SECTION 230800

COMMISSIONING of HVAC

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NOTE TO SPECIFIER

*Use this Specification Section for Mail Processing Facilities.*

***This is a Type 1 Specification with completely editable text; therefore, any portion of the text can be modified by the A/E preparing the Solicitation Package to suit the project.***

*For Design/Build projects, do not delete the Notes to Specifier in this Section so that they may be available to Design/Build entity when preparing the Construction Documents.*

*For the Design/Build entity, this specification is intended as a guide for the Architect/Engineer preparing the Construction Documents.*

*The MPF specifications may also be used for Design/Bid/Build projects. In either case, it is the responsibility of the design professional to edit the Specifications Sections as appropriate for the project.*

*Text shown in brackets must be modified as needed for project specific requirements.* *See the “Using the USPS Guide Specifications” document in Folder C for more information.*

*The last date that USPS revised this standard specification section occurs in two places, at the end of this section and in the Table of Contents. If the date in this section matches the date in the Table of Contents, then you are using the latest version. Do not delete or revise the “last revised” date at the end of the section during the development of the Project Manual.*

*The footer in this section should be edited to replace the text, “USPS MPF SPECIFICATION” with the project name, and the blank date in the center should be replaced with the submission date, for interim design reviews, or the issue date of the completed Project Manual.*

Use this specification section for projects where commissioning services will be provided. This specification is intended as a guide to the Architect/Engineer preparing the Construction Documents. The degree of commissioning that will be required for the project shall be specified by the COR. Refer to Handbook AS-503 Standard Design Criteria for more information about when commissioning is required.

The USPS uses prequalified Commissioning Agents for commissioning services. Commissioning services cannot be provided through the A/E, the Design/Build Entity (DBE), or the General Contractor (GC).

The purpose of this section is to inform the GC or DBE of the extent of the commissioning that will be required for the project prior to contract award because the GC or DBE is also responsible for providing the required assistance from their subcontractors to complete the Commissioning Plan. To that end, this section, and the other sections in Divisions 1, 22, 23, 25, and 26, must be closely coordinated with the Commissioning Agent and the Commissioning Plan.

This specification section, like all sections, are directed to the GC or DBE; do not include instructions to the A/E or the Commissioning Agent in the specifications.

This section includes commissioning requirements that are specific to HVAC. General requirements are included in Section 019113 - General Commissioning Requirements. Plumbing and electrical work are to be included in Section 220800 - Commissioning of Plumbing and Section 260800 - Commissioning of Electrical Systems. Building automation commissioning is in Section 250804 - Building Automation System (BAS) Commissioning.

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1. GENERAL
	1. SUMMARY
		1. The Postal Service has retained an independent Commissioning Authority to provide Commissioning Services and a Commissioning Plan to confirm that the functionality of new equipment and systems meets the original design intent, operates efficiently, and demonstrates that all the required features of the new system are functioning as specified in the design documents.
		2. This Section and other Sections in the Project Manual detail the Contractor’s responsibilities relative to the Commissioning process.

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NOTE TO SPECIFIER

Edit the RELATED REQUIREMENTS and REFERENCE STANDARDS paragraphs below to suit project requirements. The Commissioning Plan must be included in the Project Manual and listed in the Table of Contents; however, it is not a part of the Construction Contract. Also list the other sections in Division 23 that will include specific commissioning requirements.

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* 1. RELATED REQUIREMENTS
		1. Commissioning Plan: Available for reference.
		2. Section 013200 - Construction Progress Documentation.
		3. Section 013300 - Submittal Procedures.
		4. Section 017704 - Closeout Procedures and Training.
		5. Section 019113 - General Commissioning Requirements.
		6. Section 220800 - Commissioning of Plumbing.
		7. Section 250804 - Building Automation System (BAS) Commissioning.
		8. Section 260800 - Commissioning of Electrical Systems.
	2. REFERENCE STANDARDS
		1. ASHRAE/EIS Standard 202-2018, “Commissioning Process for Buildings and Systems”.
		2. ASHRAE Guideline, "Guideline for Commissioning HVAC Systems".
		3. ASHRAE Guideline, “Preparation of Operating and Maintenance Documentation for Building Systems”.
		4. AABC Commissioning Group (ACG).
		5. NEBB – Procedural Standards for Building Systems Commissioning.
		6. National Electric Code (NEC).
		7. American Society for Testing and Materials (ASTM).
		8. Institute of Electrical and Electronics Engineers (IEEE).
		9. International Electrical Testing Association (NETA).
		10. National Electrical Manufacturers Associates (NEMA).
		11. National Fire Protection Association (NFPA).
		12. Underwriters Laboratory, Inc. (UL).
	3. COMMISSIONING SCHEDULING
		1. Refer to Section 019113 - General Commissioning Requirements.

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***NOTE TO SPECIFIER***

*Edit SUBMITTALS below to match the requirements in the Commissioning Plan.*

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* 1. SUBMITTALS
		1. Start-Up Procedures: Provide quality assurance procedures, checklists, and manufacturer’s installation and start-up procedures for all HVAC equipment and systems to be commissioned.
		2. Field Testing Agency Reports: Prior to the Acceptance Phase, provide all documentation from independent testing agencies required by the contract.
		3. Test Kits: Provide prior to the Acceptance Phase.
		4. Equipment Warranties. Provide prior to the start of the Acceptance Phase.
	2. QUALITY ASSURANCE
		1. HVAC Testing Equipment and Instrumentation: Provide all instrumentation necessary to accomplish the testing indicated in the Commissioning Plan. Quality and accuracy to be sufficient to test and measure system performance with the tolerances specified. Calibrate all equipment according to the manufacturer’s recommended intervals. Calibration tags to be affixed or certificates readily available.
		2. Test Kits: Provide new, previously used test kits are unacceptable.
1. PRODUCTS

not used

1. EXECUTION

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***NOTE TO SPECIFIER***

*Edit the requirements below to suit project requirements in accordance with the Commissioning Plan.*

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* 1. COMMISSIONING CONSTRUCTION PHASE
		1. Provide assistance from [list contractors as needed] during the start-up process to confirm that the functionality of the new equipment meets the original design intent, operates efficiently, and demonstrates that all of the required features of the new system are functioning as specified in the design documents.
		2. Start-up requirements for HVAC systems and equipment:
			1. [List specific requirements as needed]
	2. COMMISSIONING ACCEPTANCE PHASE
		1. Provide assistance in functional performance testing from [list other contractors as needed] to:
			1. Manipulate HVAC systems to facilitate functional performance testing.
			2. [List requirements as needed]
		2. Functional performance testing requirements for HVAC systems and equipment:
			1. [List requirements as needed]
	3. COMMISSIONING WARRANTY PHASE
		1. Provide assistance in functional performance testing from [list other contractors as needed] to:
			1. Participate as required in seasonal testing.
			2. [List other requirements as needed]

END OF SECTION

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