



OPERATIONS COMMITTEE

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Agenda Report

File #: 2023-3354

Agenda Date: 12/14/2023

Agenda Item No: 13.

FROM: Robert Thompson, General Manager
Originator: Riaz Moinuddin, Director of Operations & Maintenance

SUBJECT:

TRICKLING FILTER C ROTATING ASSEMBLY REPLACEMENT FOR PLANT NO. 2, PROJECT NO. MP2-019

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION:

- A. Approve a Sole Source Purchase Order Contract to Ovivo USA, LLC for a direct replacement Center Mast Assembly for the Plant No. 2 Trickling Filter "C" Center Rotating Assembly Replacement at Plant No. 2, Project No. MP2-019, for a total amount not to exceed \$586,272; and
- B. Approve a contingency of \$58,627 (10%).

BACKGROUND

The Orange County Sanitation District (OC San) trickling filters at Plant No. 2 consist of three 150-foot diameter rotating assemblies installed in 2008. The Plant No. 2 trickling filter process provides secondary treatment rated at 60 MGD average during dry weather and approximately 182 MGD during peak wet weather capacities. The trickling filters are engineered to remove the organic content in wastewater utilizing micro-organisms living on the filter media. Each trickling filter is equipped with a motor-operated rotary distributor assembly to uniformly distribute the primary treated flow over the media.

Following structural failures of the rotating assembly in Trickling Filter A (TF A), fabrication of a new Center Mast Assembly was approved in June 2022. Subsequently, similar structural deficiencies were identified in the Trickling Filter B (TF B) Center Mast Assembly and fabrication of replacement pieces were approved in July 2022. These new assemblies incorporated structural design enhancements to better withstand stress and metal fatigue and the new assemblies for TF A and TF B were installed in July and August of 2023.

RELEVANT STANDARDS

- 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

The existing Plant No. 2 Trickling Filter C (TF C) Center Assembly Structures are showing structural cracks. The new center assemblies that were installed in TF A and TF B have many design improvements that will improve reliability. TF C Center Assembly Structure needs to be replaced with the new modified assemblies.

PROPOSED SOLUTION

Staff recommends the purchase of a new Center Mast Assembly provided by the original equipment manufacturer (OEM), Ovivo USA, LLC, to replace the existing Center Mast Assembly for TF C that also incorporates structural design improvements.

TIMING CONCERNS

The Trickling Filters at Plant No. 2 are critical assets that support secondary treatment requirements. The Center Mast Assembly of TF C is showing signs of structural failure. The potential failure of TF C will result in reduced flows to the GWRS from Plant No. 2.

RAMIFICATIONS OF NOT TAKING ACTION

Failure to act increases the risk of reduced secondary treatment at the Plant No. 2 trickling filter process and the inability to provide adequate secondary treated effluent water to the GWRS.

PRIOR COMMITTEE/BOARD ACTIONS

July 2022 - Approved a Sole Source Purchase Order Contract to Ovivo USA, LLC (Ovivo) for a direct replacement Center Mast assembly for the Plant No. 2 Trickling Filter B solids contact, Secondary Treatment, in an amount not to exceed \$507,272, plus applicable sales tax and shipping; and a contingency of \$50,727 (10%).

June 2022 - Approved a Sole Source Purchase Order Contract to Ovivo for a direct replacement Center Mast assembly for the Plant No. 2 Trickling Filter A solids contact, Secondary Treatment, in an amount not to exceed \$461,500, plus applicable sales tax and shipping; and a contingency of \$46,150 (10%).

ADDITIONAL INFORMATION

Ovivo USA, LLC is the Board of Directors approved OEM for Plant No. 2 Trickling Filter parts.

CEQA

N/A

FINANCIAL CONSIDERATIONS

This request complies with authority levels of OC San's Purchasing Ordinance. This recommendation will be funded under the Repairs and Maintenance Department (Budget Update Fiscal Year 2023-24, Page 39) and the available funding is sufficient for this action.

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