

ITEM #: 19  
DATE: 03-12-24  
DEPT: ELEC

**COUNCIL ACTION FORM**

**SUBJECT:** RDF STORAGE BIN REPAIR - CHANGE ORDER NO. 1

**BACKGROUND:**

The City's Resource Recovery Plant (RRP) converts municipal solid waste (MSW) into refuse derived fuel (RDF). The RDF is then conveyed to the RDF Storage Bin, which provides buffer and storage capacity until the RDF can be metered into the Power Plant boilers for combustion.

The existing RDF Storage Bin has been in service since 1996. The bin was primarily constructed of COR-TEN steel, a weathering steel designed to initially rust and build up an oxide layer that then prevents further rusting of the steel from occurring. The use of COR-TEN steel to construct the RDF Storage Bin has proven to be problematic in places where the COR-TEN steel is in regular or constant contact with the RDF. Constant contact with the RDF removes the oxide layer meant to protect the steel underneath, causing the exposed steel to rust anew. This cycle, repeated over and over, eventually removes enough steel that portions of the bin need to be repaired or replaced.

**The RDF Storage Bin has reached the point that the containment's confining wall panels and roof panels need to be replaced, and certain structural steel supports need to be repaired or replaced.** On April 11, 2023, City Council awarded a contract to Neumann Brothers Inc. of Des Moines, IA, in the amount of \$1,428,000 for the RDF Storage Bin Repair Project.

Since awarding the contract, Neumann Brothers has completed the repairs for the West side of the bin and is currently working on the East side. Each side has a distribution box that is located at the top. It is in the distribution box where the RDF is injected into the bin. Because the RDF is transported pneumatically, the air used to convey the RDF must be vented outside. This venting happens at each of the distribution boxes.

**In order to save costs, plant staff, along with a local shop, was planning to replace these distribution boxes and vents after Neumann Brothers completed their work.** Once the boxes were deconstructed and more details were received from other vendors regarding materials and fabrication, **plant staff found the replacement project of these items to be a much larger project than anticipated.** Because Neumann Brothers has performed well with the bin repairs thus far and they are well versed with working within the bin, they were asked to provide a proposal to perform the additional work.

**Change Order No. 1, in the amount of \$180,028.59, is being requested to have Neumann Brothers remove the old distribution boxes and vents, and source materials, fabricate, and install two (2) new distribution boxes and four (4) exhaust vents.**

**Neumann Brothers' original construction bid was significantly less than the budget for the RDF Bin Repair Project. A portion of the savings has already been reallocated to other projects, but a balance of \$663,480 remains, which can be used to pay for this change order.**

**ALTERNATIVES:**

1. Approve Change Order No. 1 in the amount of \$180,028.59 to Neumann Brothers Inc., of Des Moines, IA, bringing the total contract total to \$1,608,028.59 (inclusive of sales tax).
2. Do not approve the requested change order.

**CITY MANAGER'S RECOMMENDED ACTION:**

The distribution boxes and exhaust vents have degraded over time with exposure to RDF. The equipment needs to be replaced. Staff was originally planning to complete this work in-house, but upon further evaluation, it would require more resources than anticipated. Neumann Brothers is capable of completing the work at a reasonable cost. Having a well experienced contractor perform this replacement will ensure safe and proper repair. Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, as described above.