

**TOWN OF PRESCOTT VALLEY
REQUEST FOR COUNCIL ACTION**

Date: August 27, 2015

SUBJECT: Equipment Purchase - Chlorine Containment Equipment

SUBMITTING DEPARTMENT: Utilities Department

PREPARED FOR: Neil Wadsworth, Director

AGENDA LOCATION: Comments/Communications , Consent , Work/Study ,
New Business , Public Hearing , Second Reading

ATTACHMENTS: a) Quotes

SUMMARY BACKGROUND: The Town of Prescott Valley operates a total of 20 wells in order to deliver water to our residents and visitors. The water is potable but chlorine is added to protect the system from microbial contamination. Chlorine, in the form of gas, is commonly used for water systems and is usually contained within pressurized 150 pound or 1 ton cylinders. Prescott Valley wellsites generally utilize side by side, 150 pound cylinders to provide flexibility to staff to conduct delivery, pickup, or exchange of one cylinder for the other when one becomes depleted. A typical setup for side by side 150 pound cylinders is illustrated per Figure 1.

Chlorine gas is an extremely effective disinfectant for microorganisms; however, it's also dangerous and toxic to other lifeforms if released to the environment. To reduce the danger of a piping leak between the cylinder valve and the point of use, an automatically activated shut-off valve system is used. The system consists of a sniffer, control panel and actuator. The sniffer is constantly monitoring air for chlorine gas and if detected, a signal from the control panel is sent to the actuator. The actuator is mounted on top of the cylinder valve and will close the valve in less than 5 seconds, thus limiting the potential for a chlorine gas leak. Water Operations staff are automatically notified if such an event occurs.

Because of the risks involved in chlorine gas systems, once a shut-off system is selected it is best to stay with that system exclusively for all well locations. Therefore, in fiscal year 2013 / 2014, the Utilities Department purchased two brands of shut-off valves for testing purposes; Halogen and Powell E-Pro. After months of evaluation, staff determined that the Powell system was the best fit for Town operational needs. Powell has been producing chlorine shut-off systems for over 50 years and is a proven leader of closure systems for chlorine and other hazardous gases. A Powell E-Pro actuator mounted on a 150 pound cylinder is illustrated in Figure 2.

Town Code 3-04-020 provides as an exception to the usual bid requirements for purchases of \$16,000 or more purchases from one firm or company capable of providing a particular commodity that cannot reasonably be provided by another firm or company. Thus, in fiscal year 2014 / 2015 the Council approved funds (\$50,000) to purchase 5 Powell units for installation at wells located near highest density population. In this fiscal year 2015 /2016 budget, the Council has approved funds (\$100,000) for additional units and some spare parts.

Emergency chlorine shut-off systems protect the lives of our residents and visitors along with staff that frequent our wellsites. However they also minimize potential environmental cleanups, risks, and liability for owners of water systems that utilize chlorine gas. Therefore, Town staff seeks Council authorization to procure these additional units and spare parts with fiscal year 2015/2016 funds.

Figure 1



Figure 2



OPTION ANALYSIS: The Council may vote to:

- 1.) Approve this purchase, **OR**
- 2.) Not approve this purchase, **AND/OR**
- 3.) Direct staff to pursue other options

ACTION OPTION: Motion to approve the purchase of Powell E-Pro emergency valve shut-off systems and spare parts based on the lowest quote in the amount of \$99,961.96 as outlined in the Fiscal Analysis, **OR** Motion not to approve this purchase. **VOTE**

RECOMMENDATION: Town staff recommends purchase approval of the Powell E-Pro emergency valve shut-off systems and spare parts via the services of Powell Fabrication & Manufacturing, Inc.

FISCAL ANALYSIS: The Fiscal Analyses is noted per Table 1 below:

Table 1

Enterprise Water

| Powell E-Pro Emergency Valve Shut-Off Systems and Spare Parts | | | |
|---|------------------------|--|------------------------|
| HTE Code(s): 511-7020-700-7320 | | Finance Proj. # (TBD) | |
| FISCAL YR 2015/2016 | Approved Budget: | \$100,000.00 | FISCAL YR 2015/2016 |
| | Expended & Encumbered: | \$0.00 | |
| | Powell Quote | <u><u>-\$99,961.96</u></u> < (this action) | |
| | Balance: | \$38.04 | |

REVIEWED BY:

Management Services Director _____

Town Clerk _____

Town Attorney _____

Town Manager _____

COUNCIL ACTION:

Approved Denied Tabled/Deferred Assigned to _____