



OPERATIONS COMMITTEE

Agenda Report

Headquarters
18480 Bandilier Circle
Fountain Valley, CA 92708
(714) 593-7433

File #: 2025-4273

Agenda Date: 7/2/2025

Agenda Item No: 7.

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

SUBJECT:

**PRIMARY CLARIFIERS F AND G ROTATING MECHANISM REHABILITATION AT PLANT NO. 2,
PROJECT NO. FE23-09, SPECIFICATION NO. S-2024-612BD**

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

Approve a contingency increase of \$850,500 (27%) to the existing Services Contract with Vicon Enterprises, Inc., for Primary Clarifiers F and G Rotating Mechanism Rehabilitation at Plant No. 2, Project No. FE23-09, Specification No. S-2024-612BD, for a new total contingency of \$1,323,000 (42%).

BACKGROUND

The A-side Primary Clarifiers (clarifiers), originally constructed in 1962, consist of four circular clarifiers responsible for treating non-reclaimable flows at Orange County Sanitation District (OC San) Plant No. 2. During normal operations, three clarifiers are in service, while the fourth is kept in reserve as a backup unit. In February of 2023, Clarifier F failed due to metal loss from corrosion at the connections between the rake arms and center cage structure, which resulted in the failure of the rotating mechanism. An inspection of Clarifier G showed similar levels of corrosion, raising concerns that its rotating mechanisms could fail at any time. Consequently, Clarifiers F and G have remained offline since then. The A-side is currently operating with only Clarifiers D and E in service.

RELEVANT STANDARDS

- Meet volume and water quality needs for the GWRS
- 24/7/365 treatment plant reliability

PROBLEM

Currently, only Clarifiers D and E are running, providing no redundancy during dry weather operating conditions due to Clarifiers F and G being out of service. The reduced A-side treatment capacity is straining the secondary treatment process and impacting secondary effluent quality when operating in separated mode for the Orange County Water District's Ground Water Replenishment System (GWRS).

Following the completion of sandblasting, it was discovered that the metal deterioration on the rake arms and feed well of Clarifiers F and G, as well as the center column of Clarifier F was significantly greater than originally anticipated. Sandblasting of Clarifier G's center column has started but remains incomplete; however, similar levels of corrosion are expected based on the findings from Clarifier F. These deteriorated components must be repaired to restore the clarifiers to operational condition.

PROPOSED SOLUTION

Approve a contingency increase to repair additional corrosion damage to the Primary Clarifiers F and G rake arms and feed well and reinforce the center columns. Out of the total revised contingency of 42%, approximately 6% will be used for pending changes and 24% for rake arm, feed well, and center column repairs. The remaining 12% will be reserved for potential Clarifier F drive repair, unknown conditions, and anticipated time impacts.

TIMING CONCERNS

The clarifiers are currently operating at a reduced capacity with no available redundancy to maintain plant operations in a separated mode of treatment. Clarifiers F and G need to be rehabilitated and returned to service as soon as possible to restore redundancy and improve overall plant reliability.

A-Side Primary Clarifiers Replacement at Plant No. 2, Contract No. P2-98A is currently constructing four new A-side clarifiers, which are expected to be completed by late 2027.

RAMIFICATIONS OF NOT TAKING ACTION

OC San is currently operating the A-Side with only two clarifiers in service. Losing another A-Side clarifier would force plant operations into a combined mode of treatment (bypassing separation for reclaimable and non-reclaimable flows), greatly reducing reclaimable flow to GWRS.

PRIOR COMMITTEE/BOARD ACTIONS

September 25, 2024 - Approved a Services Contract to Vicon Enterprise, Inc. for Primary Clarifiers F and G Rotating Mechanism Rehabilitation at Plant No. 2, Project No. FE23-09, Specification No. S-2024-612BD, for a total amount not to exceed \$3,150,000; and approved a contingency of \$472,500 (15%).

ADDITIONAL INFORMATION

N/A

CEQA

The project is exempt from CEQA under the Class 1 categorical exemptions set forth in California Code of Regulations sections 15301. A Notice of Exemption was filed when the Board of Directors approved the construction contract on September 25, 2024.

FINANCIAL CONSIDERATIONS

This request complies with the authority levels of OC San's Purchasing Ordinance. This item has been budgeted (Proposed Budget Update FY 2025-26, 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:

- Presentation

HO:lb