

CHAPTER 17 SPECIAL INSPECTIONS AND TESTS

SECTION 1703 APPROVALS

Add new section as follows:

1703.1.3 Personnel. An approved agency shall employ experienced personnel educated in conducting, supervising and evaluating tests and special inspections.

1703.1.3.1 Concrete Inspection and Testing Personnel. Individuals with current credentials shall be considered approved for inspections and tests of concrete as follows:

1. For special inspection of structural concrete - International Code Council *Reinforced Concrete Special Inspector* or American Concrete Institute *Concrete Construction Special Inspector*.
2. For field sampling and testing of concrete – American Concrete Institute *Concrete Field Testing Technician - Grade I*
3. For laboratory testing of concrete including strength tests – American Concrete Institute *Concrete Laboratory Testing Technician - Level 1* or American Concrete Institute *Concrete Laboratory Testing Technician - Level 2*
4. For laboratory strength testing only - American Concrete Institute *Concrete Strength Testing Technician*

Reason Statement: This proposal addresses the need to better ensure proper sampling, testing, and inspection of structural concrete. Improper testing and inspection may result in deficiencies regarding the performance of structural concrete. Concrete is one of the few structural materials that are not in their final form and condition until after being placed on the construction site. It is important that sampling, testing, and inspection are conducted by qualified individuals to ensure proper performance.

Improper sampling and testing can lead to costly additional testing and construction delays. In some instances, unnecessary removal and replacement of concrete. The latter may result in challenges to ensure proper structural integrity and load paths.

The American Concrete Institute has developed rigorous programs to certify individuals as qualified to perform sampling, testing and special inspection of structural concrete construction. This code change proposal does not alter any existing criteria of other individuals qualified as special inspectors.

This proposal adds provisions for individuals who are ACI or ICC certified concrete construction special inspectors to be permitted to satisfy the code criteria as special inspectors for concrete construction. This proposal provides the criteria for approved personnel, but does not require individuals to be certified as an ACI Concrete Construction Special Inspector.

The ACI requirements are provided in the attached files as follows:

Concrete Construction Special Inspector:

CPP-630.1-15 https://www.concrete.org/Portals/0/Files/PDF/cpp_6301-15.pdf

Concrete Laboratory Testing Technician Level 1 and Level 2:

CPP 620.1-19 https://www.concrete.org/Portals/0/Files/PDF/cpp_6201-19.pdf

Concrete Strength Testing Technician:

CPP 620.2-19 https://www.concrete.org/Portals/0/Files/PDF/cpp_6202-19.pdf

Concrete Field Testing Technician – Grade I

CPP 610.1-18 https://www.concrete.org/Portals/0/Files/PDF/cpp_6101-18.pdf

Other authorities having jurisdiction are adding these requirements to their codes. For example, the Georgia Building Code now includes certified inspectors. See pages 12 through 15 of the attached file, 2014-ibcamendments.pdf.

The American Concrete Institute, as a professional society whose mission includes working to facilitate the use and adoption of current concrete technology to assure the desired performance for the benefit of the public, encourages the committee to approve of this code change as submitted.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. This proposal increases the ease for the building official to determine the qualifications of individuals qualified to conduct sampling, testing and inspection of structural concrete.