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ADDENDA

ASHRAE Addendum y to
ASHRAE Guideline 36-2021

High-Performance Sequences of Operation for HVAC Systems

Approved by ASHRAE on August 30, 2024.

This addendum was approved by a Standing Guideline Project Committee (SGPC) 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 guideline. Instructions for how to submit a change can be found on the ASHRAE® website (www.ashrae.org/continuous-maintenance).

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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

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. Only these changes 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 substantive changes.

Addendum y fixes an error for multiple zone VAV Air Handling Units with a separate minimum outdoor air damper, which can cause both the outside air and return air dampers to close when the supply air temperature control loop is wound up and minimum outdoor air control is enabled.

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Addendum y to Guideline 36-2021

(IP and SI Units)

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Revise Section 5.16.4.4.a.3 as follows:

3. When minimum outdoor air control is enabled, the normal sequencing of economizer outdoor air and return air dampers per Section 5.16.2 shall be suspended per the following sequence:

    i. Fully open return air damper; and

Economizer outdoor air damper is closed when minimum outdoor air control is enabled to ensure a good signal across the minimum outdoor air damper.

    ii. Wait 15 seconds, then close the economizer outdoor air damper; and

    iii. Wait 3 minutes, then release return air damper position to MaxRA-P for minimum outdoor air control ~~by the SAT control loop in Section 5.16.2~~. Economizer outdoor air damper remains closed.

    iv. The maximum return air damper position endpoint MaxRA-P shall be modulated from 100% to 0% to maintain DP across the minimum outdoor air damper at setpoint MinDPsp.

Revise Section 5.16.5.4.a.3 as follows:

3. When minimum outdoor air control is enabled, the normal sequencing of economizer outdoor air and return air dampers per Section 5.16.2 shall be suspended per the following sequence:

    i. Fully open return air damper; and

Economizer outdoor air damper is closed when minimum outdoor air control is enabled to ensure a good signal across the minimum outdoor air damper.

    ii. Wait 15 seconds, then close the economizer outdoor air damper; and

    iii. Wait 3 minutes, then release return air damper position to MaxRA-P for minimum outdoor air control ~~by the SAT control loop in Section 5.16.2~~. Economizer outdoor air damper remains closed.

    iv. The maximum return air damper position endpoint MaxRA-P shall be modulated from 100% to 0% to maintain airflow across the minimum outdoor air damper at setpoint MinOAsp.

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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.

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.

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