



**IECEX Guide
Guidance for Applications from Service
Facilities seeking IECEx Certification**

**INTERNATIONAL ELECTROTECHNICAL COMMISSION SCHEME
FOR CERTIFICATION TO STANDARDS RELATING TO EQUIPMENT FOR
USE IN EXPLOSIVE ATMOSPHERES (IECEX SCHEME)**

IECEX Guidance for Applications from Service Facilities

This document provides guidance for applicants seeking IECEx certification of facilities which repair or overhaul equipment for explosive atmospheres. It shows the steps and processes required for service facilities to gain an IECEx Service Facility Certificate.

In this document, repair and overhaul workshops are called "Service Facilities".

Note: The details of the process are given on other IECEx documents. These will be referred to in the text.

Document History

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1 Overview

This guide has been prepared to assist Service Facilities (repair and overhaul workshops) understand that the process of achieving an IECEx Service Facility Certificate is rather straightforward.

Gaining an IECEx Service Facility Certificate provides the organisation with an International Statement that:

- The Service Facility performs work meeting the rigorous requirements of IEC 60079-19 and IECEx Scheme Requirements, including competency requirements of the IECEx; and
- The Service Facility is operating a dedicated quality management system, meeting the specific IECEx requirements; and
- The Service Facility is under on-going surveillance by an Internationally assessed and recognised IECEx Certification Body

As proof of this achievement, the International IECEx Service Facility Certificate is on FULL public display via the IECEx Official Internet Website, which shows the Service Facility's scope of Ex techniques and capability.

1.1 Who do you apply to?

Applications for an IECEx Service Facility Certificate, under the IECEx Certified Service Facility Scheme, are lodged directly with IECEx Certification Bodies (ExCBs) whom themselves have successfully undertaken the IECEx Peer Assessment Program.

A full and up to date listing of ExCBs approved to operate under the IECEx Scheme is maintained on the [IECEx website](#).

1.2 Preparing an application

The Service Facility must be able to satisfy the following general requirements. When the organisation is confident that the requirements have been met, then application can be made for certification. In readiness for the application, a Service Facility may decide to apply for a "pre-assessment" review with an IECEx Certification Body, prior to the formal application being lodged.

In preparing an application to be submitted to an ExCB, the Service Facility needs to be confident that the following is in place:

- a) Confidence that work practices meet IEC 60079-19 and IECEx Operational Document OD-015
- b) Development of QA system covering service facilities of the product (ISO 9001 and IECEx Operational Document OD-014)
- c) Confidence that staff involved in repair and overhaul of Ex certified equipment have the qualifications and experience to perform work using specified explosion protection techniques
- d) The relevant application documents from the ExCB duly completed

1.3 Making the application

The application for IECEx certification begins by contacting an ExCB. An up to date listing of Certification Bodies approved by the IECEx to issue IECEx Service Facility Certificates is located on the [IECEx website](#)



A Repair and Overhaul Workshop is free to choose any ExCB, listed on the IECEx Website for the IECEx Certified Service Facility Program, to lodge their application with. The ExCB may or may not be located within the same country as the Repair and Overhaul Workshop.

IECEX Operational Document OD-013 is the IECEx Operations Manual that details each of the steps that an ExCB undertakes when processing applications from Repair and Overhaul Workshops seeking IECEx Service Facility Certification.

This and other IECEx Operational Documents relating to the IECEx Certified Service Program can be found at the [Information Section](#) of the IECEx Website.

The checklist of application information in OD-013 is of assistance. The following information is required to be sent to the ExCB .

- a) Letter requesting IECEx certification of the Service Facility
- b) Exact details of the repair and overhaul workshop and the addresses where it carries out work
- c) Whether the company has an established quality management system
- d) Organisational chart and quality manual

The ExCB will estimate the time and cost to complete the certification project.

Refer to the flowchart in OD-013. It covers the process from the workshop's viewpoint, and shows the typical activities needed to become a Certified Service Facility. This guide provides a summary of the process and does not add to the content of OD-013.

1.4 Scope of Service Facility certification

A Service Facility will have a Scope of operation. The Scope will refer to the explosion protection technique, and the type of equipment that is subjected to repair and overhaul. In addition, the size/power of the equipment will be listed.

The Scope is defined by the type of work normally performed by a Service Facility, and also, the capability of the organisation in terms of maximum size of equipment and the test facilities required to verify repair or overhauls.

Scope needs to be defined when a Service Facility applies to the ExCB for Certification.

2 Service Facility Quality Assurance (QA)

The basic QA standard for IECEx certification is ISO 9001. This standard needs to be met by a service facility applying for IECEx certification of a workshop. While IECEx does NOT require that a Service Facility separately holds ISO 9001 Certification, this may be beneficial as a culture of QA compliance may exist throughout the organisation.

Where ISO9001 certification is held, some of the ExCBs also hold national accreditation to issue ISO 9001 Certification. This may be more convenient for the applicant because all certification work is done by one Certifying Body.

Where ISO 9001 Certification is not held, the ExCB will assess compliance to ISO 9001 as part of their assessment to OD 014.

NOTE 1: Advice on Quality System implementation must not be given by the ExCB. This must be done by persons/organisations which are independent of the Service Facility Certification process.

NOTE 2: The QA system needs to be maintained and audited at regular intervals. See Operational Document OD-025.

3 OD-014 Additional requirements to ISO9001

The requirements of ISO9001 apply to any organisation whether manufacturer of service provider. In the IECEx system, there are additional requirements for quality assurance. The extra



requirements ensure that work performed during repair and overhaul is carefully controlled (see IECEx OD-014 for additional quality assurance requirements).

Material, processes and the competence of responsible personnel (both supervisors and operatives) all need to be adequately proven in order to maintain the IECEx Certification status of equipment undergoing repair, overhaul and in some cases, modification.

The additional requirements are intended to ensure that no part of the repair and overhaul process can lead to unclear certification status. There are strict rules in IEC 60079-19 which apply to marking of certified equipment when overhaul is completed.

OD-014 clarifies those clauses of ISO9001 which are key to maintaining certification status of repaired and overhauled equipment. Examples include competence of personnel, auditing, process measurement and traceability of materials.

NOTE: All QA requirements (ISO9001, OD-014) are focussed on assuring that the item being repaired and overhauled remains within certification restraints. The QA system is expected to prevent any deviations in the process which may affect certification.

4 Staff competence

IEC 60079-19 relies heavily on the competence of personnel to ensure that the process does not compromise certification of repaired or overhauled product. In this sense the repair and overhaul process may be considered as returning the equipment to compliance with the original certification documentation or at least in compliance with the standard to which it was originally manufactured and much of the expertise which was needed for the original manufacture of the product needs to be available for the service facility to complete repairs and overhauls to the original protection type standard

The Service Facility needs to provide evidence of the competence of personnel (responsible persons).

Competence requirements affect every part of the repair and overhaul process, including:

- Reporting on condition of equipment (before and after repair/overhaul),
- Repair and overhaul activities,
- Testing, use of test equipment, and
- Recommendation that the product can be returned safely to service

Applicants need to ensure that at least one competent person is available for each Ex technique listed in the Service Facility's Scope. This person must oversee processing and final release of product. Qualifications and experience may come from any of a number of means.

Competency of staff shall ensure that they meet the competencies identified in IEC 60079-19 in addition to the engineering competency for general repair/overhaul work in order that processes provide negligible risk to certification of product repaired/overhauled.

5 Control of the overhaul process

IEC 60079-19 specifies what must be done by service facilities engaged in repair and overhaul of equipment. In addition, IECEx Operational document OD-015 specifies additional requirements for the IECEx Service Facility Scheme.

The standard requires that any repair and overhaul work needs to be appropriate to the explosion technique employed. Service Facilities are required to carry out repair and overhaul work in accordance with IEC 60079-19. Where this approach cannot be applied, the Service Facility may need to remove the certification plate and inform the end-user. Refer to IEC 60079-19 for guidance.

Applicants should refer to OD-015, because it provides practical help with reporting, measuring, testing of product and also competence of responsible persons.



6 Routine testing

Where any testing of Ex equipment is part of the manufacturer's instructions, these instructions should be available in the documentation supplied with the product when it was purchased, or specified in the applicable standards. Testing equipment needs to be available and appropriate to the tests required.

Applicants need to show that the test process is adequate for the work performed. There is no set list of equipment, but the Service Facility must be able to show that tests specified by the manufacturer can be carried out.

Subcontract work may include testing, but there needs to be a reason for use of a subcontractor. Reasons include specialised test, infrequent need for the test, high cost of test equipment etc.

7 Assessment

The assessment is a two stage activity, first a Documentation Review and second a Site Assessment. ExCBs (IECEx Certification Bodies) assess the Service Facility at a formal audit. The audit will follow the processes given in IECEx Operational Document OD-013. The process is very fair and seeks evidence that:

- Confirms that Ex repairs and overhauls are undertaken to comply with IEC 60079-19 and OD 015;
- The Quality system meets the requirements of OD 014

A Compliance Report Form (CRF) is issued to record compliance with IEC 60079-19 while an Facilities Audit Report (FAR) is issued following successful assessment of the quality system.

ExCBs are authorised bodies who have been accepted as competent to assess and certify either test laboratories (ExTL) or Service Facilities. They can also assess and certify quality systems to ISO9001. It may be convenient for a Service Facility to engage the same ExCB to assess the quality system and the repair and overhaul operation.

Assessment must be repeated every three years.

7.1 Surveillance audit

The process of assessment needs to be maintained. This is done through Surveillance audits. An FAR is used to report on surveillance audits.

7.2 Preliminary assessment

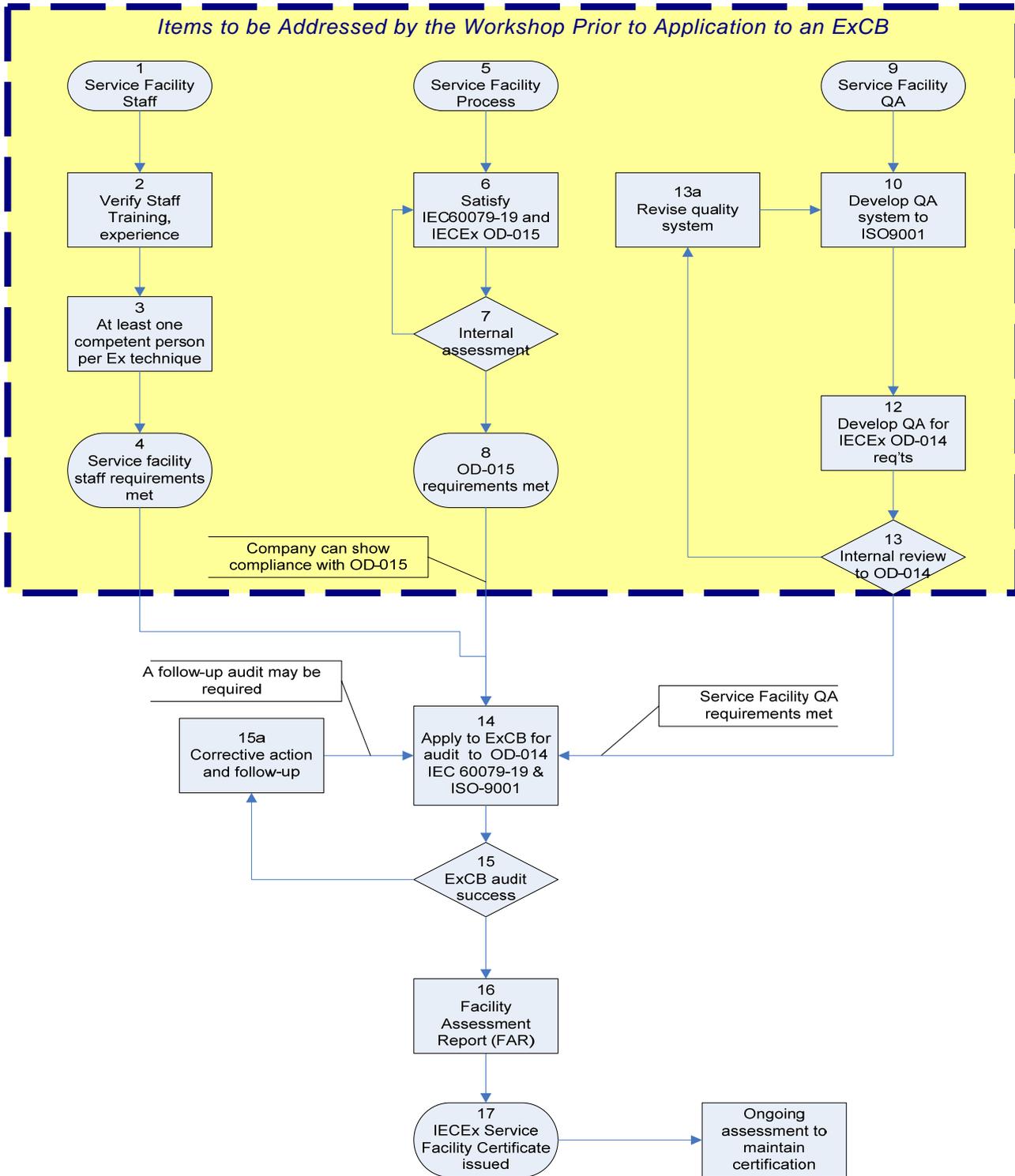
Prior to the assessment, the Service Facility may request that an ExCB conducts a preliminary assessment. The purpose of a preliminary assessment is to check that a Service Facility is ready for the official assessment. This type of assessment does not have formal non-conformances, but items of concern may be raised which should be corrected prior to the official assessment.

8 Application to IECEx for certification

Refer to the following diagram and explanatory notes.



Guide to IECEx Service Facility Certification As per OD-013





Step	Service Facility activities for becoming an IECEx Certified Service Facility	Related Documents	By Whom	Notes/Comments
1	Service Facility Staff	Training records	Service Facility	A list of staff directly involved in repair and overhaul is prepared
2	Verify experience of staff	Personnel records, certificates, in-house training	Service Facility	Compile records of qualification (or experience since first qualification). Can include short courses
3	Competent Persons (Responsible persons)	National and internationally recognised training	Service Facility	There needs to be at least one Responsible person competent to cover the explosion protection techniques used within the Service Facility
4	Competent person requirements met		Service Facility	
5	Service Facility Process	Controlled documents	Service Facility	These documents are necessary for consistent performance from the repair process
6	Requirements of OD-015 and IEC60079-19	Work instructions, Procedures Special processes	Service Facility	The Responsible person should verify that requirements have been met
7	Internal assessment of process controls		Service Facility	
8	OD-015 requirements have been met		Service Facility	
9	Service facility QA	All company quality documentation	Service Facility	The goal is to meet ISO9001 and OD-014 While holding ISO 9001 Certification by an accredited Registra or Body is useful, this is not necessary as the ExCB can assess the ISO 9001 requirements
10	Develop ISO9001 system	Basic QA to ISO9001	Service Facility	May be separately assessed and certified.
11	ISO9001 system complete		Quality system certifying body	Assumes that the system has been assessed by third party. If the system is not separately certified, then the ExCB assessors will include the basic ISO 9001 requirements during its assessment
12	Develop QA for OD-014	QA system documents	Service Facility	
13	Internal review to OD-014		Service Facility	The additional QA requirements have been met
14	Apply to ExCB to be a Certified Service Facility	Quality Manual etc See OD-013 for process	Service Facility applies to ExCB	Competent persons, QA system, work instructions, equipment, etc All should be reviewed against Scope of operations.
15	ExCB audit	IEC60079-19	ExCB audit	Qualified auditors come and examine the Service Facility



Step	Service Facility activities for becoming an IECEx Certified Service Facility	Related Documents	By Whom	Notes/Comments
		OD-015 OD-014 OD-013	personnel	for compliance with 60079-19 and operational documents
15a	Correction of non-conformances encountered at audit		Service Facility	All must be corrected before a Service Facility Certificate can be issued
16	Facility Assessment report issued	FAR	ExCB	
17	IECEX Service Facility Certificate issued		ExCB	The FAR is reviewed for compliance with scheme rules, scope and correction of any outstanding matters
	Ongoing assessment			Once issued, the Service Facility must maintain its systems and personnel to ensure that surveillance audits do not receive non-conformances.

Sample IECEx Certificate Service Facility Certificate of Conformity



IECEX CoC

Certified Service Facility

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

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