



Orange County Sanitation District

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OPERATIONS COMMITTEE

Agenda Report

File #: 2019-518

Agenda Date: 9/4/2019

Agenda Item No: 10.

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

SUBJECT:

PROCESS CONTROL SYSTEMS UPGRADES STUDY, PROJECT NO. SP-196

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION:

Information Only.

BACKGROUND

The Supervisory Control and Data Acquisition (SCADA) system provides essential process monitoring, control, and archiving of process data, which is required for regulatory compliance. The existing SCADA system utilizes programmable logic controllers (PLCs) and a Human-Machine-Interface (HMI) system consisting of networks, servers, workstations, software, and a data archiving system referred to as a historian. This system provides automatic control and allows operators to interactively monitor and control the process facilities from centralized areas, assuring that the systems are performing properly and that alarm conditions can be monitored and responded to immediately.

The existing HMI is no longer supported and requires emulation software to use Windows-based workstations. The HMI software package, CRISP, is no longer supported by any vendor. There are a few people in the workforce outside the Orange County Sanitation District (Sanitation District) who can make software changes to support the current and future needs of the Sanitation District. This system is likely to become increasingly difficult to service and maintain with time.

Furthermore, the existing standard PLC model has reached the end of commercial availability and requires the selection of a new model for future designs. Sufficient spare parts have been purchased by the Sanitation District for system maintenance; however, a long-term solution is required.

Process Control Systems Upgrades Study, Project No. SP-196, which was awarded by the Board of Directors on February 28, 2018, is conducting a study and multi-phase procurement to evaluate and select a vendor platform that will replace the SCADA system. The outcome of this study will select a vendor and develop a scope of work and procurement strategy to replace existing SCADA systems as part of the future Process Control Systems Upgrades, Project No. J-120. The team is at a major milestone with the project in their evaluation of different vendor packages and would like to provide an update.

Staff will present an overview and update of the Process Control Systems Upgrades Study, Project No. SP-196.

RELEVANT STANDARDS

- Sustain 1, 5, 20-year horizons
- 24/7/365 treatment plant reliability

PRIOR COMMITTEE/BOARD ACTIONS

February 2018 - Approved a Professional Services Agreement with Stantec Consulting Services, Inc. to provide engineering services for the Process Control Systems Upgrades Study, Project No. SP-196, for an amount not to exceed \$1,398,866, and approved a contingency of \$139,887 (10%).

ADDITIONAL INFORMATION

N/A

CEQA

The proposed Process Control Systems Upgrades Study, Project No. SP-196, will be used solely as a planning tool to evaluate possible future actions and develop long-term planning strategies for upgrading the current system. The Sanitation District has not approved, adopted, funded, or otherwise authorized any future actions relating to the Process Control Systems or any other facilities to be analyzed in the Study. The Study is therefore eligible for an exemption from CEQA under CEQA Guidelines section 15262 and no further action is required.

The Sanitation District filed and recorded a Notice of Exemption for this project with the County of Orange Clerk-Recorder on March 1, 2018.

FINANCIAL CONSIDERATIONS

This item is informational and does not require any commitment of funds.

ATTACHMENT

The following attachment(s) may be viewed on-line at the OCS D website (www.ocsd.com) with the complete agenda package:

N/A