

GG219-14

507.1, 903.1

Proponent: Jason Wilen, representing National Roofing Contractors Association (NRCA)
(jwilen@nrca.net)

Revise as follows:

507.1 Moisture control preventative measures. Moisture preventative measures shall be inspected in accordance with Sections 902 and 903 for the categories listed in Items 1 through 7. Inspections shall be executed in a method and at a frequency as listed in Table 903.1.

1. Foundation sub-soil drainage system.
2. Foundation waterproofing.
3. Foundation dampproofing.
4. Under slab water vapor protection.
5. Flashings: Windows, exterior doors, skylights, wall flashing and drainage systems.
6. Exterior wall coverings.
7. Roof coverings, roof drainage, and flashings.
8. Lightweight structural concrete roof deck.

903.1 General. Where application is made for construction as described in this section, the registered design professional in responsible charge or approved agency shall perform commissioning during construction and after occupancy as required by Table 903.1. Where Table 903.1 specifies that commissioning is to be done on a periodic basis, the registered design professional in responsible charge shall provide a schedule of periodic commissioning with the submittal documents that shall be reviewed and *approved* by the *code official*.

The approved agency shall be qualified and shall demonstrate competence, to the satisfaction of the *code official*, for the commissioning of the particular type of construction or operation. The registered design professional in responsible charge and engineers of record involved in the design of the project are permitted to act as the approved agency provided those personnel meet the qualification requirements of this section to the satisfaction of the *code official*. The approved agency shall provide written documentation to the *code official* demonstrating competence and relevant experience or training. Experience or training shall be considered relevant where the documented experience or training is related in complexity to the same type of commissioning activities for projects of similar complexity and material qualities.

**TABLE 903.1
COMMISSIONING PLAN**

CONSTRUCTION OR SYSTEM REQUIRING VERIFICATION	PREOCCUPANCY	POST-OCCUPANCY	METHOD	OCCURRENCE		SECTION/ REFERENCED STANDARD
				Preoccupancy	Post-occupancy	
Chapter 5: Material Resource Conservation and Efficiency						
Moisture control (Section 507.1)						
1. Foundation sub-soil drainage system.	X	None	Field inspection and verification	Periodic inspection for entire sub-soil drainage system	None	507.1 and IBC Ch 18
2. Foundation waterproofing	X	None	Field inspection	Periodic inspection for	None	507.1 and IBC Ch 18

			and verification	the entire foundation		
3. Foundation dampproofing	X	None	Field inspection and verification	Periodic inspection for the entire foundation	None	507.1 and IBC Ch 18
4. Under slab water vapor protection	X	None	Field inspection and verification	Periodic inspection for entire slab footprint	None	507.1, IBC Ch 19 and ASTM E 1643
5. Flashing at: exterior windows, doors, skylights, wall flashing and drainage systems	X	None	Field inspection and verification	Periodic inspection for not less than 25 percent of all flashing locations.	None	507.1 and IBC Ch 14
6. Exterior wall coverings	X	None	Field inspection and verification	Periodic inspection for not less than 25 percent of exterior wall cladding systems.	None	507.1 and IBC Ch 14
7. Roof coverings, roof drainage, and flashings	X	None	Field inspection and verification	Periodic inspection for not less than 25 percent of roof covering, roof drainage and flashings.	None	507.1 and IBC Ch 15
8. <u>Lightweight structural concrete roof deck</u>	X	None	Field inspection and verification	<u>Prior to roof system installation to ensure a maximum 75 percent relative humidity of the roof deck or use of a vapor retarder between the roof deck and roof system.</u>	None	<u>507.1 and ASTM F2170</u>

(Portions of table not shown remain unchanged.)

Add new standard(s) as follows:

ASTM**F2170-11 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes**

Reason: This code change proposal is intended to add a requirement to the commissioning plan for the determination of relative humidity of a concrete roof deck prior to roof system installation when lightweight structural concrete is used as a roof deck. Problems including premature roof system failure can occur when a roof system is installed on a lightweight structural concrete deck that contains too much moisture at the time of roof system installation.

In support of this proposed code change, the document "*Moisture in Lightweight Structural Concrete Roof Decks: Concrete Moisture Presents Challenges for Roofing Contractors*," by the National Roofing Contractors Association (NRCA) can be viewed at

http://www.marksgraham.com/uploads/Moisture_in_Lightweight_Structural_Concrete_Roof_Decks--Aug.2013.pdf.

Cost Impact: Will increase the cost of construction. The cost increase could be avoided by use of a standard weight concrete roof deck.

Analysis: A review of the standard proposed for inclusion in the code, ASTM F2170-11 with regard to the ICC criteria for referenced standards (Section 3.6 of CP#28), will be posted on the ICC website on or before April 1, 2014.

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