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File #: 2025-4171 **Agenda Date:** 9/3/2025 **Agenda Item No:** 13.

FROM: Robert Thompson, General Manager
Originator: Mike Dorman, Director of Engineering

SUBJECT:

CHEMICAL SYSTEMS REHABILITATION AT PLANT NO. 2, PROJECT NO. P2-135

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

A. Receive and file Bid Tabulation and Recommendation for Chemical Systems Rehabilitation at Plant No. 2, Project No. P2-135;

B. Award a Construction Contract Agreement to Innovative Construction Solutions for Chemical Systems Rehabilitation at Plant No. 2, Project No. P2-135, for a total amount not to exceed $4,439,500; and

C. Approve a contingency of $443,950 (10%).

BACKGROUND

Orange County Sanitation District (OC San) has a 120-inch, five-mile-long outfall and a 78-inch, emergency one-mile-long outfall. The National Pollutant Discharge Elimination System (NPDES) permit requires OC San to disinfect effluent when the 78-inch outfall is in operation. This may occur when the 120-inch outfall is scheduled for maintenance or during extreme high-flow events that exceed its capacity. The disinfection process involves adding sodium hypochlorite to destroy fecal coliform and other pathogens, followed by sodium bisulfite to dechlorinate the effluent and reduce environmental impact. The permanent Sodium Bisulfite Station has been taken offline due to its poor condition, and a temporary system has been installed for the 78-inch outfall effluent disinfection.

In addition, Plant No. 2 uses ferric chloride and an anionic polymer as coagulants in chemically enhanced primary treatment, which helps remove settleable solids. This process improves effluent quality and reduces hydrogen sulfide in digester gas. The anionic polymer system, located near the Primary Clarifiers, was constructed in 1988, and its electrical and instrumentation systems have not been upgraded since installation.

RELEVANT STANDARDS

- Comply with California Public Contract Code Section 20103.8, award construction contract to lowest responsive responsible bidder

- Comply with environmental permit requirements
- 24/7/365 treatment plant reliability

PROBLEM

The Sodium Bisulfite Station requires replacement. The existing electrical and instrumentation equipment at the Anionic Polymer Station are obsolete and no longer reliable.

PROPOSED SOLUTION

Award a construction contract agreement to improve both the Sodium Bisulfite Station and the Anionic Polymer Station at Plant No. 2. At the Sodium Bisulfite Station, the project will replace the chemical tanks, chemical feed pumps, piping, and electrical equipment, and install new plant water and plant air supply systems. The redesigned system will operate intermittently to help prevent sodium bisulfite from crystallizing when not in use for long periods. At the Anionic Polymer Station, the project will demolish and replace obsolete electrical and instrumentation components, including controllers, motor run-time meters, valves, and actuators.

TIMING CONCERNS

If the project is delayed, staff will continue to operate the less reliable temporary Sodium Bisulfite Station and Anionic Polymer Station. In addition, Project No. J-137, Ocean Outfalls Rehabilitation, which will rehabilitate the 120-inch outfall starting 2027, requires a reliable Sodium Bisulfite system when operating the 78-inch outfall.

RAMIFICATIONS OF NOT TAKING ACTION

If no action is taken, the Sodium Bisulfite Station may fail when operating the short outfall. Additionally, failure of the obsolete electrical or instrumentation equipment at the Anionic Polymer Station could lead to poor effluent quality and potential violations of NPDES requirements.

PRIOR COMMITTEE/BOARD ACTIONS

N/A

ADDITIONAL INFORMATION

OC San advertised Project No. P2-135 for bids on April 8, 2025, and five sealed bids were received on May 22, 2025. A summary of the bid opening follows:

Engineer's Estimate	$ 4,600,000
Bidder	Amount of Bid
Innovative Construction Solutions	$ 4,439,500
Filanc	$ 5,412,000
Mehta Mechanical Company, Inc.	$ 5,630,000
Myers & Sons Construction, LLC	$ 5,875,000
J.F. Shea Construction, Inc.	$ 6,059,800

The bids were evaluated in accordance with OC San's policies and procedures. A notice was sent to all bidders on August 21, 2025 informing them of the intent of OC San staff to recommend award of the Construction Contract Agreement to Innovative Construction Solutions.

Staff recommends awarding a Construction Contract Agreement to the lowest responsive and responsible bidder, Innovative Construction Solutions, for a total amount not to exceed $4,439,500.

CEQA

The project is exempt from CEQA, and a Notice of Exemption was filed and stamped in March 2023 with the OC Clerk-Recorder.

FINANCIAL CONSIDERATIONS

This request complies with the authority levels of OC San's Purchasing Ordinance. This item has been budgeted (Budget Update FY 2025-26, Page A-6, Chemical Systems Rehabilitation at Plant No. 2, Project No. P2-135), 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 Agreement
- Presentation

SA:lb