

**ASHRAE Standing Standard Project Committee 180**  
**Cognizant TCs: Lead Cognizant TC 7.3, Operation and Maintenance Management;**  
**Co-Cognizant TC 2.4, Particulate Air Contaminants and Particulate Contamination Removal Equipment;**  
**and Co-Cognizant TC 9.8, Large Buildings Air-Conditioning Applications**  
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#### NOTE

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**(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)**

## FOREWORD

*ANSI/ASHRAE/ACCA Standard 180-2012 is the latest edition of Standard 180. The 2012 edition combines Standard 180-2008 and approved and published Addendum a to the 2008 edition, thereby providing an easy-to-use consolidated standard. Specific information on the contents of the addendum and the approval dates are included in Informative Appendix D.*

*This 2012 edition was updated using the continuous maintenance process. A thorough review of the standard under the continuous maintenance process resulted in improvements, revisions, and updates to the tables in Section 5. The changes were deemed necessary in order to eliminate duplication, add additional tasks, list equipment tables in alphabetical order for easier reference, and consolidate similar equipment where appropriate.*

*The 2012 edition will be updated on a five-year cycle using the periodic maintenance process.*

*Standard 180 was created in a collaborative effort between ASHRAE and Air Conditioning Contractors of America (ACCA). Its intent is to address the often inconsistent practices for inspecting and maintaining HVAC systems in commercial, institutional, and other buildings where the public may be exposed to the indoor environment. Current practices in such buildings vary widely. Many facilities choose to follow rigorous policies that maintain the system in new or nearly new condition. Others either lack policy in this area or have adopted a run-to-failure approach, where the system or components of the system are attended to only when there is a failure.*

*To provide consistency and improve the thermal comfort, energy efficiency, and indoor air quality of commercial HVAC systems, a standard practice for their inspection and maintenance is needed. When there is no routine inspection and subsequent adjustment or maintenance of system components, the system is typically found operating outside its optimum performance parameters. When systems are not maintained, they do not continue to provide the level of work they were designed for.*

*A standard practice is also needed to guide maintenance of HVAC systems because the maintenance information often provided by manufacturers applies only to the discrete components that they provide rather than to the entire system. This document considers the integration of those components and the way they interact as well as each component separately.*

*For the public good, it is essential that the HVAC systems in all buildings where persons work, visit, or reside support a high-quality indoor environment. In addition,*

*sustainability mandates that those conditions be maintained in as energy efficient a manner as possible.*

*This document describes the minimum acceptable level of maintenance for commercial building HVAC systems. Other standards or guidance documents may establish more specific or rigorous requirements that apply to certain buildings. Where applicable, those requirements should be followed or considered (if guidelines). This document is not intended to limit the level of service provided or recommendations made by a service provider. Those delivering HVAC maintenance are encouraged to consider and recommend energy conservation measures or technology improvements that would help maintain or increase thermal comfort, the energy efficiency of the HVAC system, and indoor air quality.*

*Much of the information that will be required to prepare the maintenance program that is mandated by this standard can most conveniently be obtained from the building commissioning (recommissioning or retrocommissioning) documents. Although recommissioning is not a requirement of this standard, it should be considered where the commissioning data is either unavailable or outdated. Additionally, ASHRAE Guideline 4, Preparation of Operating and Maintenance Documentation for Building Systems, and ASHRAE Guideline 32, Sustainable, High-Performance Operations and Maintenance, may be helpful to practitioners seeking to develop or expand maintenance programs. ASHRAE continues to provide industry reference documents and is in process of preparing other guidelines on commissioning and training. Refer also to this standard's Informative Appendix C, Bibliography, which lists many reference documents by ASHRAE and other organizations as well as industry technical papers and publications. Some of these documents include ideas toward "Best Practices" or "Reliability-Centered" or other means and methods above the minimum standard.*

*This standard is written in code-intended language so it may be referenced or adopted by enforcement authorities as the minimum acceptable level of performance within their jurisdictions.*

**Note:** *This standard is specifically focused on the impacts of maintenance on occupant thermal comfort, energy efficiency, and indoor air quality. Additional maintenance program considerations related to equipment reliability, equipment robustness, and minimizing overall maintenance costs are also appropriate in order to support sustainability efforts, protect the HVAC capital investment, and/or minimize system downtime. These considerations, however, are outside the scope of this standard.*

## 1. PURPOSE

The purpose of this standard is to establish minimum HVAC inspection and maintenance requirements that preserve a system's ability to achieve acceptable thermal comfort, energy efficiency, and indoor air quality in commercial buildings.