

COUNCIL ACTION FORM

SUBJECT: APPROVE A CONTRACT CHANGE ORDER FOR UNIT NO. 8 STEAM GENERATOR WATERWALL PANELS PROJECT FOR POWER PLANT

BACKGROUND:

This project will address ongoing problems in Unit No. 8 by replacing the bottom 50 ft. of tubing in the boiler. This work will be one of the initial projects which the City will be undertaking to address increased maintenance needs at the Plant. This project will also help to improve reliability of Unit 8, and reduce the number of outages due to tube failure. Due to the age of the tubes in the boiler, ruptures and tube failures have become increasingly more common. There were nine separate occurrences of tube leaks which resulted in nine separate forced outages of the boiler in FY 2007/2008. The condition of the boiler tubes has become a major reliability factor.

On April 28, 2009, City Council awarded a contract to Boiler Tube Company of America (BTA) for Unit No. 8 Steam Generator Waterwall Panels in the amount of \$1,408,355.00, plus applicable sales taxes to be paid directly by the City of Ames to the State of Iowa. The BTA contract excludes studding of the panels. Studs are steel pins that are spot welded to the furnace side of the panels to hold refractory (clay coating to protect the tubes from the fireball in the bottom of the boiler) in place. When the specifications were prepared, it was planned to do the studding work in the field during the installation of the panels. This was decided because the panels are studded in two areas, the burner throats and at the bottom of the panels near a field weld. Because the studs at the field welds cannot be installed until after the field welds were made, it was decided to field apply all the studs, including the second location (burner throats).

The scope of change order number 2 is to have BTA install the studding in the burner throats in its shop in lieu of having those studs field installed. There are several advantages to shop application of the studs.

1. There is better quality control in a shop environment.
2. Shop labor rates are less expensive than field labor rates.
3. Shop application will reduce the manhours required for installation and therefore decrease the amount of time required for installation.

One change order for \$16,235.00 has been approved for this contract. It was for BTA to split the sidewall panels in half which will make them a more manageable size to assist with the installation. This change order would be Change Order No. 2 and it would be

for the amount of \$47,833.00. The total of the project with Change Order No. 2 will be \$1,472,423.00

The FY 2009/2010 CIP includes \$4,500,000.00 for Unit No. 8 boiler tube repair. This portion of the project is for the tubing material. The Engineer's estimated cost for this material was \$1,621,000.00.

ALTERNATIVES:

1. Approve contract Change Order No. 2 in the amount of \$47,833.00 to Boiler Tube Company of America for studding nine burner openings for Unit No. 8 Steam Generator Waterwall Panels, and also confirm the approval of previously issued Change Order #1. This will bring the total contract cost to \$1,472,423.
2. Reject contract change order no 2 and field install the studs under the panel installation contract.

MANAGER'S RECOMMENDED ACTION:

This project will address Unit No. 8 tube problems by replacing the bottom 50 ft. of tubing in the boiler. This change order will provide the City of Ames a better product at a less expensive price and allow the protective clay panels to be installed in a shorter outage.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, thereby approving contract Change Order #2 in the amount of \$47,833.00 to Boiler Tube Company of America for studding nine burner openings for the Unit No. 8 Steam Generator Waterwall Panels, and confirming the approval of Change Order #1.