



**DATE:** September 18, 2018

**TO:** Mayor and City Council

**FROM:** Director of Utilities & Environmental Services

**SUBJECT:** Water Pollution Control Facility-Valve Operating Mechanism Replacement: Authorization for City Manager to Execute a Sole Source Purchase of REXA Actuators

### **RECOMMENDATION**

That Council adopts the attached resolution authorizing the City Manager to execute a sole source purchase of REXA actuators from REXA Electraulic Actuation, in an amount not to exceed \$235,000.

### **SUMMARY**

There are fourteen REXA valve operating mechanism actuators currently in operation at the Water Pollution Control Facility (WPCF). The performance of these actuators is essential for the proper function of two biological treatment unit processes. As part of the FY 2017 Capital Improvement Program, Council approved funding for the WPCF REXA Valve Replacement Project, 07692, in the amount of \$235,000. REXA actuators were identified as part of the engineer's design. The actuators have been in service for more than ten years and have proven effective. To date, the maintenance of these valves has consisted of parts replacement due to normal wear. Some of the units that are located outdoors and exposed to the elements, have begun to show signs of failure due to corrosion, and are due for scheduled replacement. Because of the superior performance of the REXA actuators, staff recommends executing a sole source purchase agreement with REXA Electraulic Actuation, in an amount not to exceed \$235,000.

### **BACKGROUND**

The City's WPCF provides wastewater treatment for Hayward's residential and business communities. The facility treats an annual average of eleven million gallons of wastewater per day (MGD) and meets current requirements for discharge of treated effluent to the deep waters of the San Francisco Bay. As part of the secondary treatment process, the flow passes through the Trickling Filters and the Solid Contact Tanks. A complex mechanism controls the performance of valve modulations that adjusts levels of air and proper recirculation of influent required to sustain the biofilm in these tanks. Actuators are an essential component of this mechanism. The performance of REXA actuators have met the demands at the WPCF and have proven superior to that of other manufacturers. In order to maintain the WPCF's

performance, a purchase of eight additional REXA actuators are required at this time. Funding is approved in the FY 2017 Capital Improvement Program for the WPCF REXA Valve Replacement Project, 07692.

## **DISCUSSION**

REXA actuators were originally installed as part of the Water Pollution Control Facility Improvements Phase I Project, which began in September 2005 and was completed in the Winter of late 2008. The actuators are an essential component of the secondary treatment process at the Solid Contact Tanks and the Trickling Filters. At the Solid Contact Tanks, the actuators control the performance of valve modulation that accommodates the changing levels of air needed for the health of the biology microorganisms living in these tanks. At the Trickling Filters, the actuators provide recirculation of influent that is required to keep the microbes on the media healthy and active. These actuators are currently operating in the Aeration Blower Building at the WPCF and have proven to be very responsive and durable. The actuators are constantly in motion to meet the changing requirements of these two biological treatment unit processes. The performance of these actuators is critical and demanding. The efficiency of the REXA actuators is superior to that of other manufacturers' products in service at the WPCF. A Capital Improvement Program (CIP) project, in the amount of \$235,000, was created to address replacement of these actuators.

In October 2017, staff made a concentrated effort to review comparable products, but found none suitable for use with the existing equipment and the demands required for its proper performance. Staff established criteria for justification of sole source purchase, provided technical information, and presented their findings in a sole source justification form. In order to maintain the performance of the Solid Tanks and Trickling Filters, staff recommends the purchase of REXA actuators from REXA Electraulic Actuation as a sole source product.

## **ECONOMIC IMPACT**

The modifications and continued upkeep of the existing treatment processes at the WPCF are essential to continue effective treatment of the wastewater. By rehabilitating or replacing aging components before they fail, the City avoids additional costs for unplanned outages such as emergency contractor fees, and staff overtime. The community will enjoy the benefits of the project, including maintaining effective treatment that provides environmental protection of the San Francisco Bay.

## **FISCAL IMPACT**

The Sewer Replacement Fund (Fund 611) in the FY 2017 CIP includes sufficient funding for the project.

## **STRATEGIC INITIATIVES**

This agenda item is a routine operational item and does not relate to one of the Council's Strategic Initiatives.

## **SUSTAINABILITY FEATURES**

*Energy*            REXA Actuators utilize Electraulic Technology, electro-hydraulic actuation unique to REXA. This technology minimizes system oil volume, eliminates routine oil maintenance, and reduces energy consumption.

## **NEXT STEPS**

If Council approves the attached resolution, staff will take the necessary steps to finalize an agreement with REXA Electraulic Actuation.

*Prepared by:*            Carol Lee, Management Analyst I

*Recommended by:*    Alex Ameri, Director of Utilities & Environmental Services

Approved by:



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Kelly McAdoo, City Manager