



ADDENDA

**ASHRAE Addendum m 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.

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).

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Cognizant TC: 1.4, Control Theory and Application

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(This foreword is not part of this guideline. It is merely informative and does not contain requirements necessary for conformance to the guideline.)

FOREWORD

This addendum reduces nuisance alarms generated by the leaking valve alarm.

For VAV boxes with reheat, the current language often triggers false alarms when the VAV box damper closes in occupied-standby mode, TAV mode, or on transition to unoccupied mode. The proposed language adds a qualifier which requires the damper to be open before triggering the alarm.

For fan-powered VAVs, the current language has the potential to trigger false alarms when the return airflow exceeds the primary airflow as the discharge air temperature can be more than 5°F above the AHU SAT due to mixing of primary and return air. The proposed language adds a qualifier which requires the DAT to be above the room temperature by 5°F so that any mixture of primary and return air volumes will not trigger the alarm unless there is extra heat added by the reheat coil. The proposed language for series fan-powered VAVs also adds a qualifier which requires the series fan serving the zone to be proven on.

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 m to Guideline 36-2021

(IP and SI Units)

Revise Section 5.6.6.5 as follows:

- 5.6.6.5. Leaking Valve. ~~If all of the following are true the valve position is 0% for 15 minutes, DAT is above AHU SAT by 3°C (5°F), and the fan serving the zone is proven ON,~~ generate a Level 4 alarm.
- a. Valve position is 0%; and
 - b. DAT is above AHU SAT by 3°C (5°F); and
 - c. Damper position is greater than 0% and the AHU supply fan serving the zone is proven ON.

Revise Section 5.7.6.6 as follows:

- 5.7.6.6. Leaking Valve. ~~If all of the following are true the valve position is 0% for 15 minutes, DAT is above AHU SAT by 3°C (5°F), and the fan serving the zone is proven ON,~~ generate a Level 4 alarm.
- a. Valve position is 0%; and
 - b. DAT is above AHU SAT by 3°C (5°F); and
 - c. DAT is above room temperature by 3°C (5°F); and

- d. Damper position is greater than 0% and the AHU supply fan or the parallel fan serving the zone is proven ON.

Revise Section 5.8.6.6 as follows:

- 5.8.6.6. Leaking Valve. If all of the following are true~~the valve position is 0% for 15 minutes, and DAT is above AHU SAT by 3°C (5°F),~~ generate a Level 4 alarm.
 - a. Valve position is 0%; and
 - b. DAT is above AHU SAT by 3°C (5°F); and
 - c. DAT is above room temperature by 3°C (5°F); and
 - d. Damper position is greater than 0% and the AHU supply fan or the parallel fan serving the zone is proven ON.

Revise Section 5.9.9.6 as follows:

- 5.9.6.6. Leaking Valve. If all of the following are true~~the valve position is 0% for 15 minutes, and DAT is above AHU SAT by 3°C (5°F),~~ generate a Level 4 alarm.
 - a. Valve position is 0%; and
 - b. DAT is above AHU SAT by 3°C (5°F); and
 - c. DAT is above room temperature by 3°C (5°F); and
 - d. Series fan serving the zone is proven ON.

Revise Section 5.10.6.6 as follows:

- 5.10.6.6. Leaking Valve. If all of the following are true~~the valve position is 0% for 15 minutes, and DAT is above AHU SAT by 3°C (5°F),~~ generate a Level 4 alarm.
 - a. Valve position is 0%; and
 - b. DAT is above AHU SAT by 3°C (5°F); and
 - c. DAT is above room temperature by 3°C (5°F); and
 - d. Series fan serving the zone is proven ON.

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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.

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