



# ADDENDA

**ASHRAE Addendum v to  
ASHRAE Guideline 36-2021**

# High-Performance Sequences of Operation for HVAC Systems

Approved by ASHRAE and the American National Standards Institute on February 29, 2024.

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## FOREWORD

*This addendum provides a way to establish different demand limit adjustments to different space types. This is particularly useful when there are critical zones where setpoints should not be adjusted.*

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

### Addendum v to Guideline 36-2021

*(IP and SI Units)*

Revise Section 3.1.1.1 as follows:

#### 3.1.1.1. Zone Temperature Setpoints

Zone temperature initial setpoints can be specified by the designer in a number of ways. The most flexible way is to include them for each zone in variable-air-volume (VAV) box and single-zone VAV (SZVAV) air-handling unit (AHU) equipment schedules. They can also be generically listed by zone type, such as the example in (a) and (b) below.

- a. Default setpoints shall be based on zone type as shown in Table 3.1.1.1-1.

**Table 3.1.1.1-1 Default Setpoints**

Zone Type	Occupied		Unoccupied	
	Heating	Cooling	Heating	Cooling
VAV	21°C (70°F)	24°C (75°F)	16°C (60°F)	32°C (90°F)
Mechanical/electrical rooms	18°C (65°F)	29°C (85°F)	18°C (65°F)	29°C (85°F)
Networking/computer	18°C (65°F)	24°C (75°F)	18°C (65°F)	24°C (75°F)

- b. Default demand limit (DL) setpoint offsets shall be based on zone type as shown in Table 3.1.1.1-2.

**Table 3.1.1.1-2 Default Demand Limit Offsets**

Zone Type	Heating			Cooling		
	DL #1	DL #2	DL #3	DL #1	DL #2	DL #3
<u>General (unless listed below)</u>	<u>0.5°C (1°F)</u>	<u>1°C (2°F)</u>	<u>2°C (4°F)</u>	<u>0.5°C (1°F)</u>	<u>1°C (2°F)</u>	<u>2°C (4°F)</u>
Laboratory spaces	0°C (0°F)	0.5°C (1°F)	1°C (2°F)	0°C (0°F)	0.5°C (1°F)	1°C (2°F)
<u>Transient gallery, restrooms</u>	<u>1°C (2°F)</u>	<u>1.5°C (3°F)</u>	<u>2°C (4°F)</u>	<u>1°C (2°F)</u>	<u>1.5°C (3°F)</u>	<u>2°C (4°F)</u>

**Table 3.1.1.1-2 Default Demand Limit Offsets**

<u>Zone Type</u>	<u>Heating</u>			<u>Cooling</u>		
	<u>DL #1</u>	<u>DL #2</u>	<u>DL #3</u>	<u>DL #1</u>	<u>DL #2</u>	<u>DL #3</u>
<u>IDF/MDF</u>	<u>0°C (0°F)</u>	<u>0°C (0°F)</u>	<u>0°C (0°F)</u>	<u>0°C (0°F)</u>	<u>0°C (0°F)</u>	<u>0°C (0°F)</u>

Revise Section 5.3.2.6 and 5.3.2.7 as follows:

- 5.3.2.6. Cooling Demand Limit Set-Point Adjustment. The active cooling setpoints for all zones shall be increased when a demand limit is imposed on the associated Zone Group. The operator shall have the ability to exempt individual zones from this adjustment through the normal BAS user interface. Changes due to demand limits are not cumulative.
- a. At demand-limit Level 1, increase setpoint by offset listed in Section 3.1.1.1.b0.5°C (1°F).
  - b. At demand-limit Level 2, increase setpoint by offset listed in Section 3.1.1.1.b1°C (2°F).
  - c. At demand-limit Level 3, increase setpoint by offset listed in Section 3.1.1.1.b2°C (4°F).
- 5.3.2.7. Heating Demand-Limit Set-Point Adjustment. The active heating setpoints for all zones shall be decreased when a demand limit is imposed on the associated Zone Group. The operator shall have the ability to exempt individual zones from this adjustment through the normal BAS user interface. Changes due to demand limits are not cumulative.
- a. At demand-limit Level 1, decrease setpoint by offset listed in Section 3.1.1.1.b0.5°C (1°F).
  - b. At demand-limit Level 2, decrease setpoint by offset listed in Section 3.1.1.1.b1°C (2°F).
  - c. At demand-limit Level 3, decrease setpoint by offset listed in Section 3.1.1.1.b2°C (4°F).

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*Heating demand limits may be desirable in buildings with electric heat or heat pumps or in regions with limited gas distribution infrastructure.*

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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.

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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.

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