

COUNCIL ACTION FORM

SUBJECT: ENGINEERING CONSULTING SERVICES ASSOCIATED WITH NPDES PERMIT AND RELATED ISSUES FOR POWER PLANT

BACKGROUND:

On April 7, 2017, staff issued a purchase order to Veenstra & Kimm, Inc, (V&K) in the not-to-exceed amount of \$18,000. The scope of work was for V&K to provide engineering consulting services to review the draft National Pollutant Discharge Elimination System (NPDES) permit and Iowa DNR's permit rationale for the City's Steam Electric Plant (Power Plant) permit, and to then advise staff regarding the edits and changes that Iowa DNR should incorporate into the final permit. This permit is intended to regulate the discharge of process waters from the Power Plant to surface waters (lakes and streams).

Two change orders have previously been issued:

Change Order No. 1 for \$5,000 was for V&K to set up and perform a Whole Effluent Toxicity (WET) test for iron toxicity on the power plant's cooling tower blowdown water. This WET test exposes flathead minnows and daphnia (small aquatic crustaceans commonly known as "water fleas") to a specific sample of water, and then mortality of each species is observed and quantified.

Change Order No. 2 for a reduction of \$1,000 from Change Order No. 1 to the estimated cost for laboratory service and analyses associated with the WET test for iron toxicity.

The net cost of both change orders was \$4,000 which brought the total purchase order amount to \$22,000.

A third change order is now needed. This change order is for V&K to provide additional and ongoing consulting services through the current fiscal year regarding the NPDES permit and associated issues for the Power Plant. This permit is normally scheduled to be renewed and reissued on a cycle of every five years, but was issued on May 31, 2017 for the first time since 2001, a period of 16 years. That is similar to the case with the City's Water Pollution Control Facility, which at one point operated under an old permit for an extended period of time until IDNR issued a new permit. For the next year, until July 1, 2018, the NPDES permit, in addition to the typical compliance aspects of the permit, requires a thorough study of four parameters in the cooling tower blowdown water.

The results of this study may require the installation of equipment to control one or more

of the four parameters studied. **Certainly, for the next year and likely beyond that, staff will need considerable technical assistance regarding NPDES issues and compliance with the permit.**

Change order #3, which requires City Council approval, will add an additional \$35,000 to the existing purchase order, bringing the total amount to \$57,000.

Funds to support this work are available from the approved FY 2017/18 Fuels “Outside Professional Service” account in the adopted budget, which includes \$100,000 that is available to fund this change order.

ALTERNATIVES:

1. Approve contract Change Order No. 3 to Veenstra & Kimm, Inc, West Des Moines, IA, in the amount of \$35,000 for a total amount of \$57,000, for Engineering Consulting Services Associated with the NPDES Permit and Related Issues for the Power Plant.
2. Reject Change Order No. 3, which would make compliance with the recently issued NPDES permit much more difficult and would seriously impact the required study portion of the permit over the next year. This would likely increase the cost and the degree of difficulty to comply with future requirements of the permit.

CITY MANAGER'S RECOMMENDED ACTION:

The recently issued NPDES permit is much more complex than the previous one issued 16 years ago. The work product of this change order, to provide technical guidance and permit compliance strategies, is very important to assure compliance with the new permit. Additionally, staff needs V&K’s experience, knowledge, and industry and agency contacts and relationships to conduct the study required by Iowa DNR over the next year.

Once the study concludes, the City will likely transition into a period of four years where additional pollution control equipment will need to be specified, bid, purchased, manufactured, and installed. V&K’s experience and technical knowledge will also be vitally useful during this period.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1 as stated above.