



OPERATIONAL PROCEDURE

CTL-OP 103

**Rules Of Operation
For CTL Proficiency Test Program**



RULES OF OPERATIONS FOR CTL PROFICIENCY TESTING PROGRAM

PURPOSE

The primary goal of the Committee of Testing Laboratories (CTL) is to increase the mutual confidence among the CB Testing Laboratories in the IECEE-CB Scheme. In order to achieve this, the CTL operates Proficiency Testing Programs (PTP) designed to improve the consistency and reproducibility of test results.

1. PARTICIPATION

All Testing Laboratories accepted by the CB Scheme, including CB Testing Laboratories (CBTLs), and manufacturers' SMT and RMT Laboratories, are required to participate in all CTL Proficiency Testing Programs within their scope of participation in the CB Scheme.

Each PT Program will identify all relevant IEC standards within the scope of the IECEE to which it applies.

Based on the identified applicable standards for each PTP, the IECEE Secretariat will provide to the PTP Provider a list of all CBTLs and MTLs that are required to participate in each PT program. A full list of all laboratories required to participate in each PT program, will be also be provided on the CTL Website.

A NCB shall ensure that each CBTL, SMT, and RMT laboratory for which the NCB is responsible participates, within a 3-year cycle, in all available CTL PTPs that fall within the testing scope of the laboratory. The participation of a laboratory will normally be arranged and monitored by the responsible NCB.

Laboratories participating in a program with satisfactory results will not be required to repeat participation in that particular program for 3 years.

A NCB responsible for several laboratories may choose to co-ordinate the PTP arrangements for its family of laboratories.

The number of PT programs to take place each year shall be decided by the CTL and ratified by the CMC. The maximum number of new programs, ie. new topics, initiated each year shall be limited to three. Repeated PT programs also require CTL approval and CMC ratification.

A laboratory shall not be required to participate in more than 3 programs in a year, with the priority being given to new topics. Exception: A laboratory may be required to participate in more than 3 programs if required to repeat a test as a result of "outliers" in previous programs.



2. TOPICS

Suggestions for program topics may be made by a CTL Expert Task Force (ETF), CB Scheme Member Body (CB-MB), CB National Certification Body (CB-NCB), or a recognized CB Testing Laboratory (CBTL) - through its responsible NCB.

CTL Working Group 2 (Proficiency Testing Programs) makes recommendations for new PT programs – for approval at the CTL Plenary Meeting.

3. PROGRAM MANAGEMENT

The programs are managed by a PTP Provider independent of the participating testing organisations, working in coordination with CTL-WG2.

The PTP Provider shall be selected by the CTL Chairman in consultation with members of CTL WG2 and WG4, accepted at the CTL Plenary session and confirmed by the CMC. The PTP Provider shall have a proven capability in the design and management of programs related to electrical safety testing. The PTP Provider shall be formally recognised as meeting the following requirements

- (a) ISO/IEC Guide 43-1:1997, Proficiency testing by inter-laboratory comparisons- Part 1: Development and operation of proficiency testing schemes.
- (b) ISO/IEC 17025:2005, General requirements for the competence of testing and calibration laboratories.
- (c) The PTP Provider shall be formally recognised for conformance with ILAC G13:2000, “Guidelines for the requirements for the competence of providers of proficiency testing schemes”.

The topics chosen by the CTL are developed into programs by the PTP provider in cooperation with CTL–WG 2.

In accordance with Section 1, the PTP Provider sends out the details of each program to the NCBs in advance. The NCBs are responsible for advising the PTP Provider which of their laboratories (CBTL, SMT and RMT) will participate in the particular PT program.

The PTP Provider supplies to the IECEE Secretariat the list of laboratories that have registered for each program.

The IECEE Secretariat follows up with the NCBs **and their laboratories** that are required to participate but have not registered.

The PTP provider prepares the test samples and first subjects them to a round of homogeneity tests at a competent testing laboratory, preferably an IECEE CBTL. The homogeneity laboratory is chosen by the Provider, in consultation with CTL-WG2.



The PTP Provider sends out the programs, collects and analyses the results, prepares an initial report for comment, and completes a final report, including comments where appropriate from the Technical Advisors (TA).

The TAs are appointed for each PT programme by the WG-2 Convenor, typically from among the CTL-WG and ETF members, taking adequate care to avoid a potential conflict of interest.

Responsibilities in cases where corrective action is required are described in Section 6 of this document.

4. CTL-PTP RESULTS

The confidentiality of results from individual laboratories is important to the operation of the CTL PTPs.

Because of their responsibility for laboratories within the CB Scheme, NCBs shall make appropriate arrangements with their laboratories concerning access to laboratory results and the maintenance of confidentiality. Except as described in section 5, individual laboratory results shall be maintained on a confidential basis by the PTP Provider.

CTL-PTP results, both Interim and Final, are made available as follows:

- (a) CBTL individual results – to the relevant laboratory and its responsible NCB.
- (b) CBTL overall consolidated (anonymous) results – to the CTL Chairman and Secretary and the IECEE Secretariat, and are presented at the CTL Plenary meeting.
- (c) All individual CBTL results – retained on file by the PTP Provider for reference and provided to the IECEE Executive Secretary on request.

5. CTL-PTP REPORTS

The CTL-PTP Reports shall be prepared and distributed by the PTP Provider and shall include the contents detailed in Annex 1.

At the completion of a program, the PTP Provider circulates an Interim PTP Report for a 2-month comment period to all participants, with a copy to the relevant NCBs.

The Interim Report must include proposed pass/fail (“outlier”) criteria. Comments may be made on any aspect of the report and should be addressed to CTL WG2 and the PTP Provider. This is not a ballot, however, a lack of comments will be considered as approval.

The final PTP report is issued after the 2-month comment period and after WG 2 has addressed the issues identified in the comments.



6. CTL-PTP OUTLIERS

For each PT program, CTL-WG 2, in cooperation with the PTP Provider, shall analyze the statistical presentation of the results of the proficiency testing and decide what data are considered outliers. The criteria for determination of outliers may vary from program to program, and shall be reviewed and accepted by the participants in each case following the completion of the program and distribution of the Interim PTP report.

Comments on the Interim Report and the “outlier” criteria shall be directed to CTL WG2 and to the PTP Provider, who will use their best endeavours to address the comments.

Once the criteria for outliers have been accepted, the PTP Provider shall issue the final report to the participating laboratories and their NCBs, and shall compile a list of individual participants that have produced “outlier results”.

7. APPEAL BY LABORATORY

A testing laboratory whose test results are classified as outliers has the right to appeal this classification by writing to the IECEE Secretariat and the PTP Service Provider. CTL-WG2 may be consulted in such cases, if it can be done without revealing the identity of the testing laboratory.

The appeal shall be filed within 15 days from the date on which the final report is sent, and shall clearly indicate the grounds for appealing.

Appeals that require technical input shall be sent by IFM to CTL-WG2, without revealing the identity of the testing laboratory. WG2 will be expected to respond within 15 days of receiving a request from IFM.

The objective is to have a decision on the appeal made by the PTP Provider within 30 days from the date on which the final report is sent. The IECEE Secretariat shall be copied on the final decision.

The PTP Provider shall submit the final list of individual participants that have produced “outlier results” to the IECEE Secretariat within 30 days from the date on which the final report is sent.

The IECEE Secretariat will issue a Non-conformance Report (NCR) to each testing laboratory on the “outlier list” (with a copy to its NCB), and will subsequently follow-up on corrective actions in accordance with the IECEE procedures. The time limit for the completion of these corrective actions shall not exceed 3 months.

Upon receipt of the Non-conformance Report, the organization shall provide to the IECEE Secretariat, within the time frame indicated on the Non-conformance Report, a Corrective Action Plan developed with the PTP Provider.



The resolution of the technical aspects of the corrective actions shall be managed by the PTP Provider in coordination with the responsible NCB and the involved laboratory.

Help in taking corrective action may be obtained from various sources, including WG2 Convenor, the designated (WG2) Technical Advisor(s), or the PTP provider. NCBs are required to provide direction and help to their associated laboratories.

8. FINANCIAL MATTERS

An estimate of the cost of a new program shall be provided in advance to the CTL Chairman and CTL-WG 2 Convenor.

Programs are advertised well in advance with the details of a proposed date and the price for participation posted on the website of the PTP Provider. At this time, CBTLs are requested to indicate their intention to participate, so that appropriate planning can be performed.

Closer to the time of the program, more details are sent by the PTP Provider to the prospective participants for their final confirmation, with an invoice and instructions for payment that is to be made directly to the PTP Provider. Acceptable payment options are described on the PTP Provider's website.

Laboratories can pay individually, or via their NCB, depending on arrangements made with the PTP Provider.

Payment is required before a laboratory is accepted for participation in the particular program. Unpaid invoices will be cancelled after a specified date.

8. WORKSHOP

Based on CTL membership interest, the CTL may hold workshops on PTPs conducted.

9. IEC STANDARD REVISION

The outcome of a CTL PTP may indicate the need for revision of the standard containing the test method. With concurrence of the CTL, a recommendation may be made to the relevant IEC Technical Committee for revision of the standard in accordance with § A.4.4 of IECEE 02.

Annex 1

CONTENT OF PROFICIENCY TESTING REPORTS

The following text is extracted exactly from ILAC Guide 13:2000.

3.6.3 Proficiency testing scheme reports

3.6.3.1 General

The content of proficiency testing scheme reports will vary depending on the purpose of a particular scheme, but each report shall be clear and comprehensive and include data on the distribution of results from all participants, together with an indication of the performance of individual participants.

3.6.3.2 The following information shall normally be included in reports of proficiency testing schemes:

- (a) name and address of the provider;
- (b) names and affiliations of persons involved in the design and conduct of the scheme;
- (c) date of issue of the report;
- (d) report number and clear identification of the scheme;
- (e) clear description of the items or materials used, including, where appropriate, details of sample preparation and homogeneity testing;
- (f) laboratory participation codes and test results;
- (g) statistical data and summaries, including assigned values and range of acceptable results and graphical displays;
- (h) procedures used to establish any assigned value;
- (i) details of the traceability and uncertainty of any assigned values, where applicable;
- (j) assigned values and summary statistics for test methods/procedures used by other participants (if different methods are used by different participants);
- (k) comments on participants' performance by the provider and technical advisers;
- (l) procedures used to design and implement the scheme (which may include reference to a scheme protocol);
- (m) procedures used to statistically analyse the data, where applicable. (see Annex 1 for guidance);
- (n) advice, where appropriate, on the interpretation of the statistical analysis.

Note: For schemes operated on a regular basis, it may be sufficient to have simpler reports such that many of the recommended elements in 3.6.3.2 could be excluded from routine reports, but included in scheme protocols or in periodic summary reports and provided upon request to participants.



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3.6.3.3 Reports shall be made available to participants within specified timetables. In schemes such as long-term measurement comparison schemes, interim reports shall be issued to individual participants.

Note: Although, ideally, all original data supplied should be reported to all participants, it may not be possible to achieve this in some very extensive schemes. Participants should receive at least the results from all participants in summary (e.g. graphical) form.