

**COMMISSION FILE NO:** 21-098-7 **DATE INTRODUCED:** July 12, 2021

**INTRODUCED BY:** Executive Director (Signature on File in the Office of the Commission)

**REFERRED BY COMMISSION CHAIRPERSON TO:** Operations Committee

**RELATING TO:** Authorizing the Executive Director to Execute a Purchase Order for Material Capital Repair or Replacement No. 1426, Jones Island Water Reclamation Facility Dewatering and Drying Building Baghouses Rotary Valve Replacements (Project J06075)

**SUMMARY:**

The Commission is requested to authorize the Executive Director to execute a purchase order with Veolia Water Milwaukee, LLC, (VWM) for Material Capital Repair or Replacement No. 1426, Jones Island Water Reclamation Facility (JIWRF) Dewatering and Drying (D&D) Building Baghouses Rotary Valve Replacements (Project J06075), in an amount not to exceed \$251,270.

At JIWRF, the D&D Facility processes biosolids from both JIWRF and the South Shore Water Reclamation Facility and produces Milorganite®. Transport of Milorganite® through process equipment creates significant dust, chaff, and particulate matter that must be captured and disposed. This material must be removed, as otherwise it can create explosion and health risks and is required to be removed by both the District's air permit and Occupational Safety and Health Administration workplace standards. The D&D Facility utilizes two dust collection baghouses to remove dust from portions of the Milorganite® process and transport equipment. One baghouse is dedicated to drying and recycle equipment, and the other baghouse is dedicated to classification and sizing equipment. An exhaust fan dedicated to each baghouse creates a slight negative pressure inside of the process equipment, preventing dust from being released to the atmosphere.

Each baghouse contains three compartments that collect and contain accumulated dust. At the base of each compartment is a rotary valve (for total of six valves) with eight vanes that rotate to pass dust to downstream conveying equipment while creating a seal within the valve housing.

**ATTACHMENTS:** **BACKGROUND** ☐ **KEY ISSUES** ☐ **RESOLUTION** ☒  
**FISCAL NOTE** ☒ **S/W/MBE** ☒ **OTHER** ☐ \_\_\_\_\_

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**COMMITTEE ACTION:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**COMMISSION ACTION:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

## **SUMMARY (Cont'd)**

Authorizing the Executive Director to Execute a Purchase Order for Material Capital Repair or Replacement No. 1426, Jones Island Water Reclamation Facility Dewatering and Drying Building Baghouses Rotary Valve Replacements (Project J06075)

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The two D&D baghouses do not have redundancy and are the only way that dust is removed from the drying and classification equipment. It is highly critical that dust is continuously removed from equipment; accumulation of dust on equipment, floors, and building structures presents a safety hazard for slipping and can become a source for fire or explosion. For this reason, if either baghouse goes out of service, the drying and classification equipment will automatically shut down to prevent escape of fugitive dust, and the building will have to be taken out of service.

The baghouse rotary valves have been in service since 1994 and have reached the end of their useful service life. Following are issues that have been identified.

- Vane clearances are beyond adjustment and allowable tolerances, affecting capacity and efficiency.
- Bearings are failing.
- Shaft and motor seals are beyond adjustment and are leaking oil.
- The rotary valve casings are wearing thin and have great potential for developing holes.

One of the rotary valves was replaced in 2017. Staff recommends replacing the remaining rotary valves to allow reliable operation of baghouse for at least the next 20 years. This proposed contract will replace the remaining five rotary valves.

Under this contract, at each of the six compartments the construction contractor will:

- Disconnect power supply, motion switch, and seal air assembly from existing rotary airlock valve.
- Remove existing rotary airlock valve and drive.
- Purchase and install new rotary airlock valve and drive with new gaskets.
- Reconnect power supply.
- Replace seal air purge assembly.
- Replace motion switch assembly.
- Perform seven-day run to prove functionality.

VWM competitively bid the work, and Doral Corporation (Doral) was the lowest responsible and responsive bidder between two bids received. The purchase order will be issued to VWM, which is responsible for managing and overseeing the contract with Doral.

## **SUMMARY (Cont'd)**

Authorizing the Executive Director to Execute a Purchase Order for Material Capital Repair or Replacement No. 1426, Jones Island Water Reclamation Facility Dewatering and Drying Building Baghouses Rotary Valve Replacements (Project J06075)

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Consistent with the Agreement for Operations and Maintenance with VWM, the purchase order includes \$28,370 overhead, markup and advertising costs for VWM. This is in addition to the \$222,900 contract amount for Doral, resulting in a total purchase order amount of \$251,270.

The duration of the contract is 180 days from the notice to proceed to the contractor.

## RESOLUTION

Authorizing the Executive Director to Execute a Purchase Order for Material Capital Repair or Replacement No. 1426, Jones Island Water Reclamation Facility Dewatering and Drying Baghouses Rotary Valve Replacements (Project J06075)

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**RESOLVED**, by the Milwaukee Metropolitan Sewerage Commission, that the Executive Director is authorized to execute a purchase order with Veolia Water Milwaukee, LLC, for Material Capital Repair or Replacement No. 1426, Jones Island Water Reclamation Facility Dewatering and Drying Building Baghouses Rotary Valve Replacements (Project J06075) in an amount not to exceed \$251,270.