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**DISTRICT OF COLUMBIA DEPARTMENT OF MENTAL HEALTH  
CONTRACTS AND PROCUREMENT ADMINISTRATION  
64 NEW YORK AVENUE, NE 4<sup>TH</sup> FLOOR, WASHINGTON, DC 20002  
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November 9, 2010

**AMENDMENT TWO (2) for INVITATION FOR BID NO. RM-011-IFB-027-DJW for WATER  
FILTRATION SYSTEM**

**TO ALL PROSPECTIVE BIDDERS:**

The above referenced Invitation for Bid (IFB) is hereby amended as follows:

**THE CLOSING DATE FOR THIS INVITATION FOR BID (IFB) HAS BEEN EXTENDED. THE NEW  
CLOSING DATE SHALL BE WEDNESDAY, NOVEMBER 17, 2010 AT 12:00 PM EST.**

**1. SECTION C.3.5 - THE FOLLOWING LANGUAGE WAS DELETED:**

“The Contractor shall install all communication wiring for a complete installation and communication with the hospital’s bmc’s. The contractor is to program all communications with the filter and integrate the filter to the plumbing system and monitoring per the 15435.2.1.a.8.j.”

**2. SECTION C.3.8 – THE FOLLOWING LANGUAGE WAS REVISED (*revision in bold*):**

“The Contractor shall provide a warranty for all services and workmanship rendered under this contract for a minimum of **two (2) years** from date of acceptance, defined as Substantial Completion”.

**3. SECTION 3.32.1 – THE FOLLOWING LANGUAGE WAS REVISED (*revision in bold*):**

“All work shall be guaranteed for **two (2) years** from the date of acceptance of the work. Warranties must be submitted to the Construction Manager within ten (10) working days after completion of work. Three copies of warranty shall be provided”.

**4. SPECIFICATIONS FOR THE WATER FILTER HAS BEEN ADDED TO THE  
SOLICITATION AND ARE ATTACHED TO THIS AMENDMENT.**

**ALL OTHER TERMS AND CONDITIONS OF THE INVITATION FOR BID (IFB) REMAIN UNCHANGED.**

Only one copy of this amendment is being sent to prospective Offerors. Offerors shall sign below and attach a signed copy of this amendment to each Bid to be submitted to the place specified for receipt of Bids. Bids shall be mailed or delivered in accordance with the instructions provided in the original IFB. In the event your Bid has been previously deposited with the Department of Mental Health, Contracts and Procurement Administration (DMH/CPA), submit this signed Amendment in a sealed envelope, identified on the outside by the IFB number and submission date. This signed Amendment must be received by the DMH/CPA on or before **Wednesday, November 17, 2010 at 12:00 PM EST** the date and time for closing. **Failure to acknowledge receipt of Amendment Two (2) for Solicitation Number RM-011-IFB-027-BY0-DJW may be cause for rejection of any Bid submitted in response to the subject IFB.**

Signed:

  
\_\_\_\_\_  
Samuel J. Feinberg, CPPO, CPPB  
Director, Contracts and Procurement  
Agency Chief Contracting Officer

Amendment Number Two (2) is hereby acknowledged and is considered a part of the Bid for Solicitation Number **RM-011-IFB-027-BY0-DJW**

\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title of Authorized Representative

\_\_\_\_\_  
Print or Type Name of Offeror

## SECTION 15435 - WATER FILTER

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

##### A. Work Includes:

1. Furnish all labor, materials, tools, equipment and services for installation of water filter including all required accessories as indicated in accordance with provisions of the Contract Documents.
2. Completely coordinate with work of all other trades.
3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

##### B. Related Sections include the following:

1. Division 15 Section "Domestic Water Piping".
2. Division 15 Section "Special Requirements."
3. Division 15 Section "Piping Specialties".
4. Division 15 Section "Domestic Water Piping."
5. Division 15 Section "Pipe Insulation."
6. Division 15 Section "Pipe and Fittings."

#### 1.2 SUBMITTALS

- A. Shop drawings.
- B. Guarantee.
- C. Operating and Maintenance Data.
- D. Test kit.

#### 1.3 GUARANTEE

- A. Guarantee that system will provide specified quantity and flow rate of filtered clean water.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. Water Filter: Totally pre-piped and pre-wired Duplex Vertical Type Manufactured by Valve and Filter Corporation, ~~phone number in state of Colorado: 800-759-6554. Local Washington D.C. Representative in Columbia Maryland: Ames, Inc., phone number 301-621-8899.~~ Local contact for Valve and Filter Corporation:

Delaware Water Technologies, LLC.:

18 Chavendish Court

Rehoboth Beach, Delaware 19971

Phone: 302-226-1985

Cell Phone: 302-236-6716

E-mail: greg@dewatertech.com

Fax Number: 302-226-5124

Filter and all components from one manufacturer. Other acceptable manufacturers: AMIAD and Orival. Manufacturer shall have local representative in serving the Washington D.C. area.

1. Furnish Duplex Vertical V-Series automatic self-cleaning screen filter(s) Model V-500-6-50 as provided by Valve and Filter Corporation. The filter(s) shall provide uninterrupted filtration at total of 615 gpm through a 50 micron weave-wire screen.
2. Operation: Water shall flow into the 316 stainless steel filter body and through the 316 stainless steel weave-wire filtering screen from the inside out allowing blocked contaminants to accumulate on the inside surface of the filtering screen. Differential pressure across the filtering screen shall be continuously monitored as the filter cake builds on the inside of the filtering screen. When the differential pressure reaches an adjustable threshold (set at 5 psi), a flush cycle shall be initiated by the opening of a flush valve. The opening of the flush valve drops the pressure inside the drive chamber allowing flow to reverse through the suction scanner nozzles. The suction scanner nozzles transfer this reduced pressure at the nozzle location onto the inside of the filtering screen surface. This reduced pressure on the inside of the filtering screen creates a reversed flow through the filtering screen, pulling the contaminants off the screen, back through the suction scanner nozzles and out the flush valve. Once the nozzles have traversed and cleaned the entire screen surface, the flush valve shall close stopping the flush cycle. The filtering process shall remain uninterrupted during the flush cycle.
3. Cleaning Mechanism: The filter cleaning mechanism shall provide a controlled spiral path for the suction scanner nozzles across the inside surface of the filtering screen. The opening of a 1-1/2-inch flush valve shall create suction forces at each of the quantity of four suction scanner nozzles creating a reversed flow back through the filtering screen. The reversed flow back through the filtering screen shall force the contaminants from the filtering screen, back through the suction scanner nozzles and out the flush valve. The surface area of each suction scanner nozzle shall not exceed 0.20 square inches to provide minimal flush waste. The optimum distance of the suction scanner nozzle to the screen shall be fixed by the manufacturer and shall not be adjustable to prevent the reduction of manufacturer's designed cleaning performance. The flush flow shall not exceed 60 gpm at 35 psi. Each cleaning cycle shall be completed in 10 seconds per filter to further minimize flush waste. The minimum pressure required shall be 35 psi to assure high cleaning efficiency. The cleaning mechanism assembly shall be

- constructed of 316 stainless steel. The suction scanner nozzle assembly shall be constructed of CPVC.
4. Drive Mechanism: The simplicity and cleaning efficiency of any self-cleaning screen filter is in the mechanical system that drives the cleaning process. For simplicity, the drive mechanism shall not consist of electric motors, limit switches and/or actuated pistons that return the drive mechanism to its start position. For cleaning efficiency, the drive mechanism shall allow the suction scanner nozzles to traverse across the screen and return to their start position, and if required, to continue this cycle indefinitely without interrupting the flush flow. Drive systems that do not continuously clean as the suction scanner nozzles return to their start position will not be accepted.
  5. The suction scanner shall be driven by a hydraulic motor directly attached to the suction scanner. The hydraulic motor shall utilize the flush waste flow during the flush process to provide forces that rotate the suction scanner. The suction scanner shall rotate on a double axial spline that allows the suction scanner nozzles to traverse across the screen and return to their start position without interrupting the flush process and without the aid of return mechanisms such as electric motors, limit switches and/or actuated pistons. Each suction scanner nozzle's rotation shall overlap with its prior rotation by no less than 10%. The drive mechanism shall include a pressure balance line. This pressure balance line shall balance forces on each end of the suction scanner to reduce forces on the drive mechanism, thereby minimizing mechanical wear and flush waste.
  6. Filtering Element: The filtering screen element shall be 316 stainless steel weave-wire with 50 micron openings. The screen surface area shall be at least 448-square inches and shall consist of no less than 32% open area. The filtering element shall consist of 3 layers constructed of 316 stainless steel, and shall be fabricated to allow for maximum open area and strength. The filtering element layers shall be the 1) filtering screen, 2) dispersion screen and 3) the structural screen. The fine filtering layer shall have no other layers between it and the suction scanner nozzles to assure contaminants are not trapped between layers during the flush cycle.
  7. Filter Housing Construction: The filter housing and cover shall be manufactured from 316 stainless steel and shall be manufactured to ASME code. Filter housing and internal assembly seals shall be constructed of EPDM. Internal pressure shall not exceed 150 psi and operating temperature shall not exceed 176degF. The filter body assembly shall be capable of accepting interchangeable filtering screen elements down to 10 micron. Filter flanges shall conform to AWWA Class D. Filter body coatings shall not be required.
  8. Filter Controller: The filters control system shall control all aspects of each filter's operation and mounted to the skid on far front right hand side. The filters control system shall be provided by the filter manufacturer valve and filter controller VF-AC with the following features/components:
    - a. Housing: NEMA 4X molded fiberglass polyester with GE Lexan margard window, quick release latches, lockable cover, approximate overall size: 10-inches front right to left, 12-inches high, 8-inches deep.
    - b. Electrical Input: 115 volts, AC.
    - c. Electrical Output: 24 volts, AC.
    - d. Display: LCD indicating flush count, last flush interval, operating mode, alarm.

- e. Controls: Flush duration five second dwell time/pause between sequential flushes once every twenty-four hours. Adjust dwell setting to drain one filter prior to initiating second filter flush.
    - 1) Flush duration.
    - 2) Five second dwell time/pause between sequential flushes.
    - 3) Both filters flush automatically once every twenty-four hours: Maximum time interval between flushes.
  - f. Alarm Output: 24 volts AC, 1 amp with AC circuit.
  - g. Filter Capacity: Up to quantity of four.
  - h. Manual start.
  - i. Allow flush cycle to be initiated manually, periodic and/or by pressure differential across the filter.
  - j. ~~Alarm contact for connection to building management system/BMSC: Initiated only when flush cycle operates four times in a row, simultaneously.~~  
Provide an audio and visual alarm that is initiated only when flush cycle operates four times in a row simultaneously.
9. Approximate overall size and clearance including integral mounting skid: 18-inches front to back, 67-inches long front right to left, 56-inches high, total vertical clearance required for maintenance is 110-inches from finish floor including 4-inch concrete pad (by others) and integral skid.
10. Integral carbon steel metal skid with metal supports for mounting of filters control panel; and pre-drilled holes for mounting to concrete pad.
11. Flanged Integral Manifold Piping and Shut-Off Valves with Inlet at Higher Elevation than Outlet/Supply:
- a. Intake piping:
    - 1) Flanged connections, type 304 stainless steel, 6-inch size with integral quantity of three, nylon 11 coated disc butterfly valve, one water style valve to each filter, additional lug style valve on outlet of manifold.
    - 2) Orientations: Valved inlet to each filter parallel to floor/horizontal, manifolded outlet perpendicular to floor in vertical position facing up.
  - b. Supply piping:
    - 1) Piping and shut-off valves typical to intake piping manifold except orientation on manifold outlet shall first be parallel to floor, manifolded outlet on front of unit with outlet perpendicular to floor in vertical position facing up.
  - c. 1-1/2-inch diameter type 316L stainless steel manifold drainage piping from flushing cycle from each filter.
12. Electrical Requirements: 115 volts, AC.
13. Coordinate with detail on drawing.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install complete system with all piping, valves, controls and wiring.
- B. Install in accordance with manufacturer's written instructions with all required accessories.

3.2 START-UP

- A. Provide the services of competent supervising engineer from the water filter manufacturer to inspect completed installation, start water filter system and instruct operators in proper operation and maintenance of equipment.

END OF SECTION 15435