



# IECEX OPERATIONAL DOCUMENT

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

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**IECEX Scheme for Certification of Personnel Competence for Explosive Atmospheres –  
Application for an IECEx Certificate of Personnel Competence (CoPC)  
and an IECEx Ex Facility Orientation Certificate (EFOC) – Documentation  
and information requirements**





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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**IECEX Operational Document 502**

**IECEX Scheme for Certification of  
Personnel Competence for Explosive Atmospheres –  
Application for an IECEX Certificate of Personnel Competence (CoPC)  
and an IECEX Ex Facility Orientation Certificate (EFOC) –  
Documentation and information requirements**

## FOREWORD

This Operational Document, IECEX OD 502 sets out requirements for personnel applying for an IECEX Certificate of Personnel Competence or an IECEX Ex Facility Orientation Certificate (EFOC).

OD 502 specifies the minimum requirements of knowledge and skills that personnel shall meet as a prerequisite for making an application for examination. The details in this document are intended to provide guidance for the preparation of the necessary evidence to be provided to demonstrate that the minimum level has been attained.

**Document history**

Date	Summary
2009-10	Original issue (Edition 1.0)
2013-04	Edition 2
2016-09	Edition 3 Issued according to reflect the decisions of the 2016 ExPCC Meeting refer ExMC Decision 2016/36
2019-10	Edition 3.1 Issued to include revisions to Annex A as agreed by 2019 ExPCC meeting
2021-10	Edition 3.2 Published to include a revision of Clause 2.5.2

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## INTRODUCTION

This IECEX Operational Document details information and documentation requirements for applications from individuals for an IECEX Certificate of Personnel Competence or IECEX Ex Facility Orientation Certificate (EFOC).

Competence of personnel working in explosive atmospheres is necessary. The potential for accidents in Ex areas is increased if personnel are not competent for the activities with which they are involved. The need for competence is included in many legal documents (legislation) but is often not clearly defined.

Competence depends on knowledge, skill, experience and training. Measurement of competence is a difficult task and requires specific assessment methods. Competence needs to be maintained so periodic monitoring of a Certified Persons performance is required. This may require additional documentation being provided to the IECEX Certification Body (ExCB) on occasions.

# **IECEX Scheme for Certification of Personnel Competence for Explosive Atmospheres – Application for an IECEX Certificate of Personnel Competence (CoPC) and an IECEX Ex Facility Orientation Certificate (EFOC) – Documentation and information requirements**

## **1 Scope**

This Operational Document describes the documentation and information required for an application by an individual to an ExCB for an IECEX Certificate of Personnel Competence (CoPC) or an IECEX Ex Facility Orientation Certificate (EFOC) and to maintain Certification.

This Operational Document shall be read in conjunction with the Rules of Procedure of this IECEX Certification Scheme given in IECEX 05 and the other relevant Operational Documents:

- IECEX OD 503, *ExCB procedures for issuing and maintaining IECEX Certificates of Personnel Competence (CoPC)*, and
- IECEX OD 504, *Specification for Units of Competence assessment outcomes*

## **2 Scope of Certification**

### **2.1 Units of Competence**

The applicant is to detail the Units of Competence for which they wish to be assessed. The Units of Competence are listed in IECEX OD 504 and are currently:

Unit Ex 000 – Basic knowledge and awareness to enter a site which includes a classified hazardous area

Unit Ex 001 – Principles of protection in explosive atmospheres knowledge

Unit Ex 002 – Perform area classification of Hazardous Areas

Unit Ex 003 – Install explosion-protected equipment and wiring systems

Unit Ex 004 – Maintain equipment in explosive atmospheres

Unit Ex 005 – Overhaul and repair of explosion-protected equipment

Unit Ex 006 – Test electrical installations in or associated with Hazardous Areas

Unit Ex 007 – Perform visual and close inspections of electrical equipment in or associated with Hazardous Areas

Unit Ex 008 – Perform detailed inspection of electrical installations in or associated with Hazardous Areas

Unit Ex 009 – Design electrical installations in or associated with Hazardous Areas

Unit Ex 010 – Perform audit inspection of electrical installations in or associated with Hazardous Areas

### **2.2 Language of Certificate**

The applicant may request to be assessed in a language other than English (refer to Clauses 8.4 and 8.5 of IECEX 05 for additional details). Any translation activities are the responsibility of the ExCB.

### **2.3 Limitation of scope**

The applicant may, in conjunction with the ExCB, request a limitation of the scope of the Certificate of Personnel Competence according to the requirements given in 2.3.1 to 2.3.5 following (noting that Scope limitations are not applicable to Unit Ex 000). The details of Scope

limitations available for each IECEX Unit of Competence are defined in Table 4.1 of IECEX OD 504.

Unless otherwise stated, the scope of the Certificate of Personnel Competence will include all aspects of the standards and no restrictions will apply. The applicant shall be assessed according to all the requirements of the Unit of Competence being requested.

### **2.3.1 Types of protection**

If the nature of the work is restricted or limited to specific types of explosion protection then they are to be nominated and listed on the certificate. The assessment will be restricted only to the required outcomes of the Unit of Competence for these types of protection.

The types of explosion protection permitted to be nominated are:

- "d": flameproof enclosure
- "e": increased safety
- "i": intrinsic safety
- "m": encapsulation
- "n": type of protection 'n'
- "o": liquid immersion
- "p": pressurized enclosures
- "q": powder filling
- "t": Dust - protection by enclosure

### **2.3.2 Product types**

If the nature of the work is restricted to specific product types then they are to be nominated and listed on the certificate. The assessment will be restricted to only the required outcomes of the Unit of Competence for these product types.

The product types permitted to be nominated are:

- Rotating machines
- Switchgear
- Instrumentation
- Communication equipment
- Heating equipment
- Trace heating
- Power transformers
- Gas detection

### **2.3.3 Groups**

Where the application is not intended to extend to all forms of hazardous material they may be restricted to one or a combination of:

- Group I: Mines subject to firedamp
- Group II: Explosive gas atmospheres
- Group III: Explosive dust atmospheres

### **2.3.4 Voltages**

Where the applicant does not have the appropriate qualifications and experience to work with all voltages then the restricted range of voltages permitted shall be shown in the PCAR (Personnel Competence Assessment Report) linked to the Certificate of Personnel Competence.

### **2.3.5 Other limitations**

During the assessment process the ExCB may determine that there are other limitations that should apply to the application. In this case the ExCB shall discuss with the applicant the limitation to be applied and ensure it is clearly shown in the PCAR (Personnel Competence Assessment Report) linked to the Certificate of Personnel Competence.

## **2.4 Evidence of education and training**

### **2.4.1 General qualifications not specific to Explosive Atmospheres**

The evidence provided will demonstrate the level of technical education (or equivalent) attained, relevant to the application, through documents such as Degree, Diploma, College Certificates, Trade tests and Professional Institute recognition etc. Copies of these documents shall be provided in the original language and in the language required by the ExCB. The applicant shall be responsible for any translations and provide the contact details of the organisations that issued the document.

### **2.4.2 Documentation specific to Explosive Atmospheres**

Documents demonstrating any training undertaken on subjects and topics relevant to the Units of Competence specified on the application form shall be provided. These documents may be Certificates issued by an independent organisation or trade association or may be a formal internal programme of training set by and endorsed/countersigned by the relevant employer. Copies of these documents shall be provided in the original language and in the language required by the ExCB. The applicant shall be responsible for any translations and provide the contact details of the organisations that issued the document.

## **2.5 Work experience both Hazardous and Non-Hazardous Areas**

### **2.5.1 Work experience in or associated with Non-Hazardous Areas**

A brief resume will be provided in a chronological order with latest experience first. The résumé should provide details of the Employer, type of industry, position, and responsibility. Sufficient information should be provided to enable an evaluation of the basic underlying concepts expected for the applicable IECEx Unit(s) of Competence.

Work experience may require a restriction relating to product types. In this case the resume will need to specifically identify these aspects.

### **2.5.2 Work Experience in or associated with Hazardous Areas**

A resume will be provided in a chronological order with current experience first.

Sufficient information shall be provided identifying:

- Employer and type of industry
- Position and responsibility within these organisations
- Protection techniques used
- Standards and Codes of Practice used
- Work Safety procedures and guidelines

- Duties undertaken
- Hazardous Area classification
- Installation and circuit design
- Equipment selection
- Equipment installation
- Equipment inspection
- Equipment maintenance
- Equipment testing and commissioning
- Equipment repair

Work experience may require a restriction relating to both types of protection and product types. In this case the resume will need to specifically identify these aspects.

If the applicant is a person that is currently primarily involved in the provision of training services they may apply for certification and, in addition to the above requirements, they shall provide evidence of previous practical application of knowledge, skills and experience.

### **2.5.3 Validation**

Validation of the work experience may be provided by employers or clients.

It is essential that validation can be provided for those Units of Competence the Applicant wishes to be assessed against. Contact details for the employers or clients must be provided for validation. The Certifying Body shall assess which validation methodology shall be used based on the review of the information provided.

## **3 Application form**

### **3.1 Application Form**

The applicant shall obtain a copy of the official application form from the ExCB to which they plan to make their application.

In preparing the application the applicant shall specifically note the available competence given in Clause 2.1 and any limitation of scope as detailed in Clause 2.3.

Annex A contains a sample application form for guidance.

### **3.2 Personal details of the applicant**

The applicant shall provide sufficient personal detail to ensure they can be correctly identified. There shall be sufficient evidence to show that the person conducting the work is the same as identified on the Certificate of Personnel Competence. The certified person shall notify the issuing ExCB of any change to these details.

### **3.3 Details to be provided**

The details given in Clause 3.3.1 to 3.3.5 inclusive shall be provided.

#### **3.3.1 Name**

The family name and all given names in full are to be provided.

### **3.3.2 Address**

The address at which the person can be contacted. In addition, the applicant is to advise the address to be used for any correspondence.

### **3.3.3 Telephone contact and email**

A telephone number and/or email address. This will be used for all contact during the processing of the application (until the Certificate is issued). This information will be used by the ExCB and anyone acting on behalf of the ExCB processing the application. This information will not be made available to any other party.

### **3.3.4 Date of birth**

Date of birth and a statement of the evidence to be provided for validation, for example birth certificate, passport, or affidavit.

NOTE The evidence should normally accompany the application as original documents that will be returned to the applicant after review.

### **3.3.5 Photograph**

Passport size portrait photograph which is current and at least passport quality, in colour and with a white background. This is to be updated at each ongoing assessment. The photograph is to be supplied with the application form or in electronic .JPG format of image size not greater than 150 x 180 pixels.

### **3.3.6 Declaration**

The following declarations are to be made by all applicants for a Certificate of Personnel Competence:

- I am aware of and familiar with the requirements for the IECEX Certificate of Personnel Competence or the IECEX Ex Facility Orientation Certificate (EFOC). Should my application for certification be accepted, I understand that these requirements shall be fulfilled;
- I declare that I will comply with existing requirements for the IECEX Certification of Personnel Competence Scheme, will not misrepresent the scope of certification and agree to pay the expenses in connection with my application;
- I have no current application pending with any other ExCB;
- I declare that all information provided with this application is true and correct.

## **4 Re-certification**

Updated information relating to Clause 3 will be required by the ExCB at the time of recertification. As a minimum a new photograph is to be provided at each recertification. See also Clause 8.6 of IECEX 05, Rules of Procedure regarding full details of the re-certification process requirements.

**Annex A**  
(informative)

**Typical application form**

<b>APPLICATION FOR IECEX CERTIFICATE OF PERSONNEL COMPETENCE (CoPC) and IECEX Ex FACILITY ORIENTATION CERTIFICATE (EFOC)</b>		
This form is used as a basis for an application for a new Certificate / renewal of Certificate		
To be sent to  (ExCB address)	<input type="checkbox"/> New Certificate	<input type="checkbox"/> Renewal / change / of Certificate or recertification of Certificate no.:
	Applicant name and postal address	
Applicant employer and postal address  License number (where applicable)	Email address	Date of birth (dd/mm/yyyy)
	Telephone  Cell phone	Telefax
Invoice address	Units of Competence	
	Limitations regarding types of protection, product types, groups and voltages	
See attachments for additional information regarding education, training and experience		
<p><b>DECLARATION</b></p> <p>I am aware of and familiar with the requirements for the IECEX Certificate of Personnel Competence and IECEX Ex Facility Orientation Certificate (EFOC). Should my application for certification be accepted, I understand that these requirements shall be fulfilled.</p> <p>I declare that I will comply with existing requirements for the IECEX Certification of Personnel Competence Scheme, will not misrepresent the scope of certification and agree to pay the expenses in connection with my application.</p> <p>I DO / DO NOT consent to the issuing ExCB including my contact details in the PCAR that will support my Certificate of Personnel Competence. I reserve the right to request addition or deletion of contact details (by up-issue of all relevant PCARs) at any time in the future.</p> <p>I DO / DO NOT have a current application pending with another IECEX Certification Body (ExCB) or a current Certificate issued by another ExCB.</p> <p style="text-align: right;"><b>Date</b></p> <p style="text-align: right;"><b>Applicant signature</b></p>		



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