



# IECEE OPERATIONAL DOCUMENT

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

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**Committee of Testing Laboratories (CTL)**

**Preparation of CTL lists for “testing and measuring equipment/ allowed subcontracting” (short: Equipment Lists)**





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**IECEE OD-5003**

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## FOREWORD

### Document Owner

CTL [WG 4 "Coordination"](#)

### History of changes

Date	Brief summary of changes
2016-04-20	Changes in this document are editorial only.  In clause 7.3, "Manufacturer Test Laboratory" has been replaced by "Customer Test Facility" in accordance to the rules.  Typing errors have been corrected.
2017-09-13	Editorial: In clause 6.3 "PDSH" was replaced by "Provisional Equipment List"
<a href="#">2018-10-31</a>	<a href="#">Alignment with OD-2012 about usage of equipment. Definition of files names and editorial changes including re-structuring of clause 7.</a> <a href="#">Clarified ambiguous statements in Subclause 7.3 about the "alternatives" as recommended by TF SPTL.</a>

Effective date	<del>Next maintenance due date</del> <del>Target revision date</del>
<del>2019-06-30</del> <del>2019-06-30</del> <a href="#">2019-06-30</a>	<del>2021-06-30</del> <del>2021-06-30</del> <a href="#">2021-06-30</a>

## Background

The CTL decided in 2014 to convert the CTL Operational Procedure (OP) into the IEC EE Operational Document (OD) structure. The content of the former OP's has not been changed. Editorial adjustments have been made where necessary. The forms have been separated into independent documents for better handling.

A transfer table which CTL/OP has been transferred into which OD is given in OD 5000.

### 1 Purpose

The purpose of this procedure is to provide a template for preparing Equipment Lists to facilitate uniform development of the lists by IEC EE and IEC EE/CTL.

### 2 Scope

This Operational Document gives guideline and a template for the preparation of Equipment Lists.

### 3 Normative References

The following publication contains provisions which, through reference in this text, constitute modifications or additions of this Operational Document.

OD 5003- <u>F1</u>	Template (Provisional) Equipment List
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### 4 Definitions

For the purpose of this publication, the definitions of IEC EE Definitions apply with the following additions:

CTL	IECEE Committee of Testing Laboratories
CTL/ETF	CTL Expert Task Force
CTL/WG	CTL Working Group
NCB	National Certification Body

### 5 Abbreviations

None	
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### 6 Procedure

**6.1** When a new IEC standard is approved under the IEC EE Scheme the relevant CTL/ETF or CTL/WG has to prepare a CTL list for testing and measuring equipment/ allowed subcontracting" (short: Equipment Lists). Usually a member of the relevant CTL/ETF or CTL/WG takes over this work. Whereas the following items have to be followed:

**6.1.1** The template as shown in OD 5003-F1 shall be used for preparing all Equipment Lists.

**6.1.2** References to the standard must include the year of publication ~~and edition~~ as given in the following example:

**IEC 61058-2-1: 1992, Edition 1.0**

**Part 2-1: Particular requirements for cord switches**

**6.1.3** The table can be extended with additional rows as necessary to complete the Equipment List.

**6.1.4** The footer shall include the date of publishing the Equipment List, the page number, the number of pages, and the standards number ~~including the~~including the year ~~or edition~~.

**6.1.5** The Equipment List file name shall follow the following structure (what ever applies):

- P.E.L <<STANDARD>>-<<YEAR>> <<date of preparing (YYYY-MM-DD), or
- P.E.L <<STANDARD>><<Amendment Number (A1, A2,...)>>-<<YEAR>> <<date of preparing (YYYY-MM-DD), or
- E.L <<STANDARD>>-<<YEAR>> <<date of preparing (YYYY-MM-DD), or
- E.L <<STANDARD>><<Amendment Number (A1, A2,...)>>-<<YEAR>> <<date of preparing (YYYY-MM-DD).

**6.1.65** When an Equipment List is updated, the date of revision shall be noted in the footer.

**6.1.76** If the Equipment List is provisional, the word “PROVISIONAL” shall appear under the standard title.

**6.2** Once the ETF/WG-Convenor has received the Provisional Equipment List he starts the “Two months procedure” \*) and circulates the Provisional Equipment List to the all Members of the CTL/ETF or CTL/WG, together with the ETF/WG-Convenor's views (if any), indicating the deadline for answering.

Note \*): The two-month period is considered to be a reasonable compromise between the need of the Laboratories to quickly solve the interpretation questions and the time necessary for the ETF/WG to evaluate the questions.

**6.3** On the basis of the answers received, the ETF/WG-Convenor:

Summarises the consensus reached by the majority, 60% at least \*\*);

Drafts the Provisional Equipment List (using OD 5003-1)

Sends the Provisional Equipment List to the CTL Secretary for publication

Note \*\*): With 60% majority is meant 60% of responses to the enquiry.

The CTL Secretary provides the IECEE Secretariat with the final Provisional Equipment List in Word and PDF format with the request to upload it on the CTL Website. With publication of the Provisional Equipment List at the CTL Web Site the document is valid and shall be applied by the CB Scheme participants.

**6.4** Provisional Equipment Lists are formally approved by the CTL during the CTL plenary meeting, after which they become “CTL Equipment Lists”. The ETF/WG-Convenor transfers the Provisional Equipment Lists, he is responsible for, into an Equipment List (by deleting the word “provisional”) and provides the final Equipment List to the CTL Secretary in Word and PDF format for posting on the CTL web site.

**6.5** The same procedure applies when an update of an Equipment List is necessary.

**6.6** If during an IECEE assessment the lead assessor identifies in a laboratory equipment which is not listed in the Equipment List he reports to the relevant CTL/ETF- or CTL/WG-Convenor to add the missing equipment to the Equipment List. Until the updated Equipment List is available the equipment in the Laboratory can be seen as subcontractable (“S”). Maybe later, depending on the CTL decision this will be changes into required (“R”).

## **7 How to fill in the column “Equipment Classification”“Subcontracting”**

### **7.1 General**

In general, all equipment necessary for performing test in line with IEC standards is required by the CBTL.

## **7.2 Possible Entries**

The following possibilities are given to define the usage of equipment:

“R” Required

“S” Test may be subcontracted, see OD 2012

“W” Test may be witnessed at a CTF, another CBTL, or an outside subcontractor

“SP” Test may be performed at a Specialized Testing Facility (SPTL), see IEC EE 02-2 Clause 6 and Annex A

## **7.1 Rational**

- ~~1) All applicable tests required in a standard are important for the safety.~~
- ~~2) The test sequence as required by the standard is the main criteria for any possible “S” option.~~
- ~~3) The test sequence shall be performed in the CBTL without disturbing interruptions.~~
- ~~4) When following the criteria described under “S” 1 to 5 any definition for key test is not needed.~~
- ~~5) For tests which are in line with one of the criteria 1 to 3 but not with 4 we can allow the option “W”.~~
- ~~6) The following possibilities are given to define the usage of equipment:~~



~~“R” Required~~

~~“S” Test May may be subcontracted, see OD 2012~~

~~“SPTL” Specialized Facility, see IECEE 02-2~~

~~“W” Witness testing in the categories “MED” and “MEAS” Test may be witnessed at a CTF, another CBTL, or an outside subcontractor~~

~~“SP” Test may be performed at a Specialized Testing Facility (SPTL)~~

~~Note: “R” on a CTL Test Equipment List stands for Required test equipment, which means that the specific test is not intended to be subcontracted and that a CBTL is generally required to have such test equipment and testing competency.~~

~~“3PPS” Three Phase Power Supply required~~

#### ~~7.21.1 General~~

~~7.31.1 In general all equipment necessary for performing test in line with IEC standards is required by the CBTL.~~

#### ~~7.47.3 Definition of the categories~~

~~“R” Shall be applied for all listed tests and test equipment. The specific test is not intended to be subcontracted. The CBTL is generally required has to have such the test equipment, the testing competency (and the experts) and can perform the test by themselves. If a test sequence includes a key-test the complete sequence has to be required.~~

~~“S”, “SPTL” and “W” are alternatives which can be applied instead of “R”.~~

~~“S” Shall also be chosen for tests and test equipment under the following conditions:~~

- ~~1) For tests which can be performed independently from any test sequence.~~
- ~~2) For tests on materials and components that can be shipped easilyeasily, and the tests can be done in other locations without input from or influence toon the type approval tests.~~
- ~~3) For tests needing very expensive test equipment or performed very seldom because it is required under special conditions only.~~
- ~~4) 3) The typical example from CTL ETF7 is high power and short circuit testing or surge testing above several kA.~~
- ~~4) For tests where the results are objective measurement results against limits given in the standard without any option for interpretations (Rationale behind this point: if there is a judgement possible without interpretation “e.g. > or < 8 mm” then subcontracting is possible. If there is interpretation possible “e.g. compliance is checked by external visual inspection. There shall be no delamination”, this opens the door for different interpretations and in this case—subcontractingcase, subcontracting can be allowed provided project engineer is involved in the compliance decision).~~
- ~~5) The Subcontractor would be required to be qualified in accordance with the requirements of OD-2012.~~

~~“W” Test shall be performed in a Customer Testing Facility (CTF), another CBTL, or an outside subcontractor / Independent Laboratory for the categories “MED” and “MEAS” and has to be witnessed. It is always possible as alternative for “S”, “R” or “SPTL”. For exampleexample, it can also be applied for:~~

- ~~1) Very expensive samples.~~
- ~~2) Samples needing a special test environment and/or supply which is only available at the Customer Testing Facility.~~

- 3) Big samples that can be installed and operated only at the Customer Testing Facility.
- 4) ~~The Customer Testing Facility / Independent Laboratory~~ would be required to be qualified in accordance with the requirements of OD-2048, stage 2 or higher.
- 4)5) ~~The Subcontractor would be required to be qualified in accordance with the requirements of OD-2012.~~

~~“SPTL” A SPTL is a dedicated facility that typically conducts highly specialized testing requiring test equipment that is very expensive to procure, maintain and calibrate and which might otherwise be used infrequently.~~

- 1) ~~A SPTL can cover the “Controlled List” in Annex A of IEC EE 02-2— Is —always possible as alternative for “S”. In addition under “SPTL” also test sequences are possible as well as key tests.~~

- 4)2) ~~The SPTL would be required to be qualified in accordance with the requirements of IEC EE 02-2.~~

#### **7.4 Rational for “Subcontracting”**

- 1) ~~All applicable tests required in a standard are important for the safety.~~
- 2) ~~The test sequence as required by the standard is the main criteria for any possible “S” option.~~
- 3) ~~The test sequence shall be performed in the CBTL without disturbing interruptions.~~
- 4) ~~When following the criteria described under “S” 1 to 5 any definition for key-test is not needed.~~
- 5) ~~For tests which are in line with one of the criteria 1 to 3 but not with 4 we can allow the option “W”.~~

~~“3PPS” Shall be shown as test equipment and marked with “R” if required or marked with “W” or “SPTL” if possible.~~

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