

**NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
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Concrete Cold Weather Requirements

Code: 2012 Building Code
Section: 1904.4

Date: September 1, 2011

Question:

What is considered “cold weather” in terms of applying the cold weather requirements of ACI 318 to pouring concrete.

Answer:

The NC codes require concrete construction to be accomplished in accordance with ACI 318-05. Section 5.12 of that document provides the very basics of “Cold weather requirements” and the commentary for this section states: “Recommendations for cold weather concreting are given in detail in “**Cold Weather Concreting**” reported by ACI Committee 306”. This report may be viewed at the following web link:

http://www.ccagc.org/pdfs/ACI_306R-88_Cold_Weather_Concreting.pdf

Section 1.1 of **Cold Weather Concreting** defines cold weather as “a period when, for more than three consecutive days, the following conditions exist: 1) the average daily air temperature is less than 40⁰ F (5⁰ C) and 2) the air temperature is not greater than 50⁰ F (10⁰ C) for more than one-half of any 24-hr period”.

Keywords:

air entrained, air entrainment, freezing, footing

1904.2 - Concrete Cold Weather Requirements.doc