

COUNCIL ACTION FORM

SUBJECT: SPECIALIZED HEAVY DUTY CLEANING SERVICES CONTRACT FOR POWER PLANT BOILERS

BACKGROUND:

The City's Electric Utility has two coal-fired, high-pressure steam generation units within the City of Ames Power Plant, referred to as Unit No. 7 and Unit No. 8. These units require regular professional maintenance and repair. This consists of emergency service, as well as regularly scheduled planned repairs. The repair of the boilers on these generation units requires professional trade crafts such as boilermakers, steam/pipe fitters, and millwrights, to list a few.

The boiler units operate under environmental conditions with high heat and high pressure. Due to the operational conditions and fuel burned, the internal surfaces of the boilers are often covered with hardened ash, molten glass, and other substances, which coat the internal boiler tubes and boiler walls. Because of the conditions resulting from burning Refuse Derived Fuel (RDF), a reducing atmosphere exists in portions of the boiler and there are chlorides present from burning plastics. As a result, parts of the boiler units such as the superheat tubes and boiler wall tubes would eventually fail due to tube wasting.

When tube failures occur, the City contracts with private firms who have the expertise to perform the emergency repairs needed to bring the unit back into operation. Prior to the professional crafts entering the boilers to carry out inspections and repairs, the surfaces must be cleaned of ash coating and debris. **This "heavier duty" cleaning process requires high-pressure water washing, grit blasting, or use of explosives to loosen and remove the materials. After loosening or breaking up these substances, they are removed from the boiler using the sluice system or by large industrial vacuums.**

The City currently has an annual renewable contract in place for these services. This contract is in its final year and expires on June 30, 2015.

Staff recommends that these services continue to be outsourced on an annual renewable contract basis. The benefits of having a contract for these services in place include the following:

- 1) Consistency of work and quality from a single contractor.
- 2) Reduction in the City's exposure to market forces regarding prices and availability for labor, travel, and supplies in preparation for a scheduled outage.
- 3) Rapid contractor mobilization to start emergency repairs, thus reducing

generation downtime.

- 4) Saved City staff time obtaining quotes, evaluating bids and preparing specifications and other procurement documentation.

The approved FY2015/16 Power Plant operating budget includes \$175,000 for boiler cleaning services to be performed under this contract. Invoices will be based on contract rates for time and materials for services actually received.

ALTERNATIVES:

1. Approve preliminary plans and specifications for the Specialized Heavy Duty Cleaning Services Contract for Power Plant Boilers, and set May 13, 2015 as the due date for bids and May 26, 2015 as the date of public hearing and award of contract.
2. Purchase specialized heavy duty cleaning services on an as-needed basis.

MANAGER'S RECOMMENDED ACTION:

This work is necessary to properly maintain Unit No. 7 and Unit No. 8 and to carry out emergency and scheduled repairs resulting from equipment failures. This contract allows the Power Plant to have reliable contractors available to perform these specialized cleaning services on very short notice in the event of an emergency repair. This contract also allows the Power Plant to control the costs of these services to the extent possible.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative #1 as stated above.