

## Planning & Development Department

803-329-5590 / [permits@cityofrockhill.com](mailto:permits@cityofrockhill.com)

Physical (By Appointment Only): 155 Johnston Street, Rock Hill, SC 29730

Mailing: PO Box 11706, Rock Hill, SC 29731-1706

[www.cityofrockhill.com](http://www.cityofrockhill.com)



## 2009 International Energy Conservation Code Requirements for Commercial

The 2009 International Energy Conservation Code (IECC) is the energy code enforced for all buildings.

New commercial buildings and additions are required to have an air leakage test of the building thermal envelope. There are two options for the testing, a blower door test or a visual inspection, but the general contractor cannot perform the test himself. City inspectors will perform the air leakage visual inspection along with the framing inspection.

COMcheck forms are required to be submitted at the time of building plan review. Visit [www.energycodes.gov](http://www.energycodes.gov) for more information.

### Summary of Significant Changes to 2009 IECC for Commercial (Also includes R-1 occupancies)

This is a comprehensive listing of the significant changes as they apply to the 2009 International Energy Conservation Code. This overview is not to be considered an all-inclusive listing of all the changes that can be found in the 2009 IECC.

*As an alternative, commercial projects shall comply with the requirements of ANSI/ASHRAE/IESNA 90.1 in its entirety.*

- R-1 occupancies shall use the designated column of table 502.1 for building thermal envelope requirements.
- Recessed lighting is required to be IC rated and sealed when penetrating the conditioned space envelope.
- Designed heating and cooling loads shall be calculated using ASHRAE/ACCA standard 183.
- The exception to energy recovery systems for laboratory fume hood systems no longer has a CFM requirement. The new section allows for the exception for laboratory fume hoods providing they meet one of the exceptions of 503.2.6 (3)(3.1), Or (3.2).
- A new exception was added that will omit piping insulation requirements of section 503.2.8. *Factory-installed piping within room fan-coils and unit ventilators tested and rated according to AHRI 440 (sampling and variation provisions of section 6.5 shall not apply) and 840, respectively.*
- All pipe sizes equal to 1.5 inches and less shall be insulated to a minimum thickness of 1.5 inches.
- Fan motor sizing shall be the first motor size greater than brake horsepower rating. Brake horse power ratings (bhp) for fans shall be included on all plan submittals for review.
- Outside heating shall consist of radiant systems only. Such systems shall employ occupancy sensors that will automatically deenergize the system when no occupants are present.
- HVAC systems shall include controls that reset supply air to coincide to occupant loading, or to outdoor air. Section reference 503.4.5.4.
- Cooling systems shall not use hot gas bypass or other evaporator pressure control systems unless the system is designed with multiple steps of unloading or continuous capacity modulation. Section reference 503.4.7.
- Pool heaters shall meet the same requirements as listed above for residential pool heaters.
- When computing interior lighting loads the exception not to include specialized medical, dental and research lighting has been removed. *2009 IECC has added exceptions to the lighting load requirements review section [505.5.1](#).*

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