

# FACILITIES STANDARD

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NAME: Mechanical Systems Commissioning  
NUMBER: 15992

ORIGINAL DATE: 02-01-01  
REVISION DATE:

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## **PURPOSE:**

1. The general purpose of Facilities Standards is to provide the University an approved documented criteria for construction, material stocking and replacement, consistent maintenance of facilities, code compliance, and provisions for uniformity and uniqueness of facilities standards.
2. All construction of University property, in reference to safety issues will be conducted in accordance with NFPA 241 safeguarding construction, alteration, demolition operations, and the Standard Building Code, in Chapter 33, SAT work, demolition, and construction, to protect the health and safety of faculty, staff, patients, visitors, and students, as well as unrelated, non-project, UAB property.
3. Construction safety is the responsibility of the contractor for any project. Each responsibility, as stated in the contract documents, relate to all recognized rules, regulations and codes adapted by any agency having jurisdiction, and the guidelines established during the Occupational Standards and Health Act.
4. The purpose of the **Mechanical System Commissioning Facilities Standard** is to establish a series of administrative actions that must be taken that are unique to any particular project that is under construction at the University. ***This Facilities Standard is not to be regarded as a specification.***

## **GENERAL:**

### 1.1 DESCRIPTION

- a. Reference ASHRAE HVAC Applications Handbook 1999, Chapter 41, and UAB 15990 Acceptance Testing Standard.
- b. This section covers mechanical systems commissioning to make the systems ready for safe and satisfactory operation within the design intent. Commissioning shall include certifications and verifications in written form and check-off list that all mechanical equipment and systems meet the design specifications. This will include, but shall not be limited to, identification of piping and equipment, cleaning, documentation, charging, preparation of maintenance and operation manuals, training, preparation of record drawings, lubrication, start-up, checkout and testing, adjusting, and balancing of systems. An overall description of the commissioning process and schedule

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including forms and check-off list will be submitted to the acceptance testing coordinator and member of UAB Energy Management, for approval.

- c. Commissioning shall be performed throughout construction. Start-up and testing shall not be initiated until the completion of pre-startup and testing specifications as described in the mechanical specifications. If specifications do not define pre-startup conditions, refer to ASHRAE, NEBB and AABC pre-testing procedures for Testing and Balancing.

## **EXECUTION:**

### 1.1 QUALITY ASSURANCE

- a. Systems commissioning shall be the direct responsibility of a commissioning supervisor who shall be a licensed Professional Engineer, with a minimum of ten years experience in mechanical systems. The commissioning supervisor shall become familiar with the design intent and shall assume responsibility for the overall system commissioning work.
- b. The commissioning supervisor shall review submittal data for conformance with the requirements of the project; shall monitor compliance with the requirements specified herein for storage and protection of equipment during construction; shall authorize the initial start-up, testing and balancing; and shall document that the design intent of each system has been accomplished.
- c. Refer to ASHRAE Guideline 1-1996, The HVAC Commissioning Process, Guideline 4-1993, Preparation of Operating and Maintenance Documentation for Building Systems, and Guideline 5-1994, Commissioning Smoke Management Systems.

### 1.2 RESPONSIBILITIES OF VARIOUS ENTITIES IN COMMISSIONING AT UAB IS AS FOLLOWS:

#### a. Design Engineer/Architect

- Development of a written commissioning plan that includes all major pieces of MEP equipment and systems. This plan must include: Pre-start and Verification and Functional Performance checklists that comply with pertinent codes and UAB Facilities Standards.

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- Furnish documentation verifying the completion of each step of the plan's check-off requirements.
- b. Contractors
- Performs necessary work for the satisfactory completion of the Pre-start, Verification, and Functional Performance as outlined in the Commissions sections.
  - Corrects deficiencies as discovered during commissioning process.
  - Coordinates with construction manager, Architect, design Engineer, and UAB for their respective participation in the check-off process.
- c. UAB
- Has oversight authority over the Commissioning and Acceptance Process.

END OF STANDARD

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