
File #: 2021-1842

Agenda Date: 9/29/2021

Agenda Item No: 8.

FROM: James D. Herberg, General Manager
Originator: Kathy Millea, Director of Engineering

SUBJECT:

EPSA MOTOR COOLING IMPROVEMENTS AT PLANT NO. 2, PROJECT NO. FE19-06

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION:

- A. Receive and file Bid Tabulation and Recommendation for EPSA Motor Cooling Improvements at Plant No. 2, Project No. FE19-06;
- B. Award a Construction Contract to Mehta Mechanical Company Inc. dba MMC Inc. for EPSA Motor Cooling Improvements at Plant No. 2, Project No. FE19-06, for a total amount not to exceed \$854,000; and
- C. Approve a contingency of \$85,400 (10%).

BACKGROUND

Treated wastewater from Orange County Sanitation District (OC San) Plant Nos. 1 and 2 that cannot be reclaimed is pumped to the ocean through a five-mile-long outfall pipe. This pumping is accomplished by eight 120-million gallon per day pumps. The Ocean Outfall Booster Pump Station has five 2600-horsepower pumps, and the Effluent Pump Station Annex (EPSA) has three 3000-horsepower pumps. EPSA was completed in 2004 to supplement the capacity of the existing five outfall pumps.

Prior to widespread water conservation and reclamation through the Groundwater Replenishment System, outfall flows averaged around 240 million gallons per day. Now, discharges to the ocean average 88 million gallons per day, with minimum hourly flow rates dropping as low as 50 million gallons per day.

RELEVANT STANDARDS

- Comply with California Public Contract Code Section 20103.8, award construction contract to lowest responsive, responsible bidder
- Maintain a proactive asset management program

PROBLEM

At current low, night-time flow rates, an EPSA pump typically operates between 40% and 60% of full speed. The motor's air-cooling fans are driven by the motor shaft and provide insufficient air flow below 65% motor speed causing the motors to overheat. This limits the EPSA pumps availability to be rotated into service with the other five pumps Ocean Outfall Booster Station pumps.

PROPOSED SOLUTION

Award a Construction Contract for EPSA Motor Cooling Improvements at Plant No. 2, Project No. FE19-06. This project will install five new electrically driven fans on each EPSA pump motor to maintain air flow at low speeds to prevent motor overheating. This will allow the EPSA pumps to be operated in rotation with the other five outfall pumps.

TIMING CONCERNS

Until this work is completed, the EPSA pumps cannot be used for service, except during wet weather events.

RAMIFICATIONS OF NOT TAKING ACTION

The utility of the EPSA pumps is reduced until the cooling improvement are made.

PRIOR COMMITTEE/BOARD ACTIONS

N/A

ADDITIONAL INFORMATION

OC San advertised Project No. FE19-06 for bids on June 2, 2021, and two on-line bids were received on July 29, 2021. A summary of the bid opening follows:

Engineer's Estimate	\$ 835,000
<u>Bidder</u>	<u>Amount of Bid</u>
Mehta Mechanical Company Inc. dba MMC Inc.	\$ 854,000
Shimmick Construction Inc.	\$1,056,060

The bids were evaluated in accordance with OC San's policies and procedures. A notice was sent to all bidders on August 11, 2021, informing them of the intent of OC San staff to recommend award of the Construction Contract to Mehta Mechanical Company Inc. dba MMC Inc.

Staff recommends awarding a Construction Contract to the lowest responsive and responsible bidder, Mehta Mechanical Company Inc. dba MMC Inc. in an amount not to exceed \$854,000.

CEQA

The project is exempt from CEQA under the Class 1 categorical exemptions set forth in California Code of Regulations Section 15301. A Notice of Exemption will be filed with the OC Clerk-Recorder after OC San Board of Directors approval of the construction contract.

FINANCIAL CONSIDERATIONS

This request complies with the authority levels of OC San's Purchasing Ordinance. This item has been budgeted (Budget Update, Fiscal Year 2021-2022, Appendix A, Page A-8, Small Construction Projects Program, Project No. M-FE) and the budget is sufficient for the recommended action.

ATTACHMENT

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

- Construction Contract

SS:dm:gc