

**COUNCIL ACTION FORM**

**SUBJECT:**           **ENGINEERING SERVICES FOR UNIT 8 PRECIPITATOR  
INSULATION AND LAGGING – CHANGE ORDER #2**

**BACKGROUND:**

Unit 8 includes two electrostatic precipitator (ESP) units that remove flue gas particulates downstream of the Unit 8 boiler. The insulation and lagging on the precipitator units is in poor condition after years of operation. The lagging is corroded and falling off in some sections and is now in need of full replacement.

The current exterior flue gas ductwork is corroded and will need to be replaced as well. This includes the ductwork running between the Unit 8 boiler and the electrostatic precipitator units, along with the ductwork running between the precipitator units and the regenerative air heater. In addition, the inlet and outlet ductwork of the Unit 8 ESP has also deteriorated and requires complete replacement.

**In May 2020, the City solicited proposals and selected Black and Veatch to prepare plans and specifications to replace the insulation and lagging. The original contract amount was \$19,500. A Change Order in the amount of \$8,600 was approved to add additional design services.**

**Plans and specifications were developed in 2020, but the construction bids were not immediately solicited because of other priorities in the plant. The project is now ready to move forward.** Due to staff workload and limited experience in this area, additional engineering services are desired to bid and construct the project. City staff would like to incorporate additional professional services into the design contract to respond to questions during bid phase, evaluate the insulating materials to be proposed by the contractor; add construction management services; and include biweekly site visits for two months during construction.

**This proposed Change Order No. 2 in an amount not-to-exceed \$46,200 for the following additional engineering services to support the City of Ames Unit 8 Electrostatic Precipitator Insulation and Lagging replacement project.**

The change order work will be billed on a time and materials basis, not to exceed \$46,200. Staff intend on performing as much of the on-site inspection as practical to minimize the need for site visits.

The Capital Improvements Plan includes a project for Power Plant Unit 8 Precipitator Insulation and lagging. The FY 2022/23 budget includes \$2,000,000 for engineering and construction.

**ALTERNATIVES:**

1. Approve Change Order No. 2 to Black & Veatch Corporation, Overland Park, KS, in the amount not-to-exceed \$46,200 for additional services.
2. Do not approve the requested change order.

**CITY MANAGER'S RECOMMENDED ACTION:**

The replacement of the insulation and lagging is a planned project in the current CIP. It is important to replace the damaged pieces and provide adequate insulation and protection on the precipitator unit. Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No.1, as described above.