



**Hong Kong Institution of Certified Auditors**

**香港專業審核師學會**

**HKICA 201E**

**Registration Scheme of Quality Testing Engineers**

**Registration Criteria**

**建築材料質控檢測工程師註冊準則**

The Secretary, Room 108, 1/F Sun Ling Plaza, 30 On Kui Street,  
Fanling, New Territories

Issue: 1

Document code: HKICA- 201E

Issue date: 1 September 2022

Effective date: 1 September 2022

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## FOREWORD

The Hong Kong Institution of Certified Auditors (HKICA) was established in 2006. It is a non-profit making organization providing services to the quality, environmental, occupational health & safety, food safety, laboratory and other management systems auditing professionals. In view of the development in demand for the Quality Testing Engineers for servicing the Greater Bay Area (GBA), the scope of activities is expanded to cover Quality Testing Engineers. Its Executive Board comprises members from universities, public authorities, governmental organizations, testing and calibration laboratories, certification bodies and management systems consultants in Hong Kong.

This Registration Scheme of Quality Testing Engineer (RSQTE) was established by HKICA with the following objectives and aims:

- (a) to promote the status of Quality Testing Engineers to the public as a profession; to give professional recognition to quality testing personnel so as to attract and retain talented and skillful quality testing personnel in Hong Kong and Greater Bay Area;
- (b) to establish a Quality Testing Engineer registration system in accordance with registration criteria for different levels of Quality Testing Engineers to ISO/IEC 17024:2012
- (c) to maintain a database of all registered Quality Testing Engineer in the HKICA website for the benefit of the industry;
- (d) to set benchmarks for the personnel involving quality testing assurance within engineering industry and to upgrade the expertise and knowledge of Quality Testing Engineering professional;
- (e) to facilitate liaising with mainland and other equivalent bodies for reciprocal recognition Quality Testing Engineer registration scheme;
- (f) as reference for developing training courses for recognition by the Quality Testing Engineer profession and the public.

All HKICA documents are published in Chinese and English. The latest version will be uploaded to the HKICA website. Applicant can contact the Secretariat for information regarding the Registration Scheme of Quality Testing Engineers by the following means:

Address: Room 108, 1/F Sun Ling Plaza, 30 On Kui Street, Fanling, New Territories

URL: <http://www.hkica.org>

Email: [info@hkica.org](mailto:info@hkica.org)

Phone: 27892389

# 1 TERMS AND DEFINITIONS

- 1.1 **Registration process:** activities by which a certification body determines that a person fulfils **registration requirements** including application, assessment, decision on registration, reregistration and use of **certificates** and logos/marks.
- 1.2 **Registration requirements:** set of specified requirements, including requirements of the scheme to be fulfilled in order to establish or maintain registration.
- 1.3 **Certificate:** document issued by a certification body under the provisions of this International Standard, indicating that the named person has fulfilled the **registration requirements**.
- 1.4 **Competence:** ability to apply knowledge and skills to achieve intended results.
- 1.5 **Qualification:** demonstrated education, training and work experience, where applicable.
- 1.6 **Assessment:** process that evaluates a person's fulfilment of the requirements of the **registration scheme**.
- 1.7 **Examination:** mechanism that is part of the **assessment** which measures a **candidate's competence** by one or more means, such as written, oral, practical and observational, as defined in the **registration scheme**.
- 1.8 **Applicant:** person who has submitted an application to be admitted into the **registration process**.
- 1.9 **Candidate:** who has fulfilled specified prerequisites and has been admitted to the **registration process**.
- 1.10 **Appeal:** request by **applicant, candidate** or certified person for reconsideration of any decision made by HKICA related to her/his desired registration status.
- 1.11 **Complaint:** expression of dissatisfaction, other than **appeal**, by any individual or organization to a certification body, relating to the activities of that body or a certified person, where a response is expected.
- 1.12 **Continuing Professional Development Units (CPDU):**

measuring unit used to quantify approved learning and professional service activities. Typically, one CPDU is earned for every one hour spent in a planned, structured learning experience or activity.

- 1.13 **Audit:** systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which audit criteria are fulfilled.
- 1.14 **Auditor:** person with the demonstrated personal attributes and competence to conduct an audit.
- 1.15 **Quality Testing Engineer (QTE):** person with the demonstrated personal attributes and competence to manage, supervise testing of construction materials; conduct laboratory management and audit; formulate procedures and keep abreast of testing standards; inspect and control of production process. There are three grades of Quality Testing Engineer, namely, Associate Quality Testing Engineer, Quality Testing Engineer and Senior Quality Testing Engineer.

For any other terms not listed above, the relevant definitions in ISO/IEC 17000:2004 and the International Vocabulary of Basic and General Terms in Metrology apply.

## 2 REFERENCES

- 2.1 Mutual recognition arrangement of Quality Testing Engineering technical personnel between HKICA, Guangdong GuangDong Ceramic Society and Guangdong Institute of Engineers 广东省工程师学会、广东省硅酸盐学会与香港专业审核师学会非金属材料（建筑材料检测）工程技术人员资格互认协议
- 2.2 广东省工程师学会非金属材料（建筑材料检测）工程师专业水平评价实施细则 1.0
- 2.3 大湾区检测与认证技术人员资格评价要求 (T/GDC 51—2020)
- 2.4 《关于推进粤港澳大湾区职称评价和职业资格认可的实施方案》(粤人社规〔2019〕38号)
- 2.5 BS EN ISO/IEC 17024:2012 “Conformity assessment — General requirements for bodies operating certification of persons”
- 2.6 HKICA-CC01:2016 “General requirements for bodies operating certification of persons”

### 3. REGISTRATION GRADES

#### 3.1. Associate Quality Testing Engineer 助理建築材料質控檢測工程師

Associate Quality Testing Engineers, evaluated by HKICA, are certified to possess basic the knowledge and practical experience in Testing of Construction Materials and Products, keep abreast of Testing Standards and Procedures, conduct Quality Supervision and Inspection Work.

#### 3.2. Quality Testing Engineer 建築材料質控檢測工程師

Quality Testing Engineers, evaluated by HKICA, are certified to possess the knowledge, skill and competence to manage Testing of Construction Materials and Products, keep abreast of Testing Standards and Procedures, conduct Quality Supervision and Inspection Work. They can provide supervision and assistant to associate Quality Testing Engineer and trainee.

#### 3.3. Senior Quality Testing Engineer 高級建築材料質控檢測工程師

Senior Quality Testing Engineers, evaluated by HKICA, are certified to possess knowledge, skill and competence in overall implementation of processes for Testing of Construction Materials and Products, keep abreast of Testing Standards and Procedures, conduct Quality Supervision and Inspection Work. They can provide supervision and assistant to associate Quality Testing Engineer, Quality Testing Engineer and Quality Testing Engineer.

#### **4. AUTHORITY AND OPERATION OF HKICA QUALITY TESTING ENGINEER REGISTRATION SCHEME**

The Registration Scheme of Quality Testing Engineer (QTE) is developed and managed under the HKICA Registration Board, which is responsible for the granting, reviewing and revising the person registration titles and requirements in accordance to the prevailing demand of the industries served by the scheme. The Registration Board, in turn, may appoint specialist to form Working Committees and Task Force Groups as it deems necessary to oversee specific parts of the scheme.

The constitution and terms of reference of the Registration Board, Qualification Committee, Examination Committee, Appeal Committee and Operation Committee and details of Quality Testing Engineer Code of conduct, obligation of certified persons, suspension and termination, appeal and complaint, use of HKICA certificate, logo and symbol follow the HKICA document conforming to ISO 17024.

## 5. REGISTRATION CRITERIA

Applicants shall fulfill the following academic qualification, working experience, professional working experience, training and other competence and experience requirements:

### 5.1 Associate Quality Testing Engineer

#### 5.1.1 Academic qualification, working experience, professional working experience

The applicant shall have

- (a) student of master degree or above; or
- (b) bachelor degree; or
- (c) higher diploma, associate degree and 1 years of professional engineering experience; or
- (d) qualified as a material testing technologist and 1 years of relevant professional engineering working experience; or
- (e) obtained Testing inspection and certification related Qualification Framework (QF) level 4 or above and 2 years of relevant professional engineering working experience; or
- (f) secondary school or equivalent and 2 years of relevant working experience in laboratory testing or quality management (testing and certification).

#### 5.1.2 Training

The candidate shall have completed at least 16-hour laboratory management system training course approved or recognized by HKICA.

#### 5.1.3 Other competence and experience requirements

The applicant shall

- (a) have educational background/knowledge/training in engineering professional relevant to materials testing and inspection process; or the associate engineer grade of a professional engineering institution; or Certified personnel by Personnel Certification Scheme recognized by HKICA and
- (b) Submit a completed self written technical project report and
- (c) (i) obtain internal auditor (laboratory) qualification certified by HKICA; or  
(ii) pass the HKICA laboratory management assessment/examination and
- (d) (i) Participate in at least 1 major construction material testing quality project or  
(ii) have relevant construction material testing experience (perform at least 2 different areas of construction material testing)

### 5.2 Quality Testing Engineer

#### 5.2.1 Academic qualification, working experience, professional working experience

The applicant shall have

- (a) Student of Doctoral degree; or
- (b) Master degree and 1 years of relevant professional experience; or
- (c) Bachelor degree and 4 years of relevant professional experience in laboratory testing or quality management (testing and certification); or
- (d) Higher diploma, associate degree and 5 years of relevant professional experience in laboratory testing or quality management (testing and certification); or
- (e) Qualified as associate Quality Testing Engineer and 4 years professional



working experience in laboratory testing or quality management (testing and certification); or

- (f) Obtained Testing inspection and certification related Qualification Framework (QF) level 5 or above and 5 years of relevant professional working experience in laboratory testing or quality management (testing and certification); or
- (g) Secondary school or equivalent and 6years of relevant working experience in laboratory testing or quality management (testing and certification).

#### 5.2.2 Training

The candidate shall have completed at least 16-hour laboratory management system training course approved or recognized by HKICA; and not less than 18 hours of CPD in quality management in testing and certification discipline in the preceding 5 years

#### 5.2.3 Other competence and experience requirements

The applicant shall

- (a) have educational background/knowledge/training in engineering professional relevant to materials testing and inspection process; or the associate engineer grade of a professional engineering institution or Certified personnel by Personnel Certification Scheme recognized by HKICA and
- (b) Submit an extended technical experience report on projects and
- (c) Process the ability to supervise associate Quality Testing Engineer or technical personnel and
- (d) (i) obtain internal auditor (laboratory) qualification certified by HKICA; or  
(ii) pass the HKICA laboratory management assessment/examination and
- (e) (i) Participate in at least 1 testing development project as leading personnel or  
(ii) formulate 3 testing standards and procedures or  
(iii) have relevant construction material testing experience in at least 3 different areas of construction material testing or  
(iv) have experience in inspection, control/audit of production process.

### 5.3 Senior Quality Testing Engineer

#### 5.3.1 Academic qualification, working experience, professional working experience

The applicant shall have

- (a) Doctoral degree; or
- (b) Master degree and 4 years of relevant professional experience in laboratory testing or quality management (testing and certification); or
- (c) Bachelor degree and 7 years of relevant professional experience in laboratory testing or quality management (testing and certification); or
- (d) Relevant Higher Diploma, Associate degree and 10 years of relevant professional experience in laboratory testing or quality management (testing and certification);
- (e) Qualified as a Quality Testing Engineer and 3 years of relevant or other professional working experience in laboratory testing or quality management (testing and certification);
- (f) Obtained Testing inspection and certification related Qualification Framework (QF) level 5 or above and 10 years of relevant professional working experience; or
- (g) Secondary school or equivalent and 10-years of relevant working experience.

##### 5.3.1.1 Training

The candidate is preferred to complete at least 16-hour laboratory management system

training course approved or recognized by HKICA;

### 5.3.2 Other competence and experience requirements

The applicant shall

- (a) obtained Professional Engineering Grade of a professional engineering institution in relevant industry for at least 2 years; and
- (b) Submit an extended technical experience report on projects and
- (c) Possess the ability to supervise associate Quality Testing Engineer, Quality Testing Engineer or technical personnel and
- (d) Participated in at least 2 professional forum in testing and certification
- (e) (i) Complete at least one project peer evaluated by renown professionals and achieve the leading standard; or  
(ii) as a material testing technologist, peer evaluated by renown professionals and achieve the leading standard; or  
(iii) formulated testing standards and procedures with contribution/impact to industry, or  
(iv) have extensive experience in inspection, control/audit of production process.

5.3 The professional experience may be concurrent with working experience. Professional experience refers to laboratory testing, establishment, implementation, managing and supervising quality production work, maintaining and/or auditing of management system in a specific field. Research work is accountable for 50%.

Note: Applicants for registration shall provide documentary evidence of work experience. Evidence may be presented in the form of project report submission or employer references giving information on works actually carried out by the applicant and the position held.

### 5.4 Continuous Professional Development (CPD) Requirement

It is the policy of the HKICA to set CPD requirement for certified QTE. Failed to fulfil CPD requirement will lead to suspend or terminate their registration status. Registered Quality Testing Engineer shall record the CPD in the CPD log and declare annually that the corresponding requirement has been complied with. The CPD shall be submitted in re-registration and will be checked randomly.

5.4.1 associate Quality Testing Engineer, Quality Testing Engineer and senior Quality Testing Engineer shall complete at least 40 continuing professional development units (CPDUs), of which 20 should be approved by HKICA (1 contact hour is equivalent to 1 CPDU and shall be at least 45 minutes);

### 5.5 Re-assessment for Registration

5.5.1 All levels of the certified Quality Testing Engineer shall be re-assessed by submitted document before the period of registration validity, which is normally 5 years from the date of issue of the certificate, has expired. The Operation Manager shall alert the candidate three months before expiration of the registration by e-mail or post. If they cannot fulfill the registration requirements, they shall obtain satisfactory results in the assessment by either attending approved training course and obtain certificate of achievement or obtaining a pass in re-sitting the examination to demonstrate their continuing compliance with the registration criteria.

## 5.6 Suspension and Termination

- 5.6.1 HKICA will impose suspension or termination to registered QTE who fails to comply with the obligation of certified auditing personnel as described in this criteria document.
- 5.6.2 A registered QTE may, by serving a written notice signed by the candidate voluntarily suspends or terminates his/her registration for any or all of his/her registered activities. The registered QTE shall specify the effective date of the voluntary suspension or termination in the written notice. If the effective date is not specified, the date of receipt of the written notice will be the effective date.
- 5.6.3 HKICA may suspend or terminate the certification for part or all of the certified activities of a person as defined in his/her certificate of registration.
- 5.6.4 The suspension or termination imposed by HKICA shall be commenced on the date of the written notice issued by President of HKICA. The notice shall clearly state the actions required to re-state the suspension or the grounds of such termination.
- 5.6.5 Verbal or written warning will normally be given by HKICA when a registered QTE:-
  - 5.6.5.1 fails to abide by any of the obligations of HKICA registered QTE;
  - 5.6.5.2 fails to resolve a complaint in relation to his performance as a registered QTE;
  - 5.6.5.3 fails to comply with the registration criteria:
  - 5.6.5.4 not paying annual fee; or
  - 5.6.5.5 no CPDUs records; or
  - 5.6.5.6 incompetent in carrying out duties as a registered QTE;
- 5.6.6 is, in the opinion of HKICA, involved in any impropriety, corrupt practice or other activities which is prejudicial to the good reputation of scheme.
- 5.6.7 fails to reply to a request for information provided to him/her using the latest contact address known to HKICA within the period of time specified in the request.
- 5.6.8 A candidate who is in a state of suspension (whether or not the suspension is voluntary) and, if in the opinion of HKICA, has failed to take adequate measures to rectify the situation, may have its certification terminated by HKICA.
- 5.6.9 If the actions could not be completed within one month from date of verbal or written warning, HKICA will inform the candidate to return the certificate as his registration status is suspended. Time frame for re-statement of the status will also be specified in the letter. HKICA will terminate his registration status if the candidate fails to take adequate measures to rectify the situation and cannot provide sufficient evidence within the stated period (normally half year).
- 5.6.10 Upon confirmation that that any registered QTE have involved in any impropriety, corrupt practice or criminal offences, HKICA will request the person to return the certificate and terminate his registration status by letter.
- 5.6.11 HKICA will upload the list of suspended and terminated registered QTE to the website for public information.

## 5.7 Code of Conduct

- 5.7.1 All level of QTE shall declare and commit to abide by the Code of Conduct as stipulated by HKICA.
- 5.7.2 HKICA monitors the performance and personal behavior and compliance of Code of Conduct of certified persons through complaints against the person, feedback of the nominated organizations and/or any sources which HKICA consider applicable.

## **Appendix 1: HKICA Recognized Professional Institution/Qualification**

Recognized professional Institution and Personnel Certification Scheme includes:

- (a) Engineering Institution signed the Washington Accord, Sidney Accord, such as Hong Kong Institution of Engineers;
- (b) Personnel Certification Scheme recognized by HKICA, such as Certified Testing Technician (CTT) and Certified Testing Professional (CTP) schemes of Hong Kong Association for Testing, Inspection and Certification;
- (c) Other professional organizations recognized by HKICA, including overseas institutions

## Appendix 2: Use and format of HKICA registration symbol

- 1 Certified persons are entitled to use the HKICA's logo and related certified level on their name card, abbreviations for different certified levels:
  - a) Associate Quality Testing Engineer: AQTE;
  - b) Quality Testing Engineer: QTE;
  - c) Senior Quality Testing Engineer: SQTE;
- 2 Certified persons cannot self-make the HKICA registration symbol, all logo and mark should be provided by HKICA when certified. The HKICA registration symbol consists of three basic parts:
  - a) HKICA logo
  - b) RSQTE mark
  - c) Registered level
- 3 The HKICA logo should be used as an entity. Certified personnel cannot use HKICA and scheme separately.
- 4 The formats of the HKICA registration symbols, including its appearance, aspect ratio, colour, shade, font style, relative sizes and positions of its components and other features shall be as specified in this Regulation.
- 5 The symbol given below is based on a white colour background and when printing against a background of any other colour. Precaution shall be taken to ensure that the colours of the symbols are not affected. Samples of the HKICA registration symbol (for RSQTE):



- 6 Color code of the symbol :
  - a) C : 286C
  - b) A : 185C
  - c) HKICA: black
  - d) RSQTE and registered level : 185C
- 7 In addition to the colour specified above, the registration symbols may be displayed in a black and white. Samples are given below (for RSQTE):



- 8 The registration symbols may be enlarged or reduced in size. Irrespective of its size, the features of the registration symbol shall be clearly discernible.