

PANAMA CANAL AUTHORITY		VARIATION	PAGE 1 OF 3
1. REQUEST FOR PROPOSAL No.:		2. CONTRACT No.:	3. DATE:
RFP-76161		CMC-221427	August 1, 2012
			4. VARIATION No.:
			040 (R)

5. ISSUED BY:

PANAMA CANAL AUTHORITY
Employer's Representative
Locks Project Management Division
Building 740, Corozal
Panama, Republic of Panama

6. NAME AND ADDRESS OF CONTRACTOR (INCLUDE PHYSICAL & POSTAL ADDRESS)	7. CONTRACTOR'S TELEPHONE NUMBER:
Grupo Unidos por el Canal, S.A. Building 22B, Brujas Road Cocoli, Republic of Panama	507-316-9900
	8. CONTRACTOR'S FACSIMILE NUMBER:

9. VARIATION:

- The contract referred to in item No. 2 is hereby varied as set forth in item 10, entitled "DESCRIPTION OF VARIATION".
 YES. NO. The contractor shall send a copy, duly signed, of this Variation to the Employer's Representative/Contracting Officer.

	9 A. THIS VARIATION IS EXECUTED ON THE BASIS OF: (Specify the legal authority). <u>THE VARIATION DESCRIBED IN ITEM 10 IS HEREBY INCORPORATED AND MADE A PART OF THE CONTRACT.</u>
	9 B. THE CONTRACT REFERRED TO IN ITEM NO. 2, IS VARIED TO INCORPORATE ADMINISTRATIVE CHANGES (such as the paying office, account numbers, etc.).
X	9 C. THIS BILATERAL AGREEMENT IS SIGNED AND INCORPORATED INTO THE CONTRACT REFERRED TO IN ITEM NO. 2 OF THIS FORM, ON THE BASIS OF: (Specify the legal authority) Volume III, Conditions of Contract, Sub-Clause 1.16 [Entire Agreement],
	9 D. OTHER. (Specify manner and the legal authority).
	9 E. ACCOUNT NUMBER (If required):

10. DESCRIPTION OF THE VARIATION (List in accordance with the order of the Contract. If additional space is required, use blank sheets).

See attached

Except for the variation(s) herein specified, all other terms and conditions of the Contract remain unchanged.

11. NAME AND TITLE OF THE PERSON AUTHORIZED TO SIGN (Type or print)		12. NAME AND TITLE OF THE EMPLOYER'S REPRESENTATIVE/CONTRACTING OFFICER (Type or print)	
Bernardo Gonzalez Contractor's Representative		Jorge de la Guardia, Employer's Representative	
13. CONTRACTOR	14. DATE:	15. PANAMA CANAL AUTHORITY	16. DATE:
 (Authorized signature)	6/08/2012	 (Employer's Representative/Contracting Officer's signature)	1/11/11/2012

Variation No. 40 is issued to incorporate the following changes:

1. Volume II, Part 2, Section 01 86 13 [Plant Mechanical Systems and Equipment] - Delete Paragraph 1.04 Q.1 entirely and replace it with the following:

"1. General: The work under this Section shall include but shall not be limited to the design, fabrication, installation, inspection and acceptance testing of a foam/water fire protection system and auxiliary equipment capable of discharging an aqueous film forming foam solution in the event of fire or flammable liquid spill at the lock complex lake and sea entrances.

The foam concentrate system shall protect the lock complex sea entrances, the lake entrances, lock head - 1 (LH-1) including its rolling gates, and lock head - 4 (LH-4) including its rolling gates. The lock complex sea and lake entrances protected by the foam system shall include but shall not be limited to the approach areas and wing walls. The foam fire protection system is not required for the chambers between LH-1 and LH-4 (upper, middle and lower chambers) of each locks complex.

The foam/water fire protection systems shall be complete with all the equipment required for a safe operation, including but not limited to foam concentrate pumps, foam concentrate storage tanks, concentrate controllers, piping distribution systems, piping supports, vibration isolators, releasing stations, discharge nozzles and controls. The fire protection system shall be in accordance with the applicable requirements of NFPA, UL, FM, and ASME.

2. Volume II, Part 2, Section 01 86 13 [Plant Mechanical Systems and Equipment] - Delete Paragraph 1.04 Q.2.a entirely and replace it with the following:

"a. Scope: The fire protection system shall be manually activated automatic to discharge aqueous film forming foam solution and water. This type of system shall be constructed to protect the entry areas at each of the lock complexes so that the potential spill created by impact with the knuckle area would be contained and possibly extinguished by the use of this system before damage could occur to the locks.

3. Volume II, Part 2, Section 01 86 13 [Plant Mechanical Systems and Equipment] - Delete Paragraph 1.04 Q.2.b entirely and replace it with the following:

"b. Finished Foam Discharge: The fire protection system shall be able to discharge aqueous film forming foam (AR-AFFF) solution into the entrances of the lock chambers upon activation of control stations with minimum 15-minute foam duration in the event of flammable-liquid spill or fire. The



August 1, 2012

Design and Construction of the Third Set of Locks

minimum application rates shall be in accordance with NFPA 11. The finished foam shall protect the lock complex entrances, LH-1, LH-4, gates at LH-1, and gates at LH-4 from any type of fire related heat exposure.

- As a result of the Employer's instruction to reduce the area of coverage, the total number of cannons to be installed is 8 per complex, for a total of sixteen. Accordingly, Items 1 through 5, Atlantic and Pacific, listed in the Table below, [Reference letter GUPC-IAE-1198, of April 17, 2012], which need not be installed should be provided to the Employer.

1 Supply and Installation Activities Atlantic Locks						
Item	Description	unit	Quantity	Supply	Installation	Total Cost
1	Water style in-line balance pressure proportioning modules (cannon)	No	4	\$2,891.13	\$394.25	\$13,141.52
2	Water/Foam cannons (including 250 m of 4" ductile iron piping)	No	4	\$11,703.81	\$1,274.20	\$51,912.04
3	Fixed platforms for water/foam cannons	No	4	\$9,416.47	\$1,046.27	\$41,850.96
4	Cabinets type FFCS-2 (including cabling)	No	4	\$9,905.80	\$1,211.76	\$44,470.24
5	Power pack type PWR-1 (including cabling)	No	4	\$5,818.60	\$1,793.44	\$30,448.16
6	Foam compound (reduction from 95,000 to 70,000 liters)	lot	1	\$71,109.20	\$3,087.88	\$74,197.08
7	Foam compound storage tank (reduction from 12,75m ³ to 9,6m ³)	lot	1	\$5,062.40	\$1,417.60	\$6,480.00
Sub Total Atlantic locks						262,500.00
2 Supply and Installation Activities Pacific locks						
Item	Description	unit	Quantity	Supply	Installation	Total Cost
1	Water style in-line balance pressure proportioning modules (cannon)	No	4	\$2,891.13	\$394.25	\$13,141.52
2	Water/Foam cannons (including 250 m of 4" ductile iron piping)	No	4	\$11,703.81	\$1,274.20	\$51,912.04
3	Fixed platforms for water/foam cannons	No	4	\$9,416.47	\$1,046.27	\$41,850.96
4	Cabinets type FFCS-2 (including cabling)	No	4	\$9,905.80	\$1,211.76	\$44,470.24
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Sub Total Pacific locks						262,500.00

(Letter GUPC-IAE-1198)

As a result of the changes indicated above, the Contractor and the Employer have agreed in a reduction of the Contract Price in the total amount of **\$207,113.52**. The total amount indicated includes \$161,354.16 for the reduction in the supply and installation of the foam compound and the foam compound storage tanks (Items 6 and 7-Atlantic and Pacific), as well as \$45,759.36 for the cost of installation of Items 1 through 5 (Atlantic and Pacific). Refer to Table above.

A list of the correspondence exchanged between the Employer and the Contractor in connection with this variation follows:

IAE-UPC-0609 of May 4, 2011; GUPC-IAE-0771 of May 19, 2011; GUPC-IAE-1119 of Feb 14, 2012, IAE-UPC-1006 of Mar 14, 2012; GUPC-IAE-1198 of April 17, 2012; IAE-UPC-1091 of May 25, 2012; GUPC-IAE-1265 of June 4, 2012

There is no time impact to the Locks Contract as a consequence of this Variation.

