

SECTION 27 08 00
COMMISSIONING OF COMMUNICATIONS SYSTEMS

SPEC WRITER NOTES:

1. Edit this specification section between //____//, to fit project, or delete if not applicable.
2. Contact VA's AHJ, Spectrum Management and COMSEC Service (SMCS 0050P2H3), (202-461-5310), for all technical assistance.
3. Included throughout this specification are references to system's interface capability and various related features. System designer must verify availability of this system and coordinate associated requirements and subsequent interfaces.
4. Spec writer must review the Physical Security Design Manual for VA Facilities to determine and include in this section any Mission Critical or Life Safety requirements called out.

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This section includes requirements for commissioning facility communications systems, related subsystems and related equipment. This Section supplements general requirements specified in Section 01 91 00, GENERAL COMMISSIONING REQUIREMENTS.
- B. Complete list of equipment and systems to be commissioned is specified in Section 01 91 00, GENERAL COMMISSIONING REQUIREMENTS and Specification 27 05 11, REQUIREMENTS FOR COMMUNICATIONS INSTALLATIONS.
- C. Commissioned Systems:
 1. Commissioning of systems specified in Division 27 // and 28 // is part of project's construction process including documentation and proof of performance testing of these systems, as well as training of VA's Operation and Maintenance personnel in accordance with requirements of Section 01 91 00, GENERAL COMMISSIONING REQUIREMENTS and Division 27, in cooperation with Government and Commissioning Agent.
 2. The facility exterior closure systems commissioning includes communications systems listed in Section 01 91 00 GENERAL COMMISSIONING REQUIREMENTS and 27 05 11, REQUIREMENTS FOR COMMUNICATIONS INSTALLATIONS.

1.2 RELATED WORK

- A. System tests: Section 01 00 00, GENERAL REQUIREMENTS.

- B. Commissioning process requires review of selected submittals that pertain to systems to be commissioned: Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES.
- C. Construction phase commissioning process and procedures including roles and responsibilities of commissioning team members and user training: Section 01 91 00, GENERAL COMMISSIONING REQUIREMENTS.

1.3 COORDINATION

- A. Commissioning Agent will provide a list of submittals that must be reviewed by Commissioning Agent simultaneously with engineering review; do not proceed with work of sections identified without engineering and Commissioning Agent's review completed.
- B. Commissioning of communications systems require inspection of individual elements of communications system construction throughout construction period. Coordinate with Commissioning Agent in accordance with Section 01 91 00, GENERAL COMMISSIONING REQUIREMENTS and commissioning plan to schedule communications systems inspections as required to support the commissioning process.

1.4 CLOSEOUT SUBMITTALS

- A. Refer to Section 01 91 00, GENERAL COMMISSIONING REQUIREMENTS for submittal requirements for pre-functional checklists, equipment startup reports, and other commissioning documents.
- B. Pre-Functional Checklists:
 - 1. Complete pre-functional checklists provided by commissioning agent to verify systems, subsystems, and equipment installation is complete and systems are ready for Systems Functional Performance Testing.
 - 2. Submit completed checklists to COR and to Commissioning Agent. Commissioning Agent can spot check a sample of completed checklists. If Commissioning Agent determines that information provided on the checklist is not accurate, Commissioning Agent then returns the marked-up checklist to Contractor for correction and resubmission.
 - 3. If Commissioning Agent determines that a significant number of completed checklists for similar equipment are not accurate, Commissioning Agent can select a broader sample of checklists for review.
 - 4. If Commissioning Agent determines that a significant number of broader sample of checklists is also inaccurate, all checklists for

the type of equipment will be returned to Contractor for correction and resubmission.

- C. Submit training agendas and trainer resumes in accordance with requirements of Section 01 91 00, GENERAL COMMISSIONING REQUIREMENTS.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.1 FIELD QUALITY CONTROL

A. Contractor's Tests:

- 1. Scheduled tests required by other sections of Division 27 must be documented in accordance with Section 01 00 00, GENERAL REQUIREMENTS.
- 2. Incorporate all testing into project schedule. Provide minimum seven calendar days' notice of testing for Commissioning Agent to witness selected Contractor tests at sole discretion of Commissioning Agent.
- 3. Complete tests prior to scheduling Systems Functional Performance Testing.

B. Systems Functional Performance Testing:

- 1. Commissioning process includes Systems Functional Performance Testing that is intended to test systems functional performance under steady state conditions, to test system reaction to changes in operating conditions, and system performance under emergency conditions.
- 2. Commissioning Agent prepares detailed Systems Functional Performance Test procedures for review and acceptance by COR.
- 3. Provide required labor, materials, and test equipment identified in test procedure to perform tests.
- 4. Commissioning Agent must witness and document the testing.
 - a. Provide test reports to Commissioning Agent. Commissioning Agent will sign test reports to verify tests were performed.

3.2 TRAINING

- A. Training of Government's operation and maintenance personnel is required in cooperation with COR and Commissioning Agent.
- B. Provide competent, factory authorized personnel to provide instruction to operation and maintenance personnel concerning location, operation, and troubleshooting of installed systems.
- C. Schedule instruction in coordination with COR after submission and approval of formal training plans.

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