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Department of Utilities
Wastewater Treatment Plant
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TO: Chairperson Joe Martin and Members of the Utilities Committee

CC: Water Plant Operations Supervisor Joe Myers

FROM: Utilities Director Chris Shaw

DATE: May 15, 2013

RE: *Award Engineering phase of the AWTF PAC Fire Suppression and Monitoring Project to Donohue and Associates in the amount of \$25,600 with a 5 % of contingency of \$1,280 for a project total not to exceed \$26,880*

BACKGROUND:

Powdered activated carbon (PAC) is fed seasonally at the AWTF to control taste and odor causing organic compounds that exist naturally in the Lake Winnebago source water. The existing PAC storage and feeding system has a capacity of 95,000 pounds and consists of a single dry storage silo with three pantlegs, associated feeders, wetting cones, and controls. The fourteen foot diameter PAC silo is fitted with a baghouse, pressure / vacuum relief valves, and compressed air fluidizing equipment.

The AWTF has experienced problems with PAC oxidizing inside the storage. This oxidation results in burn causing damage to equipment and exposing personnel to combustion products. In 2012, the AWTF commissioned a study to identify and recommend improvements to the PAC storage system to prevent and extinguish hot spots in the silo before they become large enough to pose a fire and personnel hazard. The report recommended engineering and constructing the following:

- Installation of gas monitoring equipment (oxygen, carbon monoxide, carbon dioxide) in the PAC storage and feeder room. Sensor output for read-out at a local control panel immediately outside the interior pedestrian door to the PAC storage / feeder room and via the AWTF SCADA system.
- Installation of a carbon monoxide gas sensor and temperature sensors on the PAC storage silo to provide continuous, real-time monitoring of conditions within the silo.

Sensor output for read-out at the local control panel and via the AWTF SCADA system.

- Installation of piping, valves, and controls to safely interconnect the AWTF carbon dioxide gas system with the PAC silo to allow intermittent purging of the PAC silo with carbon dioxide gas for fire prevention and suppression.

RFP PROCESS:

A request for proposals (RFP) was sent to four engineering firms for the design phase of this project. Two of the engineering firms did not propose due to project size and project specialization. Proposals from the remaining firms were evaluated by Water Plant Operations Supervisor Joe Myers and myself. Both proposals were well developed and presented an acceptable scope of engineering services. The Donohue proposal went further and recommended electrical grounding testing to ensure that static electrical conditions would be mitigated. The following table identifies the engineering scores and proposal costs.

COMPANY	SCORE	QUOTE
McMahon and Associates	36	\$27,957
Donohue and Associates	47	\$25,600
CH ₂ M Hill	DNP	n/a
Short Elliot and Hendrickson	DNP	n/a

DNP – Did Not Propose

The proposals were graded prior to opening the quotes. The Donohue and Associates proposal was determined to provide the better scope of services and was also the least cost quote.

RECOMMENDATION:

I recommend an award for the engineering phase of the AWTF PAC fire suppression and monitoring project to Donohue and Associates in the amount of \$25,600 with a 5% contingency of \$1,280 for a project total not to exceed \$26,880.

If you have any questions regarding this project please contact me at ph: 832-5945.