

COMMISSION FILE NO: 25-080-6 **DATE INTRODUCED:** June 9, 2025

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

REFERRED BY COMMISSION CHAIRPERSON TO: Operations Committee

RELATING TO: Material Capital Repair or Replacement No. 1711, Jones Island Water Reclamation Facility Dewatering and Drying Dryer Baghouse and Classification Baghouse Explosion Suppression System Upgrades, Project J06087

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 (MCRR) No. 1711, Jones Island Water Reclamation Facility Dewatering and Drying (D&D) Dryer Baghouse and Classification Baghouse Explosion Suppression System Upgrades, Project J06087, in an amount not to exceed \$623,675.

Biosolids are removed from both the Jones Island and South Shore Water Reclamation Facilities and processed into Milorganite® in the D&D Facility. The District's D&D Facility utilizes 24 belt filter presses to dewater the sludge and then 12 rotary drum dryers to dry the sludge, producing Milorganite®.

The dried Milorganite® pellets are either recycled within the drying process or sent to the classification equipment for sizing, milling, cooling and storage. An extensive series of screw conveyors, belt conveyors, bucket elevators and ladder chutes convey the dried sludge throughout this process equipment. To maintain good air quality within the building and to remove generated dust, each piece of conveying equipment is tightly enclosed and equipped with at least one dust collection pickup. These pickups are connected to one of two centralized baghouses, one for the dryer area and one for the classification area.

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

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COMMITTEE ACTION: _____ **DATE:** _____

COMMISSION ACTION: _____ **DATE:** _____

SUMMARY (Cont'd)

Material Capital Repair or Replacement No. 1711, Jones Island Water Reclamation Facility Dewatering and Drying Dryer Baghouse and Classification Baghouse Explosion Suppression System Upgrades, Project J06087

The environment inside of each baghouse contains a significant amount of suspended dust. To minimize the risk of explosion, the baghouse design incorporates explosion protection devices. The explosion protection devices are located on the inlet branch ducts to prevent propagation of an explosion and destruction to upstream ductwork and on each baghouse compartment to prevent destruction of the baghouse structure. The explosion protection systems continuously monitor, detect, and rapidly respond to an explosion. They work by detecting an explosion and rapidly closing baghouse isolation valves and dispensing an explosion suppressant (sodium bicarbonate).

Fike Corporation (Fike) is the original equipment manufacturer of this 10-year-old system. To ensure that the system functions properly, Fike recommends replacing the explosion suppression actuators and powder suppressant every 10 years.

VWM developed a bid and contract package to replace the actuators and powder suppressants, advertised the bid package, and received two bids. Lee Mechanical (Lee) submitted the lowest bid, which is both responsible and responsive, in the amount of \$553,740. The purchase order will be issued to VWM, which is responsible for managing and overseeing the contract with Lee.

Under the construction contract, Lee will replace the following for each baghouse:

- High rate discharge suppressors with gas cartridge actuators, lockout assemblies, nozzles, studs, and nuts.
- Standard rate discharge suppressor reload kits with gas cartridge actuator nozzles.

In addition, Lee will modify the existing nozzles and associated ductwork to accept the newest version of the explosion protection equipment.

The contract duration is 250 days; however, the baghouses must operate anytime the building is in service. Since this work requires each baghouse explosion suppression system to be off and disarmed during the work, this upgrade work will be done during the D&D annual maintenance shutdown.

RESOLUTION

Material Capital Repair or Replacement No. 1711, Jones Island Water Reclamation Facility Dewatering and Drying Dryer Baghouse and Classification Baghouse Explosion Suppression System Upgrades, Project J06087

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. 1711, Jones Island Water Reclamation Facility Dewatering and Drying Dryer Baghouse and Classification Baghouse Explosion Suppression System Upgrades, Project J06087, in an amount not to exceed \$623,675.