

780 CMR: MASSACHUSETTS AMENDMENTS TO THE *INTERNATIONAL BUILDING CODE 2021*

**CHAPTER 110: SPECIAL REGULATIONS**

**110.R1: CONCRETE TESTING LABORATORIES**

**NOTE:** 780 CMR 110.R1 is unique to Massachusetts.

**110.R1.1 Title.** The BBRS adopts the rules and regulations for concrete testing laboratories contained herein as 780 CMR 110.R1.

**110.R1.2 Scope.** The provisions of 780 CMR 110.R1 shall govern the registration of laboratories that test concrete and concrete aggregates utilized in the construction of buildings and structures falling under construction control.

**110.R1.3 Definitions.** The following words and terms shall, for the purpose of 780 CMR 110.R1, have the meanings shown:

**ACCREDITATION AUTHORITY.** An entity such as the National Institute of Standards and Technology, the Cement and Concrete Reference Laboratory (“CCRL”), AASHTO Materials Reference Laboratory (“AMRL”), registered design professional, or another agency designated by the BBRS that field examines and evaluates concrete testing laboratories. Some accreditation authority such as AMRL may have limited evaluation and testing authority relative to 780 CMR 110.R1.

**BRANCH LABORATORY.** A concrete testing laboratory physically removed from the principal laboratory. A branch laboratory may have project laboratories.

**CONCRETE TESTING LABORATORY.** A proprietorship, corporation, partnership or agency which conforms to the requirements of ASTM E 329 as modified by 780 CMR 110.R1. A concrete testing laboratory shall mean the principal laboratory, branch laboratory or project laboratory unless otherwise specified, and shall be capable of testing as a minimum concrete and concrete aggregate.

**CONCRETE FIELD TESTING TECHNICIAN.** A person issued a Concrete Field Testing Technician - Grade I license by the American Concrete Institute (“ACI”) authorizing such person to test/inspect concrete.

**DOL.** The Massachusetts Division of Occupational Licensure.

**LABORATORY.** A concrete testing laboratory.

**OFFICE.** The Office of Public Safety and Inspections.

**PRINCIPAL LABORATORY.** A concrete testing laboratory that may have branch and project laboratories.

**PROJECT LABORATORY.** A temporary onsite concrete testing laboratory for a specific project under the direction of a principal or branch laboratory.

**REPORT.** A field examination and evaluation of a laboratory which indicates compliance with 780 CMR 110.R1. All findings of noncompliance shall be resolved as indicated by either the seal of a registered design professional or approval by an accreditation authority.

**110.R1.4 Registration.** A laboratory shall each be registered by the BBRS in accordance with 780 CMR 110.R1. An entity seeking to register as a new laboratory or seeking to renew a registration shall submit a standard application to the Office for approval demonstrating that its facilities, equipment, personnel and procedures meet the requirements of 780 CMR 110.R1. The application will include but not be limited to: a report(s) not older than three years and a fee. A registration and laboratory classification (principal, branch or project) shall be issued for an application that meets the requirements of 780 CMR 110.R1, or the Office shall notify the applicant of the reasons of refusal. Registrations first issued shall be valid for a period of one, but not to exceed two years and shall expire on December 31. Renewals periods of registrations shall be one year and shall expire on December 31.

**110.R1.4.1 Project Submittals.** A laboratory involved with projects having structures subject to construction control as required in 780 CMR 1.00 shall submit notice of proof of registration to the project owner for submittal to the building official at the time of the building permit application. Proof of registration shall also be submitted by any new or successor laboratory prior to engaging in work during the course of a project. A laboratory that plans to terminate services on a project shall notify the building official and project owner in writing three days prior to terminating services.

**110.R1.5 Qualifications.** Principal laboratory and branch laboratories shall be evaluated by an accreditation authority prior to applying for a registration and at least every three years to ensure the laboratory equipment, personnel and procedures meet the requirement of 780 CMR 110.R1. The accreditation authority shall notify the laboratory of the evaluation date. The accreditation authority will issue a report to the laboratory with all audit findings. Reports received by laboratories shall be submitted to BBRS through its designee the Office within ten days of receipt. Audit findings shall be corrected and approved by an accreditation authority within 30 days and evidence of same submitted to the Office.

**110.R1.5.1 Standards.** Laboratory equipment, personnel and procedures shall conform to the standards of ASTM E 329 and 780 CMR 110.R1, narrow to the testing of concrete and its constituent materials only.

**110.R1.5.2 Equipment.** Compression testing machines shall be calibrated and verified, with equipment traceable to the National Institute of Standards and Technology, at least annually and also when a laboratory changes location or as required by the BBRS, and the calibration results submitted to the BBRS.

**110.R1.5.3 Personnel.** Each principal and branch laboratory shall have a director of testing services, lab supervisor and field supervisor. An individual that meets all three

qualifications may fill more than one position at a laboratory, but may not fill positions concurrently at a separate laboratory. A project laboratory shall have a full time lab supervisor. Each individual shall submit credentials and qualifications under penalty of perjury with signature notarized. Individuals applying for registration in more than one category shall file separate applications for each category. Credentials shall be filed within 30days of employment. The director of testing shall notify the BBRS within seven days of any vacancy of any position. Any vacant position shall be filled within 30days.

A director of testing shall be a fulltime employee of a laboratory, shall be able to interpret the results of tests on concrete and concrete aggregates as stated in ASTM E 329, and shall be qualified in accordance with one of the following requirements:

1. A professional engineer registered in the Commonwealth with at least five years of experience in responsible charge of work related to structural engineering, construction engineering or construction materials testing;
2. A bachelor's degree in engineering from an accredited institution and an additional total of three years' experience performing tests on concrete and concrete materials which shall include two years as a laboratory technician or supervisor; or
3. At least eight years' experience including five years as a lab technician or supervisor.

A lab supervisor shall have at least five years of experience performing tests on construction materials including concrete and concrete aggregates and be ACI-certified as a Concrete Laboratory Testing Technician-Level 2 and ACI-certified Aggregate Testing Technician – Level 2, and shall maintain such certification.

A field supervisor shall have at least five years of experience performing tests on construction materials including concrete and be ACI-certified as a Concrete Field Testing Technician-Grade 1 and shall maintain such certification.

**110.R1.6 Deficiencies.** Any laboratory that does not meet the requirements of 780 CMR 110.R1.4 to 110.R1.5 shall notify the Office within ten days of said deficiency. Deficiencies shall be corrected within 30days as proven by a laboratory affidavit sent to the Office on the standard affidavit form. Failure to notify the Office or to correct said deficiencies in the specified time frames shall deem the laboratory as noncompliant and it shall immediately cease testing of concrete and concrete materials subject to construction control.

**110.R1.7 Revocation and Suspension.** The BBRS may suspend or revoke the registration of any laboratory found to be in non-compliance with 780 CMR, or the standard of good practice.

Notice of suspension, revocation or refusal to renew a registration shall be in writing with the reasons clearly stated, and served in accordance 780 CMR 1.00. Prior to issuance of a suspension, revocation or refusal to renew a registration, written notice of such intent shall be served by the BBRS through its designee the Office, in accordance 780 CMR 1.00. Upon registration, suspension, or revocation, the laboratory shall immediately cease testing of concrete and concrete materials for structures subject to construction control.

**110.R1.8 Appeals.** Any laboratory or individual aggrieved by the suspension or revocation of a registration or by an interpretation, order, requirement, direction or failure to act under 780 CMR

110.R1 may appeal to the Building Code Appeals Board as provided in 780 CMR 1.00. However, entry of an appeal shall not stay such revocation or suspension unless so ordered by the Building Code Appeals Board in a preliminary hearing conducted expressly for the purpose of a stay.