



# ADDENDA

**ASHRAE Addendum i to  
ASHRAE Guideline 36-2018**

# High Performance Sequences of Operation for HVAC Systems

Approved by ASHRAE on January 27, 2020.

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- a. interpretation of the contents of this Guideline,
- b. participation in the next review of the Guideline,
- c. offering constructive criticism for improving the Guideline, or
- d. permission to reprint portions of the Guideline.

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## FOREWORD

*This addendum revises the way the variable-speed series fan is controlled. Currently, the speed tracks the primary airflow. This revision maps the fan airflow set point from a minimum equal to the larger of the ventilation minimum and the primary airflow minimum up to the cooling maximum. The intent is to help ensure that the fan airflow exceeds the primary airflow so that no primary air exits the induction port into the return air plenum, recognizing that the actual fan airflow and actual primary airflow can vary from set point. Note that this will only be effective if the ventilation minimum is larger than the primary airflow minimum, as it will be if the designer is taking advantage of the indirect ventilation capability of the recirculated return air from other zones. If the ventilation minimum is the same as the primary airflow, the sequence is effectively the same as the current sequence.*

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

### Addendum i to Guideline 36-2018

**Delete current Figure 5.10.5 and replace with revised Figure 5.10.5 as shown. Revise Section 5.10.5.1 as shown (I-P and SI).**

#### 5.10.5.1 When the Zone State Is Cooling

- a. The cooling-loop output shall be mapped to the active primary airflow set point from the minimum end point to the cooling maximum end point.
  1. If supply air temperature from the air handler is greater than room temperature, the active primary airflow set point shall be no higher than the minimum end point, and the series fan airflow set point shall be no higher than OA-min.
- b. The cooling-loop output shall be mapped to the ~~The~~ series fan airflow set point ~~shall be the from the~~ larger of OA-min and the active primary airflow minimum set point end point to the cooling maximum end point.
- c. Heating coil is OFF.

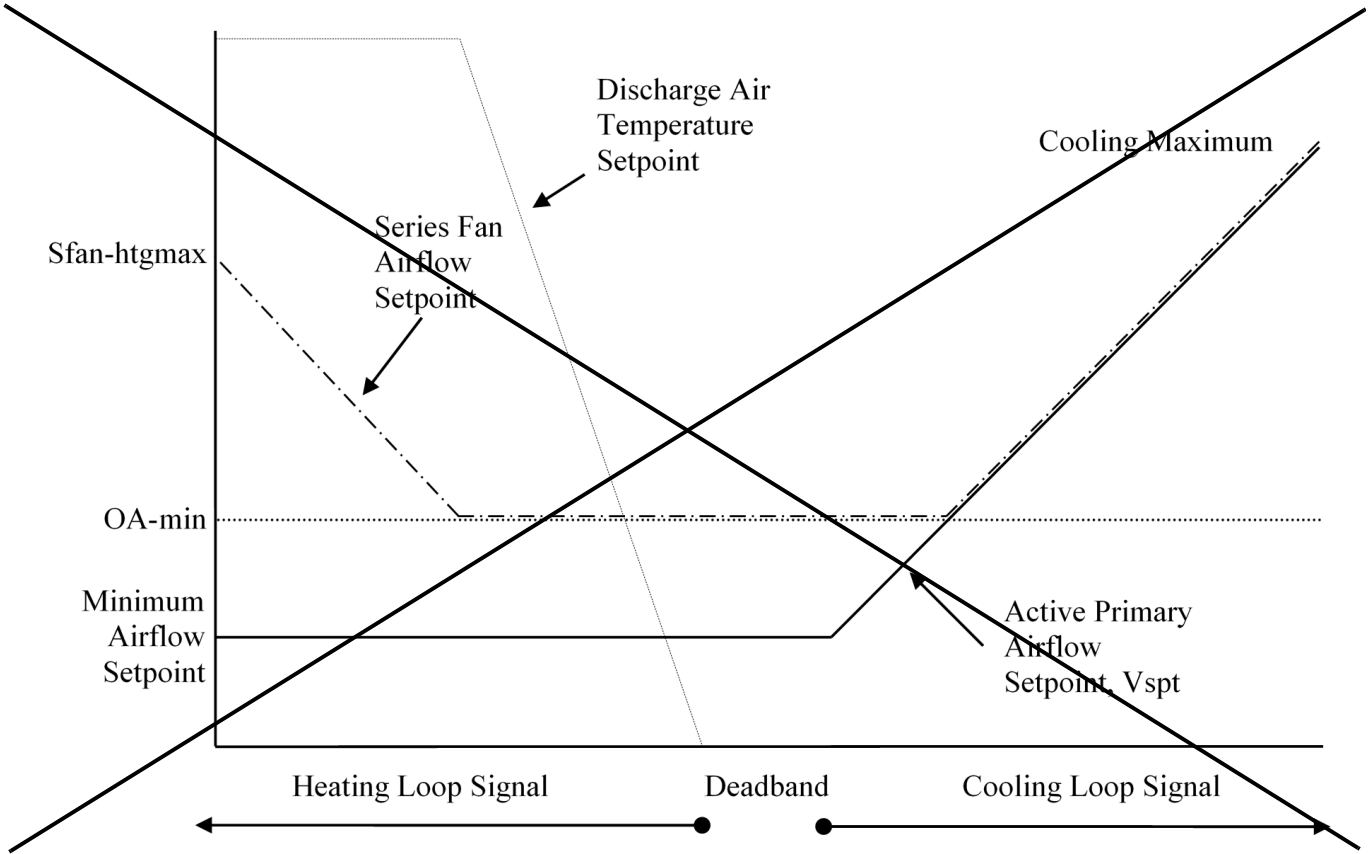


Figure 5.10.5 Control logic for variable-volume series fan-powered VAV zone.

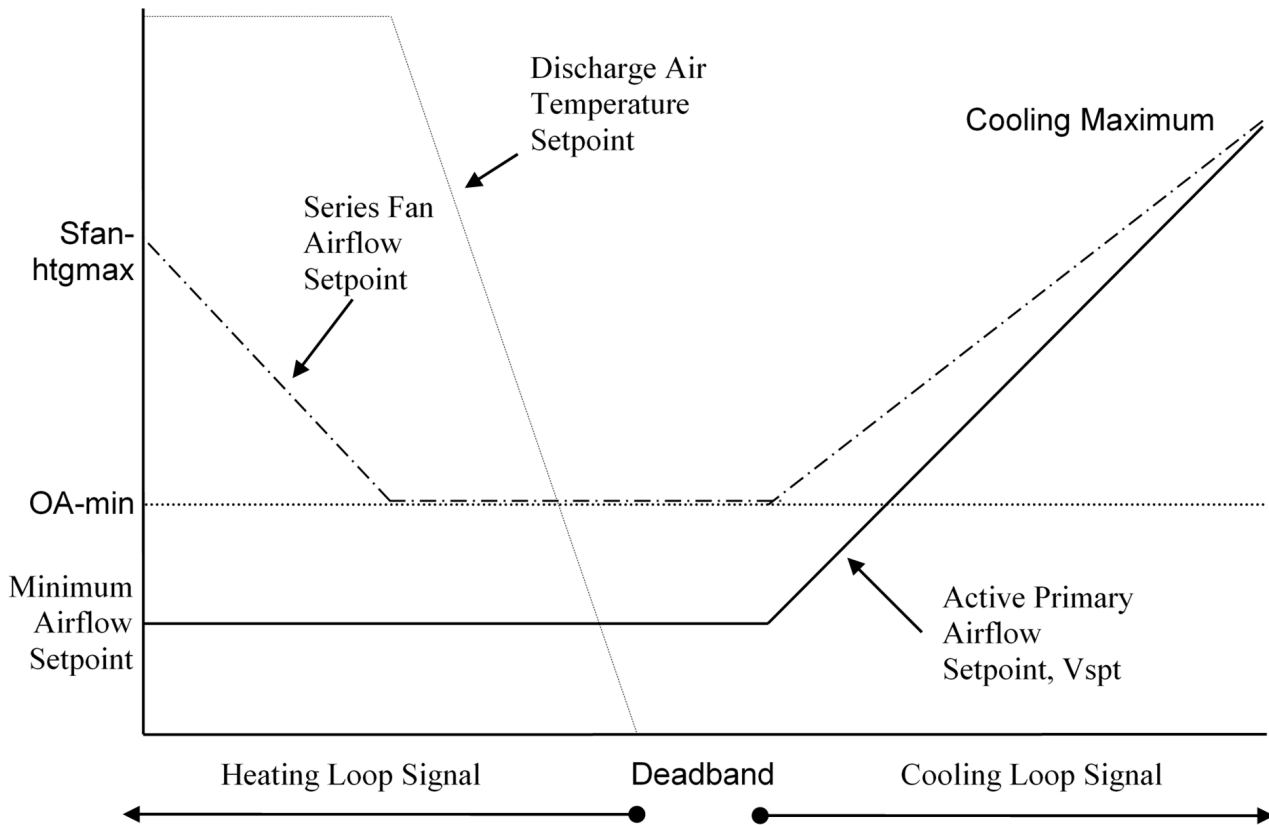


Figure 5.10.5 Control logic for variable-volume series fan-powered VAV zone.















## **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.

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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.

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