



City of Grand Island

Tuesday, October 13, 2009

Council Session

Item G18

**#2009-256 - Approving Change Order #1 - Diamond Engineering -
Coal Storage Expansion Project at PGS - 2009**

Staff Contact: Gary R. Mader

Council Agenda Memo

From: Gary R. Mader, Utilities Director
Wesley Nespor, Asst. City Attorney/Purchasing

Meeting: October 13, 2009

Subject: Coal Storage Expansion at PGS – 2009
Change Order #1

Item #'s: G-18

Presenter(s): Gary R. Mader, Utilities Director

Background

The coal storage area at Platte Generating Station (PGS) is comprised of two storage areas, active and long-term. The active storage pile is for short-term storage of coal before it is conveyed into the plant for use as boiler fuel. The long-term storage area provides a fuel reserve for disruptions in coal deliveries.

To prevent spontaneous combustion of the coal, long-term storage requires the coal to be compacted in order to reduce air cavities. This compaction is performed by systematically placing the coal in shallow lifts in a specific pattern so that the action of the heavy dozers driving over the coal achieves sufficient compaction to prevent spontaneous combustion. The geometry of the pile should not exceed a 4 to 1 (horizontal to vertical) slope to allow safe operation on the side slopes. Slopes exceeding this ratio increase the hazard of coal dozer roll over.

Since plant start-up in 1982, PGS has experienced several interruptions in coal delivery. In two of those instances, coal inventory was severely reduced; to a couple of weeks. Coal-fueled plants normally plan for 45 to 60 days of long-term coal storage. As the City has grown, so has its electric usage and so has the volume of coal required in long-term storage. Because of the currently undersized storage area footprint at Platte, maintaining this inventory level requires a very steep side slope ratio of 1 to 2. As a result, the current coal storage area is filled substantially above design capacity. To correct this issue, plant engineering staff developed plans and specifications to increase the size of the long term coal storage area. Bids were solicited and awarded in accordance with the City Procurement Code. The contract for the work was awarded to Diamond Engineering, of Grand Island, at the March 24, 2009 City Council meeting in the amount of \$219,679.81.

Discussion

The coal storage area requires an impermeable liner to be installed at the bottom of the storage pile to prevent any leaching of minerals from the coal into the underlying natural soils. The earth moving subcontractor for the project, Hooker Brothers Construction of Grand Island, operates gravel mining operations in the area and as a result has access to local clay materials. The contractor proposed using the local clays in lieu of the specified Bentonite clay for the seal of the base of the storage area. Utility engineering staff commissioned testing of the local materials to ensure that clay would meet the density and permeability requirements for the seal. The local material meets the requirements of the Specifications. Use of the local material results in a reduction in the contract amount of \$20,000.

Also, during the course of the work, engineering staff determined that some grade changes needed to be made to properly drain coal conveyor wash down water across the sealed area of the storage yard. This change resulted in excavation and backfill in excess of what was included in the original specifications. The addition to the contract for the additional excavation is \$2,576.73.

The net amount of the changes made during the course of the contract work is a reduction to the original contract amount of \$17,423.27, for a final contract amount of \$202,256.54.

Alternatives

It appears that the Council has the following alternatives concerning the issue at hand. The Council may:

1. Move to approve
2. Refer the issue to a Committee
3. Postpone the issue to future date
4. Take no action on the issue

Recommendation

City Administration recommends approval of Change Order #1 to the Coal Storage Expansion Project contract at the Platte Generating Station in the amount of a \$17,423.27 reduction for a final contract cost of \$202,256.54.

Sample Motion

Move to approve contract Change Order #1 to the Coal Storage Expansion contract with Diamond Engineering, in the amount of a \$17,423.27 reduction to the contract amount, for a final contract amount of \$202,256.54.



*Working Together for a
Better Tomorrow. Today.*

TO: The Diamond Engineering Co.
P.O. Box 1327
1521 West Anna
Grand Island. NE 68802

PROJECT: Contract for "Coal Storage Expansion 2009"

You are hereby directed to make the following change in your contract:

1 Additional payment per the attached spreadsheet.

DEDUCT: -\$17,423.27

The original Contract Sum	<u>\$ 219,679.81</u>
Previous Change Order Amounts	<u>\$ -</u>
The Contract Sum is increased by this Change Order	<u>\$ (17,423.27)</u>
The Contract Sum is decreased by this Change Order	<u>\$</u>
The total modified Contract Sum to date	<u>\$ 202,256.54</u>

Approval and acceptance of this Change Order acknowledges understanding and agreement that the cost and time adjustments included represent the complete values arising out of and/or incidental to the work described therein.

APPROVED: CITY OF GRAND ISLAND

By: _____

Date _____

Attest: _____

Approved as to Form, City Attorney

ACCEPTED: THE DIAMOND ENGINEERING CO.

By: _____

Date _____

RESOLUTION 2009-256

WHEREAS, the Diamond Engineering Company of Grand Island, Nebraska was awarded a contract for Coal Storage Area Expansion at PGS, such bid being in the amount of \$219,679.81; and

WHEREAS, the coal storage area requires an impermeable liner to be installed at the bottom of the storage pile to prevent any leaching of minerals from the coal into the underlying natural soils; and

WHEREAS, the contractor proposed using local clays in lieu of the specified Bentonite clay for the seal of the base of the storage area at a price of \$20,000 reduction to the contract amount; and

WHEREAS, local clay materials were tested to ensure that the clay would meet the density and permeability requirements needed for the seals; and

WHEREAS, it was determined during the course of construction that changes were required to the excavation and placement of materials; and

WHEREAS, the change in materials placement was not included in the original contract award and the contractor provided a price quote for the additional work of \$2,576.73; and

WHEREAS, the net cost of the changes to the original contract is \$17,423.27 for a final contract amount of \$202,256.54.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF GRAND ISLAND, NEBRASKA, that Change Order #1 with the Diamond Engineering Company of Grand Island, Nebraska resulting in a reduction of \$17,423.27 to the original contract amount of \$219,679.81 for a final contract amount of \$202,256.54 for Coal Storage Expansion at Platte Generating Station is hereby approved.

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Adopted by the City Council of the City of Grand Island, Nebraska, October 13, 2009.

Margaret Hornady, Mayor

Attest:

Approved as to Form ☐ _____
October 8, 2009 ☐ City Attorney

RaNae Edwards, City Clerk