

Guide for Concrete Plant Inspection and Testing of Ready-Mixed Concrete

Reported by ACI Committee 311



american concrete institute

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Most ACI Standards and committee reports are gathered together in the annually revised ACI Manual of Concrete Practice. The several volumes are arranged to group related material together and may be purchased individually or in sets. The ACI Manual of Concrete Practice is also available on CD-ROM.

ACI Committees prepare standards and

reports in the general areas of materials and properties of concrete, construction practices and inspection, pavements and slabs, structural design and analysis, structural specifications, and special products and processes.

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ACI Certification Programs

The final quality of a concrete structure depends on qualified people to construct it. ACI certification programs identify craftsmen, technicians, and inspectors who have demonstrated their qualifications. The following programs are administered by ACI to fulfill the growing demand in the industry for certified workers:

Concrete Flatwork Finisher

Concrete Flatwork Technician

Concrete Field Testing Technician—Grade I

Concrete Strength Testing Technician

Concrete Laboratory Testing Technician—Grade I

Concrete Laboratory Testing Technician—Grade II

Concrete Construction Inspector-In-Training

Concrete Construction Inspector

***Concrete Transportation Construction
Inspector-In-Training***

Concrete Transportation Construction Inspector

This document may already contain reference to these ACI certification programs, which can be incorporated into project specifications or quality control procedures. If not, suggested guide specifications are available on request from the ACI Certification Department.

Enhancement of ACI Documents

The technical committees responsible for ACI committee reports and standards strive to avoid ambiguities, omissions, and errors in these documents. In spite of these efforts, the users of ACI documents occasionally find information or requirements that may be subject to more than one interpretation or may be incomplete or incorrect.

To assist in the effort for accuracy and clarity, the Technical Activities Committee solicits the help of individuals using ACI reports and standards in identifying and eliminating problems that may be associated with their use.

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1. Title and number of the document containing the problem and specific section in the document;
2. Concise description of the problem;
3. If possible, suggested revisions for mitigating the problem.

The Institute's Engineering Staff will review and take appropriate action on all comments and suggestions received. Members as well as nonmembers of the Institute are encouraged to assist in enhancing the accuracy and usefulness of ACI documents.

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This guide is intended for use in establishing basic duties and reports required of inspection personnel. It can be used for all types and sizes of projects but should be supplemented with additional inspection requirements when the complexity of the project so dictates. Refer to ACI 311.4R for guidance on additional requirements and to SP-2 for more detailed information on concrete production practices and inspection and testing of concrete.

This guide recommends minimum requirements for inspection at the concrete plant when such inspections are required by specifications or the owner. It also recommends minimum requirements for field and laboratory testing of concrete. It is intended for use by specifiers, architects, engineers, owners, contractors, or other groups needing to monitor the ready-mixed concrete producers' activities at the concrete plant and concreting activities at the project site through the use of an independent inspection agency or in-house inspection organization.

This guide also recommends minimum testing laboratory qualifications, minimum inspector qualifications, duties, and reports.

Keywords: batch plants; contract documents; curing; high-strength concrete; quality control; ready-mixed concrete; test.

ACI Committee Reports, Guides, Standard Practices, and Commentaries are intended for guidance in planning, designing, executing, and inspecting construction. This document is intended for the use of individuals who are competent to evaluate the significance and limitations of its content and recommendations and who will accept responsibility for the application of the material it contains. The American Concrete Institute disclaims any and all responsibility for the stated principles. The Institute shall not be liable for any loss or damage arising therefrom.

Reference to this document shall not be made in contract documents. If items found in this document are desired by the Architect/Engineer to be a part of the contract documents, they shall be restated in mandatory language for incorporation by the Architect/Engineer.

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CHAPTER 1—PLANT INSPECTION OF READY-MIXED CONCRETE

1.1—Introduction and scope

This chapter recommends minimum requirements for inspection of the concrete plant when required by specifications or the owner. It is intended for use by specifiers, architects, engineers, owners, contractors, or other groups interested in monitoring the ready-mixed-concrete producers' activities at

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