

REQUEST FOR COUNCIL ACTION

DATE ACTION REQUESTED: September 5, 2017

Order ___	Ordinance ___	Resolution <u>XX</u>	Motion ___	Information ___
No.	No.	No. 2017-3403		

SUBJECT: A resolution authorizing the city manager to waive the competitive purchasing requirement and execute all necessary documents to purchase an onsite hypochlorite generation system for the Water Treatment Plant. Whitney Equipment Company Inc. is the supplier of the MicroClor system and the cost is \$277,312.50

Contact Person (Preparer) for this Motion: Dan Wilson, Water Superintendent

Dept.: Public Works Department – Operations – Water Treatment Plant

RECOMMENDATION:

Adopt Resolution No. 2017-3403

EXECUTIVE SUMMARY:

It is necessary to replace the hypochlorite generation system at the water treatment plant and the funds for replacement were included in the adopted 2017-2018 Capital Improvement budget. The existing hypochlorite generator cells, which are the major component of the system at the WTP, are well past the end of their 5-8 year life expectancy. Through extensive maintenance, we have extended the life of the cells to 12 years. At this point the cost of maintaining the cells is high and the decreased reliability has now made it necessary to replace them. The additional two major components of the existing hypochlorite generation system are the rectifier and the programmable logic controller, both of which have required major repairs in the last two years and will both reach the end of their life expectancy within the next five years. The costs for maintaining the current system and replacing the major components make purchasing a new system the more viable option. Benefits of the new system include cost savings through increased energy efficiency and decreased chemical and maintenance costs. Installation of a new MicroClor system would match what was installed in 2016 at the wastewater treatment plant and allow us to have two systems which utilize the same components and reduce the inventory of spare parts, which is also a cost savings. The Newberg Municipal Code addresses purchasing and contracting requirements including the use of brand name specifications for public improvement products. The code reference is as follows:

3.25.100 Use of brand name specifications for public improvements.

A. In General. Specifications for contracts shall not expressly or implicitly require any product by one brand name or mark, nor the product of one particular manufacturer or seller, except for the following reasons:

- 1. It is unlikely that such exemption will encourage favoritism in the awarding of public improvement contracts or substantially diminish competition for public improvement contracts; or*
- 2. The specification of a product by brand name or mark, or the product of a particular manufacturer or seller, would result in substantial cost savings to the city; or*
- 3. There is only one manufacturer or seller of the product of the quality required; or*
- 4. Efficient utilization of existing equipment, systems or supplies requires the acquisition of compatible equipment or supplies.*

B. Authority of Purchasing Manager. The purchasing manager shall have authority to determine whether

an exemption for the use of a specific brand name specification should be granted by recording findings that support the exemption based on the provisions of subsection (A) of this section.

There are four main manufactures of liquid chlorine hypochlorite generation systems: PSI Microclor, MIOX, ClorTec and OSEC. Last summer a design consultant hired by the City along with City staff evaluated all four systems extensively, including visiting local installations, for the purpose of choosing and installing a hypochlorite generation system at the wastewater treatment plant. The systems were evaluated on the following criteria:

1. Space Constraints: The generation system will be located in an existing building in order to save costs. The physical size of the ClorTec and OSEC systems are based on two large horizontal chlorination cells. Electrical clearances and maintenance access ports limit where these systems can be located within the building. The MIOX and Microclor systems are much smaller due to their different cell design and there are more options with system orientation and location.
Future Expansion: Three systems use two large cells and would require a duplicate system or complete replacement with a larger chlorination system in the future. Microclor provides the City with the most flexibility regarding system upgrades in the future. There are two ways that the Microclor system can be expanded to provide double capacity in the future:
 - a. Replace existing (10) chlorination cells with larger capacity cells and upgrade the rectifier,
or
 - b. Add a duplicate system and operate both in parallel.
2. Redundancy: Since the Microclor system uses smaller chlorination cells (10) instead of (2) large cells, the system can continue to operate at lower capacity in the event of a cell failure. Three of the systems depends on two cells and would require a second system to be installed to provide any level of redundancy.
3. Maintenance Costs: The Microclor system is highly serviceable since it is mechanically built with non-proprietary parts. Most parts would be able to be ordered from an independent third party or purchased from a local hardware store. In addition, the smaller chlorination cells are individually cheaper than one large cell and the City can replace each individually as needed.
4. Capital Cost: The four on-site generation systems were very similar in cost. The Microclor system is in the middle of the range and is within 2.1% of the lowest quoted budgetary price and 2.6% lower than the highest quoted budgetary price.
5. Ease of Maintenance: The Microclor system is very simple to maintain since it does not have any proprietary parts and the vertical cell alignment prevents most buildup inside the cells. Maintaining or replacing a Microclor cell simply involves breaking two pipe unions. The cells would need routine acid cleanings and the vendor provides an acid cleaning cart with their system.
6. Difficulties of a Standard Bid Approach: If major equipment selection was conducted with a standard bid approach, the design of the chlorination system would need to accommodate all four systems, and would result in roughly four times the amount of design work. Mechanically, the layouts of each would need to be considered as well as process requirements. Electrically, power requirements can vary and each system has their own wiring. For specifications, one generic specification would need to be created and reviewed by each manufacturer to ensure a level playing field. This exemption is unlikely to encourage favoritism since all of the systems were evaluated.

The MicroClor system at the WWTP has been in operation since October of 2016 with no issues to date, very little maintenance work and has only required a single acid washing which was completed in less than two hours. The proposed system at the WTP is very similar to the installation at the WWTP making it easier and more cost effective for staff to maintain and operate. It will provide reliable back up in the event of emergency at either facility. Based on the above reasoning, staff requests that the competitive

purchasing requirement be waived for the procurement of the hypochlorite generation system and allow the PSI Microclor system be specified.

FISCAL IMPACT:

Approval of this resolution will provide a cost savings to the city resulting from more efficient energy and chemical costs and higher operating efficiencies. The cost of the 1,000 pound per day PSI Microclor on-site generation system is \$277,312.50. A competitive construction bid will be advertised for the installation of the MicroClor hypochlorite generation system later this year. The adopted 2017/2018 budget for this project including equipment and installation is \$500,000.

STRATEGIC ASSESSMENT:

This project will allow for necessary upgrades to aging equipment and increases capacity to the chlorine treatment and disinfection processes. This ensures that Newberg is prepared to meet the water capacity demands of the City and the Oregon Health Authority drinking water program regulatory requirements. In addition, the new system will, reduce maintenance costs and provide redundancy between the water and wastewater chlorination systems in the event of an emergency.

A RESOLUTION AUTHORIZING THE CITY MANAGER TO WAIVE THE COMPETITIVE PURCHASING REQUIREMENT AND EXECUTE ALL NECESSARY DOCUMENTS TO PURCHASE AN ONSITE HYPOCHLORITE GENERATION SYSTEM FOR THE WATER TREATMENT PLANT. WHITNEY EQUIPMENT COMPANY INC. IS THE SUPPLIER OF THE MICROCLOR SYSTEM AND THE COST IS \$277,312.50.

RECITALS:

1. A 2017-18 capital improvement project is to replace the existing hypochlorite generation system at the Water Treatment Plant with the PSI Microclor Hypochlorite Generation System, provided by the vendor Whitney Equipment.
2. City Municipal Code 3.25.100 provides for the use of specific brand same specification of equipment based on certain criteria specifically outlined in sections 3.25.100.A.1, 3.25.100.A.2 and 3.25.100.A.4:
 - In accordance with City Municipal Code 3.25.100.A.1, this exemption does not encourage favoritism in that all potential systems were evaluated.
 - In accordance with City Municipal Code 3.25.100.A.2, the PSI Microclor system will have lower long term maintenance and upgrade costs due to the use of non-proprietary parts. The use of several smaller cells instead of two large cells the system is more reliable and in the event of cell failures the system can remain in operation. Other system manufacturers use more expensive proprietary parts, and require the maintenance or replacement of larger and more expensive cells when failures occur.
 - In accordance with City Municipal Code 3.25.100.A.4, the PSI Microclor system is consistent with the system already in place at the wastewater treatment plant making it unnecessary to have additional repair parts in stock and allowing for emergency backup parts for both systems
 - Employees will be familiar with the operation of one “standard” chlorine generation system saving employee time in training and operating and repairing the systems
3. The use of exemption for the use of a specific brand name specification for this major piece of equipment will allow for more accurate design development, based on specific equipment submittals and will provide more accurate construction costing.
4. Public notice of this hearing was published on August 21, 2017 in the Daily Journal of Commerce (DJC) in conformance with O.R.S Section 279C.335 (5.b).

THE CITY OF NEWBERG RESOLVES AS FOLLOWS:

City Council hereby authorizes the city manager to waive the competitive purchasing requirement for procurement of the hypochlorite generation system produced by PSI MicroClor and the city council also authorizes the purchase of the PSI MicroClor hypochlorite generation system provided by the vendor Whitney Equipment for the amount of \$277,312.50 and authorizes the City Manager to execute the contract to purchase the system. The City Attorney will review and approve all contract documents as to form and content.

➤ **EFFECTIVE DATE** of this resolution is the day after the adoption date, which is: September 6th 2017

ADOPTED by the City Council of the City of Newberg, Oregon, and this 5th day of September 2017.

Sue Ryan, City Recorder

ATTEST by the Mayor this 5th day of September 2017.

Bob Andrews, Mayor