



# Orange County Sanitation District

Administration Building  
10844 Ellis Avenue  
Fountain Valley, CA 92708  
(714) 593-7433

## OPERATIONS COMMITTEE

### Agenda Report

---

**File #:** 2020-1281

**Agenda Date:** 10/28/2020

**Agenda Item No:** 5.

---

**FROM:** James D. Herberg, General Manager  
Originator: Rob Thompson, Assistant General Manager

**SUBJECT:**

**PROCURE SIX SPIRAL HEAT EXCHANGERS FOR PLANT NO. 2 DIGESTERS C, D, E, F, G & H**

**GENERAL MANAGER'S RECOMMENDATION**

RECOMMENDATION:

- A. Approve a Sole Source Purchase Order to Saddleback Environmental Equipment for the procurement of six Gooch Thermal Spiral Heat Exchangers for Plant No. 2 Digesters C, D, E, F, G, and H for a total amount not to exceed \$187,500, plus applicable sales tax and freight; and
- B. Approve a contingency of \$18,750 (10%).

**BACKGROUND**

Spiral heat exchangers are used to heat digester sludge and maintain the required minimum Class B digested sludge conformance limits. The spiral heat exchangers were installed as part of Project Nos. P2-2, P2-3, and P2-5 during the late 1950s to early 1960s, when Digesters C, D, E, F, G, and H were constructed at Plant No. 2. Gooch Thermal Systems Spiral Heat Exchangers were installed to heat sludge using the Plant's hot water loop. These heat exchangers, one per digester, maintain digester sludge temperatures specified in the Orange County Sanitation District's (Sanitation District) operating permit.

**RELEVANT STANDARDS**

- Comply with environmental permit requirements
- Maintain a proactive asset management program
- 24/7/365 treatment plant reliability

**PROBLEM**

The current heat exchangers have reached the end of their useful life and are no longer maintainable or repairable. Recent digester inspections recommend replacement of heat exchangers with like-for-like heat exchangers as part of the phased digester rehabilitation plan to keep the digesters in operation before being replaced by the new temperature-phased anaerobic digester (TPAD) under design.

**PROPOSED SOLUTION**

Approve the purchase of six Original Equipment Manufacturer (OEM) spiral heat exchangers manufactured by Gooch Thermal Systems Inc. Standard lead time from Saddleback Environmental Equipment is 18-20 weeks. The procurement will result in a reliable digested sludge heating system in accordance with permit requirements.

**TIMING CONCERNS**

The heat exchangers are at the end of their asset life and are scheduled to be replaced to maintain the reliability of the digester heating systems.

**RAMIFICATIONS OF NOT TAKING ACTION**

Failure to act increases the risk of heating system failure due to age of equipment which impacts digester temperature, detention times, and permit compliance, which can result in greater disposal costs.

**FINANCIAL CONSIDERATIONS**

This request complies with authority levels of the Sanitation District's Purchasing Ordinance. This recommendation would be funded under the Repairs and Maintenance line item for Division 880 (Fiscal Years 2020-21 and 2021-22, Section 6, Page 96). The available funding is sufficient for this action.

---

<u>Date of Approval</u>	<u>Contract Amount</u>	<u>Contingency</u>
10/28/2020	\$187,500	\$18,750 (10%)

---

**ATTACHMENT**

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

N/A

RM:jg:rr:ls:gc