical Fill Station Detail, Notes, **ADD** the following Note:
"5. Provide each Insulated Fiberglass Door with the following hardware: Closer with cushion stop (Hold Open), Weatherstripping, and Lockset Function D"
3. On drawing S-5, **REVISE** the door schedule as follows: Doors CD-2, DD-3, and DD-4 shall have B-label doors and frames.
4. On Drawing H-1, On note at door CD-2 in chemical feed room which reads (2) 18" x12" air intakes, Top MOD interlocked w/ EF-7, Bottom mod interlocked w/EF-6 **ADD** the following: "Both shall have fire dampers equal to Ruskin DIBD2 and be UL 555 listed".
5. On Drawing H-2, On note at door DD-3 in boiler room which reads high combustion air intake 18 x 18 mod interfaced with burner and EF-3 with fire damper **ADD** the following: "Fire damper equal to Ruskin DIBD2 and be UL 555 listed".

6. On Drawing H-2, On note at door DD-4 in boiler room to which reads exhaust louver 18 x 18 x 6D with fire damper **ADD** the following: "Fire damper equal to Ruskin DIBD2 and be UL 555 listed".
7. On Drawing H-3, Site Modifications **ADD** the following Note: "Propane Tanks to be supplied by as specified in Specification Section 15443. Contractor will be responsible for providing concrete resting pad. Dimensions of pad will be 13' x 20' x 12" thick and shall have #5 rebar @12" O.C. each way, top and bottom. Excavation, concrete, backfill and anchoring of tanks to be by Contractor."
8. On Drawing PR-2, Chemical System Notes, **ADD** the following note:
"7. On both the hypochlorite and bisulfite feed system denoted in the associated schematics, provide double wall containment piping for all chemical feed piping outside the secondary containment area. Provide all fittings as needed to accommodate valves, tees, elbows, etc. Limits of double wall containment pipe shall extend from the containment area to the point of transition to tubing (hypochlorite) or to the point of connection to the carrier water piping (bisulfite)."
7. On Drawing PR-2, **ADD** the following Chemical Feed Piping Double Wall Containment specification to the drawing:

"DOUBLE WALL CONTAINMENT PIPE REQUIREMENTS

1. As noted under Chemical System Notes, item 7, provide containment pipe system encasing the chemical feed pipe outside the secondary containment area.
2. The system shall utilize standard PVC fittings and pipe with extensions and nipples as needed to facilitate interior piping connections.
3. The system shall also utilize specialty fittings to fully support the interior chemical feed pipe and allow for differential thermal expansion and contraction. The interior chemical feed pipe shall be centered in the containment pipe by polypropylene centralizer spacers. The spacers shall be constructed to allow drainage of any leakage from the chemical pipe to a low point. Centralizers shall not restrict thermal expansion or contractions. Centralizer spacing shall be one at each end of a fitting. Refer to the Double Containment Pipe Schedule, below.
4. The double containment system shall include sealed terminal fittings to end of the double wall piping allowing the chemical feed pipe to continue through.
5. The double containment system piping shall be installed to slope to low point in the secondary containment area.
6. The double containment system shall have adequate thrust blocking to restrain interior carrier piping from water hammer, pulsation and other fluid forces.
7. The double containment system containment piping shall not be pressurized above 10 psi.
8. At the Low point a clear piping sump shall be provided by a tee connection in the containment pipe at the low points with short section of clear PVC piping to allow visual observation of a chemical feed pipe breach.

9. The containment pipes shall be constructed of Schedule Schedule 40 PVC, respectively, with dark gray color. Containment Pipe shall include a 4-foot long clear/translucent section every 20-feet of piping. The double containment system piping sizes and centralizer maximum spacing shall be as follows:

DOUBLE CONTAINMENT PIPE SCHEDULE

Item	Chemical Feed Pipe Size	Containment Pipe Size	Centralizer Maximum Spacing @ 120°F
Sodium Hypochlorite Discharge	3/4" and 5/8"	3"	3 ft
Sodium Bisulfite Discharge	1/2"	3"	3 ft

10. All solvent welding shall be as specified for chemical feed piping in Specification Section 15052, PVC Pressure Pipe.
11. Fittings and pipe assemblies that can be prefabricated at the factory shall be fabricated and shipped to the site in as many complete assemblies as possible.
12. Double containment pipe installers shall be trained and certified by the double-walled piping system manufacturer used.
13. Carrier piping and containment pipe shall be tested prior to use. Carrier system shall be hydrostatically tested as specified in PVC pressure pipe specification. The containment piping tested to a maximum of 8 psig."

has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.

- (k) Bidder understands that the Owner reserves the right to reject any or all bids.
- (l) Bids will be compared on the basis of the total base bid or any combination thereof as deemed in the best interest of the Owner.
- (m) The bid security attached in the amount of five percent of the Total Bid is to become the property of the Owner in the event the contract and bond are not executed within the time above set forth, as liquidated damages for the delay and additional expense to the Owner caused thereby.

4. Bidder will complete the Work for the following prices as listed in the Bid Schedule:

BID SCHEDULE

Bidder agrees to perform all the work (including all incidental work) described in the Contract Documents and to provide a completely finished project for the following lump sum and unit prices:

Item No.	Quantity	Brief Description of Item with Unit Bid Price in Words	Unit Bid In Figures	Amount In Figures
1	Lump Sum	Demolition of Existing and Construction of New Disinfection & Dechlorination Systems Complete.		
The Sum of \$ _____			\$ _____	\$ _____
Lump Sum (Use Words)			(Use Figures)	
2	Cash Allowance	Relocation of Truck Scale, to be determined in the Field	\$20,000	\$20,000
3	Cash Allowance	City of Portland Building Permit	\$5,000	\$5,000

SUBTOTAL (TOTAL BASE BID): Total of Items 1 through 3 above.

_____ (\$ _____)
 (use figures)

_____ (use words)

5. BIDDER agrees that the Work will be substantially complete and completed and ready for final payment in accordance with paragraph 14.13 of the General Conditions on or before