

Agenda Report

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SUBJECT:

HEADWORKS REHABILITATION AT PLANT NO. 1, PROJECT NO. P1-105

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION:

Adopt Resolution No. OCSD 20-06 entitled, "A Resolution of the Board of Directors of the Orange County Sanitation District, making findings pursuant to Public Contract Code Section 3400 in support of the sole source specification of Huber Technology for grit washing and dewatering systems for Headworks Rehabilitation at Plant No. 1, Project No. P1-105".

BACKGROUND

The headworks facilities are the first treatment process at a wastewater treatment plant and protect downstream equipment by removing large objects and abrasive materials. The current grit washing and classification systems are based on an older technology and have poor removal efficiency. Headworks Rehabilitation at Plant No. 1, Project No. P1-105, is a complete renovation of the existing headworks, including replacement of the grit washing and dewatering systems.

Abrasive materials, referred to as grit, are removed in grit basins, and conveyed to a grit washing and dewatering system to remove water and organic material. Removal of these abrasive materials is essential to improving the life of all down-stream mechanical equipment like sludge pumps, sludge thickening centrifuge systems, digester mixing systems, biosolids dewatering centrifuge systems and solids storage, and truckloading systems. In addition, these abrasive materials do not produce biogas in a digester. Rather, they tend to settle in the bottom of digesters which requires extensive digester cleaning on a five-year cycle.

There are two technologies typically used for washing and dewatering grit at large wastewater treatment plants: grit classifiers and a proprietary equivalent manufactured by Huber Technology referred to as COANDA units. Other technologies used for grit washing and dewatering are not practical or are not proven at the scale of the Orange County Sanitation District's (Sanitation District) plants. An extensive evaluation of the technologies found that the COANDA units produce a much cleaner grit product and generate so much less odor that the air flow rate from the building housing the units, which must be treated using large-scale odor control units, can be substantially reduced. As a result, utilizing the COANDA system results in an estimated life cycle cost reduction of approximately \$3 million compared to a conventional grit classifier installation.

RELEVANT STANDARDS

- Ensure the public's money is wisely spent
- Comply with Public Contract Code Section 3400
- Comply with OCSD Policy - Purchasing Ordinance No. OCSD-52, Section 1.07.A Sole Source Procurement

PROBLEM

The current grit removal and treatment technology at Plant No. 1 has been in service since 1990 and is in need of refurbishment. Improved grit removal and organic material passthrough are needed to reduce plant odors and improve the life of mechanical equipment throughout the plant.

PROPOSED SOLUTION

Adopt a resolution supporting sole sourcing the COANDA grit washing and dewatering system as provided by Huber Technology.

Huber Technology has committed to a price of approximately \$2.3 million for this equipment. Based on a review of prices for similar installations, staff considers this price fair and reasonable.

TIMING CONCERNS

Without this sole source approval, staff cannot advertise this project for bids. That would delay the start of construction and potentially result in construction cost escalation.

RAMIFICATIONS OF NOT TAKING ACTION

Not selecting the Huber Technology system as a sole source manufacturer will result in larger grit handling and odor control buildings and higher project cost. Design and construction costs will be impacted to accommodate classifiers.

PRIOR COMMITTEE/BOARD ACTIONS

N/A

ADDITIONAL INFORMATION

N/A

CEQA

To comply with CEQA, as the lead agency, the Sanitation District Board of Directors adopted Resolution No. OCSD 19-07 on July 24, 2019, certifying a Mitigation Negative Declaration that was prepared for this project.

FINANCIAL CONSIDERATIONS

This request complies with authority levels of the Sanitation District's Purchasing Ordinance. This item has been budgeted (Adopted Budget, Fiscal Years 2020-2021 and 2021-2022, Section 8, Page 54) and the budget is sufficient for the recommended action.

ATTACHMENT

The following attachment(s) may be viewed on-line at the OCSD website (www.ocsd.com) with the complete agenda package:

- Resolution No. OCSD 20-06
- 7/1/2020 Operations Committee PowerPoint Presentation

GR:dm:gc