

# Public Review Draft

Proposed Addendum ac to Standard 189.1-2023

# Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings

First Publication Public Review (January, 2026)  
(Draft Shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at [www.ashrae.org/standards-research-technology/public-review-drafts](http://www.ashrae.org/standards-research-technology/public-review-drafts) and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore) or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

The appearance of any technical data or editorial material in this public review document does not constitute endorsement, warranty, or guaranty by ASHRAE of any product, service, process, procedure, or design, and ASHRAE expressly disclaims such.

© December 18, 2025 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 180 Technology Pkwy NW, Peachtree Corners, GA 30092. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

**ASHRAE, 180 Technology Pkwy NW, Peachtree Corners, GA 30092**



© December 18, 2025 ASHRAE

*This draft is covered under ASHRAE copyright. The appearance of any technical data or editorial material in this publication document does not constitute endorsement, warranty, or guaranty by ASHRAE of any product, service, process, procedure, design or the like and ASHRAE expressly disclaims such. Permission to republish or redistribute must be obtained from the MOS.*

**(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**

This proposal requires high efficiency traction and hydraulic elevators without diminishing the ride quality and amenity of these devices. Significant amounts of energy are saved with traction elevators by requiring that these elevators provide braking and deceleration by the use of a regenerative variable speed drive. Changes from the prior traction elevator requirements include: lower threshold rise height, and expansion of the requirement to alterations. Alterations which trigger these requirements include replacement of the entire elevator or replacement of the elevator control system. *Elevator control system* is a newly defined term in the definition section of 189.1 and points to a broader definition in ASME A17.1 *Safety Code for Elevators and Escalators*. The weight and speed of qualifying elevators are defined so that this applies to elevators with sufficient speed and weight to generate enough deceleration energy to justify the cost of the regenerative drive. This proposal also defines under which conditions the regenerative energy can be “burned off” in braking resistors or load banks. The primary condition is under emergency power conditions where elevators and a few other emergency circuits are energized by the emergency generator; in this case braking resistors or load banks are allowed to consume regenerated energy to prevent back-feed of voltage into the emergency generator.

This proposal for hydraulic elevators would require variable speed drives to control the speed of the hydraulic motor and prohibits the use of oil bypass for speed control when lifting the elevator. This replaces the base case system which uses a single speed motor and bypass valve to control the flow of hydraulic oil into the hydraulic jack to control the speed and location of the elevator. At reduced elevator upwards speeds, only a portion of the hydraulic motor power is going towards lifting the elevator, the rest of the motor energy goes into pushing bypass oil into a storage tank which does not provide useful work and is an inefficient way of controlling the upward speed of the hydraulic elevator. The weight and speed criteria for qualifying elevators are defined as to exempt smaller infrequently used elevators.

*[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]*

## Addendum ac to 189.1-2023

### Add elevator control system definition to Section 3.2

#### 3.2 Definitions

**elevator control system.** The overall system governing the starting, stopping, direction of motion, acceleration, speed, and slowing of the moving elevator as defined in ASME A17.1/CSA B44.

#### Modify Section 7.4.7.4 as follows

**7.4.7 Other Equipment.** The other equipment shall comply with ANSI/ASHRAE/IES Standard 90.1, Section 10, with the following modifications and additions.

...

**7.4.7.4 Elevator Power Conversion System.** This section supersedes ANSI/ASHRAE/IES Standard 90.1, Section 10.4.3.4.

~~In new buildings, traction elevators with a rise of 75 ft (23 m) or more shall be provided with a power conversion system that includes all of the following:~~

- ~~a. A drive motor with a minimum Class IE2 efficiency rating, as defined by IEC EN 60034-30~~
- ~~b. A regenerative drive that recovers potential energy released during motion, converts it to electrical energy, and supplies it to the building electrical system~~

**7.4.7.4.1 Traction elevator energy recovery.** A newly installed traction elevator, or an altered traction elevator with a new *elevator control system*, where the elevator has a rated capacity of 2,000 pounds or greater, a rated speed of 150 feet per minute (0.76 m/s) or greater, and a total rise of 20 feet (6.1 m) or greater, shall have a regenerative drive that recovers energy released during motion and supplies electrical energy to the building electrical system when operating on utility power. Braking resistors or resistive load banks shall be permitted to absorb regenerated energy only during emergency generator operation

##### **Exceptions to 7.4.7.4.1:**

1. Stand-alone parking garages, where the calculated total building electrical load under normal operation is less than the load needed to absorb regenerated power.
2. Elevator alterations where the lowest measured or calculated total building electrical load is less than the load needed to absorb regenerated power.

**7.4.7.4.2 Hydraulic Elevator Variable Speed Pump and Controls.** A newly installed hydraulic elevator, or an altered hydraulic elevator with a new *elevator control system* where the elevator has a rated capacity of 2,200 pounds (1,000 kg) or greater, and a rated speed of 100 feet per minute (0.51 m/s) or greater, shall have a variable speed drive controlling the hydraulic oil pump motor. Upward movement of the elevator shall be controlled without bypassing hydraulic oil.

**Exception to 7.4.7.4.2:** Hydraulic elevators in Group E occupancies.

#### Modify Section 11. Normative References as follows

American Society of Mechanical Engineers (ASME)  
Three Park Avenue  
New York, NY 10016-5990, United States  
1-800-843-2763 and 1-973-882-1170; [www.asme.org](http://www.asme.org)

ASME A17.1-2022/CSA B44-2025	Safety Code for Elevators and Escalators	3.2
ASME A112.18.1-2018/CSA B125.1-18	Plumbing Supply Fittings	6.3.2.1