

Understanding ACI Document Jargon

ACI's Technical Activities Committee (TAC) forms technical committees and assigns each a mission. A technical committee mission identifies the knowledge area the committee is responsible for and is usually not document-specific. Thus a single committee could develop both a Code or Standard and also a Guide. For instance, ACI Committee 117 on tolerances developed a standard, ACI 117 "Specification for Tolerances for Concrete Construction and Materials" and also a guide, ACI 117.1R "Guide for Tolerance Compatibility in Concrete Construction." The committee determines what documents are necessary to their mission and develops those documents after TAC approval.

Technical committees are organized into five groups based on their scope:

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|------------------------------------------|----------------------------------------------------|
| 100—General | 400—Concrete reinforcement and structural analysis |
| 200—Materials and properties of concrete | 500—Specialized applications and repair |
| 300—Design and construction | |

Each committee has a number related to these groups. Committee 347 on Formwork is a construction committee so it has a 300 number. Subcommittees and task groups are also assigned designations. Subcommittees use the committee number followed by a letter. Task groups use the committee number with "TG" followed by a sequential number. For example, Committee 318-A is a 318 subcommittee and Committee 318-TG7 is a 318 task group.

ACI design standards are directed to the design professional, not the construction team. Design standards are worded in explicit, mandatory language so there is only one possible interpretation. Design standards cite only mandatory-language documents. Examples of design standards include code requirements such as ACI 216.1 "Code Requirements for Determining Fire Resistance of Concrete and Masonry Construction Assemblies," and design specifications, "Design Specifications for Formwork (under development by 347).

ACI construction standards are written to direct the producers, testing agencies, and construction team and not the design professional. Construction standards are also worded in explicit, mandatory language so that there is only one possible interpretation.

ACI construction standards consist of the following documents:

- *Construction specifications*-- reference specifications that can be included as part of a contract between Owner and Contractor. Example: ACI 301 "Specifications for Structural Concrete".
- *Material specifications*-- reference specifications that prescribe requirements for materials used in projects, are written to the producer, and may be incorporated by reference into construction specifications or into Contract Documents. Example: ACI 423.7-14 "Specification for Unbonded Single-Strand Tendon Materials."
- *Test methods*-- prescribe means of testing for compliance of materials or construction methods that are proposed for or used in projects. They are written to the testing agency and may be incorporated by reference in material specifications, construction specifications, or Contract Documents. These are normally developed by an ASTM committee. In rare instances, ACI committees develop a test method when none exists in ASTM.
- *Inspection services specifications*-- reference specifications written as part of a contract between Owner and inspection agency. Example: ACI 311.7 "Inspection Services Specification for Cast-in-Place Concrete Construction."
- *Testing services specifications*-- reference specifications written as part of a contract between Owner and testing agency or between Contractor and testing agency. Example: ACI 311.6 "Specification for Ready Mixed Concrete Testing Services."

Contractors are most familiar with guides and reports such as ACI 302R "Construction of Concrete Floors and Slabs" and ACI 363.3R "Report on High-Strength Concrete". Other examples of documents that fall into this category include:

- *TechNotes*--narrowly focused, single-topic guides, usually practice-oriented that present specific direction on a particular issue. TechNotes can cover topics such as design, construction, or repair methods, or can provide recommendations on a concrete technology. TechNotes are written in nonmandatory language. Example: ACI 364.13T "Repairs for Reinforcement with Shallow Cover".

- *Emerging Technology Report (ETR)*--provides information on emerging concrete technology in the committee's area of expertise where there is insufficient knowledge to write a comprehensive ACI report. It is intended to introduce a new technology into practice by providing basic information to allow implementation and permit accumulation of performance histories. Example: ACI Committee 239, Ultra-High Performance Concrete, has several subcommittees working on Emerging Technology Reports covering this subject.

ACI uses specific numbering of its documents. For instance, codes and standards consist only of numbers—no letters. Guides and reports include a number and the letter “R” after the number. If the document number includes a decimal, it indicates the order in which the committee developed several documents on multiple topics. And finally, the number after the hyphen indicates the year the standard or other document was adopted.

For example, let's look at ACI 117-15 “Specifications for Tolerances for Concrete Construction and Materials” and 117.1R-14 “Guide for Tolerance Compatibility in Concrete Construction.” We can tell this committee has developed a specification, both by title and by noting there is no “R” behind the number, and a guide, by noting the “R”. The specification was the first standard developed by the committee and the current version was adopted in 2015. The Guide was the first non-standard document developed by the committee, hence the XXX.1, and it was adopted in 2014.

My advice: The best way to get familiar with the ACI jargon is by joining a committee!