

Change Order No. 3

Date of Issuance: _____ Effective Date: _____

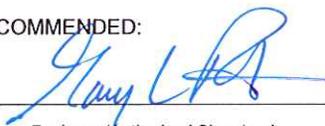
Project: Digester Renovation with Alternate Power Sources Project	Owner: City of West Lafayette, Indiana	Owner's Contract No.: SRF No. WW CS182400 02
Contract: N/A		Date of Contract: September 11, 2007
Contractor: Bowen Engineering Corporation		Engineer's Project No.: 95204.06

The Contract Documents are modified as follows upon execution of this Change Order:

Description: **See Attachment A**

Attachments: (List documents supporting change): **Attachment A**

CHANGE IN CONTRACT PRICE:	CHANGE IN CONTRACT TIMES:
Original Contract Price: \$ 8,244,000.00	Original Contract Times: <input type="checkbox"/> Working days <input checked="" type="checkbox"/> Calendar days Substantial completion (days or date): 510 days (February 8, 2009) Ready for final payment (days or date): 540 days (March 10, 2009)
Increase from previously approved Change Orders: \$ 134,080.00	Increase from previously approved Change Orders: Substantial completion (days): 82 days Ready for final payment (days): 82 days
Contract Price prior to this Change Order: \$ 8,378,080.00	Contract Times prior to this Change Order: Substantial completion (days or date): 592 days Ready for final payment (days or date): 622 days
Increase of this Change Order: \$ 15,470.00	Increase of this Change Order: Substantial completion (days or date): 219 days Ready for final payment (days or date): 256 days
Contract Price incorporating this Change Order: \$ 8,393,550.00	Contract Times with all approved Change Orders: Substantial completion (days or date): 811 days (November 30, 2009) Ready for final payment (days or date): 878 days (February 12, 2010)

RECOMMENDED:
By: 
Engineer (Authorized Signature)

Date: 2/12/10
Wessler Engineering

ACCEPTED:
By: _____

Date: _____
City of West Lafayette, Indiana
Board of Public Works & Safety

ATTEST:
By: _____
Clerk-Treasurer

ACCEPTED:
By: 
Contractor (Authorized Signature)

Date: 2/5/10
Bowen Engineering Corporation

**Change Order No. 3
Digester Renovation with Alternate Power Sources Project**

APPROVED:

DATE: _____

CITY OF WEST LAFAYETTE
BOARD OF PUBLIC WORKS AND SAFETY

John R. Dennis, Mayor

Sana G. Booker, Member

Bradley W. Marley, Member

Jonathan C. Speaker, Member

Elizabeth M. Stull, Member

Attest:

Clerk-Treasurer Judith C. Rhodes

ATTACHMENT A

**DESCRIPTION, PURPOSE & JUSTIFICATION
CHANGE ORDER NO. 3**

WESSLER PROJECT No. 95204.06

PROJECT: Digester Renovation With Alternate Power Sources Project

OWNER: City of West Lafayette, Indiana

CONTRACTOR: Bowen Engineering Corporation (BEC)

<u>DESCRIPTION, PURPOSE & JUSTIFICATION OF CHANGE</u>	<u>ADD</u>	<u>DEDUCT</u>
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Item No. 1 – Modify Gas Feed Line to Boiler

Attached Correspondence:
BEC PCO #81

	\$0	---
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The original gas line to the boiler was run off the high pressure gas line after the gas skid, and the pressure was determined to be too high for proper operation of the boiler. A new gas line was installed to tie the low pressure gas line to the boiler for proper operation. The Contractor submitted a cost of \$2,370.00 to perform this work, but this cost will not be paid by the Owner and is included as a \$0 cost item in this change order.

Item No. 2 – Additional Pressure Gauges in Gas System

Attached Correspondence:
FTM No. 208
BEC PCO # 82

	\$2,160.00	---
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Additional pressure gauges were installed in the gas piping system to provide for better monitoring of pressures at various locations throughout the gas piping system.

Item No. 3 – Additional Drip Traps in Gas System

Attached Correspondence:
FTM No. 209
BEC PCO #83

	\$3,920.00	---
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Additional drip traps were installed in the gas piping system at several locations suspected of accumulating water to provide for better operation of the gas system.

<u>DESCRIPTION, PURPOSE & JUSTIFICATION OF CHANGE</u>	<u>ADD</u>	<u>DEDUCT</u>
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Item No. 4 – Replace Gas Skid Flow Meter

Attached Correspondence:
BEC PCO #84

	\$9,390.00	---
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The original vortex gas skid flow meter was determine to not be suitable for the application and flow range, and was replaced with a new thermal mass flow meter suitable for the application and anticipated flow range.

<u>DESCRIPTION, PURPOSE & JUSTIFICATION OF CHANGE</u>	<u>ADD</u>	<u>DEDUCT</u>
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Item No. 5 – Contract Time Extension

Attached Correspondence:
BEC Letter 2/4/2010

	\$0	---
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The Contractor requested time extensions for Substantial Completion (SC) for completion of the SCADA system and test period, and for Final Completion (FC) for the additional work items included in this Change Order and completion of SCADA and instrument training.

	219 days SC	
	256 days FC	

Total Additions and Deletions	\$15,470.00	\$0
	219 days SC	
	256 days FC	

TOTAL OF CHANGE ORDER NO. 3	\$15,470.00	
	219 days SC	
	256 days FC	



July 14, 2009

Gary Ruston, P.E.
M.D. Wessler & Associates, Inc.
6219 South East Street, Suite A
Indianapolis, IN 46227

**RE: Digester Renovation with Alternative Power Sources Project
Proposed Change Order #081
BEC Change 019-081
Modify Digester Gas Feed Line to Boiler**

Dear Gary:

Bowen Engineering is pleased to provide pricing to modify the existing gas feed piping to the boiler as requested by Kennedy/Jenks per their email on June 23, 2009 and our discussion on site yesterday. The cost for this additional work is:

Add: \$2,370.00
Add: Two Thousand Three Hundred Seventy Dollars
Additional Contract Time: N/A

*\$0⁰⁰ TO BE
PAID BY OWNER
GLR*

Clarifications:

- 1) As we discussed yesterday, we propose to use S40 threaded black pipe to replace the existing feed line due to the pipe being located so close to the basement walls.
- 2) The existing feed line will be removed and capped off with a threaded cap upstairs in the turbine room next to the cap for the two (2) future microturbines.

Please review this proposal with Kennedy/Jenks and advise if you would like us to proceed with this work.

Pricing sheets are attached for your review. If you have any questions or need further information, please contact me at 317-842-2616.

Sincerely,

Douglas M. Stout, P.E.
Project Manager

cc: Dennis Ward - Operations Manager, BEC / File
Field

Attachments

We reserve the right to amend this document for errors and omissions. All qualifications noted by our subcontractors and vendors on their attached quotations apply to this change order.

CONTRACTOR OF CHOICE

8802 North Meridian Street • Indianapolis, IN 46260 • 317.842.2616 phone • www.BowenEngineering.com

*C.O. #3
ITEM No. 1
P. 1 of 1*

M. D. WESSLER & ASSOCIATES
 WASTEWATER TREATMENT UTILITY/ CITY OF WEST LAFAYETTE, IN
 DIGESTER RENOVATION WITH ALTERNATE POWER SOURCES PROJECT
 FIELD TRANSMITTAL MEMORANDUM

CONTRACTOR
BOWEN ENGINEERING CORPORATION

MONTH	DAY	YEAR
August	11	2009

SUBJECT: Addition of Pressure Gauges on Gas System

REFERENCE: Spec Section 15050

Please provide a cost for installing pressure gauges on the digester gas system as described below.

The pressure gauges should be rated for 0-15" WC, and include a 1/4" NPT brass fitting and 2 1/2" dial. Each gauge should be installed in combination with an isolation ball valve, per Specification Section 15050. Gauges shall be Cole Parmer Low-Pressure Mechanical Gauge, or equal. Install all gauges in a vertical orientation.

Location 1: On top of each digester cover between the existing 4" plug valve and flame trap/PRV assembly. A new short 4" diameter flanged ductile iron spool shall be manufactured and coated/lined, and a new pressure gauge tapped. This new spool and gauge could then be installed by closing the existing plug valve, removing the flame trap and pressure relief valve on top of each digester, and installing the new spool. Gas will need to be diverted to the WGB or gas skid. This gauge would measure the pressure in each digester.

Location 2: In the gas handling room, on the gas piping from each digester before the condensate trap (2 locations). Three valves would need to be closed, and the system purged with an inert gas prior to completing this work. These valves include the 4" plug valve on the digester gas line immediately after it penetrates the wall of the digester into the gas handling room, and two 4" valves located just after the gas flow meter for each digester. The system, including the flame trap, thermal shut-off assembly, condensate trap and flow meter assembly could be purged through the connection on the condensate trap. The 4" 90 degree elbow directly before the condensate trap that transitions from the vertical line to the horizontal could then be tapped and a pressure gauge added. In conjunction with Location 3, this gauge would help ascertain the differential pressure across the condensate and flame traps, for use in locating flow obstructions.

Location 3: In the gas handling room after the condensate trap and flame trap and thermal shut-off assembly for each digester (2 locations). If this installation is made at the same time as connection Location 2 as described above, no additional purging of the system would be required. The pressure gauges could be tapped into the side of the 6" x 4" reducing 90 degree elbow that is directly after the flame trap and thermal shut off assembly. In conjunction with Location 2, this gauge would help ascertain the differential pressure across the condensate and flame traps, for use in locating flow obstructions.

Locations 4 and 5 - At the waste gas burner, before and after the pressure regulator/flame trap assembly. The existing 6" plug valve can be closed, and the pressure regulator and flame trap assembly disassembled and purged with inert gas. The existing spools on either side of the

M. D. WESSLER & ASSOCIATES
WASTEWATER TREATMENT UTILITY/ CITY OF WEST LAFAYETTE, IN
DIGESTER RENOVATION WITH ALTERNATE POWER SOURCES PROJECT
FIELD TRANSMITTAL MEMORANDUM

assembly, one approximately 6' in length, the other approximately 9" in length, could be tapped and pressure gauges added on the top and side of the spools respectively. These gauges would help operators adjust the pressure regulator, monitor the pressure of digester gas at the flare, and check for obstructions between the flare and the digester control building.

cc: David Henderson, WLaf WWTU
John Poore, WLaf WWTU
File 95204.06

Marty Wessler, Wessler
Gary Ruston, Wessler
Bill McGuire, Wessler RPR

M.D. WESSLER & ASSOCIATES

By	
Title	PROJECT MANAGER

C.O. #3
ITEM No. 2
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August 31, 2009

Gary Ruston, P.E.
M.D. Wessler & Associates, Inc.
6219 South East Street, Suite A
Indianapolis, IN 46227

**RE: Digester Renovation with Alternative Power Sources Project
Proposed Change Order #082
BEC Change 019-082
Added Pressure Gauges in Gas System – FTM #208**

Dear Gary:

Bowen Engineering is pleased to provide pricing to add pressure gauges in the gas system as outlined in FTM #208. The cost for this additional work is:

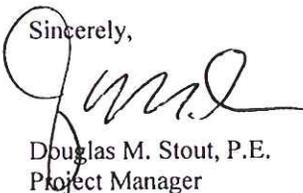
**Add: \$2,160.00
Add: Two Thousand One Hundred Sixty Dollars
Additional Contract Time: N/A**

Clarifications:

- 1) This work is priced to be performed in conjunction with PCO's 081 and 083.
- 2) We propose to use S40 black pipe and 150# WOG brass ball valves prior to the gauges.
- 3) We assume to use leftover paint that is currently on site for painting new piping.
- 4) Shut down of the gas handling system will be required to perform this work.

Pricing sheets are attached for your review. If you have any questions or need further information, please contact me at 317-842-2616.

Sincerely,



Douglas M. Stout, P.E.
Project Manager

cc: Dennis Ward - Operations Manager, BEC / File
Field

Attachments

We reserve the right to amend this document for errors and omissions. All qualifications noted by our subcontractors and vendors on their attached quotations apply to this change order.

CONTRACTOR OF CHOICE

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C.O. #3
ITEM No. 2
p. 3 of 3

M. D. WESSLER & ASSOCIATES
 WASTEWATER TREATMENT UTILITY/ CITY OF WEST LAFAYETTE, IN
 DIGESTER RENOVATION WITH ALTERNATE POWER SOURCES PROJECT
 FIELD TRANSMITTAL MEMORANDUM

CONTRACTOR
BOWEN ENGINEERING CORPORATION

MONTH	DAY	YEAR
August	11	2009

SUBJECT: Additional Drip Traps on Gas System

REFERENCE: Spec Section 11381

Please provide a cost for installing three (3) additional drip traps, isolation valves, and drain piping on the digester gas system in the Gas Handling Room as described below. Drain piping and isolation valves shall be similar to that already installed.

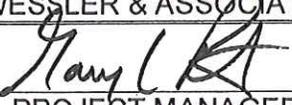
Location 1: 2 total – On the flame arrestors from each digester, install a short piece of drain piping from the bottom ½" drainplug port of each flame arrestor to an isolation valve and then to the new drip trap. The drain line from the new drip traps shall tie into the existing PVC drain line along the floor going from the sediment trap/drip traps to the condensate holding tank.

Location 2: Along the north wall at the 4x4 tee in the middle (where 4" gas line to the WGB extends vertical), tap the underneath side of the tee (low spot in this section of piping), install a section of drain piping, isolation valve, and a new drip trap. The drain line from the new drip trap can tie into the existing PVC drain line along the floor going from the sediment trap/drip trap to the condensate holding tank or drain directly into the condensate holding tank, wherever is more convenient.

cc: David Henderson, WLaf WWTU
 John Poore, WLaf WWTU
 File 95204.06

Marty Wessler, Wessler
 Gary Ruston, Wessler
 Bill McGuire, Wessler RPR

M.D. WESSLER & ASSOCIATES

By	
Title	PROJECT MANAGER

C.O. #3
 ITEM No. 3
 p. 1 of 2



August 31, 2009

Gary Ruston, P.E.
M.D. Wessler & Associates, Inc.
6219 South East Street, Suite A
Indianapolis, IN 46227

**RE: Digester Renovation with Alternative Power Sources Project
Proposed Change Order #083
BEC Change 019-083
Added Drip Traps in Gas System – FTM #209**

Dear Gary:

Bowen Engineering is pleased to provide pricing to add drip traps in the gas system as outlined in FTM #209. The cost for this additional work is:

**Add: \$3,920.00
Add: Three Thousand Nine Hundred Twenty Dollars
Additional Contract Time: N/A**

Clarifications:

- 1) This work is priced to be performed in conjunction with PCO's 081 and 082.
- 2) Drip Traps shall be identical to those supplied already on this project.
- 3) We propose to use S40 black pipe except as where required to tie into existing PVC piping.
- 4) We propose to use 150# WOG brass ball valves for isolation valves.
- 5) We assume to use leftover paint that is currently on site for painting new piping.
- 6) Shut down of the gas handling system will be required to perform this work.

Pricing sheets are attached for your review. If you have any questions or need further information, please contact me at 317-842-2616.

Sincerely,



Douglas M. Stout, P.E.
Project Manager

cc: Dennis Ward - Operations Manager, BEC / File
Field

Attachments

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CONTRACTOR OF CHOICE

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C.O. #3
ITEM No. 3
P. 2 of 2



December 28, 2009

Gary Ruston, P.E.
M.D. Wessler & Associates, Inc.
6219 South East Street, Suite A
Indianapolis, IN 46227

**RE: Digester Renovation with Alternative Power Sources Project
Proposed Change Order #084
BEC Change 019-084
Replace Gas Conditioning Skid Influent Flow Meter – T&M**

Dear Gary:

Bowen Engineering has performed additional work to replace the influent flow meter to the gas conditioning skid as requested on a time and material basis. The cost for this additional work is:

Add: \$9,390.00

Add: Nine Thousand Three Hundred Ninety Dollars

Additional Contract Time: N/A

Pricing sheets and associated backup are attached for your review. If you have any questions or need further information, please contact me at 317-842-2616.

Sincerely,

Douglas M. Stout, P.E.
Project Manager

cc: Dennis Ward - Operations Manager, BEC / File
Field

Attachments

We reserve the right to amend this document for errors and omissions. All qualifications noted by our subcontractors and vendors on their attached quotations apply to this change order.

CONTRACTOR OF CHOICE

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C.O. #3
ITEM No. 4
p. 1 of 1



February 4, 2010

Mr. Gary Ruston
M. D. Wessler & Associates, Inc.
6219 South East Street, Suite A
Indianapolis, IN 46227-2148

**RE: West Lafayette – Digester and Alternate Power Sources
Bowen Job No. 01-07-073
Request for Completion Time Extension – Change Order #3**

Dear Mr. Ruston:

In conjunction with the additional moneys requested in the proposed change orders that will be included in contract Change Order #3, Bowen Engineering would also like to request an extension in contract time for both Substantial and Final Completion. We would like to request an additional (219) days for Substantial Completion. This would extend the date to November 30, 2009 to correspond with the completion of the SCADA Final Acceptance Testing.

We would also like to request an additional (256) days for Final Completion. This would extend the date to February 12, 2010 to correspond with the completion of the Instrument Training and the various change orders that were requested after we moved off site.

If you have any questions concerning this request or if I can be of further assistance, please do not hesitate to contact me at 317-842-2616.

Sincerely,

Douglas M. Stout, P.E.
Project Manager

cc: Dennis Ward, Operations Manager, BEC
File

C.O. #3
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CONTRACTOR OF CHOICE

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