

CCIL CONCRETE TESTING LABORATORY CERTIFICATION PROGRAM DESCRIPTION

1.0 GENERAL

This document describes the procedure for the initial qualification assessment of laboratories for the CCIL Concrete Testing Laboratory Certification Program. The document also covers the procedure for certification and annual or biennial audit.

2.0 SCOPE

2.1 This laboratory certification program is intended to provide a means of independent evaluation of the concrete testing laboratory's capabilities to test concrete materials, plastic concrete and hardened concrete in compliance with CSA Standard A283-24 "Certification of laboratories for concrete". Assessment and certification of concrete testing laboratories shall be in accordance with one of the following categories as identified in the CSA Standard A283-24:

- 1) Basic Concrete (Type Q) certification
- 2) Concrete Aggregate (Type R) certification
- 3) Advanced Concrete (Type S) certification

Note: Laboratories may also be certified for Additional Tests as detailed in CSA Standard A283-24 for the certification category selected.

3.0 PROCEDURE

3.1 Inquiry

When an inquiry is made by a potential new laboratory, the laboratory is provided an explanation about the application, registration fee, Standards, certification process, costs and follow-up.

3.2 Application

Applications and submission of supporting documentation is completed through the CCIL portal (<https://portal.ccil.com>)

3.3 Initial Qualification Assessment and Fee

- 3.3.1 Upon receipt of a completed application, CCIL will review the submitted application to ensure all required information and documents are provided and the applicant employs a supervising engineer who can satisfy the requirements of CSA Standard A283-24.
- 3.3.2 If the application is found satisfactory, an invoice for the annual maintenance fee is sent to the applicant. Upon receipt of payment CCIL will assign a CCIL inspector who will arrange a time for an on-site audit.

3.4 On-Site Audit

All concrete testing laboratories, applying for or continuing certification under this program, shall undergo an on-site audit by a CCIL inspector to evaluate the laboratory's capabilities to perform the required tests.

Laboratories applying for continuing certification may be audited virtually, at the discretion of CCIL.

3.4.1 During the audit visit, CCIL will carry out the following activities:

- 1) Conduct a discussion with the laboratory's staff who will be responsible for the effective operation of the certification program to ensure their commitment to the program and their understanding of the following:
 - a) the CCIL initial certification process;
 - b) continuing certification procedures; and
 - c) applicable Standards, test procedures and other certification requirements.
- 2) Complete the CCIL Concrete Testing Laboratory Program Certification Checklist and verify that the laboratory has the personnel and equipment, appropriate to the category for which the laboratory is applying, in compliance with CSA Standard A283-24.
- 3) Review the laboratory's record keeping procedures and applicable forms.
- 4) Verify calibration records of all equipment being used by the laboratory appropriate to the category for which the laboratory is applying.
- 5) Witness demonstrations conducted by applicant's testing personnel of all or selected test methods included in the category for which the laboratory is applying or is certified. The inspector will confirm all test methods are carried out in compliance with the Standard and the demonstration shall reveal no major findings, deficiencies or deviations.
- 6) Administer practical and written exams to testing personnel to demonstrate their capability to conduct the tests included in their certification. A Results of Testing for Concrete Testing Personnel Letter shall be issued from the CCIL Certification Office informing the laboratory of the testing personnel's results.
- 7) Discuss the CCIL Concrete Testing Laboratory Certification Program Compliance Report with the supervising engineer. The Compliance Report shall be completed by the CCIL inspector and signed by the supervising engineer acknowledging the requirements and agreeing to respond with corrective and preventative actions taken to comply with the requirements of CSA Standard A283-24.

3.5 Documentation and Process

3.5.1 A laboratory's application and audit documentation consists of the documents listed below. The documentation shall be reviewed by CCIL to confirm they are complete and up-to-date.

- 1) List of qualifications (both academic and professional experience) of the supervising engineer; including a resume, cover letter documenting compliance with the Qualifications requirements of CSA Standard A283-24 and copy of the supervising engineer's licence to practice engineering in the same Province or Territory as the laboratory, is required for all new laboratories and any change of supervising engineer.
- 2) An organization chart showing those parts of the laboratory's operation, under the direction of the supervising engineer, listing all testing personnel.
- 3) A list of certified technicians showing the category, and the expiry date of each individual certification of qualified technicians. Field technicians must be listed separately from laboratory technicians.

- 4) The Letter of Undertaking signed by the supervising engineer of the laboratory. The letter shall state clearly that the laboratory will abide by the test methods and procedures outlined in the CSA Standard A283-24.
 - 5) The CCIL Concrete Testing Laboratory Certification Compliance Report completed by the assigned CCIL inspector, signed by the CCIL inspector, the supervising engineer.
 - 6) The completed examination records outlining the results of all practical and written tests taken by laboratory's testing personnel during the audit process. Records must be kept by the laboratory for a minimum 5 years.
 - 7) The results of any inter-laboratory correlation testing conducted by the laboratory. An inter-laboratory correlation is required by all new certified laboratories and is required for all certified laboratories on an annual basis.
 - 8) A Request for Annual Audit or New Laboratory Application through the CCIL portal and confirmation of payment of the annual maintenance fee described above in 3.3.2 within the past 12 months.
- 3.5.2 The laboratory shall respond in writing to the findings outlined in the Compliance Report, advising corrective actions implemented and identifying actions taken to prevent the deficiencies from recurring, prior to certification being issued or within 30 days for continuing certification.
- 3.5.3 The laboratory's response to the Compliance Report, shall be reviewed by the CCIL inspector within two weeks of its receipt. The inspector shall ensure that corrections to the nonconformances have been implemented and that nonconformances identified the previous year are not recurring. If the audit file is acceptable, the inspector shall approve the audit response and advise the Assistant Program Manager, Concrete (APMC). If the audit response is not acceptable, the inspector shall communicate with the laboratory until the audit response is acceptable. If the audit response is not acceptable within 60 days of the date of inspection the inspector shall advise the APMC.
- 3.5.4 The APMC will review the application, audit documents and the results of the inter-laboratory correlation test for all new laboratories. The APMC shall specifically assess the laboratory for conformance with the requirements of the CSA Standard A283-24 and other requirements as may be established by the CCIL Certification Office. If the files are acceptable, the APMC shall prepare a summary report confirming conformance and make a recommendation to the Certification Program Manager (CPM) that a Laboratory Certificate be issued. If the files are not acceptable, the APMC shall communicate with the laboratory and the CCIL inspector until the files are acceptable. If the laboratory can not comply within a reasonable amount of time the APMC shall advise the CPM. A confirming re-evaluation visit may be scheduled to the laboratory, if necessary, to confirm compliance with CSA Standard A283-24 and certification requirements.
- 3.5.5 The CPM is responsible for all decisions regarding acceptability of the laboratory's certification and all changes to the certification.
- 3.5.6 **Qualification Acceptable**
- Once the laboratory is compliant with the Standards a CCIL Laboratory Certificate shall be issued. The certificate for a new laboratory certification will expiry one year after the application was submitted. Subsequently a new certificate will then be issued, expiring on December 31 of that year, to align the certification period with the calendar year. All subsequent certificates are issued from January 1 till December 31 each calendar year.
- 3.5.7 **Qualification Not Acceptable**

If the laboratory is unable to comply with the Standards, CCIL will advise the applicant of the deficiencies. The application shall then be closed, and the applicant provided with a statement of their account.

- 3.5.8 The certification process must be completed within one year of the date the application was submitted. If the process is not completed within one year, the laboratory may abandon the application, or renew the application by paying the annual maintenance fee for the second year.

3.6 Annual or Biennial Audits, and Additional Audits

- 3.6.1 Annual or biennial audits are performed by the CCIL inspector as required by the CSA Standard A283-24. Audits are designed to provide the means for ensuring that certified laboratories continue to meet the requirements of the applicable Standard(s). A Compliance Report and the other documents identified in Clause 3.5.1 of this document are completed during the annual or biennial audit of the laboratory's facilities. The procedures stated in Clauses 3.4, 3.5.2, 3.5.3 and 3.5.4 shall apply to annual or biennial audits except that the inspector will also review the previous audit compliance report. Once the inspectors determine that the laboratory meets all the requirements, they shall document the audit as approved, and no further action is required.
- 3.6.2 An audit of the laboratory's facilities is required for an upgrade of certification or following the relocation of a laboratory.
- 3.6.3 The frequency of assessments may be increased, depending on the number and nature of nonconforming issues found during previous audits.