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IECEE OPERATIONAL DOCUMENT

IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE System)

Utilization of Customers' Testing Facilities





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FOREWORD

Document Owner

CMC WG 3 "Utilization of Customers' Testing Facilities"

History of changes

<u>Revision Date</u>	<u>Brief summary of changes</u>
<u>2018-02-06</u>	<u>The following sub-clauses have been updated: 1.2, 2.2, 4.2(a)(k) and (n), Note in 4.2(j), 5.1(o), 10.1, 10.2, 11.3, 11.3(d), 11.4, 11.4(d), 12.2(e), 12.3, 12.4, 13, 15, 16, 18(b), A.3, Annex B</u> <u>The following sub-clauses have been deleted: 13, 17.3</u>
2017-02-09	Deleted Annexes C1, C2 and Annex D, added new Annex C The contents of following sub-clauses have been updated: 2.1, 3.1, 4.3, 5.1, 7.2, 8.4, 9.2, 10. 10.1, 10.2, 10.3, 11.1, 11.2, 11.3, 11.4, 13, 17.1, 17.3, 17.4, 19, Annex B The following sub-clauses have been added: 2.2, 7.4, Annex A.13
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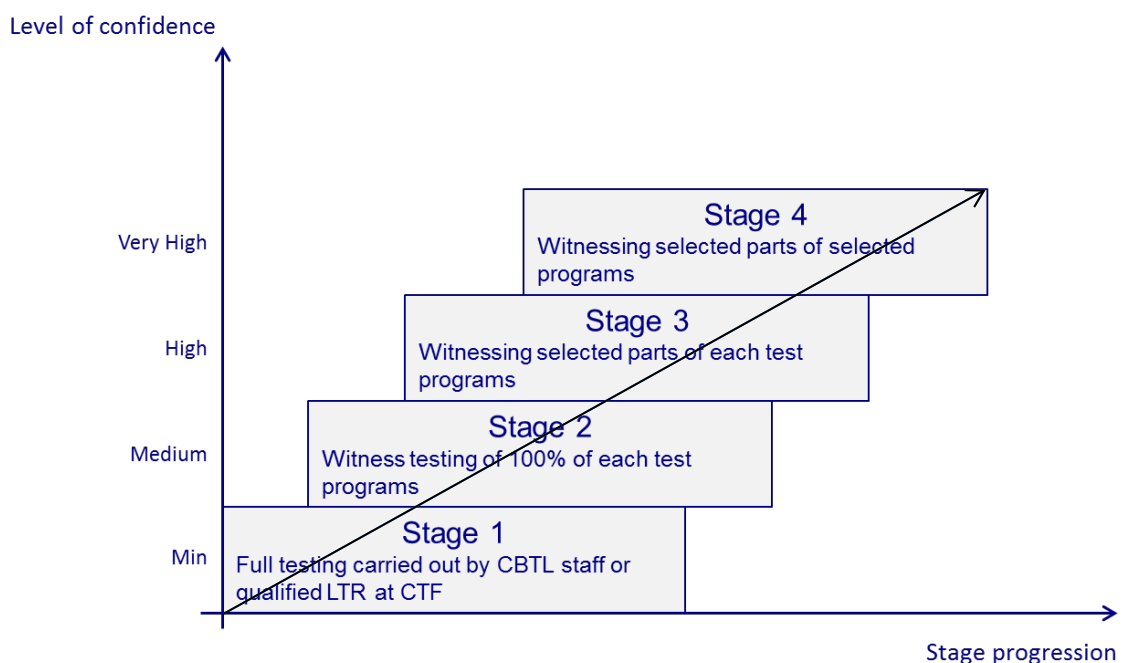
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<u>2018-02-06</u>	<u>Modification of clause 1.2, 1.7 and Non Conformity Reports</u>

1 Scope

1.1 The Utilization of Customers' Testing Facilities (CTF) concept combines rigorous qualification of CTF's capabilities, a confidence building phase, extensive exchange of information between the CBTL/NCB/LTR and the CTF, and a comprehensive witnessing and supervision program. The content of the witnessing and supervision program may evolve and change as confidence is built in the strength of the quality management system, testing expertise and experience of the CTF.

The CTF program is a comprehensive procedure by which personnel of a NCB, CBTL, or a LTR, obtains test data developed at a CTF. The testing facility must comply with both the technical and the Quality Management System (QMS) requirements of ISO/IEC 17025 that are relevant to the activities performed at the CTF.

The CTF program provides a continuum of increasing confidence of the NCB in the CTF its staff capability and experience, and the corresponding progression of increasing CTF responsibility for the test program and its underlying activities. The concept of this continuum is illustrated by the diagram below:



The CTF program is a procedure by which, on request of a NCB, personnel from a CBTL, or a qualified LTR, perform or witness tests at a CTF. Qualified NCB staff may also witness testing at a CTF.

1.2 For that purpose different stages (see [Annex B](#)) have been considered:

Stage 1 – Full testing carried out by CBTL staff or qualified LTR at CTF

At the most basic, the CBTL staff, or a qualified LTR, carry out all required tests at the CTF, utilizing either its own test equipment brought to the test site, the customer's test equipment or some combination of both ([see sub-clause 8.1](#)).

Stage 2 – Witnessing 100 per cent of each test program

When the customer possesses all the necessary test equipment, and has experienced and qualified staff to carry out the intended tests, the CBTL/NCB qualified staff or a qualified LTR, may witness tests performed by the CTF personnel.

~~Initially,~~ 100 per cent of the tests carried out by the CTF staff are witnessed by the CBTL/NCB qualified staff or a qualified LTR [\(see sub-clause 8.2\)](#).

Stage 3 – Witnessing selected parts of each test program

As the CTF gains experience and the CBTL/NCB level of confidence in the CTF increases, only a selected portion of each test program is witnessed by the CBTL/NCB qualified staff or a qualified LTR [\(see sub-clause 8.3\)](#).

Stage 4 – Witnessing selected parts of selected test programs

At this fully qualified level the CBTL/NCB or the LTR exercises its judgment in deciding which test programs and/or tests need to be witnessed. Such decisions are made by or in collaboration with the NCB. A selected portion of some test program(s) shall be witnessed annually by the CBTL/NCB qualified staff or a qualified LTR [\(see sub-clause 8.4\)](#).

Stages 1 through 4 shall be considered as a whole to be a progression from full control of testing by a CBTL to full confidence in the capability of the Customer's Testing Facilities.

The CTF program provides a continuum of increasing confidence of the NCB in the Customer's Testing Facilities, staff capability and experience, and the corresponding progression of increasing CTF responsibility for the test program and its underlying activities. The concept of this continuum is described in this foreword and is illustrated in [Annex B](#).

2 References and general provisions

2.1 Documents applicable to the general arrangements for the CTF

- a) IECEE 02 Series (Rules);
- b) IECEE Definitions;
- c) OD-2017 Check List for Testing and Calibration Laboratories;
- d) OD-2034 Operation of a Local Technical Representative (LTR);
- e) ISO/IEC 17025, General Requirements for the Competence of Testing and Calibration Laboratories;
- f) ISO/IEC 17065, Conformity Assessment - Requirements for bodies certifying products, processes and services;
- g) Other applicable IECEE ODs;
- h) Applicable CTL Decisions;
- i) Applicable PAC decisions.

2.2 Forms associated with OD-2048

- a) OD-2048-F1: [Example of a](#) CTF Activity Report;
- b) OD-2048-F2: CTF Stage 1 and 2 Assessment Report ~~(formerly "OD-2025-A")~~;
- c) OD-2048-F3: CTF Stage 3 and 4 Assessment Report ~~(formerly "OD-2025-B")~~.

3 Definitions

3.1 CTF Assessment

CTF Assessment means systematically checking compliance with the requirements detailed in this procedure and other relevant IECEE operating documents. Assessments may be Initial, Annual, Follow-up, On-going visits, or Re-Assessments.

- a) Initial Assessment means checking of **all** essential parameters (see OD-2048-F2 or OD-2048-F3) needed to ensure reliable and acceptable data. (Applies to all Stages).

- b) Annual Assessment means checking of parameters (see OD-2048-F3) needed to ensure reliable and acceptable data (Applies to Stages 3 and 4).
- c) Follow-up Assessment means verifying the implementation of corrective actions resulting from a previous assessment, when such verification is required.
- d) On-going visits are used to re-validate previous assessment reports.
- e) Re-Assessment means re-checking of **all** essential parameters (see OD-2048-F2 or OD-2048-F3) needed to ensure reliable and acceptable data.

3.2 Re-validation

Re-validation means checking the parameters that have changed since the previous assessment and those that are sensitive to the reliability of the data (i.e. since the last assessment), such as equipment calibration, environmental conditions or - in case of Stage 2 - the qualification of CTF's own staff.

3.3 Test Program

A test program is defined as any series of tests related to a specific product or a specific product family (refer to OD-2041). It may also apply to partial testing of approved products that are subject to modifications. Products of similar construction, for which it is reasonable to define a test program package, may be considered to be a family.

4 General principles applicable to all the CTF Stages

4.1 Requirements for CTFs

4.1.1 Customer's Testing Facility (CTF)

- a) a CTF shall be operated by a legal entity that has full responsibility for continued compliance of the CTF with the relevant requirements of ISO/IEC 17025 and IECEE Operational Documents.
- b) a CTF must not carry out testing, in the CB scheme, for other product suppliers (e.g. customers, manufacturers, producers, sellers, distributors, retailers) unless the legal entity is under contract for producing or assembling those products.

4.1.2 Ownership of Customer's Testing Facility (CTF)

The legal entity, owner of the CTF, shall comply with the following pre-requisite criteria:

- a) having substantial business interest in and liability for the product;
- b) having reputation invested in the product through e.g.: producing for another brand name owner, branding its own Mark, own trade Marks;
- c) having responsibility and the means for ensuring compliance of the product with the requirements of the standards.

Consequently:

- d) A testing laboratory of a Contract Manufacturer can serve as a CTF.
- e) An independent (third party) laboratory is not permitted to operate as a CTF.

4.2 General Principles

A CTF is a Customer's Testing Facility used by the NCB to test specified products. The acceptance of a CTF applies only to its IECEE-related work in association with the responsible NCB(s).

- a) The NCB/CBTL wishing to use this procedure must have the relevant ~~product category (ies) and~~ standard(s) in its accepted IECEE scope;

- b) The staff that carry out testing or witness testing must have the necessary technical competence and expertise;
- c) The NCB is responsible for all activities under this procedure, including the appropriate delegation of tasks;
- d) The NCB is responsible to delegate appropriately tasks in relation with this procedure;
- e) The NCB carries out the final independent review and endorses the CB Test Report (see [Annex B](#));
- f) The decision to qualify, register and subsequently to use a CTF must be approved beforehand by the relevant NCB;
- g) All testing carried out at a Customer's Testing Facility shall be in accordance to the relevant requirements of ISO/IEC 17025 and the applicable IECEE procedures and decisions. Test results obtained shall be from a sample representative of production;
- h) The NCB shall have the right to obtain a product sample and to carry out validation of previously obtained test results prior to issuing a CB Test Certificate;
- i) The NCB shall qualify a CTF for specific standard(s) and/or tests within those standards provided the integrity of sequence testing is respected and for which the laboratory has a proven capability. No subcontracting is permitted. A CB Test Certificate issued by the NCB obtained by utilization of a CTF has the same status as one obtained from a CBTL;
- j) A new CTF may enter this program at either Stage 1 or Stage 2, and can progress to higher stages only through participation at the lower stage and achieving the confidence of the NCB/CBTL's technical staff;

Note: A laboratory that ~~has previously participated in MTL programs or~~ currently participates in the CTF program with another NCB is not considered a new CTF for this purpose; however it needs to fulfill the requirements of this OD.

~~k) When authorized to operate at any stage above Stage 1, the CTF is entitled to operate, within its recognized scope, at all lower-level stages, without additional assessments, IECEE annual fee/dues, agreements, registrations and reports. Such operation shall be in compliance with all other requirements for these stages, and will result in the issuance of appropriate CB Test Reports for the relevant stages.~~
~~After progression to a higher stage, a CTF is entitled to operate, within its recognized scope, at lower-level stages, without additional assessments, agreements, registrations and reports. Such operation shall be in compliance with all other requirements for these stages, and will result in the issuance of appropriate CB Test Reports for the relevant stages.~~

~~k)l) It is the NCB's decision to allow a CTF to progress to the next stage;~~

~~l)m) A customer permitted to use its own CTF shall not use this fact for promotional or advertising purposes;~~

~~m)n) The Executive Secretary of the IECEE shall maintain and publish a register of those CTFs participating and the product categories standards involved.~~

~~In general, it is not necessary to separately register a CTF at multiple stages, unless the NCB has a valid reason to do so, e.g. for different scopes or scope/stage combinations. Each separate registration of a CTF is charged annual dues by the IECEE;~~

~~n)o) The assessment and auditing of Customers' Testing Facilities shall be carried out using the same requirements that apply to CBTLs, as specified in this OD to the relevant CTF stage.~~

4.3 Documents for use in Assessments of CTFs

Assessments shall be based on the following Operational Documents:

- a) OD-2017: Check List for Testing and Calibration Laboratories (Stages 3 and 4 only. For Initial Assessments or if changes have been made since the last Re-Assessment);
- b) OD-2048-F2: CTF Assessment Report for Stages 1 and 2;
- c) OD-2048-F3: CTF Assessment Report for Stages 3 and 4.

These documents provide a framework for the assessment and acceptance of a CTF. Assessment reports are to be available for scrutiny when the NCB is assessed.

4.4 Requirements for Assessors

The assessors utilized by the NCB or CBTL for the assessment of CTFs, must meet the following criteria:

- a) requirements of ISO 19011, Section 7;
- b) in-depth knowledge of the relevant IECEE Rules and Procedures;
- c) Technical Assessors must have appropriate educational background, technical training and experience that must be clearly described in the employer's procedures and records;
- d) must have appropriate training in ISO/IEC 17025 and quality system auditing;
- e) registered assessors with the IECEE Peer Assessment program, or internally trained and approved assessors;
- f) appropriate documented experience in the technical field assessed and in performing assessments.

5 Responsibilities

5.1 Responsibilities of the NCB

The NCB is responsible for:

- a) ensuring that all personnel involved in performing or witnessing tests are fully trained on an on-going basis in:
 - 1.) procedures, processes and technical requirements involved,
 - 2.) relevant laboratory practices and testing procedures
- b) verifying initially and on an on-going basis the technical competence of the CTF;
- c) Initial Assessment, Re-Assessment, on-going control and decision on progression of the CTF in accordance with these requirements;
- d) maintaining a sustained program of witnessing of tests and monitoring of the quality management system at the CTF;
- e) approval the test programs for which CB Test Reports are prepared;
- f) reviewing the test reports prepared by the CTF;
- g) assessing and accepting the QMS Procedures of the CBTL, or qualified LTR, if used, (e.g. ISO/IEC 17025 QMS Procedures which adequately cover all aspects of working off-site at the CTF) applicable to the operation of the CTF program;
- h) when the NCB or by delegation a qualified LTR performs work under this program without involving a CBTL, having appropriate procedures and documentation for the operation of the CTF Program, including having ISO/IEC 17025 QMS Procedures which adequately cover all aspects of working off-site at the CTF;
- i) review of the CBTL's documentation for carrying out CTF work covering the assessment of the Customer's Testing Facility and the CTF contractual arrangements;
- j) ensuring that there are appropriate two-way or three-way agreement(s) between the NCB, CBTL and the CTF (see [Annex A](#));
- k) registration of the Customer's Testing Facility (CTF) with the IECEE Secretariat, and to ensure that the correct details in the IECEE register of CTFs are maintained;
- l) where the NCB or a LTR is witnessing tests, without involving a CBTL, reviewing and endorsing the test report;
- m) ensuring the CTF's participation in applicable CTL Proficiency Testing Programs;

- n) arranging all other required tests that are not carried out at the CTF;
- o) adjusting the Stage of the CTF, as may be necessary, if any of the changes noted in sub-clause 10.3.2 and 10.3.3 occur~~s~~;
- p) For Stage 4, the NCB shall appoint a technical assessor to the IECEE Peer Assessment Team. This NCB appointed technical assessor may act as NCB representative.

5.2 Responsibilities of the CBTL (where involved)

The CBTL performing this role on behalf of a NCB is responsible for:

- a) having appropriate procedures and documentation for the operation of the CTF program, including having ISO/IEC 17025 QMS Procedures which adequately cover all aspects of working off-site;
- b) auditing its own quality management system to ensure the correct application of off-site work procedures for CTF;
- c) assessing the facilities and equipment of the CTF;
- d) defining the role of the customer's personnel in support of the CTF activities;
- e) ensuring the presence of CBTL's staff at the CTF during testing and defining their role in relation to the CTF's personnel who prepare and carry out the tests;
- f) assessing the competence of CTF personnel to carry out the required tests;
- g) being a party to an appropriate agreement as in 5.1 j) above;
- h) the conduct of the tests and for the content of the subsequent test report (CBTR);
- i) witnessing all aspects of the tests carried out by the CTF (for Stages 2, 3 and 4 only);
- j) preparation, review and signing, as applicable of a CB Test Report (see [Annex B](#));
- k) carrying out a technical validation of the CTF's work during each visit to the CTF.

5.3 Responsibilities of the CTF

The Customer's Testing Facility is responsible for:

- a) demonstrating that its facilities are in compliance with all relevant requirements of ISO/IEC 17025 and the applicable IECEE requirements;
- b) identifying an appropriate person to be responsible for the facilities and/or services provided to the NCB, CBTL or LTR;
- c) ensuring that all tests are carried out in accordance with the applicable technical requirements and the instructions of the NCB, CBTL or LTR;
- d) conducting the tests under the direction of the responsible CBTL/NCB or of the LTR;
- e) preparation, review and signing, as applicable of a CB Test Report (see [Annex B](#));
- f) participating, as described in section 16, in the relevant CTL Proficiency Testing Programs;
- g) keeping all technical records, such as original test data, for a period of at least 10 years;
- h) at Stages 3 and 4 to be able to demonstrate the capability to determine and calculate measurement uncertainties.

6 Application by a Customer

An application shall be made to the appropriate NCB according to the Procedures of that NCB and of the IECEE.

7 Procedures for CTF testing

7.1 The NCB witnessing testing or by delegation a qualified LTR performing work at a CTF and the CBTL performing testing shall have QMS procedures covering all aspects of working off-site and shall organize periodic auditing of its own off-site operations.

7.2 The CTF shall comply with the applicable clauses of ISO/IEC 17025 (see OD-2048-F2 and OD-2048-F3) and provisions specified in clause [2](#) of this OD.

7.3 Records of On-going visits: The NCB shall keep the records of On-going visits to the CTFs.

7.4 Use of Life Stream Video for remote witnessing of project tests at Customers' Testing Facilities: Refer to [Annex C](#).

8 Product Evaluation at the Customer's Facilities - Testing and Witnessing Stages

8.1 Stage 1 - Full testing carried out by CBTL staff or qualified LTR at CTF

Testing is carried out fully by the CBTL personnel or a qualified LTR at the customer's facility, with the CBTL's own or Customer's test equipment, or both.

Customer's personnel may assist in the preparation for and in the conduct of tests.

8.2 Stage 2 - Witnessing 100 per cent of each test program

Testing is carried out by the Customer's Laboratory personnel in the presence of the NCB, CBTL or LTR and as requested by the NCB, CBTL or LTR. Qualified witnessing staff of the NCB, CBTL, or a LTR, shall be present whenever tests are conducted, and shall supervise, check, and witness all critical aspects of the tests.

This includes but is not limited to:

- a) preparing a product test program and providing it to the CTF;
- b) checking the test set-up, instrumentation and the relevant equipment calibration;
- c) monitoring the tests and witnessing the acquisition of the data by the CTF personnel;
- d) confirming through objective evidence that specified requirements have been fulfilled.

8.3 Stage 3 - Witnessing selected parts of each test program

The same requirement as Stage 2 applies. However, witnessing is carried out on some selected parts of each approved test program.

Testing is carried out by the Customer's personnel in the presence of NCB, CBTL or LTR for some part of each test program as requested by the NCB.

Qualified witnessing staff of the NCB, CBTL, or a LTR, shall supervise, check, and witness all critical aspects of the witnessed tests.

This includes but is not limited to:

- a) approving the test program developed by the CTF;
- b) checking the test set-up, instrumentation and the relevant equipment calibration for the witnessed tests;
- c) monitoring the tests and witnessing the acquisition of the data by the CTF personnel;
- d) confirming through objective evidence that specified requirements have been fulfilled;
- e) verifying the final data acquisition for the witnessed tests.

8.4 Stage 4 - Witnessing of some part of selected test programs

In this stage some parts of the selected program identified by the NCB or CBTL or LTR on request of the NCB are witnessed.

Testing is carried out by the Customer's personnel in the presence of NCB, CBTL or LTR for some part of selected test programs identified by the NCB.

Qualified witnessing staff of the NCB, CBTL, or a LTR, shall supervise, check, and witness all critical aspects of the witnessed tests.

This includes but is not limited to:

- a) approving the test program developed by the CTF;
- b) checking the test set-up, instrumentation and the relevant equipment calibration for the witnessed tests;
- c) verifying the final data acquisition for the witnessed tests.

Witnessing by the CBTL/NCB qualified staff or a qualified LTR, is required when new tests are being performed, when new equipment or personnel are being used.

Following are examples of such cases:

- testing new product types
- testing products involving new features (e.g. components, software) impacting compliance with the standard
- testing product of larger size affecting test set-up and testing equipment
- testing product of greater scope of the test program
- testing is made by newly qualified staff

9 Access to a Stage - Initial Assessment of the CTF

9.1 Following receipt of an application for access to each stage, the NCB shall initiate a Qualification Assessment which typically includes the following steps:

- a) initial evaluation of the applicable procedures employed by the laboratory, including verification of the information provided with the application;
- b) evaluation of the general competence of the laboratory in testing;
- c) verification of the competence of CTF staff to perform tests within specified areas (does not apply to Stage 1 unless CTF staff are assisting);
- d) verification of the competence of CTF staff to handle equipment calibration (for Stage 1 only in cases where equipment owned by the CTF is used).

9.2 The Initial Assessment of the CTF, conducted as per clauses [10](#) and [11](#), shall be carried out by the NCB, the CBTL or the LTR (see OD-2034) at the request of the NCB, in accordance with the relevant requirements of ISO/IEC17025 (see OD-2048-F2 and OD-2048-F3) and provisions specified in clause [2](#) of this OD.

9.3 Requests for recognition of CTFs shall not be made to the IECEE Secretariat until all NCRs have been resolved.

10 Assessments and Scope Extensions under the responsibility of the NCB

10.1 Stages 1 and 2

An Initial Assessment of the CTF by the NCB, or under the NCB responsibility, by the CBTL or LTR (see OD-2034) in accordance with the relevant requirements of ISO/IEC 17025 (see OD-2048-F2) and provisions specified in clause 2 of this OD is required.

Over the course of each year, the Initial Assessment results shall be re-validated. This may be accomplished during one or more On-going visits to the CTF. ~~and documented by use of OD-2048-F1.~~

In case of no activity within a year, an Initial Assessment is to be conducted as set above.

10.2 Stages 3 and 4

An Initial Assessment of the CTF by the NCB, or under the NCB responsibility, by the CBTL or LTR (see OD-2034) in accordance with the relevant requirements of ISO/IEC 17025 (see OD-2048-F3) and provisions specified in clause 2 of this OD is required.

An Annual Assessment of the CTF, by the NCB, or under the NCB responsibility, by the CBTL or LTR (per OD-2034) in accordance with the relevant requirements of ISO/IEC 17025 (see OD-2048-F3) and provisions specified in clause 2 of this OD is required.

A new standard, Part 1 or Part 2, except for new editions or amendmends, can only be added to the scope of a CTF after an assessment or additional confidence building, because trust must be established first. ~~New categories cannot be added straight away to the scope of a CTF at Stage 3 or Stage 4, as confidence and trust needs to be build up in that new category first.~~

Where required to verify the implementation of corrective actions, a Follow-up Assessment is conducted by the NCB, or under the NCB responsibility, by the CBTL or LTR (see OD-2034).

At Stage 3, a full Re-Assessment must be carried out by the NCB every three years.

At Stage 4, an on-site IECEE Peer Assessment is required initially and once every three years thereafter. One Lead Assessor (appointed by the IECEE) shall be accompanied by a Technical Assessor (appointed by each NCB) for this Peer Assessment. The IECEE Secretariat shall provide the assessment documentation according to OD-2007 together with the assessment report number and the previous Peer Assessment report (if any) to the Lead Assessor. The combined scope of Lead Assessor (appointed by the IECEE) and Technical Assessor (appointed by the NCB) shall cover all product categories standards of the CTF Stage 4 applicant. A fee, the amount to be decided by the CMC, shall be remitted to the IECEE account by the applicant NCB for each new request for acceptance or for extension of scope of existing acceptance.

Assessments of CTF Stage 4 laboratories have no relation to the re-assessments of their associated NCB(s) or CBTL(s) and may be conducted separately.

10.3 Stages 1-4

Initial Assessment and any subsequent assessment activities shall be fully documented by utilising the relevant Assessment Report Form (see OD-2048-F2 and OD-2048-F3).

An on-site assessment by the NCB, CBTL or LTR is required for significant changes, such as:

- relocation
- major scope extensions (see below)
- change or addition of NCB

Major scope extensions may include, but are not limited to, the addition of new standards ~~or product categories~~ that require new test equipment, facilities and/or competencies. In general, scope extensions for new amendments or editions are not considered to be a major scope extension.

A relocation assessment shall include, but shall not be limited to, the verification of power supply.

Other changes, such as those listed below, may also require an assessment:

- changes in the CTF's organizational structure
- changes in QMS
- changes in personnel
- changes in equipment
- changes in facilities
- changes with regard to Live Stream Video witnessing
- insufficient activity to maintain current recognition

The need for an on-site IECEE Peer Assessment in Stage 4 following significant changes is determined by the IECEE Secretariat, otherwise, the NCB decides if an assessment is necessary.

11 Criteria for progression to higher Stages

11.1 Stage 1 is the basic level of the CTF program

A CTF is eligible to operate at Stage 1 when:

- a) it has the appropriate accommodation and environment;
- b) it has an appropriate power supply;
- c) it has appropriate management and infrastructure;
- d) it has been qualified as per sub-clause [9.1](#).

The final decision is made by the NCB based on the evidence provided.

11.2 Progression from Stage 1 to Stage 2

A CTF is eligible to progress at Stage 2 when:

- a) it possesses all the necessary test equipment;
- b) it has qualified (experienced) staff to carry out the intended tests;
- c) it has been qualified as per sub-clause [10.1](#).

The final decision is made by the NCB based on the evidence provided.

11.3 Progression from Stage 2 to Stage 3

A CTF is eligible to progress from Stage 2 to Stage 3 when:

- a) it can at least be maintained in Stage 2;
- b) Successful completion of 5 complete test programs at Stage 2 or has successfully maintained Stage 2 status for a minimum of two years, prior to a recommendation being made;

Note: Complete Test Programs are representative of the scope for which the CTF was recognized at Stage 2. Any missing tests are demonstrated by assessment.

- c) recommendation is made by qualified staff of NCB, CBTL or LTR;

- d) the CTF agrees to participate in the available and applicable IECEE PTP programs (refer to clause [15.](#));
- e) it has been qualified as per sub-clause [10.2.](#)

The final decision is made by the NCB based on the evidence provided.

Progression from CTF Stage 2 to CTF Stage 3 is ~~category-standard~~ dependant and only allowed ~~within the for~~ already approved ~~standardscategories~~.

11.4 Progression from Stage 3 to Stage 4

A CTF is eligible to progress from Stage 3 to Stage 4 when:

- a) it can at least be maintained in Stage 3;
- b) Successful completion of minimum 5 complete test programs at Stage 3, prior to a recommendation being made;

Note: Complete Test Programs are representative of the scope for which the CTF was recognized at Stage 3. Any missing tests are demonstrated by assessment.

Note: For progression from Stage 2 to 3, the CTF is being assessed for their scope during the 2 years, however, for progression from Stage 3 to 4, it is critical that experience can be demonstrated through actual testing programs.

- c) recommendation is made by qualified staff of NCB, CBTL or LTR;
- d) the CTF has participated in the available and applicable IECEE PTP programs (refer to clause [15.](#));
- e) it has been qualified for the stage as per sub-clause [10.2.](#)

The final decision is made by the NCB based on the evidence provided.

Progression from CTF Stage 3 to CTF Stage 4 is ~~standard category~~ dependant and only allowed ~~within for the~~ already approved ~~standardscategories~~.

Together with the progression of the CTF to increasing responsibility, additional parts of ISO/IEC 17025 may apply (see OD-2048-F3) and provisions specified in clause [2](#) of this OD.

12 Criteria for maintaining recognition for Stages 2, 3 and 4

12.1 Stage 2

- a) each of the tests in the CTF's Scope that have been witnessed is carried out correctly;
- b) during each visit on-going compliance of the facility is verified;
- c) any shortcomings shall be effectively addressed.

The decision is made by the NCB, based on the evidence provided.

12.2 Stages 3 and 4

In order for the CTF to maintain the current Stage of recognition:

- a) each of the tests that have been witnessed is carried out correctly;
- b) any shortcomings shall be effectively addressed;
- c) representative tests in the CTF's scope have been witnessed;
- d) successfully undergoes the re-validation as per clause [10](#), through assessment(s) carried out over the course of the preceding year;
- e) participate in the available and applicable PTP programs (refer to clause [15.](#)).

The decision is made by the NCB, based on the evidence provided.

12.3 If the minimum activity of ~~sub-clause~~ [12](#) is not fulfilled, the NCB shall take appropriate measures to cover the missing elements:

- a) carry out additional on-site witness testing, or
- b) perform a full assessment of equipment and testing capability, or
- c) at Stages 3 and 4, the NCB performs comparison testing for tests that were not witnessed.
- d) for PTP related NCRs, the NCB works with the CTF to resolve the identified issues.

12.4 If the activities covered under ~~sub-clause~~ [12](#) are not carried out or are not successful, the NCB shall reclassify the CTF to a lower Stage or cancel its CTF agreement, and duly inform the IECEE Secretariat.

~~13~~ **NCB management of CTF Stage**

~~The NCB has the responsibility for adjusting the Stage of the CTF as may be necessary, if any of the changes mentioned in sub-clause [10.3](#) occur.~~

~~14~~**13 Relationships with multiple NCBs**

13.1 A CTF shall be permitted to operate in the IECEE with more than one NCB ~~in-for~~ the same ~~category~~[standard](#).

13.2 A CTF shall not be permitted to submit test data for the same ~~product~~-model to more than one NCB for issuance of a CBTC ~~in-for~~ the same ~~category~~[standard](#).

~~Note: The same product model may be submitted to different NCBs for different categories, such as OFF and EMC.~~

13.3 Each NCB shall fulfill its responsibilities listed in ~~sub-clause~~ [5.1](#) independently including the decisions for the progression (change of Stage) of the CTF that are reported to IECEE.

13.4 For CTF Stage 4, each NCB involved with this CTF shall appoint a technical assessor to the Peer Assessment Team.

13.5 For CTF Stage 4, a separate Peer Assessment report shall be issued for each NCB.

~~15~~**14 Agreement between the NCB and the Customer**

When the NCB is satisfied that the CTF meets the requirements of this OD, a formal agreement shall be signed covering the provision of testing services by the CTF. A NCB may use its own form of agreement, but the essential elements for inclusion in such an agreement are given in [Annex A](#) to this OD.

~~16~~**15 Participation in CTL Proficiency Testing Programs (PTP)**

Participation of the CTF in the applicable IECEE PTP programs is recommended at Stage 2.

At Stages 3 and 4, a CTF shall participate in the available and applicable IECEE PTP programs in accordance with the IECEE rules for PTP program participation.

Where a CTF operates with more than one NCB, the IECEE Secretariat informs the NCBs of the need for a coordination arrangement between the NCBs and the CTF for the purpose of administering the PTP participation of the “shared” CTF.

If results from a PTP reveal outlying data for a CTF, simply removing a test from the CTF scope or withdrawal of the CTF from the scheme is not sufficient to resolve the finding. A root cause analysis as well as determination of impact on past results and consideration of

systemic problems must be completed in outlier resolution and in order for the CTF to be reinstated in case it was withdrawn.

Rules and requirements of OD-5004 apply.

1716 Notification to the IECEE

176.1 The NCB shall have an agreement with the CTF as outlined in clause 14 and shall ~~inform the IECEE Secretariat when the agreement is initiated, changed or cancelled.~~ The information is provided by the NCB by entering and/or updating the CTF registration on the IECEE Website, whenever the agreement is initiated, changed or cancelled.

167.2 Change of ~~s~~Stage ~~is reported to the IECEE Secretariat and~~ shall be reflected either by a new agreement or by an amendment to the existing agreement.

~~17.3 At Stages 3 and 4, each NCB shall submit an annual summary report to the IECEE Secretariat tabulating the assessment dates of the CTF. For the format of the reporting to the IECEE Secretariat, OD-2048-F1 shall be used.~~

167.43 In preparation for the Stage 4 Peer Assessments, the NCB shall provide the assessment documentation according to OD-2007 to the IECEE Secretariat.

167.45 At Stage 4, Peer Assessment reports shall be submitted to the IECEE Secretariat immediately after the assessment, together with all NCRs. The time limits for resolution of the NCRs are the same as those for the CBTLs, as per IECEE 02-3. After the completion of the Peer Assessment and subsequent receipt of the cleared assessment report, the IECEE Secretariat will update the IECEE register of CTFs.

167.56 The IECEE Secretariat shall keep a register of CTFs duly updated giving details of CTFs accepted within the IECEE Schemes and operating in accordance with this OD, and for Stage 4, showing the date of the last Peer Assessment.

1817 Confidentiality of CTF Assessment Reports

CTF assessment reports shall be considered confidential and proprietary information and shall not be subject to publication.

At Stage 4, the CTF may request the IECEE Secretariat to provide an endorsed official version of the CTF Peer Assessment report for submission to the accepting NCB.

1918 Records of CTF activities by NCB and CBTL for all Stages

NCBs and CBTLs shall maintain the following records of their CTF activities, as required by this OD:

- a) IAR;
- b) Records of On-going visits including training and resolution of shortcomings. This may be documented by use of a form such as OD-2048-F1;
- c) RAR, RLAR;
- d) Progression decisions.

For those purposes, OD-2048-F2 and OD-2048-F3 can be complemented with any other records.

Records shall be maintained for a minimum of ten years.

The documentation shall be made available by the NCB for review, and for scrutiny at any subsequent IECEE Peer Assessment.

Annex A Essential contents of the formal agreement between Customer, NCB and where applicable a CBTL

A.1. The agreement shall cover the CTF rules and procedures according to the applicable IECEE clauses and Operational Documents approved by the CMC of the IECEE Schemes.

A.2. The applicable rules of the NCB shall be included or referred to in the agreement.

A.3. The customer facilities and services, ~~product categories and types,~~ standards and/or parts of standards shall be clearly specified. This implies that the agreement shall be updated every time changes occur in these respects.

A.4. The customer shall inform the NCB about changes in the facilities covered by the agreement.

A.5. The customer shall give access for duly qualified experts from the NCB to the premises covered by the agreement at any time during working hours without appointment and shall provide all information requested by the NCB representative relating to the operation of the CTF.

A.6. The NCB shall be entitled to obtain samples for following up and comparison testing purposes

A.7. The NCB shall keep the customer informed about decisions and recommendations relevant to the operations covered by the agreement, and shall provide the relevant CTL decisions and the relevant harmonized TRFs. The customer shall keep this information as controlled documentation and follow it in the operations covered by the agreement. However, the customer himself has the responsibility to follow and to keep himself well informed of the development of the relevant standards.

A.8. The operations according to the agreement shall be covered by the same confidentiality rules as for the other operations of the NCB. Confidentiality shall be observed also after termination of the agreement

A.9. It shall be made clear that the agreement and its application does in no way exempt the customer from the full and final responsibility for the products which are marketed after testing under the CTF procedure.

A.10. It shall be stated that the customer may not use its status as a CTF for promotional or advertising purposes.

A.11. There shall be a termination clause in the agreement covering both the normal routine with a stipulated time for notice by either party, or those measures which may be necessary if the customer does not fulfil the basic conditions (immediate termination).

A.12. The NCB/CBTL shall have access to the laboratory for the purpose of Initial Assessment and all subsequent assessments.

A.13.

- a) If the CBTL is operating under the same legal entity as the NCB, a 2-way agreement between the NCB and CTF is sufficient;
- b) If the CBTL is under the same corporate structure as the NCB and operates under the same Quality System pertaining to IECEE operations, a 2-way agreement between the NCB and CTF is sufficient;
- c) A 3-way agreement between NCB, CBTL and CTF is required in all cases not covered by a.) or b.) above.

Annex B Utilization of Customer’s Testing Facilities

Process	Stage 1 Full Testing by CBTL or LTR	Stage 2 Witnessing 100% of Each Test Program	Stage 3 Witnessing Selected Parts of Each Test Program	Stage 4 Witnessing Selected Parts of Selected Test Programs
Product evaluation Process elements at TL	100% of each test program carried out at CTF	100% of each test program carried out at CTF	100% of each test program carried out at CTF	Selected parts of selected test programs carried out at CTF
Checking the test set-up, instrumentation and calibration	CBTL or LTR	NCB, CBTL or LTR	NCB, CBTL or LTR	NCB, CBTL or LTR
Monitoring the conduct of the tests and witnessing the acquisition of data	Not applicable	NCB, CBTL or LTR	NCB, CBTL or LTR	NCB, CBTL or LTR
Confirming through objective evidence that specified requirements have been fulfilled	CBTL or LTR	NCB, CBTL or LTR	NCB, CBTL or LTR	NCB, CBTL or LTR
Preliminary constructional review	CBTL or LTR	NCB, CBTL or LTR	NCB, CBTL or LTR/CTF	CTF
Sample selection	CBTL or LTR	NCB, CBTL or LTR	NCB, CBTL or LTR/CTF	CTF
Requesting/preparing a test program and data sheets	CBTL or LTR	NCB, CBTL or LTR	NCB, CBTL or LTR/CTF	CTF
Approving the test program (including, if applicable, NDs, SNCs, and Group Differences)	NCB or, by delegation, CBTL or LTR	NCB or, by delegation, CBTL or LTR	NCB or, by delegation, CBTL or LTR	NCB or, by delegation, CBTL or LTR
Providing a test program to the CTF	CBTL or LTR	NCB, CBTL or LTR	Not applicable	Not applicable
Testing and test data acquisition	CBTL or LTR	NCB, CBTL or LTR	NCB, CBTL or LTR/CTF	CTF

Process	Stage 1 Full Testing by CBTL or LTR	Stage 2 Witnessing 100% of Each Test Program	Stage 3 Witnessing Selected Parts of Each Test Program	Stage 4 Witnessing Selected Parts of Selected Test Programs
Review of original (raw) test data (verifying that test results were transcribed correctly)	CBTL or LTR	NCB, CBTL or LTR	NCB, CBTL or LTR/CTF	CTF
Preparation of CBTR, e.g.: test data, main body(checklist), photos, components, NDs, SNCs, and Group differences	CBTL or LTR	NCB, CBTL or LTR	NCB, CBTL or LTR/CTF	CTF
Preliminary technical review of the CBTR	CBTL or LTR	NCB, CBTL or LTR and CTF for training	CTF	CTF
Detailed construction analysis	CBTL or LTR	NCB, CBTL or LTR	NCB, CBTL or LTR/CTF	CTF
Documentation review (e.g.: deciding which standards apply, deciding where the testing is to be performed)	CBTL or LTR	NCB, CBTL or LTR	NCB, CBTL or LTR/CTF	CTF
<i>Signing of the CBTR</i>				
Project handling Tested by	CBTL or LTR	CTF	CTF	CTF
Witnessing of tests Witnessed by	Not applicable	NCB, CBTL or LTR	NCB, CBTL or LTR	NCB, CBTL or LTR when tests were witnessed
Final technical review and signing of (Reviewed) Approved by	CBTL or LTR (not the same person who performed tests)	NCB, CBTL or LTR	CTF (not the same person who performed tests) or NCB, CBTL or LTR (<u>not the same person who witnessed</u>)	CTF

Process	Stage 1 Full Testing by CBTL or LTR	Stage 2 Witnessing 100% of Each Test Program	Stage 3 Witnessing Selected Parts of Each Test Program	Stage 4 Witnessing Selected Parts of Selected Test Programs
(Program supervision) Supervised by	Not applicable	Not applicable	NCB, CBTL or LTR <u>(can be same person who witnessed)</u>	NCB, CBTL or LTR
Independent review and signing of the CBTC	NCB	NCB	NCB	NCB

Annex C Use of Live Stream Video for remote witnessing of project tests

C.1 General provisions

Live Stream Video is considered to be an alternative to on-site witnessing after the CTF has been assessed and accepted for specified tests. The assessment of these tests shall be documented. The accepted clauses shall be listed within the assessment report OD-2048-F2/F3.

Witnessing of tests via Live Stream Video is permitted for specific tests within a test program, however, not as part of a CTF assessment.

Further details and requirements are given below.

C.2 Definition

Live Stream Video is the witnessing of project tests (performed by CTF staff at the CTF location) by the NCB, CBTL or LTR. The witnessing of the CTF testing is via real time live video stream.

C.3 Criteria

Remote witnessing by Live Stream Video shall not be the sole method of CTF supervision.

To maintain the level of quality, confidence in the CTF testing process has to be established by the NCB. This confidence building process is described within the respective sections of this OD-2048.

The CTF shall have an adequate procedure for the operation of Live Stream Video.

The CTF shall assume responsibility for all risks related to the transmission of Live Stream Video.

Live Stream Video can only be used after an on-site assessment, including assessment of the suitability of the used Video equipment and IT infrastructure, has been previously completed - according to the rules of OD-2048 - and any shortcomings have been effectively addressed.

Original observations collected through Live Stream Video, including details of test equipment used, shall be stored for the same period of time as defined for conventional test records.

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