

# STANDARD

**ANSI/ASHRAE/IES Addendum h to  
ANSI/ASHRAE/IES Standard 100-2018**

# Energy Efficiency in Existing Buildings

Approved by ASHRAE and the American National Standards Institute on October 31, 2022, and by the Illuminating Engineering Society on October 24, 2022.

This addendum was approved by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. Instructions for how to submit a change can be found on the ASHRAE® website ([www.ashrae.org/continuous-maintenance](http://www.ashrae.org/continuous-maintenance)).

The latest edition of an ASHRAE Standard may be purchased on the ASHRAE website ([www.ashrae.org](http://www.ashrae.org)) or from ASHRAE Customer Service, 180 Technology Parkway, Peachtree Corners, GA 30092. E-mail: [orders@ashrae.org](mailto:orders@ashrae.org). Fax: 678-539-2129. Telephone: 404-636-8400 (worldwide), or toll free 1-800-527-4723 (for orders in US and Canada). For reprint permission, go to [www.ashrae.org/permissions](http://www.ashrae.org/permissions).

© 2022 ASHRAE

ISSN 1041-2336



**ASHRAE Standing Standard Project Committee 100**

**Cognizant TC: 7.6, Building Energy Performance**

**SPLS Liaison: Justin Prosser · IES Staff Liaison: Mark Lien · ASHRAE Staff Liaison: Ryan Shanley**

Wayne H. Stoppelmoor, Jr.*, <i>Chair</i>	Kyle W. Hasenkox*	Richard J. Liesen	Daniel G. Salinas*
Glenn Friedman, <i>Vice-Chair/Secretary</i>	Kinga Porst Hydras*	Andrew E. Pape-Salmon	Terry Sharp*
Jinen Adenwala	Harold Jepsen*	Jerry W. Phelan*	John M. Topmiller
Kara L. Brooks*	Jamie Kono*	Natasha A. Reynolds*	Cedric S. Trueman*
Robert E. Chase	Dennis R. Landsberg*	Daniel J. Rice	Ted A. Williams
Joseph T. Firrantello*	Toby K.W. Lau*	Steven Rosenstock*	Ayman Youssef*
Curtis Fong*	Neil P. Leslie*	Aniruddh Roy	Alexander M. Zhivov*

\* Denotes members of voting status when the document was approved for publication

---

**ASHRAE STANDARDS COMMITTEE 2022–2023**

Susanna S. Hanson, <i>Chair</i>	Phillip A. Johnson	Julie Majurin	Christopher J. Seeton
Jonathan Humble, <i>Vice-Chair</i>	Srinivas Katipamula	Lawrence C. Markel	Christian R. Taber
William P. Bahnfleth	Gerald J. Kettler	Margret M. Mathison	Paolo M. Tronville
Thomas E. Cappellin	Essam E. Khalil	Kathleen Owen	William F. Walter
Douglas D. Fick	Jay A. Kohler	Gwelen Paliaga	Steven C. Sill, <i>BOD ExO</i>
Patricia Graef	Cesar L. Lim	Karl L. Peterman	Sarah E. Maston, <i>CO</i>
Jaap Hogeling	Paul A. Lindahl, Jr.	Justin M. Prosser	
Jennifer A. Isenbeck	James D. Lutz	David Robin	

Connor Barbaree, *Senior Manager of Standards*

---

**SPECIAL NOTE**

This American National Standard (ANS) is a national voluntary consensus Standard developed under the auspices of ASHRAE. *Consensus* is defined by the American National Standards Institute (ANSI), of which ASHRAE is a member and which has approved this Standard as an ANS, as “substantial agreement reached by directly and materially affected interest categories. This signifies the concurrence of more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that an effort be made toward their resolution.” Compliance with this Standard is voluntary until and unless a legal jurisdiction makes compliance mandatory through legislation.

ASHRAE obtains consensus through participation of its national and international members, associated societies, and public review.

ASHRAE Standards are prepared by a Project Committee appointed specifically for the purpose of writing the Standard. The Project Committee Chair and Vice-Chair must be members of ASHRAE; while other committee members may or may not be ASHRAE members, all must be technically qualified in the subject area of the Standard. Every effort is made to balance the concerned interests on all Project Committees.

The Senior Manager of Standards of ASHRAE should be contacted for

- interpretation of the contents of this Standard,
- participation in the next review of the Standard,
- offering constructive criticism for improving the Standard, or
- permission to reprint portions of the Standard.

**DISCLAIMER**

ASHRAE uses its best efforts to promulgate Standards and Guidelines for the benefit of the public in light of available information and accepted industry practices. However, ASHRAE does not guarantee, certify, or assure the safety or performance of any products, components, or systems tested, installed, or operated in accordance with ASHRAE's Standards or Guidelines or that any tests conducted under its Standards or Guidelines will be nonhazardous or free from risk.

**ASHRAE INDUSTRIAL ADVERTISING POLICY ON STANDARDS**

ASHRAE Standards and Guidelines are established to assist industry and the public by offering a uniform method of testing for rating purposes, by suggesting safe practices in designing and installing equipment, by providing proper definitions of this equipment, and by providing other information that may serve to guide the industry. The creation of ASHRAE Standards and Guidelines is determined by the need for them, and conformance to them is completely voluntary.

In referring to this Standard or Guideline and in marking of equipment and in advertising, no claim shall be made, either stated or implied, that the product has been approved by ASHRAE.

(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

*Addendum h revises Sections 4.3.2, 4.3.3, 10.1, and 10.3 to simplify and clarify the compliance process for buildings with energy targets, buildings without energy targets, and residential buildings and dwelling units. It also deletes Informative Annex F and replaces it with new Figures 4-1, 4-2, and 10-1.*

**Note:** In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes.

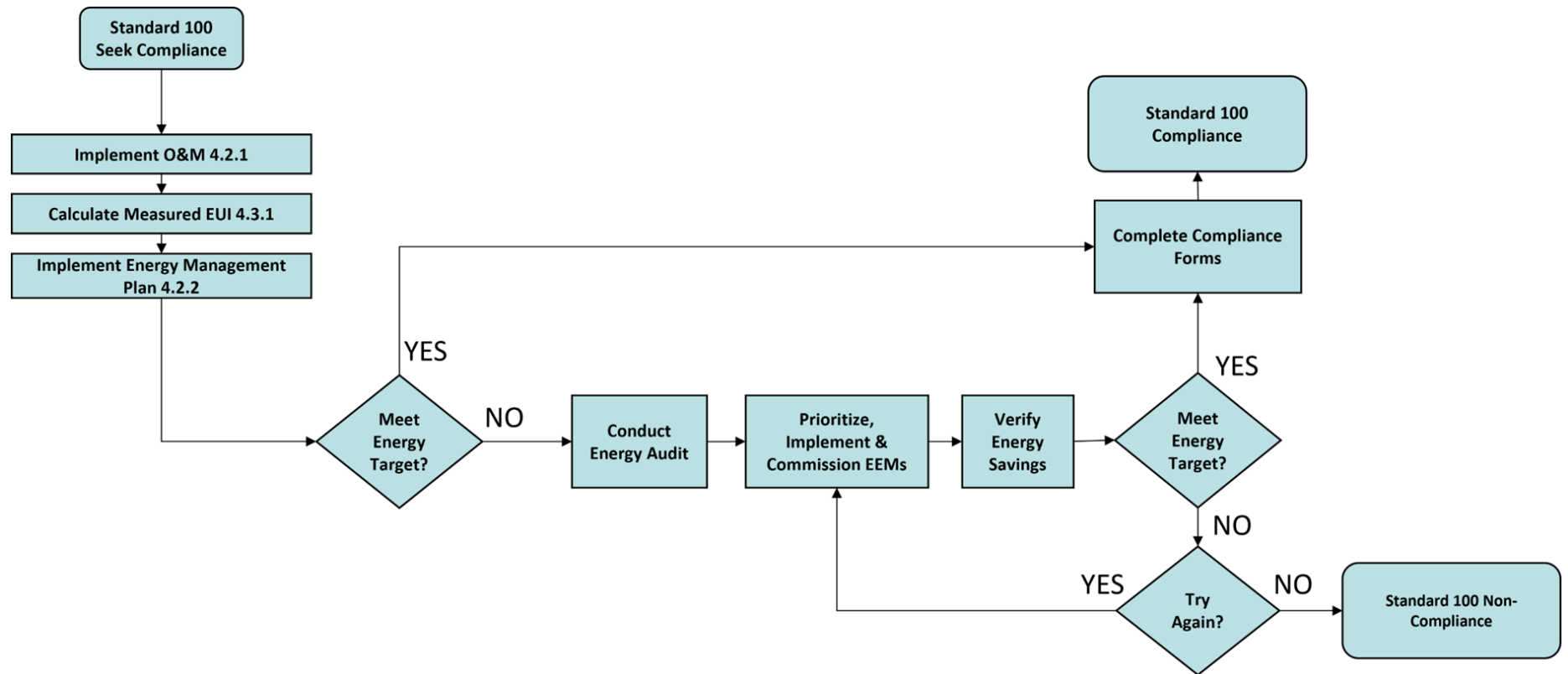
### Addendum h to Standard 100-2018

*Add new Section 4.3.2.1 as shown. Renumber subsequent subsections accordingly.*

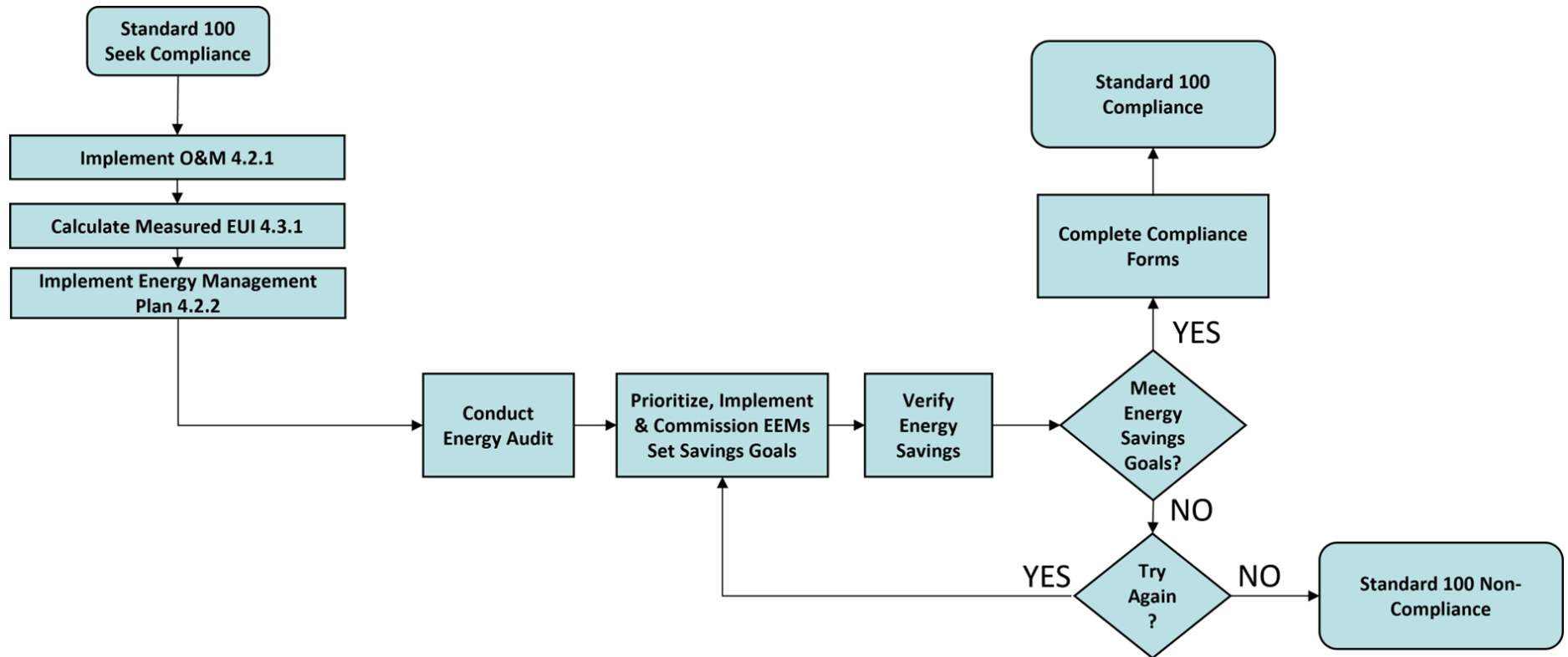
**4.3.2.1 Compliance Process.** Buildings with energy targets shall comply with the requirements of Sections 4.3.2.2 and 4.3.2.3. Figure 4-1 illustrates the compliance process for buildings with energy targets.

*Add new Section 4.3.3.1 as shown. Renumber subsequent subsections accordingly.*

**4.3.3.1 Compliance Process.** Buildings without energy targets shall comply with the requirements of Sections 4.3.3.2 and 4.3.3.3. Figure 4-2 illustrates the compliance process for buildings without energy targets.



**Figure 4-1 Flowchart for buildings with energy targets.**



**Figure 4-2 Flowchart for buildings without energy targets.**

**Add new Section 10.1.1 as shown. Renumber subsequent subsections accordingly.**

**10.1.1 Compliance Process.** Residential *buildings* and dwelling units shall comply with the requirements of Section 10.4. Figure 10-1 illustrates the compliance process for residential *buildings* and dwelling units.

~~10.1.2~~**10.1.1** [ ... ]

~~10.1.3~~**10.1.1** [ ... ]

~~10.1.3.1~~**10.1.2.1** [ ... ]

~~10.1.3.2~~**10.1.2.2** [ ... ]

~~10.1.4~~**10.1.3** [ ... ]

~~10.1.4~~ All residential dwelling units seeking compliance shall meet the *energy targets* according to the requirements under Section 10.4.

[ ... ]

~~10.1.6~~ A flowchart showing the compliance process is provided in Informative Annex F.

~~10.1.6~~**10.1.7** The timeline for compliance is shown in Informative Annex B.

~~10.1.7~~**10.1.8** Compliance forms for reporting compliance to the *authority having jurisdiction (AHJ)* are found in Normative Annex C.

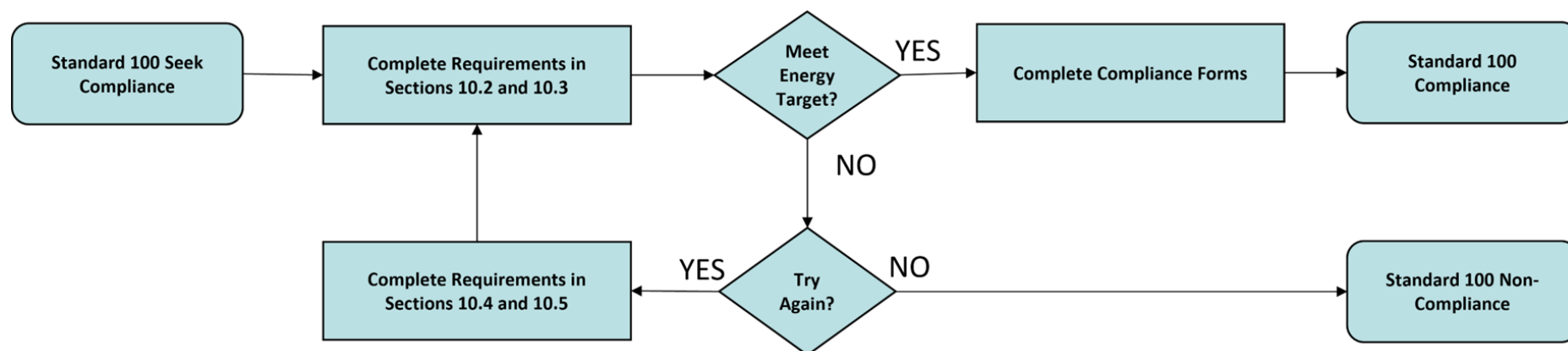
[ ... ]

**10.3.4.7** Select *building* types from among the types of *residential buildings* listed in Table ~~7-140-1~~.

[ ... ]

**10.4.1 Buildings that Meet Energy Targets.** ~~Residential buildings and dwelling units~~*Buildings* that meet their *energy targets* under Section 10 comply with Standard 100~~are not required to perform an energy audit.~~ Compliance shall be reported according to Section 10.1.7.

[ ... ]



**Figure 10-1 Flowchart for residential buildings.**

**Modify Table B-2 as shown. The remainder of Informative Annex B remains unchanged.**

**Table B-1 Compliance Timeline for Buildings without Energy Targets**

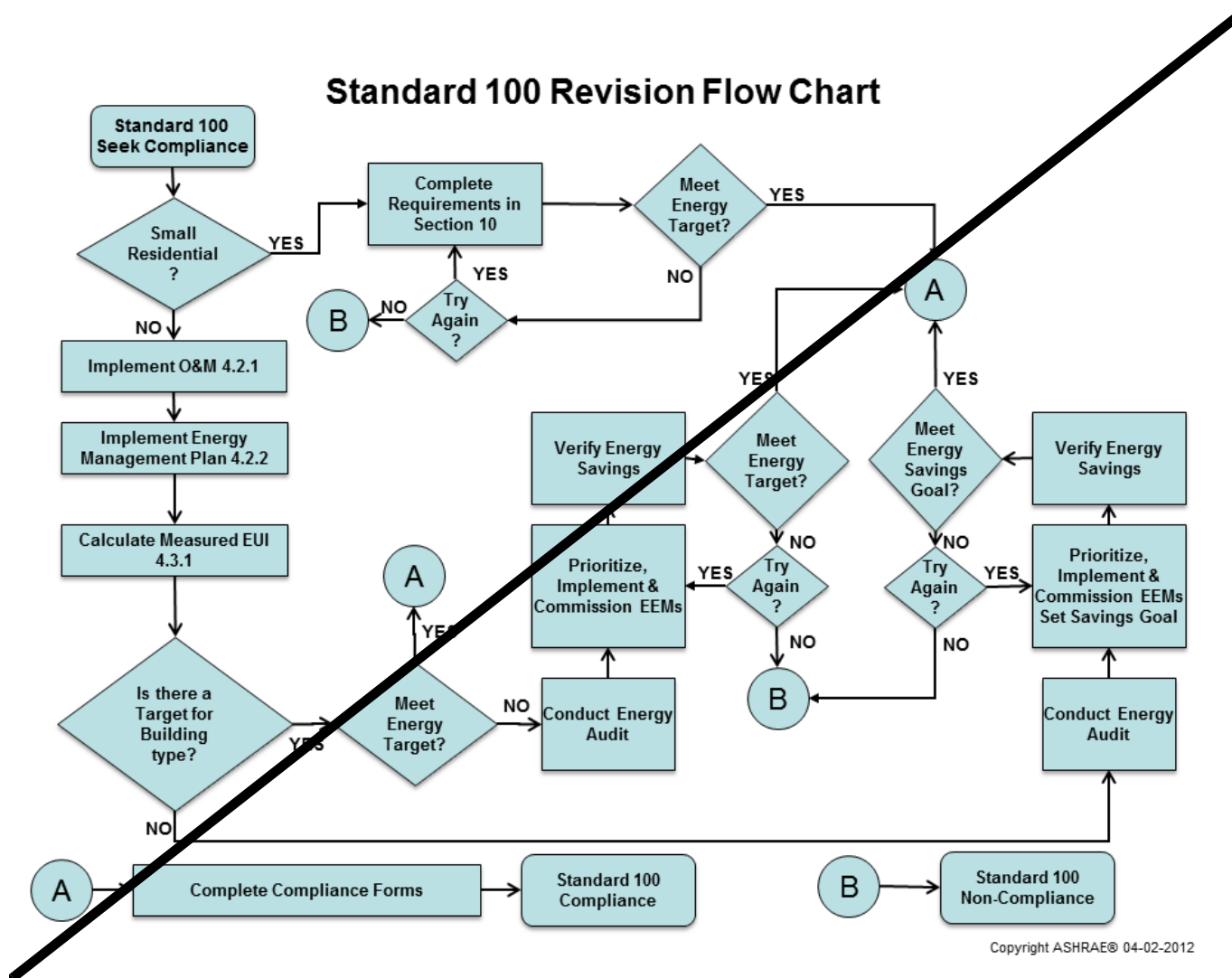
Event	Time Frame	Reference
[...]		
Step 10—Apply for compliance with Standard 100.	Within 60 months after completion of Step 4	Section 4.3.2.34.3.2.2 and Form A (with additional forms as needed.)
[...]		

**Delete Informative Annex F as shown.**

~~(This annex 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.)~~

# **INFORMATIVE ANNEX F**

## **STANDARD 100 COMPLIANCE FLOW CHART**





## **POLICY STATEMENT DEFINING ASHRAE'S CONCERN FOR THE ENVIRONMENTAL IMPACT OF ITS ACTIVITIES**

ASHRAE is concerned with the impact of its members' activities on both the indoor and outdoor environment. ASHRAE's members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted Standards and the practical state of the art.

ASHRAE's short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the Standards and Guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive Technical Committee structure, continue to generate up-to-date Standards and Guidelines where appropriate and adopt, recommend, and promote those new and revised Standards developed by other responsible organizations.

Through its *Handbook*, appropriate chapters will contain up-to-date Standards and design considerations as the material is systematically revised.

ASHRAE will take the lead with respect to dissemination of environmental information of its primary interest and will seek out and disseminate information from other responsible organizations that is pertinent, as guides to updating Standards and Guidelines.

The effects of the design and selection of equipment and systems will be considered within the scope of the system's intended use and expected misuse. The disposal of hazardous materials, if any, will also be considered.

ASHRAE's primary concern for environmental impact will be at the site where equipment within ASHRAE's scope operates. However, energy source selection and the possible environmental impact due to the energy source and energy transportation will be considered where possible. Recommendations concerning energy source selection should be made by its members.

**ASHRAE · 180 Technology Parkway · Peachtree Corners, GA 30092 · [www.ashrae.org](http://www.ashrae.org)**

## **About ASHRAE**

Founded in 1894, ASHRAE is a global professional society committed to serve humanity by advancing the arts and sciences of heating, ventilation, air conditioning, refrigeration, and their allied fields.

As an industry leader in research, standards writing, publishing, certification, and continuing education, ASHRAE and its members are dedicated to promoting a healthy and sustainable built environment for all, through strategic partnerships with organizations in the HVAC&R community and across related industries.

To stay current with this and other ASHRAE Standards and Guidelines, visit [www.ashrae.org/standards](http://www.ashrae.org/standards), and connect on LinkedIn, Facebook, Twitter, and YouTube.

## **Visit the ASHRAE Bookstore**

ASHRAE offers its Standards and Guidelines in print, as immediately downloadable PDFs, and via ASHRAE Digital Collections, which provides online access with automatic updates as well as historical versions of publications. Selected Standards and Guidelines are also offered in redline versions that indicate the changes made between the active Standard or Guideline and its previous version. For more information, visit the Standards and Guidelines section of the ASHRAE Bookstore at [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore).

## **IMPORTANT NOTICES ABOUT THIS STANDARD**

**To ensure that you have all of the approved addenda, errata, and interpretations for this Standard, visit [www.ashrae.org/standards](http://www.ashrae.org/standards) to download them free of charge.**

**Addenda, errata, and interpretations for ASHRAE Standards and Guidelines are no longer distributed with copies of the Standards and Guidelines. ASHRAE provides these addenda, errata, and interpretations only in electronic form to promote more sustainable use of resources.**