



GUIDELINE

ASHRAE Guideline 0-2013

(Supersedes ASHRAE Guideline 0-2005)

Includes ASHRAE addenda listed in Annex Q

The Commissioning Process

See Annex Q for approval dates by the ASHRAE Standards Committee and the ASHRAE Board of Directors.

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NOTE

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

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FOREWORD

The latest version of Guideline 0 continues in demonstrating best practice principles for applying the whole-building commissioning quality process in facility elements. Guideline 0 outlines the process for achieving, validating, and documenting the performance of facility elements in meeting the defined objectives and criteria of the Owner. This quality process extends through all phases of new or major renovation projects, from predesign to owner occupancy and operation, with tasks during each phase to ensure verification of design, construction, and operator training meeting the Owner's Project Requirements (OPR). Guideline 0 describes the overall commissioning process in providing a uniform, integrated, and consistent approach for commissioning facilities.

This edition of Guideline 0 recognizes and addresses changes in project delivery systems resulting from the evolution of whole-building commissioning into the life cycle and sustainable facilities measurement and verification processes. Guideline 0 is a guide to methods in performing, measuring, validating, and documenting information in the design and building processes used in constructing new facilities and renovating existing facilities. These commissioning processes are applicable to all building elements used in the construction process.

Guideline 0 applies to all project delivery phases in identifying and applying the whole-building commissioning processes, activities, and requirements for all building elements and assemblies. This guideline provides the format that serves as the pattern for the Commissioning Plan for specific facility elements or assemblies. This common content organization focuses on specific information in achieving a closely coordinated set of documents used together in any combination accommodating specific OPRs. Varying OPRs and applicable levels of commissioning follow a uniform method. Guideline 0 organization also provides for technical commissioning guidelines that avoid repeating general commissioning processes, activities, and requirements, making them more concise in focusing on their technical subjects.

Guideline 0 acknowledges the integration and interdependency of facility elements; i.e., a performance deficiency of one element can result in less than optimal performance by other elements. To achieve satisfactory performance of the facility and all of its elements, the entire facility should experience commissioning beginning at the inception of the project.

This update of Guideline 0 emphasizes the important role of the Owner in determining the level and focus of the Commissioning Plan. This begins with more emphasis on defining and clearly documenting the OPR in a Commissioning Plan detailing the Owner's objectives in the work.

Clear, concise, complete, and correct documenting of the OPR allows for emphasis on commissioning as an integral process for achieving the facilities owner's expectations. The goal of a Guideline 0 Commissioning Plan is a fully functional, fine-tuned facility, including all facility elements and assemblies, complete documentation, and a trained operating and maintenance staff at the significant completion milestone. It provides a methodology for implementing the commissioning process to building elements and assemblies for new construction, and major renovations to existing facilities at a level compatible with Owner input.

A Guideline 0 Commissioning Plan places emphasis on documentation that transfers the OPR to the design criteria and construction documents, and on continuity of information from one party to the next, providing value and the opportunity to improve the work process. The Guideline 0 Commissioning Plan also provides for the facility operating and maintenance personnel training using actual performance documentation demonstrating the design, installation, and intent of the building elements and assemblies in meeting the OPR. Owners can use this process in validating their stated objectives and criteria from the significant completion milestone onward. Application of this facility performance documentation provides the Owner with the opportunity to continue the benefits of whole-building commissioning in improving facility performance during the post occupancy phase and beyond.

Annexes to this guideline have been included to assist in further understanding the commissioning process. Based on specific project experiences, annexes suggest ways to improve current practices. Annexes illustrate varying applications of commissioning processes for all projects, and can be viewed as examples for how to develop documents and to define owner's needs, design criteria, basis of design, design concepts, verification and functional performance testing requirements, documentation, and operator training.

The commissioning process, beginning at project inception, is a valuable tool to the Owner in controlling the project through each milestone. Structuring the phases of a typical project around the OPR gives the Owner the advantage of continuously monitoring the progress and the cost of the project on a real time basis. This includes predesign, design development, construction documents, construction, and postconstruction phases.

This update of Guideline 0 describes the total building commissioning process and the responsibilities of the Commissioning Authority and the Owner. Selecting and developing a Commissioning Plan following Guideline 0 assures the Owner of whole-building commissioning meeting the OPR, and a sustainable facility at the time of final acceptance of the work.

1. PURPOSE

1.1 The purpose of this guideline is to describe the Commissioning Process capable of verifying that a facility and its systems meet the Owner's Project Requirements (OPR).

2. SCOPE

2.1 The procedures, methods, and documentation requirements in this guideline describe each phase of the project