BIOGAS ENGINEERING



Change Order Request (COR)

BOD Change - Add Gas Chromatograph and Controls Hardware for Balance of Plant

BIOGAS ENGINEERING Contractor: **COR Originator: Ryan Rueve** 2321 E. 28TH STREET, SIGNAL HILL, CA-90755 Address: **Email Address:** rrueve@biogaseng.com

COR No.:	CO#2
COR Date:	9/1/2022
Project #:	USH2211.200
PO:	

Change Request Definition

Change

Recommended by: Indian River County Solid Waste Disposal District

Description of Change/SOW Description:

Indian River County Solid Waste Disposal District (client) wants to be able to analyze the landfill gas (LFG) for its components and percent of the components present in the LFG. Therefore, a Gas Chromatograph (GC) device is needed to analyze the LFG. To meet the operating conditions for the GC, the GC needs to be furnished with a chiller and a pump. The chiller will reduce the LFG temperature and moisture and the pump will increase the pressure. Included in this change order is equipment that has been requested by the IRC SWDD's controls specialist so that the PLC at the blower skid will be used as the balance of plant for the evaporator and the main SWDD main system. This requirement will add secure router, optic fiber switch, optic fiber rack and optic fiber cable in the blower skid panel.

Reason for Change:

Client wants to monitor LFG quality at the blower skid area. Cobtrols equipment is required to enable the PLC panel on the skid to act as the balance of plant between the evaporator and IRC SWDD control center, as requested by IRC controls lead.

Change Request Impact

Cost Impact: No Change Cost Increase Cost Decrease

Cost increase is Lump Sum of \$112,980 and is additional to the original approved amount for the PO and CO#1 as of \$1,063,570. The revised total will be \$1,194,550 (including \$18k estimate for shipping). Upon approval, BGE will invoice for 45% of the change order amount. The remaining payments will be included in the payment schedule that was provided for the high pressure blower skid. The above breakdown between the GC and the controls additions is \$102,581 and \$10,399 respectively.

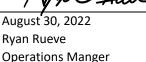
🗆 No Change Delay 🗆 No Delay Schedule Impact:

5 - 11 weeks

Currently the GC lead time is 26 - 32 weeks. The blower skid can be installed even though the GC is not available, however it will require installation and commissioning of equipment which BGE can do on a T&M basis when the GC is available for installation.

Contractor Request:

Authorized Signature: Date Signed: Name Title:



Company Review

Recommendation:

Approve Hold □ Reject

Reviewer Signature: see signature block on following page Date Signed: Name: Title:

\$112,980

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ATTEST: Jeffrey R. Smith, Clerk

INDIAN RIVER COUNTY SOLID WASTE DISPOSAL DISTRICT

By: _____ Deputy Clerk

By: _____

Peter D. O'Bryan, Chairman

District Approved: _____

APPROVED AS TO LEGAL FORM AND SUFFICIENCY:

APPROVED:

Ву:_____

Dylan Reingold County Attorney By: _____

Jason E. Brown County Administrator