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ANSI/ASHRAE Standard 230-2022
Commissioning Process for Existing Buildings and Systems

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Preview

NOTE

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FOREWORD

ANSI/ASHRAE Standard 230, Commissioning Process for Existing Buildings and Systems*, is an organized, quality-oriented process for planning, assessing, investigating, implementing, verifying, and documenting repair and adjustment activities for improving the performance of facilities, systems, and assemblies to meet defined operational requirements and criteria for the facility. Standard 230 establishes the minimum requirements for commissioning an existing building and allows the Owner to define the specific scope of work and project budget. Other standards, such as ANSI/NEBB S120,* Technical Retro-Commissioning of Existing Buildings, *provide a prescriptive set of existing building systems to be commissioned.*

The Existing Building Commissioning Process

The Existing Building Commissioning Process (EBCx) is used by Owners and/or facility decision-makers to optimize the operation of their facilities and systems for their specific Current Facility Requirements (CFR) and meet applicable jurisdictional requirements. The process is used to establish facility operation baselines, establish performance goals, and compare preexisting conditions and operations to postimplementation goals. This evaluation allows the Owner to determine if any of the existing conditions require or warrant further attention or building tune-up. The EBCx is also used to identify the causes of existing problems and shortfalls in achieving the CFR and to determine methods for resolving those problems. Most importantly, the process provides the Owner with a logical decision-making approach to evaluate, compare, prioritize, and implement recommendations for making their facilities operate as efficiently and effectively as is economically feasible, given the Owner's specific requirements and resources and potential jurisdictional requirements. When physical changes to the facility are required because of the EBCx, all such modifications must meet applicable codes pertaining to the work being performed. Additionally, following the process allows Owners to maintain the benefits of these implemented recommendations over time.

The EBCx differs from the Commissioning Process (Cx) for new buildings in that the CxP Team is selected and charged with evaluating existing building systems and assemblies to determine their ability to meet the Owner's CFR, which may differ from the original design and Owner's project requirements (OPR). Energy efficiency measures (EEM), system and facility upgrades, and major equipment replacement should utilize the new-building commissioning process in ANSI/ASHRAE/IES Standard 202, Commissioning Process for New Buildings and New Systems*, during implementation.*

This standard defines a process that can be applied to any type of building, system, or assembly. The EBCx comprises distinct phases with specific objectives to be achieved during each phase to identify and correct operational and functional issues that prevent the building systems and assemblies from performing as currently required. The process involves the follow phases: Planning, Assessment, Investigation, Implementation, and Hand-Off. This standard describes the responsibilities of the CxP Team and the documents and reports needed to provide a uniform, integrated, and consistent approach for maintaining, operating, and managing assets to meet the Owner's and other stakeholders' ongoing requirements.

Some jurisdictions have implemented a mandatory existing-building commissioning, retrocommissioning, or building tune-up requirement. These requirements may reference or utilize the same basic activities and procedures with different terminology and documentation levels. This standard describes a process intended to provide minimum requirements, activities, and uniformity in processes, documentation, and results for EBCx scopes covered by this standard, ranging from basic system repairs, system tune-up, and/or in-kind replacement to achieve performance goals defined in the CFR. Owners may elect to use the more comprehensive approach described in ASHRAE Guideline 0.2, The Commissioning Process for Existing Systems and Assemblies*, rather than this minimum standard.*

Existing building commissioning provides one of the greatest opportunities to improve energy efficiency and improve occupant satisfaction/productivity in the existing building stock. EBCx also provides good stewardship of our planet's resources while raising occupant quality of life, and profitability for the building's stakeholders. However, the extent of deferred maintenance or change in occupant mission can move the value of the existing building where replacement is a more cost-effective approach. For existing buildings where replacement or major renovation (complete gut) is desired by the Owner, ASHRAE/IES Standard 202 should be implemented. Existing buildings planning to include additions or modifications that require