



STANDARD

ANSI/ASHRAE Standard 217-2020

Non-Emergency Ventilation in Enclosed Road, Rail, and Mass Transit Facilities

Approved by ASHRAE and the American National Standards Institute on June 30, 2020.

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ISSN 1041-2336



Cognizant TC: 5.9, Enclosed Vehicular Facilities
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NOTE

Approved addenda, errata, or interpretations for this standard can be downloaded free of charge from the ASHRAE website at www.ashrae.org/technology.

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FOREWORD

ASHRAE Standard 217 establishes uniform criteria for the design, construction, commissioning, operation, and maintenance of non-emergency ventilation systems and equipment and other measures intended to provide indoor air quality acceptable in enclosed transportation facilities during non-emergency operating conditions. It provides owners requirements for collecting all relevant parameters for normal facility operation and includes direction for identifying key areas where facility design is to be based on prescribed criteria or performance-based design development.

Industry accepted design criteria set points and elements of engineering analysis for proper operation are also included: a roadmap of design issues necessary for consideration of facility design; key equipment functional requirements necessary for proper facility operations; and key equipment design features or material selections important to cost-effective operations, such as maintenance considerations and equipment replacement provisions.

Standard Project Committee 217 is represented the owners, scientists, designers, and equipment manufacturers. It is anticipated that this standard will be further improved to reflect the ever-expanding body of knowledge, experience, and research related to ventilation and air quality in underground transportation facilities.

1. PURPOSE

This standard provides minimum ventilation requirements for ventilation systems within enclosed transportation facilities during non-emergency operating conditions.

2. SCOPE

2.1 This standard applies to enclosed transportation facilities consisting of road tunnels, railway tunnels, mass transit tunnels, and mass transit stations.

2.2 This standard provides criteria for non-emergency ventilation.

2.3 This standard addresses the design, construction, testing, commissioning, operation, and maintenance requirements of non-emergency ventilation systems and equipment.

3. LIMITATIONS

3.1 This standard is not applicable for non-emergency ventilation during construction.

3.2 This standard is not applicable to ancillary HVAC systems serving nonpublic areas of enclosed transportation facilities.

3.3 This standard does not address non-emergency ventilation requirements for the following enclosed transportation facilities, which are addressed by other ASHRAE standards such as ANSI/ASHRAE Standard 62.1, *Ventilation for Acceptable Indoor Air Quality*¹:

- a. Parking garages
- b. Bus, truck, and railway terminals and public assembly places
- c. Vehicle storage, repair, and maintenance facilities
- d. Railway stations
- e. Concessionary areas of enclosed transportation facilities
- f. Air-conditioning equipment used for enclosed transportation facilities

3.4 This standard does not address ventilation requirements for emergency conditions in enclosed transportation facilities. Such requirements are addressed by NFPA standards and other national and international documents.

3.5 This standard does not address power supply and other electrical requirements.

3.6 This standard does not apply to enclosed transportation facilities designed, constructed, or renovated before the adoption date of this section.