



Orange County Sanitation District

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BOARD OF DIRECTORS

Agenda Report

File #: 2020-1341

Agenda Date: 12/2/2020

Agenda Item No: 10.

FROM: James D. Herberg, General Manager
Originator: Rob Thompson, Assistant General Manager

SUBJECT:

PLANT NO. 2; REBUILD ROTATING ASSEMBLY, ALFA LAVAL CENTRIFUGE, MODEL ALDEC G3-125

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION:

Approve a Sole Source Purchase Order contract to rebuild one rotating assembly for Alfa Laval Centrifuges at Plant No. 2 for a total amount not to exceed \$197,846.

BACKGROUND

Five Alfa Laval, Model ALDEC G3-125, dewatering centrifuges were installed and commissioned at Plant No. 2 by Sludge Dewatering and Odor Control at Plant No. 2, Project No. P2-92. Each sludge dewatering centrifuge employs two high-speed rotating components, a drum, and a scroll. The outside drum rotates separating the water and solids. The scroll inside the drum rotates at a slightly higher speed to push the solids down the drum to the discharge point. The components in the centrifuges are subject to very high forces and the gritty biosolids subject the machinery to plugging (which causes unbalanced rotation), erosion, and wear.

RELEVANT STANDARDS

- Safe, beneficial reuse of Biosolids
- Maintain a proactive asset management program
- Maintain a culture of improving efficiency to reduce the cost to provide the current service level or standard

PROBLEM

Centrifuge #1 was experiencing an imbalance due to suspected plugging and was also due for an internal inspection. The machine was disassembled, cleaned, and reassembled. Unfortunately, the machine was improperly reassembled. After a few weeks in operation, it was shut down under high vibration conditions. Centrifuge #1 was disassembled and the rotating assembly was found to be severely damaged.

A dispute has arisen between the Orange County Sanitation District (Sanitation District) and the Centrifuge Manufacturer, Alfa Laval. The Sanitation District's position is that the root cause of the failure was a deficient Operations and Maintenance (O&M) Manual and inadequate on-site training provided by Alfa Laval as part of their project delivery responsibilities. Alfa Laval's position is that the Sanitation District improperly rebuilt the centrifuge causing the failure.

PROPOSED SOLUTION

Sanitation District staff and Legal Counsel have been in negotiations with Alfa Laval to resolve the dispute. As a result of these negotiations, Alfa Laval offered a reduced price to rebuild Centrifuge #1 from \$300,570 to \$197,846. Staff believes this is a fair and reasonable settlement.

Staff recommend approval of the purchase order contract to rebuild the rotating assembly from the Alfa Laval Dewatering Centrifuge #1 in accordance with the negotiated offer.

In addition, Alfa Laval has committed to provide additional training sessions, revise detailed rotating assembly procedures, and provide a 24-month warranty extension from the repair date.

TIMING CONCERNS

The centrifuge systems are subject to wear and tear dewatering gritty biosolids. A new rotating assembly has a 32-week lead time to fabricate and replace. This results in significant potential down-time risk for these critical solids treatment process trains.

RAMIFICATIONS OF NOT TAKING ACTION

Failure to act will delay the necessary rebuild of a long lead time asset. The rebuilt rotor assembly will become the ready spare to the five duty machines providing dewatering capacity in a high wear and tear service environment.

PRIOR COMMITTEE/BOARD ACTIONS

N/A

ADDITIONAL INFORMATION

Staff will pursue a claim against the Boiler and Machinery insurance policy to cover the Sanitation District's portion of this repair. The deductible for this policy is \$25,000.

CEQA

N/A

FINANCIAL CONSIDERATIONS

This request complies with authority levels of the Sanitation District's Purchasing Ordinance. This recommendation will be funded under the Repairs and Maintenance line item for Division 880, Plant No. 2 Maintenance (Adopted Budget, Fiscal Years FY 2020-2021 and 2021-2022, Section 6, Page

96), and the available funding is sufficient for this action.

<u>Date of Approval</u>	<u>Contract Amount</u>	<u>Contingency</u>
12/02/2020	\$197,846	\$0

ATTACHMENT

The following attachment(s) may be viewed on-line at the OC San website (www.ocsan.gov) with the complete agenda package:

N/A

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