

**NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
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Commercial Energy Code Compliance Options-ASHRAE 90.1-2010

Code: 2012 NC Energy Conservation Code
Section: 501.1

Date: March 18, 2013

Question:

When using the 2012 NCECC, how can I apply the recently adopted¹ ASHRAE 90.1-2010 to new commercial buildings, commercial building additions, or alterations of existing commercial buildings?

Answer:

The recent adoption of ASHRAE 90.1-2010 by the North Carolina Building Code Council (BCC) adds a new alternative compliance path for commercial buildings to the 2012 NCECC that can be elected at the discretion of the permit holder. This standard only replaced 501.1 Item 2 as a compliance path. Other compliance pathways in the 2012 NCECC are still valid; they are not being replaced by the ASHRAE 90.1-2010 standard. The other compliance pathways include: 501.1 Item 1, NC specific COMcheck, and Section 507.

If ASHRAE 90.1-2010 is elected by the permit holder as the compliance path for a new commercial building or for an addition to an existing commercial building, then one must stay completely within the ASHRAE 90.1-2010 standard for all of the technical requirements. Then the new building or building addition will be designed to be compliant with ASHRAE 90.1-2010. The standard allows for either of prescriptive, trade-off, or performance approaches to compliance. The COMcheck software recognized in our code also contains a compliance path for ASHRAE 90.1-2010 for new construction or additions. Use of the COMcheck program is a viable pathway to compliance and is a recommended approach.

If ASHRAE 90.1-2010 is elected by the permit holder as the compliance path for a building alteration, then one must stay completely within the ASHRAE 90.1-2010 standard for all of the technical requirements. All new work performed must comply with the requirements of the standard with the caveat that any new work performed shall not reduce the energy conservation measures below that which was pre-existing in the building. For example, if the building is being reroofed and R-30 continuous insulation was pre-existing, but ASHRAE 90.1-2010 would only require R-25 continuous insulation, then R-30 continuous insulation must be reinstalled to not compromise the existing energy efficiency design basis of the building. The COMcheck software recognized in our code also contains a compliance path for ASHRAE 90.1-2010 for building alterations. Use of the COMcheck program is a viable pathway to compliance also with the caveat that any new work performed shall not reduce the energy conservation measures below that which was pre-existing in the building.

Keywords:**Footnotes:**

¹Please refer to Item D-9, at the following Link.

http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/BCC_Minutes/2012%2012%2010~December%2010,%202012_.pdf

After passing as a “D” Item, the minutes went to Rules Review. The Rules Review Commission did not change anything to Item D-9 therefore it is acceptable as proposed. The results of the Rules Review Commission meeting was reported at the March 11th BCC Board meeting. The effective date for people to use this proposal will be March 1st, 2013. It can be used as an Alternate to the Code at that time.

Once proposed rule changes complete the approval process through the Rules Review Commission, they are posted to the OSFM website under 2012NC/ICC2009 Amendments in the file “2012-2015 Approved Cumulative Amendments” at this location, in the document title 2012-2015 Approved Cumulative Amendments

http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=Codes_-_Current_and_Past&user=State_Building_Codes

The results of the March 11th 2013 BCC Meeting will be published in the Minutes to said meeting, and will be available at the following website. The meeting minutes typically are published 30 days after the meeting.

http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=BCC_-_Minutes&user=Building_Code_Council&sub=BCC_Meeting

Please note the .pdf document with the meeting minutes from the March 11th 2013 Meeting will not be posted for approximately 30 days after the meeting.