



IECEX OPERATIONAL DOCUMENT

IEC System for Certification to Standards Relating to Equipment for Use in Explosive Atmospheres (IECEX System)

**IECEX Certified Equipment Scheme –
IECEX Rules of Procedure covering testing, or witnessing testing at
a manufacturer's, user's or third party facility**

Redline Version



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IEC System for Certification to Standards Relating to Equipment for Use in Explosive Atmospheres (IECEX System)

**IECEX Certified Equipment Scheme –
IECEX Rules of Procedure covering testing, or witnessing testing at
a manufacturer's, user's or third party facility**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

IECEX Operational Document OD 024 –**IECEX Certified Equipment Scheme –
IECEX Rules of Procedure covering off-site or witness testing at a
manufacturer's, user's or third party's facility****Edition 4.0**

FOREWORD

This operational document IECEX OD 024 sets out the procedures covering off-site or witnessing testing at a manufacturer's or user's, in accordance with the Rules of Procedure IECEX 02.

This publication also provides guidance on the updating and maintenance of the new Online Register of agreements established in accordance with the requirements defined in this operational document.

This redline version of IECEX OD 024 highlights the changes made to the previous edition. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

Document history

Date	Summary
2010-10	Edition 1.0
2012-05	Edition 1.1 to include Annexes B and C as Sample Agreement Forms.
2017-10	Edition 2.0 <ul style="list-style-type: none"> • Addition of third party facilities. • Clarification of requirements for partially witnessed testing. Approved at 2017 ExMC Meeting – refer ExMC/1298/DL, Decision 2017/81
2018-10	Edition 3.0 As approved by 2018 ExMC meeting via Decision 2018/30 in ExMC/1436/DL and based on Green Paper <i>ExMC(Cannes_Sec)05_OD_024_Ed3_mods from ExTAG.docx</i> NOTE Edition 3.0 represents a reformatting and rewrite where multiple and significant changes mean that there is no value in a redline version – as such a redline version of Edition 2.0 as compared to Edition 3.0 is not available.
2019-11	This Edition 3.1 was approved (via Decision 2019/20) for publication by the 2019 ExMC Meeting and supersedes Edition 3.0 of OD 024 upon publication. This Edition of 3.1 Version is the result of the 9 May 2019 Singapore meeting of IECEX ExTAG WG6.
<u>2021-04</u>	<u>This Edition 4.0 includes details of use of new IECEX Online Testing Agreement Register and responses from Member Bodies on ExMC/1675/DV.</u>

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INTRODUCTION

There are various situations that necessitate that testing be conducted at a facility other than an IECEX Testing Laboratory (ExTL).

Examples of such situations are:

- a) Some manufacturers and end users who use the IECEX Certified Equipment Scheme have the capability in terms of personnel, facility, and equipment to conduct a part of or all the tests specified in a ~~given~~ standard within the scope of the IECEX System
- b) The size of the product intended for testing is too large to ~~bring~~ transport to, ~~and~~ or to handle at the ExTL premises
- c) Where the product forms part of and is to be tested as part of an installation located at the end user site
- d) Due to particular testing requirements, the use of a third-party facility may be needed

In recognition of the above conditions, and in response to identified needs to utilize existing capabilities other than those of an ExTL, this operational document has been established for testing to be conducted at such facilities under controlled conditions as specifically detailed and defined in this operational document.

Off-site testing and witness testing are currently being employed by ExTLs to accommodate the above situations. This operational document has been developed to recognize such existing practices and to provide a common approach ~~so as to~~ that ensures consistency, transparency, and proper controls, and to maintain the credibility of the IECEX System.

It is the intent of this operational document that testing carried out under these programmes be performed with the same rigour as testing conducted at an ExTL.

The activities of an ExTL defined in this operational document are carried out in conjunction with an ExCB, in accordance with the requirements of IECEX 02.

IECEX Rules of Procedure covering off-site or witness testing at a manufacturer's, user's or third party's facility

Scope

This operational document sets out the requirements covering the following programmes:

- a) Off-site testing, and
- b) Witness testing

Witness testing can include options of long-term, as described in Clause 6.5; remotely witnessed, as described in Clause 6.6: or partially witnessed, as described in Clause 6.7.

The requirements of this operational document apply to equipment covered by the IECEX System.

Normative references

For dated references only the edition cited applies. For undated references the latest edition of the referenced applies with implementation dates as specified by the Management Committee.

ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*

IECEE OD-2048, *IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE System) – Utilization of Customers' Testing Facilities*

IECEX OD 018, *Checklist for testing and calibration laboratories ISO/IEC 17025*

IECEX OD 009, *Procedures for the Issuing of IECEX Certificates of Conformity, IECEX Test Reports and IECEX Quality Assessment Reports*

Terms and definitions

For the purposes of this operational document, the following definitions apply:

3.1

ExCB staff

staff of an ExCB (IECEX Certification Body) identified in ExCB competency records as being qualified to review test and assessment reports for the relevant test standard

3.2

ExTL staff

staff of an ExTL (IECEX Testing Laboratory) identified in ExTL technical competency records as being qualified to conduct testing to the requirements of the relevant test standard

3.3

long-term tests

tests of a duration exceeding 7 hours without intervention by ExTL testing staff between the start and the end of the test

3.4

manufacturer test facility

test facility owned by a manufacturer (as defined in IECEX 02), which is being used to test specified products over which the manufacturer has complete production control

3.5**off-site testing**

programme/procedure under which testing is conducted by ExTL staff or under their direction and supervision at a manufacturer, user test facility, or third-party test facility

3.6**partially witnessed testing**

testing witnessed by ExTL staff only on some parts of the agreed upon testing programme

3.7**remote witness testing**

testing witnessed live by ExTL staff using an electronic medium such as a video camera

3.8**site assessment**

assessment carried out by ExTL staff to verify the ability and capability of a manufacturer, user test facility or third-party test facility to participate in the off-site testing and witness testing programmes

3.9**test facility**

for the purposes of this document, the term test facility refers to a manufacturer, user test facility or third-party test facility

3.10**testing programme**

any series of tests related to a specific product or a product range as covered by [IECEX OD 034](#)

NOTE It may also apply to partial testing of certified products that are subject to modifications. Products of similar construction, for which it is reasonable to define a testing programme package, may be considered to be a product range.

3.11**test standard**

IEC, ISO or ISO/IEC Standard for a specific type of protection used to test the product in question, and which is used in the IECEX System

3.12**third party test facility**

test facility not owned by a manufacturer or user, or an ATF (Additional Testing Facility – as defined in IECEX 02) which is being used to test specified products

NOTE An ATF (Additional Testing Facility – as defined in IECEX 02) is not a third-party test facility.

3.13**user test facility**

test facility owned by a user, which is being used to test specified products

3.14**user**

a person or organization, which is normally the owner of the equipment and puts it to use

3.15**witness testing**

programme/procedure under which testing is conducted by personnel of the manufacturer, user test facility or third-party test facility, using their facility, equipment, and personnel; and witnessed by ExCB or ExTL staff

Common requirements

4.1 General requirements

The following principles shall apply:

- a) Testing is conducted directly by ExTL staff or under their direction and supervision. Personnel of the test facility may assist in the preparation for tests and the conducting of agreed-upon tests
- b) Both the ExTL and its associated ExCB remain fully responsible for the test results. In addition, the ExTL is also responsible for the preparation and content of the required test report
- c) Off-site testing and witness testing shall be identified in the IECEX Test Report (ExTR) according to IECEX OD 009

4.2 Criteria for off-site and witness testing programmes

All testing carried out under off-site and witness testing programmes shall be performed in accordance with the following criteria:

- a) The requirements of this operational document
- b) The requirements of the applicable IECEX operational documents
- c) The relevant requirements of ISO/IEC 17025 as defined under each programme
- d) The relevant requirements of active ExTAG Decision Sheets, and
- e) The relevant requirements of the test standard(s)

The ExCB and their associated ExTL shall have the relevant test standards included in their IECEX scope of acceptance.

The decision by an ExTL to conduct testing shall be approved in advance by the ExCB.

An already participating test facility shall be permitted to have an agreement with more than one ExTL, and where necessary, more than one ExCB for a ~~given~~ specified test standard

4.3 Testing agreement

A “testing agreement” shall be signed between the ExTL and the test facility. The ExCB may also sign the agreement. The agreement may cover off-site testing, witness testing or both.

The agreement shall cover the following, as a minimum:

- a) The date the agreement is made
- b) The scope of work (specific tests) to be carried out at the test facility
- c) The facilities and services to be provided by the test facility
- d) The right of initial assessment and re-assessment of the test facility by the ExTL and the right of the associated ExCB to witness these assessments, and
- e) Use of data generated

For witness testing, the testing agreement shall include a stipulation confirming that:

- The condition of clause (d) above is understood, and
- Witnessing of tests does not imply acceptance of the data, if, in the opinion of the ExTL or the ExCB staff, the complexity of the tests or the results obtained may require further evaluation

NOTE Annex A provides a sample testing agreement that may be used for off-site testing and appropriately modified to cover witness testing as an alternative or in addition to off-site testing.

4.4 Online Register of test facilities testing agreements

~~The IECEx Secretary shall maintain and publish a register of participating manufacturers, user test facilities or third party test facilities, together with the associated test standard(s) for which they are qualified. Access to the register shall be limited to ExCBs, ExTLs and IECEx Assessors.~~

A publicly accessible register of testing agreements established on publication of this operational document is available on the IECEx website @ www.iecex.com via a menu item illustrated below:



This register is made available only for the purpose of enabling verification that a valid testing agreement compliant with this operational document is, or was, in place when offsite or witnessed testing was conducted in support of a specific ExTR.

All new agreements created since publication of this edition of this Operational Document shall be registered in the Online Register by the establishing ExTL or their formally associated ExCB in consultation with the ExTL. Agreements created prior to this edition of this Operational Document may also be registered in the Online Register, at the decision of the ExTL, in consultation with the test facility. This register includes details of participating manufacturers, user test facilities or third-party test facilities, together with the associated test standard(s) for which they are qualified.

The details in this register are entered, updated, and otherwise maintained by the ExTL party to the agreement or the ExCB formally associated with the agreement's establishing ExTL (refer to IECEx OD 001 for details). ExCBs and ExTLs are provided with password protected access to the register by the IECEx Secretariat. These passwords provide secure access to ensure that data is only entered or edited by the ExTL or the ExCB that is formally associated with the agreement's establishing ExTL.

Guidance for ExTLs and ExCBs staff on the use of the Online Register for data entry and management is included in Annex B to this operational document.

4.5 **Role and responsibilities of the ExTL**

The ExTL shall have the required quality procedures which adequately cover all aspects of off-site testing.

The ExTL shall ensure that its staff involved in off-site testing are:

- a) Qualified for the test standard involved, and
- b) Provided with the necessary initial and on-going training on the requirements of this operational document and other relevant IECEx documents, for example, ExTAG Decision sheets

In addition, the ExTL shall:

- a) Ensure that the required initial and on-going site assessments of test facilities are carried out by its qualified staff
- b) Define the role and responsibility of personnel involved in off-site testing on behalf of the test facility
- c) Verify the competence of the manufacturer or user personnel to support the off-site or witness testing programme
- d) Perform off-site or witness testing at the test facility
- e) Prepare and sign the ExTR which includes off-site or witness testing for review and endorsement by the associated ExCB, and
- f) Make final decisions and maintain responsibility concerning tests conducted and test data obtained from off-site testing programmes

4.6 Role and responsibilities of the ExCB

The ExCB shall be responsible for the following activities:

- a) Assessment of the quality procedures of the ExTL applicable to the operation of off-site or witness testing
- b) Ensuring that its staff involved in off-site or witness testing are provided with the necessary initial and on-going training on the requirements of this operational document
- c) Review and approval of all pertinent documents generated under this operational document by the ExTL
- d) Ensuring there is an appropriate testing agreement between the ExTL and the test facility, as addressed [4.34.3](#)
- e) Reviewing and endorsing the ExTR according to [IECEX OD 009](#) covering off-site or witness testing
- f) Determining the extent of any ExTL assessments of test facilities that it will witness, and
- g) Registration of the [ExTL's agreement with the test facility in the Online Testing Agreement Register](#) with the IECEx Secretariat and provision of later updated information on the test facility to the IECEx Secretariat

4.7 Role and responsibilities of the test facility

The test facility shall be responsible for:

- a) Make a formal application to any ExTL, or ExCB responsible for an ExTL, to participate in the testing programme
- b) Identify the scope of testing it wishes to conduct at its facility
- c) Signing the required agreement with the ExTL and, where necessary, with the [associated ExCB](#) involved
- d) Demonstrating that the facilities are in compliance with the relevant requirements of ISO/IEC 17025 and the requirements of this programme
- e) Designating competent personnel for the off-site or witness testing activities conducted at

their facility, and

- f) Ensuring that assigned personnel follow the instructions of the ExTL staff conducting off-site testing at the facility

4.8 Assessment of the test facility

4.8.1 Initial assessment

Qualified ExTL staff shall carry out site assessments of the test facility in accordance with its own internal quality procedures, particularly for off-site and witness testing.

The initial assessment shall be performed after an application is received from the test facility and prior to conducting actual off-site or witness testing.

Where required to verify the implementation of corrective actions, a follow-up assessment may be conducted by the ExTL staff.

Where testing is conducted using test equipment provided by the test facility, the site assessment shall cover the relevant requirements of ISO/IEC 17025 shown in 4.8.5~~4.8-5~~.

Laboratory accreditation of the test facility or other qualifications (for example, e.g. IECCE Scheme compliance with IECCE OD 2048), may be taken into account when making an assessment according to this operational document.

The ExTL undertaking the assessment may consider assessments conducted by other ExTLs.

4.8.2 Continued validity

The continued validity of the initial assessment or reassessment shall be evaluated during each subsequent off-site or witness testing project visit. The evaluation shall consider the following factors:

- a) The scope of work defined in the testing agreement referenced in 4.3
- b) The frequency of visits
- c) The extent of organizational or equipment changes at the test facility, and
- d) Other changes that affect the performance of the test facility relative to the conduct of off-site testing

~~Over the course of each year,~~ The initial site assessment results shall be re-validated each year. This may be accomplished during one or more on-site visits to the test facility to ensure there are no changes at the test facility that affect the ongoing compliance with this operational document. The validity date in the existing entry of the registry shall be updated as result of the re-validation. In the event that If there has been no activity over ~~that~~ the previous year, a new assessment, using the same approach as for an initial assessment, shall be conducted as specified above, and as result, a new entry shall be placed in the registry upon a satisfactory assessment. Any change from the initial scope (scope reduction or scope extension) requires a new entry in the registry with the updated scope.

If an agreement is temporarily suspended following the identification of problems during a site visit the Online Register shall be edited to update the Valid Until Date to be the date of suspension. If the agreement is to be reinstated following a satisfactory response to the matters identified in the site visit the Online Register shall be updated to include the reinstated agreement as a new record with new Qualification Date and Valid Until Date details.

If a change of scope (either addition or reduction of capability) of an agreement occurs during the validity period of the agreement, the Online Register shall be:

- a) updated to include a new Agreement that contains details of the changed scope, and

b) edited to revise the original Agreement's Valid Until Date to be the date that the scope change is agreed.

NOTE: the two actions above will provide a history of capabilities as they have varied over the term of agreements with a particular test facility

4.8.3 Re-assessment

A full re-assessment, similar to an initial assessment, shall be performed by the ExTL staff every 3 years.

4.8.4 Assessment documentation

The ExTL shall document the results of each assessment activity. Where relevant this shall include a copy of IECEX OD 018, *Checklist for testing and calibration laboratories ISO/IEC 17025*, with the appropriate clauses addressed as shown in 4.8.5. The ExTL shall provide a copy of the assessment report to the ExCB for review and endorsement.

Documentation related to all assessment activities shall be made available as follows:

- a) For audit by the ExCB
- b) For review during any subsequent peer reassessments conducted under the IECEX System, and
- c) For provision to the IECEX Secretariat upon request

4.8.5 Application of ISO/IEC 17025

The following Table 1 shows the requirements from ISO/IEC 17025 that shall be applied to the various applications addressed in this operational document.

Table 1 - Requirements of ISO/IEC 17025

Requirement	Application		
	Off-site testing	Witness testing	Partially witnessed testing
Personnel	X	X	X
Facilities and environmental conditions (see below)	X	X	X
Equipment	X	X	X
Metrological traceability (including calibration)	X	X	X
Externally provided products and services (critical consumables, unless provided by ExTL)	X	X	X
Handling of test or calibration items (identification of test items)	X	X	X
Technical records	X	X	X
Reporting of results	X	X	X
Nonconforming work			X
Control of management system documents (document control)			X
Control of records			X
Corrective actions			X

Assessment of facilities and environmental conditions shall take account of the power supply in a test setup, when relevant (for example, for long-term testing, heating), and humidity conditions (for example for electrostatic discharge).

4.9 Test samples

Test samples shall be representative of production, and properly and uniquely identified. In cases where multiple samples are required for testing, they shall be identifiable to the testing to which they were subjected.

4.10 Test records

Test records shall meet the following criteria:

- a) Include a unique identification number to permit a correlation to the ExTR
- b) Be sufficiently comprehensive to enable the ExTL to issue relevant IECEx ExTR
- c) Record the date of testing and identification of all test samples
- d) Indicate the name and address of the test facility used
- e) Indicate what tests have been carried out at the test facility
- f) Record all test instruments used in testing, indicating calibration status
- g) Include all applicable test data
- h) Show the following statement: "The test facility was deemed to have the environment and the capabilities necessary to perform the tests indicated in the test report", and
- i) For witness testing, be signed by the person who carried out the testing on behalf of the participating test facility under "Tested by" the person who witnessed the tests on behalf of the ExTL involved under "Witnessed by" and the person who reviewed the report, other than the witnessing staff under "Authorized by"

4.11 Test reports

Test reports prepared by the ExTL shall meet the following criteria:

- a) Be on the relevant IECEx ExTR forms
- b) Be reviewed and signed in accordance with the relevant procedures of the IECEx System
- c) Record the date of testing
- d) Indicate the name and address of the test facility used
- e) Indicate what tests have been carried out at the test facility
- f) Include appropriate test data, and
- g) Include any referenced documentation related to assessment activities as an attachment to the ExTR

In addition to the above, a reference to the use of the manufacturer or user test facility shall be included as "Additional Information" in the on-line ExTR Summary.

Additional requirements and procedures relevant to off-site testing

5.1 Principles for off-site testing

The following principles shall apply to off-site testing:

- a) Testing is conducted directly by ExTL staff or under their direction and supervision
- b) Personnel of the test facility may assist in the preparation for tests and the conducting of agreed-upon tests
- c) Both the ExTL and its associated ExCB remain fully responsible for the test results
- d) The ExTL is responsible for the preparation and content of the required test report, and
- e) Off-site testing shall be identified in the ExTR

5.2 Conducting off-site testing

5.2.1 Off-site testing – general

All testing carried out under the off-site testing programme shall be performed with the same rigour as testing conducted at the ExTL and using test procedures consistent with those used by the ExTL. As part of the ExTL's management and control over the test facility, the ExTL shall have reviewed and approved any test procedures of the test facility, and any changes of equipment, in advance of conducting tests at the test facility.

5.2.2 Use of test facility equipment

Where testing is performed using any test equipment of the test facility, the ExTL staff shall:

- a) Verify that the test instrument is properly calibrated by an ISO/IEC 17025 accredited calibration test laboratory and has calibration that is traceable to National Standards
- b) Verify that the test instrument is suitable for making the required measurement and has the needed accuracy as required by the test standard involved
- c) Become familiar with the use and operation of the instrument, and
- d) Ensure that the instrument is functioning.

5.2.3 Use of test facility personnel

Where personnel of the test facility are assisting in testing activity (such as placement of thermocouples, recording test results, etc.) the ExTL staff shall:

- a) Provide clear and concise instructions as to the type and extent of assistance provided
- b) Examine the work done prior to commencing and during testing
- c) Verify when relevant the appropriateness of the power supply (see 4.8.5), and
- d) Verify humidity level where it can affect electrical test (for example, for electrostatic discharge)

Additional requirements and procedures for witness testing

6.1 Principles for witness testing

Under this programme, the following principles shall apply:

- a) The test facility uses its own test equipment, or calibrated and traceable equipment which is within their control
- b) Testing is carried out by personnel of the test facility
- c) The ExTL involved witnesses the testing
- d) Both the ExTL and its associated ExCB remain fully responsible for the test results, and
- e) The ExTL is responsible for the preparation and content of the required test report

6.2 Additional responsibility for ExTL for witness testing

The ExTL shall ensure the presence of ExTL staff at the test facility during testing to witness all aspects of the tests carried out by personnel of the participating test facility, except as permitted under Clauses ~~6.6-6~~ for remote witness testing and ~~6.7-7~~ for partially witnessed testing.

6.3 Additional responsibility for test facility for witness testing

For witness testing the test facility shall:

- a) Conduct testing in accordance with the applicable test standards, instructions given by the ExTL staff witnessing the test, and all the relevant provisions of the agreement, and

- b) Sign the test report

6.4 Conducting witness testing

Prior to commencing the tests, witnessing staff of the ExTL involved shall:

- a) Prepare the necessary test plan and review it with personnel of the participating test facility assigned to perform the tests
- b) Check the test set-up for correctness
- c) Check that the appropriate test instruments are used and ensure that they are functional, and their calibrated accuracy is appropriate for the measurements to be taken
- d) Verify that the test instruments are properly calibrated by an ISO/IEC 17025 accredited calibration lab and that calibration is traceable to National Standards
- e) Provide the necessary work instructions and direction
- f) Verify that the test sample(s) is/are representative of production and properly and uniquely identified. In cases where multiple samples are required for testing, they are to be identifiable to the testing for which they were subjected
- g) Where equipment such as measuring systems are calibrated by the test facility, ensure that such equipment is validated prior to use
- h) Verify when relevant the appropriateness of the power supply (see 4.8.5), and
- i) Verify humidity level where it can affect electrical testing (for example, for electrostatic discharge)

Witnessing staff of the ExTL involved shall be present during testing and shall continue to supervise and check all critical aspects of the tests. ExCB staff may be present during the test should they wish.

6.5 Long-term witness testing

Long-term tests include thermal endurance to heat, thermal endurance to cold, resistance to light and other tests during which no change of test parameters occurs or during which no observation of the test sample is required.

Long-term tests are not required to be witnessed for the entire duration of the test.

The following shall apply to long-term witness testing:

- a) The test sample(s) shall be identified prior to the start of the test and the identification witnessed by ExTL staff
- b) The tests shall be witnessed at the start and at the conclusion of the test, but this does not need to be by the same member of the ExTL staff
- c) The test set-up shall be subject to continuous monitoring to ensure that the test conditions are maintained, and
- d) Records of the continuous monitoring system shall be reviewed by the ExTL

6.6 Remote witness testing

6.6.1 When remote witness testing may be used

Remote witness testing may be used only where, based on experience and prior site assessment, ExTL and ExCB staff have confidence in the ability of the persons performing the tests and the test equipment used. Confidence is based on the following conditions:

- a) The test facility shall have successfully demonstrated their capability by way of similar tests witnessed by an ExTL, and

- b) The ExTL and ExCB shall have a process to demonstrate that the necessary level of trust and confidence is maintained through the periodic witnessing of testing by the ExTL

6.6.2 Procedure for remote witness testing

Where remote witness testing is carried out, the following procedure shall be followed:

- a) All test equipment calibration records requested by the witnessing entity shall be made available and correlated with the designations shown on the test equipment used
- b) Details of the test plan and test set-up (including for instance placement of thermocouples, required photos, etc.) and testing date shall be discussed and agreed upon prior to commencing testing
- c) The ExTL may require that "live" viewing in real time of the test set-up using a video camera be available to check the set-up prior to testing, and may require on-site examination of the test setup, including camera(s)
- d) The actual testing shall be witnessed live by the ExTL using an electronic medium such as a live video conference feed via video camera
- e) Acceptance of tests and related data witnessed shall be determined by ExTL staff
- f) Test samples used shall be distinctly marked
- g) The ExTL or ExCB may request that test samples are provided for additional review, and
- h) In case of long-term testing and heating tests, data obtained by application 6.4 h) and i) shall be provided

6.7 Partially witnessed testing

6.7.1 Partially witnessed testing – introduction

Partially witnessed testing is a common practice currently used by ExTLs and ExCBs whereby witnessing only some parts of the agreed upon testing programme is deemed sufficient.

Partially witnessed testing is an option where, based on experience and prior site assessment, ExTL and ExCB staff have confidence in the ability of the persons performing the tests, the test facility and the test equipment used without full witness testing.

6.7.2 Partially witnessed testing – scenarios

The following scenarios are allowed for partially witnessed testing under this operational document:

- a) Remote witness testing in ~~6.6.6~~
- b) Tests considered similar in nature to the relevant industrial standards (non-Ex Standards)

These scenarios are addressed in more detail below.

When partially witnessed testing is used for the remote witness testing as described in ~~6.6.6~~, all applicable requirements of ~~6.6.6~~ shall be complied with together with the requirements of this clause.

Relevant industrial standards are ISO- and IEC-based standards relevant for the type of equipment tested under the IECEX System. This includes tests such as thermal testing in air, drop, impact, electric strength and excludes all forms of explosion testing such as spark ignition testing, flame propagation testing, etc.

6.7.3 Partially witnessed testing – general requirements

In addition to the general requirements and those for witness testing, according to this OD, the following additional requirements apply for partially witnessed tests:

- a) The additional requirements of ISO/IEC 17025, as shown in Table 1, shall be applied
- b) Before test data can be accepted, the associated test method(s) shall be confirmed as within the scope of the agreement between the ExTL and test facility and have been validated in accordance with requirements of this operational document
- c) The ExTL shall work with the manufacturer, user, or third-party facility's staff to determine the scope and extent of tests that can be partially witnessed
- d) The ExTL is responsible for all test data including that obtained using partial witnessing

Redline Version

Annex A
(informative)

Sample off-site testing agreement

This AGREEMENT is made this _____ day of _____, (year) _____, at _____
_____ between the following parties:

ABC: (Name and address of ExCB) _____; and

XYZ: (Name and address of ExTL) _____; and

MTF/ETF/3PTF: (Name and address of manufacturer, user or third-party test facility, referred to as "test facility") _____

RECITALS

Whereas off-site testing, as defined in operational document [IECEX OD 024](#), at the test facility is a (XYZ) procedure for the use of a test facility by (XYZ) staff in accordance with the applicable requirements of:

- a) (XYZ) Operating Procedures; and
- b) The rules of procedure of the IECEx System as stipulated in operational documents IECEx OD _____

Pursuant to which personnel from (XYZ) perform the complete tests at the test facility, using (XYZ) own or test facility test equipment.

Whereas the test facility wishes to participate in the off-site testing programme and is prepared to cooperate with and provide the necessary assistance to (XYZ).

Now therefore, for and in consideration of the mutual covenants herein expressed and other lawful and valuable consideration, the parties agree as follows.

1.0 SCOPE

The off-site testing programme operated under this Agreement covers the product safety Standards and tests described in **Schedule "A"** to this Agreement.

2.0 OBLIGATIONS OF THE TEST FACILITY

2.1 The test facility shall demonstrate that the test facility where off-site testing is to be performed, including the power supply and lighting and environmental conditions complies with the relevant requirements of ISO/IEC standard 17025, "General requirements for the competence of testing and calibration laboratories".

2.2 If the test equipment used is owned by the test facility it shall demonstrate that its calibration programme complies with the applicable requirements of ISO/IEC standard 17025.

2.3 The test facility shall appoint an appropriate person to be responsible for the test facility and calibration services, if applicable.

2.4 The test facility shall assist (XYZ) personnel in the preparation for and conduct of tests by providing the services described in **Schedule "B"**

2.5 (TF) agrees to provide adequate power supply in case of long-term testing and/or heating tests with the conditions defined in [IECEX OD 024](#)

2.6 The test facility agrees to compensate (XYZ) pursuant to agreed (XYZ) quotations for services and expenses in connection with the provisions of this Agreement.

3.0 OBLIGATIONS OF (ExTL XYZ)

- 3.1 Maintain complete and full responsibility for all testing carried out at the test facility and for the integrity and completeness of the test results.
- 3.2 Maintain compliance with the IECEx rules and operational documents.
- 3.3 Perform the activities and its role according to IECEx OD 024
- 3.4 Prepare the required test report.
- 3.5 Perform the activities outlined in Section 4 of this Agreement.
- 3.6 Maintain all required documentation related to activities carried out under this Agreement.

4.0 QUALIFICATION ASSESSMENT AND CONTINUED VERIFICATION OF COMPETENCE

- 4.1 Prior to conducting tests under the off-site testing programme, (ExTL XYZ) will conduct an initial assessment of the test facility to verify compliance with the relevant requirements of ISO/IEC 17025
- 4.2 At each visit to the test facility under this programme, ExTL (XYZ) will validate the initial assessment results to ensure the ongoing suitability of the facility and the competence of the test facility personnel to perform the role assigned to them under Clause 2.4 above.

5.0 CONFIDENTIALITY

Although proprietary documents, material and information which come to the attention of (XYZ) while performing services under this Agreement shall be regarded as confidential, the test facility acknowledges and agrees that (XYZ) is obligated to disclose such information to other third parties in accordance with the relevant rules and requirements of:

- (Name of accreditation body/bodies under which XYZ is accredited), and
- The IECEx System.

6.0 MISCELLANEOUS TERMS AND CONDITIONS

This Agreement shall continue in effect for as long as both parties jointly agree to and abide by its terms and conditions.

This Agreement is subject to cancellation by either party upon giving a written notice to the party.

This Agreement, including the Schedules referenced herein shall be executed in duplicate, each of which shall be an original.

On behalf of the test facility

Name: _____

Title: _____

Signature: _____

On behalf of ExTL (XYZ)

Name: _____

Title: _____

Signature: _____

On behalf of ExCB (ABC) [Optional according to IECEx OD 024]

Name: _____

Title: _____

Signature: _____

SCHEDULE "A"

The standards and tests listed below are covered under this Agreement

TEST STANDARD	TESTS

SCHEDULE "B"

The test facility agrees to assist (XYZ) in conducting the off-site testing programme by providing the following services:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

Readline Version

Annex B (informative)

B.1 Guidance for IECEx ExTLs and ExCBs on the use of the Online Register for data entry and management

B.1.1 Password access

Staff of IECEx ExTLs and, where relevant, an ExTLs formally associated IECEx ExCB(s) will be provided, on request to the IECEx Secretariat via the info@iecex.com email account, with access based on individual staff member's email addresses and a personalized password created by the user.

As ExTL's are responsible for establishing and managing off-site testing agreements in accordance with this IECEx operational document, it is expected that ExTL staff will be the primary users of the Online Register.

Access for a user is limited to a single unique password that can be used by suitably authorized staff of the body in accordance with the body's internal procedures. The password enables body staff to access the Online Register to:

1. Enter details of new testing agreements established by the body.
2. Update details of existing testing agreements established by the body.

After you have had access set up based on an email address you will receive the following message:

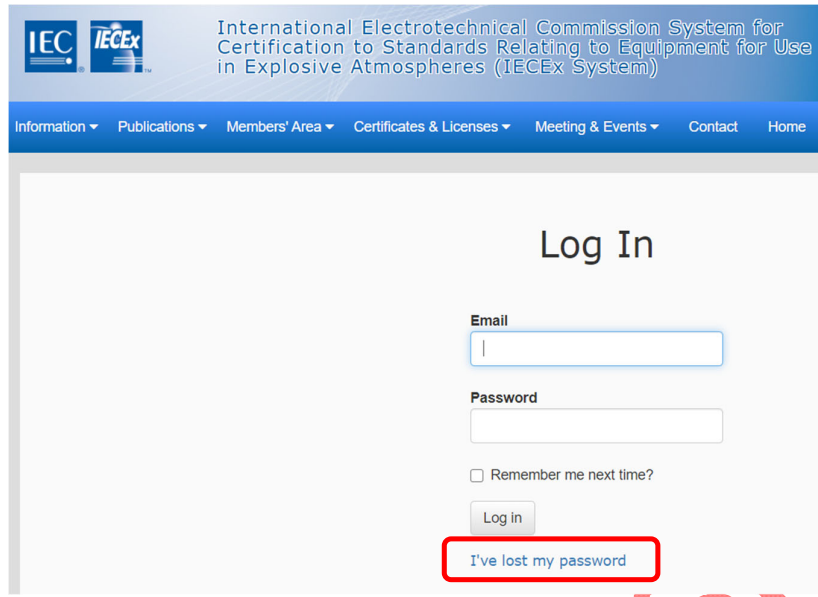
A Testing Register account has been created for you on the IECEx website. Click here to setup your password.

The Testing Register can be found here.

Use of the link will enable you to setup a personalized password and then access the register.

If you forget your password, you can use the "I've lost my password" link on the login page as shown below:

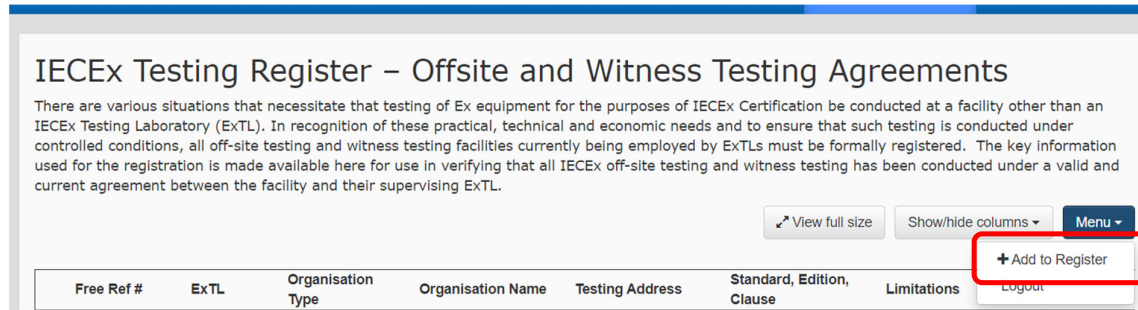
NOTE The system administrators cannot access this personalized password if you forget it.



If there is a need to change a user's password OR if access rights for a staff member of an ExTL or ExCB needs to be revoked, contact the IECEX Secretariat for assistance.

B.1.2 Data entry

Access to enter data as the details of an agreement is done by first logging as an authorized user and the selecting the Menu icon and then "+ Add to Register" as shown below:



Data shall be entered into the fields of the register data entry template using plain text or by use of the Calendar function. The system also provides auto-complete suggestions for some fields on the basis of existing data in the system. Caution should be exercised if cutting and pasting text from other documents as this may introduce hidden formatting codes that can disrupt the operation of the register and presentation of the data.

Most data entry template fields are mandatory, and the fields must contain sufficient information about the details of the testing agreement to enable the register to be used to verify that an appropriate agreement exists and is current at the time of testing. Fields must not be left blank as this may infer that the record is incomplete. Therefore "N/A", "Not Applicable" or similar shall be used to clearly indicate that a field has not been used where this is appropriate.

B.1.3 Data modification/update

Data can (only) be edited to correct editorial errors, include changes or updates by the ExTL or the ExCB that is formally associated with the testing agreement's establishing ExTL. The editing function shall not be used to remove data.

The details of expired or suspended testing agreements shall be retained in the register after they have expired or been suspended (via update of the validity date to be that of the date is suspension) because these records need to be retained as a reference for validation of testing conducted when the agreement was current. If a suspended agreement needs to be reinstated after resolution of the matters leading to the original suspension, a new agreement record will need to be registered in the system (refer Clause 4.8.2 in this publication).

B.1.4 Deletions

The IECEX Secretariat should be consulted where a record of an agreement in the register needs to be permanently deleted.

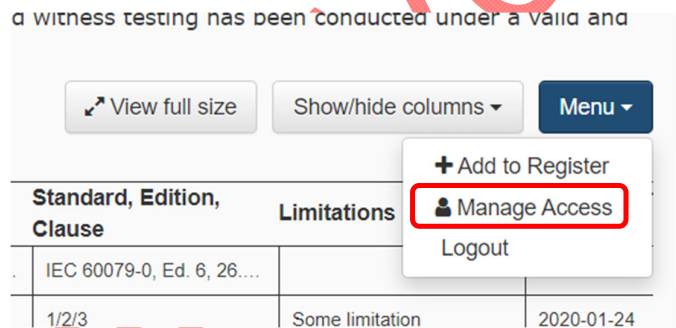
B.2 Instructions for the management of the Online Register by IECEX Secretariat staff (as administrators)

B.2.1 Password access

Access for authorized administrators is via their email address and a personalized password. Administrator access provides all privileges of users/members and the addition ability to delete records from the register and to setup ExTLs, ExCBs and users/members.

B.2.2 Management of access rights for ExTL and ExCB staff

Under the administrator menu options illustrated in the following screenshot



You can add new ExTLs using the menu option shown below following selection of the "Manage Access" icon

IECEX Testing Register – Offsite and Witness Testing Agreements

Manage ExCBs/ExTLs

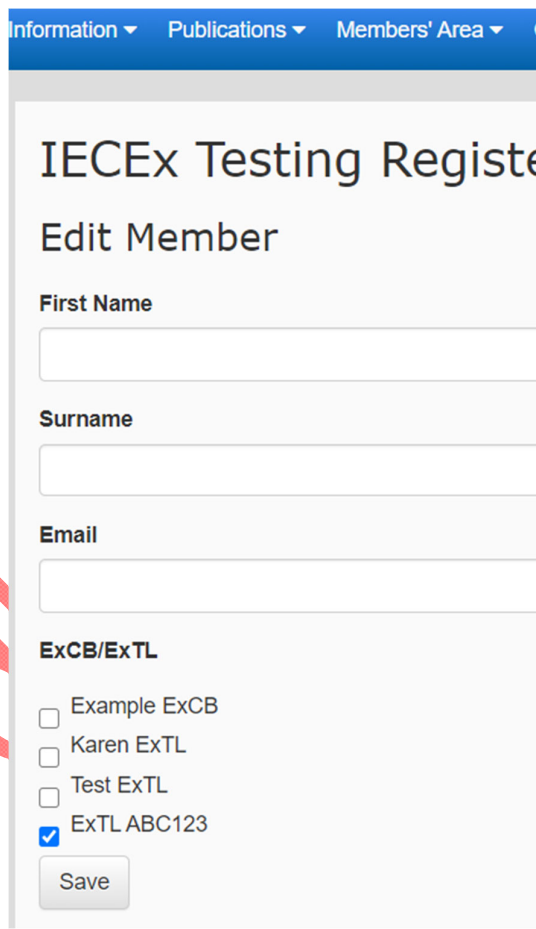
Menu

+ Add ExCB/ExTL

Logout

ExTL/ExCB	Members	
Example ExCB	3	Edit group Revoke group access
Karen ExTL	1	Edit group Revoke group access
Test ExTL	1	Edit group Revoke group access
ExTL ABC123	0	Edit group Revoke group access

and add users/members to one or more existing ExTLs via use of the options shown in the two following screenshots:



and subsequently edit users/members details following the process illustrated in the three following screenshots:

IECEX Testing Register – Offsite and Witness Testing Agreements

Manage ExCBs/ExTLs

Menu ▾

ExTL/ExCB	Members	
Example ExCB	3	Edit group Revoke group access
Karen ExTL	1	Edit group Revoke group access
Test ExTL	1	Edit group Revoke group access
ExTL ABC123	0	Edit group Revoke group access

[Click here to add new group members or to edit their details via options shown below:](#)

IECEX Testing Register – Offsite and Witness Testing Agreements

Example ExCB Members

Menu ▾

Name	Email	ExCB/ExTL	Last Login	
Mark Amos	mark.amos@iecex.com	Example ExCB Test ExTL	19/11/2020 10:15pm	Edit Member Revoke access Reset password
Nathan Sams	nathan@greenhousecreative.com.au	Example ExCB	19/11/2020 5:08am	Edit Member Revoke access Reset password
John Smith	john@smith.com	Example ExCB	06/01/2021 3:40am	Edit Member Revoke access Reset password

NOTE The use of “Edit group” only enables editing of the organization title (and not the group’s users details).

Manage ExCBs/ExTLs

Updated successfully

Menu ▾

ExTL/ExCB	Members	
Example ExCB	3	Edit group Revoke group access

CAUTION: Also note that use of the “Revoke group access” icon will remove the ExCB/ExTL as a listed organization in the system (once removed, it will need to be added again and all users setup again).