

PANAMA CANAL AUTHORITY	VARIATION	PAGE 1 OF 4
1. REQUEST FOR PROPOSAL No.:	2. CONTRACT No.:	3. DATE:
RFP-76161	CMC-221427	February 12, 2015
		4. VARIATION No.:
		132

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)		
Giuseppe Quarta Contractor's Representative	Jorge de la Guardia, Employer's Representative		
13. CONTRACTOR	14. DATE:	15. PANAMA CANAL AUTHORITY	16. DATE:
 (Authorized signature)	24/II/2015	 (Employer's Representative/Contracting Officer's signature)	12/II/2015

This Variation No. 132 is issued to reflect the following changes:

1. **Volume II, Part 1, Section 40 00 00 [Process Systems Integration]:** Paragraph 1.04.A.1.d, shall be deleted and replaced as follows:

"d. Seamless integration of process control system with existing Employer's Computerized Maintenance Management System (CMMS) which automatically handles statistical information on assets and generates maintenance work orders based on machinery or equipment condition and operating hours." (RFV-257)

2. **Volume II, Part 2, Section 40 96 45.13 [Process Control Software for LMCSs]:** Paragraph 1.04.D.3.c.8, shall be deleted and replaced as follows:

*"8) **Expert Help:** A red textbox shall show expert help information indicating a description of a) each fault code and brief description, b) a brief narrative describing the alarm logic and its triggers, and c) a list of possible solutions of each fault."* (RFV-257)

3. **Volume II, Part 2, Section 40 96 45.13 [Process Control Software for LMCSs]:** Paragraph 1.04.D.3.c.10.f, shall be deleted and replaced as follows:

*"f) **Control Panel and Machinery Specific Errors and Alarms:** Shall be a customized display showing three levels of alarm severity per machine, per machine group, and per Lock facility. On the same display, if the user selects an alarm, the user shall be allowed to choose to reset it or to get expert help on it. Resetting the alarm shall send a reset signal to the PLC who in turn shall handle a reset request, which may or may not clear the fault. Choosing expert help shall call another display that shows the following: a) how the alarm logic works and what triggers it, and b) a list of possible causes. See example Figure 40 96 45.13-13."* (RFV-257)

4. **Volume II, Part 2, Section 40 96 45.13 [Process Control Software for LMCSs]:** Paragraph 1.04.D.3.d, shall be deleted and replaced as follows:

*"d. **Reports:** Shall at least include a) Print screen(s), and b) Business data server software. Business data server software shall handle all reporting requirements such as condition monitoring reports, process variable monthly trends, and the operation data tables (from the MCS HMI)." (RFV-257)*

5. **Volume II, Part 2, Section 40 96 45.13 [Process Control Software for LMCS]:** Paragraph 1.04.D.8.c, shall be deleted and replaced as follows:

"c. A red textbox shall show filtered expert help information related to the power unit indicating a) active fault codes and brief description for each, b) if selected a fault code, display a brief narrative describing the alarm logic and



its triggers, and c) a list of possible solutions of the selected fault." (RFV-257)

6. **Volume II, Part 2, Section 40 96 45.13 [Process Control Software for LMCS]:** Paragraph 1.04.D.10.f, shall be deleted and replaced as follows:

"f. A red textbox shall show filtered expert help information related to the control panel indicating a) active fault codes and brief description for each, b) if a fault code is selected, display a brief narrative describing the alarm logic and its triggers, and c) a list of possible solutions for the selected fault." (RFV-257)
7. **Volume II, Part 2, Section 40 96 45.19 [Process Control Software for Electrical Distribution Control Systems]:** Paragraph 1.04.B.3.a, shall be deleted and replaced as follows:

"a. File: Shall at least include a) User Management and Security, b) HMI Preferences (a dialog to configure auto and manual selection of which HMI application server to use, and configure file locations), and c) Exit." (RFV-257)
8. **Volume II, Part 2, Section 40 96 45.19 [Process Control Software for Electrical Distribution Control Systems]:** Paragraph 1.04.B.3.d, shall be deleted and replaced as follows:

"d. Reports: Shall at least include a) Print Screen(s), and b) Factory Floor Data. Factory Floor Data shall handle all reporting requirements such as the condition monitoring reports, and process variable monthly trends." (RFV-257)
9. **Volume II, Part 2, Section 40 96 45.19 [Process Control Software for Electrical Distribution Control Systems]:** Paragraph 1.04.B.5.a, shall be deleted and replaced as follows:

"a. All components shall have tool tip captions that appear when the mouse pointer moves over the item. Captions shall show ID and name of device or voltage line." (RFV-260)
10. **Volume II, Part 2, Section 40 96 45.19 [Process Control Software for Electrical Distribution Control Systems]:** Paragraph 1.04.B.9.e, shall be deleted and replaced as follows:

"e. A red textbox shall show filtered expert help information related to the power unit indicating a) active fault codes and brief description for each, b) if selected a fault code, display a brief narrative describing the alarm logic and its triggers, and c) a list of possible solutions for the selected fault." (RFV-257)
11. **Volume II, Part 2, Section 26 05 43 [Underground Ducts & Raceways for Electrical Systems]:** Paragraph 1.04.A.1, shall be deleted and replaced as



follows:

"1. Treatment: Ducts shall be kept clean of concrete, dirt, and foreign substances during construction. Field cuts requiring tapers shall be made with proper tools and shall match factory tapers. After a duct line is completed, a standard flexible mandrel shall be used for cleaning followed by a brush with stiff bristles. Mandrels shall be at least 30 cm long and have diameters 6.4 mm less than the inside diameter of the duct being cleaned or the nearest lower commercial diameter. Pneumatic rodding may be used to draw in lead wires. A coupling recommended by the duct manufacturer shall be used whenever an existing duct is connected to a duct of different material or shape. Ducts shall be stored to avoid warping and deterioration, with their ends sufficiently plugged to prevent entry of any water or solid substances. Ducts shall be thoroughly cleaned before being laid. Plastic ducts shall be stored on a flat surface and protected from the direct rays of the sun." (RFV-262)

There shall be no cost or time impact to the Locks Contract as a direct consequence of this Variation. All of the Contractor's other existing and ongoing obligations as to the progress of the Works remain unaffected. The Parties agree that the Contractor shall have no claims for additional time or money or any other relief or entitlement of any kind as a consequence of this Variation Agreement No. 132 or arising out of it or in any way in connection with it.
