

CHANGE TYPE: Modification

CHANGE SUMMARY: The code text was rewritten to clarify the intent with regard to “intermittent” operation.

2018 CODE: 404.1 Enclosed parking garages. Where mechanical ventilation systems for enclosed parking garages shall operate ~~intermittently~~ continuously or shall be automatically operated such operation shall be automatic by means of carbon monoxide detectors applied in conjunction with nitrogen dioxide detectors. Such detectors shall be listed in accordance with UL 2075 and installed in accordance with their listing and the manufacturers’ recommendations instructions. Automatic operation shall cycle the ventilation system between the following two modes of operation:

1. Full-on at an airflow rate of not less than 0.75 cfm per square foot [0.0038 m³/(s · m²)] of the floor area served.
2. Standby at an airflow rate of not less than 0.05 cfm per square foot [0.0025 m³/(s · m²)] of the floor area served.

2015 CODE: 404.2 Minimum ventilation. Automatic operation of the system shall not reduce the ventilation airflow rate below 0.05 cfm per square foot (0.0025 m³/s · m²) of floor area and the system shall be capable of producing ventilation airflow rate of 0.75 cfm per square foot (0.0038 m³/s · m²) of floor area.

CHANGE SIGNIFICANCE: This code section has been misinterpreted regarding intermittent operation. No technical changes were made, rather the text was rewritten to make it clear that the garage exhaust system can never shut off completely. The exhaust is either full-on all of the time, or it is allowed to be cycled between full-on and minimum-on by CO and NO₂ detectors. “Intermittent” operation implied that the system could shut off completely, which was never the intent. The detectors determine when the exhaust system goes from standby (minimum rate) to the full-on rate. If the system is operated in a continuous mode without detectors, then it would operate at the full-on rate continuously.

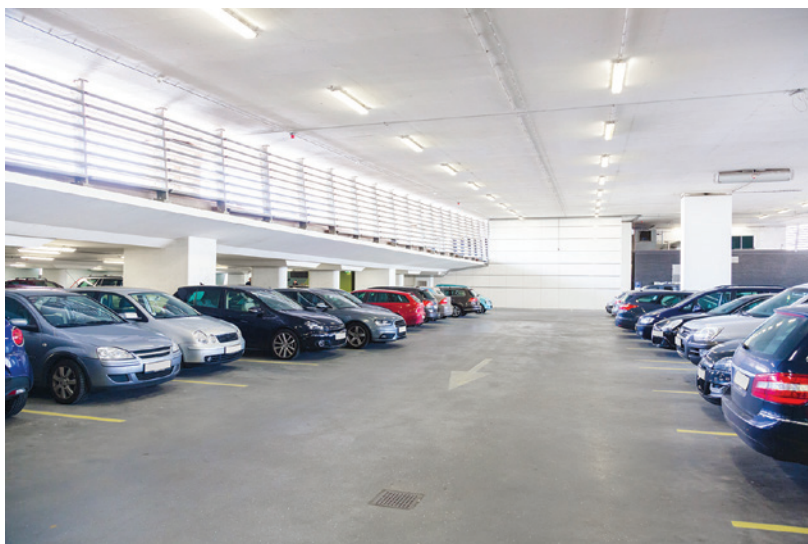


Photo courtesy of iStock.com

Continuous or automatic mechanical ventilation is required for enclosed parking garages. Automatic ventilation must cycle between full-on and standby airflow rates.

404.1

Mechanical Ventilation of Enclosed Parking Garages

This excerpt is taken from *Significant Changes to the International Plumbing Code®, International Mechanical Code®, International Fuel Gas Code®, 2018 Edition*.



Significant Changes publications take you directly to the most important changes that impact projects. Key changes are identified then followed by in-depth discussion of how the change affects real-world application. Photos, tables and illustrations are included to further clarify application. Available for the IBC, IRC, IFC and IPC/IMC/IFGC, the Significant Changes publications are very useful training and review tools for transitioning to a new code edition.