

## SECTION 27 31 33 – RADIO-TELEPHONE COMMUNICATIONS CONSOLE SYSTEMS (RTCCSs)

### 1.01 SUMMARY:

- A. <sup>A17</sup>**Scope:** Scope of work shall be in accordance with Paragraph 1.01 D. of Section 01 81 26 (*Communications, Control, Safety, and Security Systems*) for extending the Employer's radio-telephone communications console system to operators in main control buildings, as required, for the Works.<sup>A17</sup> This Section of the Employer's Requirements shall be read in conjunction with the Sections listed in Table 27 31 33-1.

B. **Related Sections:**

TABLE 27 31 33-1: <sup>A8</sup> Related Sections <sup>A8</sup>			
1.	Section 01 81 26	-	Communications, Control, Safety, and Security Systems.
2.	Section 12 59 83	-	Custom Systems Furniture.
3.	Section 25 11 00	-	Data Processing Equipment (DPE).
4.	Section 27 31 23	-	IP-based Telephone Systems.

### 1.02 REFERENCE:

- A. **Applicable Publications:** Refer to Section 01 81 26 (*Communications, Control, Safety, and Security Systems*), <sup>A8</sup>Paragraph 1.02<sup>A8</sup>.
- B. <sup>A16</sup>**Background Information:** This service is not used in the old locks as of 2008.<sup>A16</sup>

### 1.03 REQUIREMENTS:

A. **General Requirements:**

- <sup>A17</sup>The Contractor shall meet all applicable requirements of Section 01 81 26 (*Communications, Control, Safety, and Security Systems*), Paragraph 1.03<sup>A17</sup>.
- <sup>A11</sup>(Reserved)<sup>A11</sup>

B. **Interoperability and Coordination:**

- RTCCSs shall interoperate with the telephone equipment specified on Section 27 31 23 (*IP-based Telephone Systems*).
- To meet the third set of locks requirements, the Contractor shall expand the Employer's system in use at the time of installation. <sup>A16</sup>As of 2008, it is an Avtec DSPatch system and the Employer plans to replace it in FY2009.<sup>A16</sup>

- C. **Equipment and Materials:** Shall include, but not be limited to the following, as required:
1. **Radio-telephone Consoles:** RTCCS consoles shall include dedicated workstation and <sup>A8</sup>touch-sensitive<sup>A8</sup> video terminal in accordance with Section 25 11 00 (*Data Processing Equipment*), as well as a workstation controller, headset jack box assembly, speaker panel assembly, speaker module, and wireless headset.
  2. **Other:** <sup>A17</sup>The Contractor shall furnish peripheral equipment, line interface cards, and additional software licenses as required.<sup>A17</sup>
- C. **Installation:**
1. **General:** A RTCCS console shall be furnished in locks control rooms for each operator semi-circular furniture console specified on Section 12 59 83 (*Custom Systems Furniture*).

#### 1.04 DESIGN CRITERIA/SYSTEM PERFORMANCE:

- A. **General:**
1. **Problem to be Solved:** RTCCSs shall solve the following business needs:
    - a. Provide connectivity between radio channels and telephone lines, as required for locks operation.
  2. **Restrictions to be Considered:**
    - a. <sup>A11</sup>Equipment shall be fully compatible with make and model of existing Employer RTCCS in use at the time of installation.<sup>A11</sup>
- B. **Design Criteria:** Design shall follow the architecture and recommendations of the manufacturer of the RTCCS in use by the Employer in various other locations at the time of installation.
- C. **System Performance:**
1. New RTCCS consoles shall have the same functionality of existing radio-telephone console system in use by the Employer in other locations at the time of installation.
  2. This shall include the capability of handling no less than fourteen (14) radio channels and fourteen (14) telephone lines, simultaneously patching radio channels and telephone lines, as well as emergency group broadcasts.

**1.05 SUBMITTALS:** The following shall be submitted for substantiation purposes:

- A. **Design:** The following shall be in accordance with Section 01 81 26 (*Communications, Control, Safety, and Security Systems*), <sup>A8</sup>Subparagraph 1.05 D. <sup>A8</sup>:
  - 1. CPM diagram, with monthly updates.
  - 2. Descriptive literature.
  - 3. Drawings.
  - 4. Protection methods for corrosion, ESD, fungus/humidity, lightning/surge, power distortion and harmonics, [radio-frequency interference/electromagnetic interference \(RFI/EMI\)](#), thermal, and vibration.
  - 5. Quality assurance and control plans.
  - 6. Specifications.
- B. **Re-submittals Just Prior to Purchasing Materials:** All items in A. above that have changed from original submittal shall be resubmitted in a Design Conference in accordance with Section 01 81 26 (*Communications, Control, Safety, and Security Systems*), Paragraph 1.05.
- C. **Upon Receipt of Shipped Items in Panama:**
  - 1. Instruction manuals for administration, installation, maintenance, and operation.
  - 2. Packing lists.
- D. **Prior to Issuance of Taking Over Certificate:**
  - 1. As-built drawings.
  - 2. List of recommended spare parts.
  - 3. Software licenses.
  - 4. FFIT reports.

**1.06 QUALITY ASSURANCE:** Shall include the following in accordance with Section 01 81 26 (*Communications, Control, Safety, and Security Systems*), <sup>A8</sup>Paragraph 1.06 <sup>A8</sup>:

- A. Factory Quality Control Tests (FQCT).
- B. Final Field Inspection Tests (FFIT).
- C. Warranty.

**END OF SECTION**

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