

## STATE BUILDING CODE INTERPRETATION NO. I-53-99

December 6, 1999

The following is offered in response to your letter in which you seek interpretation of duct insulation requirements (for ducts in unconditioned spaces) found in ASHRAE 90.1 and the 1995 CABO Model Energy Code.

**Question:** Does 1 ½ inch foil-faced duct wrap with an out-of-package R-value of 5.1 and an installed R-value of 4.2 satisfy the requirements of both codes which specify a duct insulation R-value of 5.0 when the temperature difference between the space within which the duct is located and the design air temperature in the duct is greater than 40 degrees F?

**Answer:** No. Both of the codes you inquire about refer to the installed R-value of the duct insulation when setting forth requirements. ASHRAE 90.1, in footnote a to Table 403.2.9.2 and the 1995 CABO Model Energy Code in footnote 1 to Table 503.7.1 both contain the information that the duct insulation is to be measured at the installed thickness. Since the product you describe has an installed R-value of 4.2, it does not meet the requirements of the codes you reference.