STANDARD

ANSI/ASHRAE/IES Standard 202-2013

Commissioning Process for Buildings and Systems

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NOTE

Approved addenda, errata, or interpretations for this standard can be downloaded free of charge from the ASHRAE Web site at www.ashrae.org/technology.

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FOREWORD

The Commissioning Process is a quality-focused process for enhancing the delivery of a project. The process focuses upon evaluating and documenting that all of the commissioned systems and assemblies are planned, designed, installed, tested, operated, and maintained to meet the Owner's Project Requirements (OPR).

The Commissioning Process assumes that owners, programmers, designers, contractors, and operations and maintenance entities are fully accountable for the quality of their work. The Commissioning Team uses methods and tools to evaluate that the project is achieving the Owner's Project Requirements throughout the delivery of the project.

The Commissioning Process begins at project inception (during predesign) and continues for the life of the facility (through occupancy/operations). Because this standard details a process, it can be applied to both new and renovation projects. The Commissioning Process includes specific tasks to be conducted to evaluate if the design, construction, testing, documentation, and training meet the Owner's Project Requirements. This standard describes the overall Commissioning Process in order to provide a uniform, integrated, and consistent approach for delivering and operating facilities that meet an owner's ongoing requirements.

Due to the inherent variations in the planning and data gathering process in existing buildings and ongoing commissioning, this standard and process is intended for projects including construction and renovation (sometimes called capital projects). During an existing building Commissioning Process, if the project construction utilized the Commissioning Process, the OPR may transition to the Current Facility Requirements (CFR) and the Commissioning Plan may transition to an ongoing Commissioning Plan. If these documents do not exist, an existing building Commissioning Process would be used to develop the necessary documentation.

The Commissioning Process is a quality-based method that is adopted by an owner to achieve successful construction and renovation projects. It is not an additional layer of construction or project management. In fact, its purpose is to reduce the cost of delivering construction projects and increase value to owners, occupants, and users. This standard has been developed to assist those who are adopting or plan to adopt a qualitybased and cost-effective process.

Development of guidelines for the Commissioning Process began formally in 1982 when ASHRAE formed a committee to document best practices to provide and operate facilities that performed according to the Owner's Project Requirements. ASHRAE published its original commissioning guideline in 1989 and an updated version in 1996. The Commissioning Process detailed in these guidelines is the result of experience on projects requiring that systems and assemblies worked from the first day the project was turned over to the owner. This Commissioning Process is further based upon experience with projects that met the requirements of owners, occupants, users of processes, and facility operating-maintenance-service organizations at a high level of satisfaction and that reduced the cost to deliver the project.

In 2008, it became evident that a standard with minimum requirements for the Commissioning Process was necessary to support many other standards and programs. Standard 202 presents the minimum requirements for the Commissioning Process without focusing upon specific building types, systems or assemblies, or on specific project sizes. Supplementary technical guidelines have been and continue to be developed to provide specific and detailed information on how to implement the Commissioning Process for each major building/facility, system, or assembly, and for various stages of facility development and operation. The scope and budget for the Commissioning Process is set by the owner for each project at the beginning of the development process.

Due to the integration and interdependency of facility systems, a performance deficiency in one system can result in less than optimal performance by other systems. Implementing the Commissioning Process is intended to reduce the project capital cost through the warranty period and also reduce the life-cycle cost of the facility. Using this integrated process results in a fully functional, fine-tuned facility, with complete documentation of its systems and assemblies and trained operations and maintenance personnel.

Emphasis is placed on documentation of the Owner's Project Requirements at the inception of the project and the proper transfer of this information from one party to the next. Owners adopt the Commissioning Process to achieve their stated objectives and criteria—starting with the inception of a project instead of after a facility is occupied.

While circumstances may cause owners to adopt the Commissioning Process during the Design or Construction Phase of a project, such later implementation must capture the information that would have been developed had the Commissioning Process begun at project inception. Beginning the Commissioning Process at project inception will achieve the maximum benefits.

This standard describes the Commissioning Process; the roles of the Commissioning Authority and commissioning specialist; and a framework for developing an OPR, Basis of Design (BoD), Commissioning Plan, specifications, procedures, documentation, and reports. This standard also describes the general requirements for a training program for continued successful system and assembly performance.

1. PURPOSE

The purpose is to identify the minimum acceptable Commissioning Process for buildings and systems.