



INTERNATIONAL ELECTROTECHNICAL COMMISSION SYSTEM FOR CERTIFICATION TO STANDARDS RELATING TO EQUIPMENT FOR USE IN EXPLOSIVE ATMOSPHERES (IECEx SYSTEM)

Title: Draft Operational Document Ex OD 501 Assessment Procedures for IECEx acceptance of Certification Bodies (ExCBs) for the purpose of issuing and maintaining IECEx Certificates of Personnel Competencies

Circulated to: IECEx Management Committee, ExMC

INTRODUCTION

Draft Document **ExMC/516/CD** was prepared by ExMC WG12 during its February 2009 meeting and submitted to ExMC members for comment in March 2009. Comments received from members were collated and circulated as document ExMC/528A/CC.

ExMC WG12 held a further 3 day meeting in Singapore during 23 – 25 June 2009 to consider the comments and necessary changes to the document.

This document, ExMC/516A/DV incorporates the changes determined during the Singapore WG12 meeting and sets out the proposed Assessment Procedures for acceptance and on-going assessments of Bodies seeking to become ExCBs for the purpose of the IECEx Certificate of Personnel Competency Scheme, OD 501. Refer to ExMC/528A/CC for WG12 responses to comments.

This document is issued to ExMC for final approval. Please submit your vote to the IECEx Secretariat by **21st August 2009** using the following voting form. The results of the voting will be reported during ExMC Melbourne 2009 September Meeting. Therefore we seek your assistance for return of the vote by the due date.

Main changes to ExMC/516/CD incorporated in this updated version, ExMC/516A/DV include:

- Applications from prospective ExCBs to be endorsed by the IECEx Member Body prior to being accepted by the IECEx Secretariat (Step 1 Sect 1)
- Review of flowchart to ensure consistency with table.
- Expansion of the assessment process of Step 7 Sect 1 concerning assessment of a CBs documentation, prior to proceeding further with the assessment.
- Expansion of introduction in Section 2 “On-Going Assessments” to require that the ExCB maintains their facilities “relating to assessing demonstration of craft skills”



- A note added to A6 to clarify cases where CBs have limited experience in this area but yet possess necessary technical capability

Chris Agius

IECEx Secretariat

Address:

SAI Global Building
286 Sussex Street
Sydney NSW 2000
Australia

Contact Details:

Tel: +61 2 8206 6940
Fax: +61 2 8206 6272
e-mail: chris.agius@iecex.com
<http://www.iecex.com>



Draft OD 501

Edition 1.0 200x-xx

IECEX Draft Operational Document

**IECEX Scheme for Certification of Personnel Competencies
for Explosive Atmospheres**

IECEX OD 501

**Assessment Procedures for IECEx acceptance of
Certification Bodies (ExCBs) for the purpose of issuing and
maintaining IECEx Certificates of Personnel Competencies**



INTERNATIONAL ELECTROTECHNICAL COMMISSION

Draft IECEx OPERATIONAL DOCUMENT

IECEx Scheme for Certification of Personnel Competency for Explosive Atmospheres

Ex OD 501 Edition 1.0

Assessment Procedures for IECEx acceptance of Certification Bodies (ExCBs) for the purpose of issuing and maintaining IECEx Certificates of Personnel Competencies

This Draft Operational Document, OD 501 sets out the procedures for the assessment and acceptance of Certification Bodies seeking to become ExCBs for the purpose of operating under the IECEx Certificates of Personnel Competencies Scheme, IECEx 05.

Document History

| Date | Summary |
|---------|----------------------------|
| 2009 XX | Original Issue (Edition 1) |
| | |
| | |
| | |
| | |
| | |



INTRODUCTION

This document details the assessment procedures established by the IECEx System's Management Committee, ExMC, for the purpose of ensuring a thorough assessment of candidate ExCBs. The principle aim of these procedures is to instil international confidence in the ExCB's competence and capabilities for performing assessment and maintaining IECEx Certificates of Personnel Competencies whom seek IECEx Certification.

The assessment is to cover the competence, experience and familiarity of ExCB personnel and the organisation with the relevant explosive atmosphere standards, quality management systems, IECEx System and associated rules, ISO/IEC Guide 65, ISO/IEC 17024 and IECEx technical guidance documents. The procedures are also aimed at ensuring a consistent approach to assessments by IECEx assessment teams and therefore establishing confidence in the scheme.

This document provides the following Section:

Section 1 Initial Assessment and Re-Assessment of ExCBs

Section 2 On going Surveillance of ExCB

NOTE: A simple change of scope for an existing ExCB is not seen as viable due to the entirely different requirements used for Personnel Certification.

The procedures are set out in table form identifying:

- Step number
- Required action
- Responsible person or party
- Desired outcome

The steps identified in the table correspond to the steps shown in the flowchart.

INTERNATIONAL ELECTROTECHNICAL COMMISSION

Draft IECEx OPERATIONAL DOCUMENT

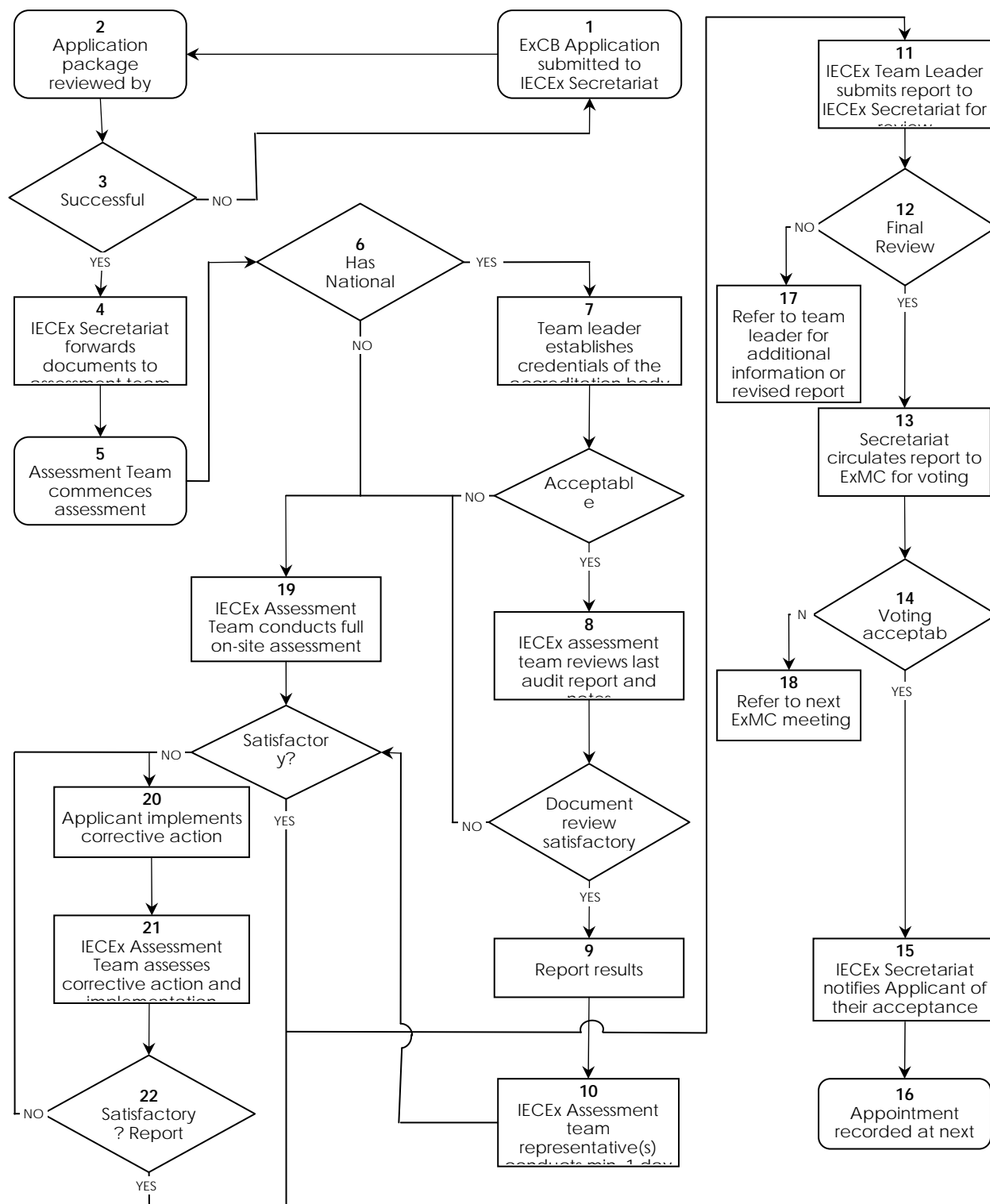
IECEx Scheme for Certification of Personnel Competency for Explosive Atmospheres

OD 501

Assessment Procedures for IECEx acceptance of Certification Bodies (ExCBs) for the purpose of issuing and maintaining IECEx Certificates of Personnel Competencies

1 INITIAL ASSESSMENT & RE-ASSESSMENT

This Section is to be applied for the initial assessment of ExCBs prior to their acceptance in the IECEx Certificate of Personnel Competency [CoPC] Scheme and re-assessment of existing ExCBs. The term Lead Assessor, as used throughout this document, shall mean the IECEx Assessment Team Leader appointed by the ExMC Secretary and endorsed by ExMC. Steps 1 – 4 are applicable to new applications.



IECEX Assessment Flow Chart

(Refer to table for details of each step)

| Step | Activity | By Whom | Desired Outcome |
|---|--|--|--|
| <u>Formal Application Submitted to ExMC Secretary</u> | | | |
| 1 | Application endorsed by Member Body prior to being received by ExMC Secretary, in accordance with IECEx 05 | ExMC Secretary | Candidate ExCB |
| 2 | Application assessed for completeness and Assessment Team appointed. | ExMC Secretary | Assessment team proposed by IECEx Secretary |
| 3 | ExMC Secretary reviews application documentation for completeness. ExMC Secretary may request further information from the candidate. ExMC Secretary to report findings to candidate ExCB | ExMC Secretary | |
| 4 | ExMC Secretary forwards Application package to Members of the appointed Assessment Team | ExMC Secretary | All relevant information available for team to commence their assessment |
| <u>Documentation Review Stage</u> | | | |
| 5 | IECEx Assessment Team commences assessment. Team Leader, in conjunction with team members reviews application documentation to satisfy steps 6 to 8. Team Leader may request additional information from the Candidate ExCB | Team Leader to Manage | Team Leader notifies candidate of successful review of documentation and then prepares to arrange site visit |
| 6 | Team Leader, in conjunction with team members determines whether the applicant ExCB has Independent Accreditation | Team Leader or his designate | Formal notification of accreditation, with a copy being submitted by the applicant |
| 7 | <p>Assessment of the accreditation and credentials of the accreditation body. For example determining:</p> <ul style="list-style-type: none"> *Whether the body has Mutual Recognition Agreements with other bodies *Whether the body has National Government recognition *What Standards or Guides are used <p>IECEx Assessment Team Leader may obtain information directly from accreditation body or candidate ExCB and circulate to other IECEx Assessment team members for review via correspondence.</p> <p>Note: ExCB should obtain all necessary information from accreditation body for presentation to IECEx Assessment Team Leader.</p> <p>The assessment of the documentation shall establish that the CB has the competence related to the particular aspects of hazardous area competence they will be issuing. This will include any facilities provided for demonstration of craft skills"</p> <p>Note:" This may need to provide CV's of particular people used in competency assessment activities.</p> | Team Leader | <p>*Verification of MRAs</p> <p>*Notification of Government recognition</p> <p>*Use of</p> <p>IECEx 01, Basic Rules of the IECEx System.</p> <p>ISO/IEC Guide 2, Standardization and related activities - General vocabulary.</p> <p>ISO/IEC 17000 Conformity Assessment – Vocabulary and general principles</p> <p>ISO/IEC 17024 Conformity Assessment – General requirements for bodies operating certification of persons</p> <p>*Frequency of surveillance audits.</p> |
| 8 | Review of past audit reports, issued by the accreditation body, by Assessment Team to establish compliance with the requirements of IECEx 05, and Documents, ISO/IEC Guide 2, ISO/IEC 17000 and ISO/IEC 17024 relevant. | Assessment Team managed by Team Leader | Acceptance by IECEx Assessment Team of information and audit reports as evidence of compliance to the requirements of IECEx 05, ISO/IEC Guide 2 and ISO/IEC 17024 |
| 9 | Notification of results of step 6-8 to candidate ExCB | Team Leader | Letter, Fax or e-mail to Candidate ExCB. Copy to ExMC Secretary |
| <u>On-site Visit</u> | | | |

| Step | Activity | By Whom | Desired Outcome |
|--|--|---|---|
| 10 | A minimum of one representative of the IECEx Assessment Team visits candidate to conduct a minimum 1 day site visit for each ExCB application. This visit is to verify implementation of certification or auditing procedures | At least 1 person from IECEx Assessment Team Usually Team Leader | Visit notes to be included in assessment file. Team Leader in consultation with his Team shall decide if more than 1 man day visit is necessary. |
| 11 | Results of site visit determined with a final report for submission to the ExMC Secretary prepared in the format as outlined in Annex A. Final report to be reviewed by all members of the assessment team | Team Leader | Team Leader to commence arrange for a final assessment report compiling a Report |
| 12 | Final IECEx Assessment Team Report Reviewed by ExMC Secretary. | ExMC Secretary | Review by ExMC Secretary to ensure completeness of information and ready for circulation to ExMC for voting. |
| 13 | ExMC Secretary prepares Report for voting and submits to ExMC Members for formal voting, via correspondence or at the next ExMC meeting. | ExMC Secretary | ExMC Document issued for voting, with a copy submitted to candidate ExCB |
| <u>Final Approval of ExCB by ExMC</u> | | | |
| 14 | Assessment of report considered by ExMC members with members returning the completed voting form to the ExMC Secretary as soon as possible and by due date | ExMC Members | Majority acceptance vote approves application (re Clause 12.2 of IECEx 01) |
| 15 | If voting is acceptable then ExMC Secretary notifies applicant of their acceptance | ExMC Secretary | ExMC Letter to accepted ExCB |
| 16 | Appointment recorded at next ExMC meeting | ExMC Secretary to arrange | Recorded in Minutes |
| 17 | Where review in step 12 is unsatisfactory, ExMC Secretary refers the matter to the IECEx Assessment Team Leader seeking additional information or revised report | ExMC Secretary | An acceptable report for circulation to ExMC |
| 18 | Where a positive vote, in accordance with IECEx 01 is not achieved the application is then referred to the next ExMC meeting for discussion | ExMC Secretary to arrange | Findings recorded in the minutes |
| 19 | If at the conclusion of the "Document Review Stage", the Assessment Team are not satisfied with the information presented, the Team Leader shall inform the candidate ExCB and ExMC Secretary of the Assessment team's views. In order for the assessment to proceed, the IECEx Assessment Team may be required to conduct a full on site assessment in accordance with IECEx 05 and Technical Guidance Documents, ISO/IEC Guide 2, ISO/IEC 17000 and ISO/IEC 17024 as applicable. | Team Leader to manage | Assessment report by Team Leader |
| 20 | Where non-conformances are identified during the assessment process the candidate ExCB implements corrective action if they wish to proceed with their application | Candidate ExCB | Implementation of corrective actions |
| 21 | Assessment team assesses corrective action. This may be performed by either the full team or a partial team or even one member of the team | Team Leader to manage | Report on assessment of corrective actions |
| 22 | Notification of results of step 5 to candidate ExCB and IECEx Chairman | Team Leader | Letter, Fax or e-mail to Chairman of Assessing Panel |

2 ON GOING ASSESSMENTS

This Section applies to ExCBs that have been accepted into the IECEx CoPC Scheme for the scope of issuing of IECEx Certification of Personnel Competencies to provide cross-industry competencies needed for work associated with equipment for hazardous areas. The purpose of on-going assessments is to satisfy the International Ex community that ExCBs maintain their facilities relating to assessing demonstration of craft skills and capabilities that enabled their entry into the Scheme.

2.1 Surveillance of ExCBs with National Accreditation acceptable by ExMC

2.1.1 Scope

This section covers ExCBs that maintain national accreditation found to be acceptable by the original IECEx Assessment Team, and by way of ExMC voting on the initial assessment report, the ExMC. The procedures detailed below are general and ALL ExCBs are reminded of their obligations to notify the IECEx Secretariat of any changes within their organisation that may impact on their ability to deliver IECEx Certification Services in accordance with IECEx Rules and Operational Documents and in the spirit of a timely and professional service delivery.

2.1.2 Procedures

Each year, prior to the anniversary date of acceptance into the IECEx System, ExCBs shall submit to the ExMC Secretary a report containing the following information:

a) Any changes in the organisation

Description of changes in the organisation of the ExCB, its staff, facilities, quality system, operating procedures, or other similar changes, that relate to the ExCB's operation under IECEx05.

AND

b) Annual audit report

Copy of a National Accreditation Body's audit report issued during the preceding 12 months. This report should show:

- Site that was audited by the accreditation body
- Date and duration of the audit
- Audit scope
- ISO/IEC Guides, Standards and IECEx Technical Guidance Documents used during the audit
- Observation notes
- Details of any non-conformances raised
- Copy of any audit report summary

OR

c) Report by the ExCB based on its own internal audit(s) carried out during the preceding 12 months. A standardised report format should be used for this purpose. Once every two years, the report, prepared by the ExCB shall be endorsed by the National Accreditation Body.

Item a) is mandatory and either b) or c) is applicable.

2.1.3 Review

The ExMC Secretary shall review the information to ensure:

- Site assessed aligns with the site previously approved by ExMC;
- All Clauses of ISO/IEC Guide 2, ISO/IEC 17000 and ISO/IEC 17024, as applicable, have been covered;
- Ensure that Technical Guidance Documents have been used (where available);
- Any Non-Conformances are identified;

Where major Non-Conformances have been identified the ExMC Secretary in consultation with the IECEx Assessor Panel Chairman shall propose appropriate action to be taken, with the IECEx Officers to decide on such action and report at the next ExMC meeting. Where the ExCB does not agree with the course of action, the matter may be referred to the IECEx Board of Appeals, if requested by the ExCB. During the period of referral to the Board of Appeal, the ExMC Chairman in consultation with the other IECEx Officers shall decide on the status of the ExCB in question. In extreme circumstances the status of temporary suspension may be considered. The ExMC is to decide on the final action to be taken.

The Secretary will retain a copy of the report, for a minimum of 10 years, for record keeping purposes.

2.1.4 Re-assessment

On the 5th anniversary of the acceptance of the ExCB, or re-assessment of an ExCB, a re-assessment in accordance with the assessment procedure detailed in Section 1 shall be performed by an IECEx Assessment Team appointed by ExMC.

2.2 Surveillance of ExCBs without National Accreditation acceptable by ExMC

2.2.1 Scope

This section covers ExCBs that do not have national accreditation but who have been accepted in to the IECEx System by way of a full on-site assessment, by the IECEx Assessment Team.

2.2.2 On-site audit

ExCBs shall arrange to have one member of the original IECEx assessment team conduct an annual on-site audit. The assessor shall be appointed by the IECEx Assessment Team Leader responsible for the original assessment. The ExCB shall agree to bear the costs associated with this on-site audit.

The appointed assessor shall carry out an assessment for compliance with ISO/IEC Guide 2, ISO/IEC 17000 & ISO/IEC 17024 and IECEx System Rules. The Team Leader will then issue a report.

Where the original assessment team is no longer available a new assessment team shall be appointed by the ExMC.

These reports shall be forwarded to the ExMC Secretary who shall review them for completeness and any non-conformances. Where non-conformances have not been identified the reports shall be retained, for a minimum of 10 years, for record keeping purposes, by the ExMC Secretary.

2.2.3 Non-conformances

Where Non-Conformances have been identified the reports shall be referred to the ExMC Secretary who shall consult with IECEx Officers who shall propose appropriate action to be taken and report at the next ExMC meeting. Where the ExCB does not agree with the course of action, proposed, the matter may be referred to the ExMC or IECEx Board of Appeal. During the period of referral to ExMC, the ExMC Chairman in consultation with the other IECEx Officers shall decide on the status of the ExCB in question. In extreme circumstances the status of temporary suspension may be considered. The ExMC will then decide on the final action to be taken.

2.2.4 Fifth anniversary

On the 5th anniversary of the acceptance of the ExCB, or re-assessment of an ExCB, a reassessment in accordance with the assessment procedure detailed in Section 1 shall be performed by an IECEx assessment team appointed by the ExMC.



Annex A

IECEx ASSESSMENT REPORT FORM For ExCB

(IECEx Certification Body –for Certification of Personnel Competencies Scheme)

Type of Assessment:

- Initial Assessment for Candidate ExCB
- Surveillance Assessment for existing ExCB

A.1 OBJECT AND FIELD OF APPLICATION

.....

.....

.....

A.1.1 Country:

.....

A.1.2 Name of Candidate ExCB

.....

.....

A.1.3 Members Of The Assessment Team

.....

.....

.....

A.1.4 Place And Date Of Assessment

.....

.....

.....

.....

.....



A.1.5 Assessment References

Document:

- i) IECEx 05
- ii) IECEx Operational Document OD 503
- iii) IECEx Operational Document OD 501, OD 502 & OD 504
- iv) ISO/IEC 17000 & ISO/IEC 17024
- v) ExCB application documents dated

A.1.6 Scope Of Application

Indicate whether this is an extension of scope for an already accepted ExCB (include details of existing acceptance)

| Competency Category | Standard |
|----------------------|---------------|
| General Requirements | ISO/IEC 17024 |

.....

.....

.....

.....

(List all Standards within scope of application or acceptance within IECEx)

A.1.7 Candidate ExCB Persons Interviewed

| Name | Position |
|------|----------|
|------|----------|

| | |
|-------|-------|
| | |
| | |
| | |
| | |
| | |

A.1.8 Legal Entity Of The Candidate ExCB

.....

.....

.....



A.1.9 Any Associated Testing Organizations

Names of Organization

Address

.....

.....

.....

A.1.10 Associated Certification Functions

.....

.....

.....

A.1.11 National Marks And Certificates

.....

.....

.....

.....

A.1.12 Financial Support

.....

.....

.....

A.1.13 History

.....

.....

.....

.....

.....

A.1.14 Standards Accepted

.....

.....

.....

.....

.....

.....

.....

.....

A.1.15 National Differences in addition to IEC Standards

.....

.....

.....

.....

.....

.....

.....

A.2 ORGANISATION

A.2.1 Names, Titles And Experience Of The Senior Executives

| Name | Title | Experience |
|------|-------|------------|
|------|-------|------------|

.....

.....

.....

.....

.....

A.2.2 Name, Title And Experience of The Quality Management Representative

| Name | Title | Experience |
|------|-------|------------|
|------|-------|------------|

.....

.....

.....

.....

.....



A.2.3 Name And Title of Nominated Principal Contact

| Name | Title | Comments |
|------|-------|----------|
|------|-------|----------|

| | | |
|-------|--|--|
| | | |
| | | |
| | | |

A.2.4 Name and Title of Signatories for Certification

| Name | Title | Comments |
|------|-------|----------|
|------|-------|----------|

| | | |
|-------|--|--|
| | | |
| | | |
| | | |
| | | |
| | | |

A.2.5 Other Employees in ExCB activity

| Name | Title | Responsibility |
|------|-------|----------------|
|------|-------|----------------|

| | | |
|-------|--|--|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

A.2.6 Organisational Structure

| |
|-------|
| |
| |
| |
| |
| |

A.2.7 Administration

| |
|-------|
| |
| |

.....
A.2.7.1 Administrative Structure

.....
.....
.....
.....

A.2.7.2 Terms of Reference of the Governing Board

.....
.....
.....
.....
.....

A.3 RESOURCES

Verification that ExCB has all necessary resources for its operation in-house, including personnel trained and experienced in assessment of persons / examination techniques and procedures. This will include any facilities provided for demonstration of craft skills.

.....
.....
.....
.....
.....
.....

A.4 COMMITTEES

.....
.....
.....
.....
.....
.....

.....
A.5 CERTIFICATION OPERATIONS

A.5.1 National Approval/Certification Methods

.....
.....
.....
.....
A.5.2 Certification Policy

.....
A.5.3 Staff Work Instructions

.....
A.5.4 Application for Certification



A.6 STATISTICS

Detail experience in assessment and certification of Personnel Competencies for the Ex Protection under this application during the past 2 years:

Note: For applicants who possess technical capability but have yet to conduct competency assessment shall provide detailed evidence of capability to carry out such assessment.

| Competency | IEC 60079 Part/s |
|---|--------------------------------|
| Apply basic principles of protection in explosive atmospheres | Extracts from all |
| Perform classification of hazardous areas | Parts 10-1 & 10-2 |
| Install explosion-protected equipment and wiring systems | Part 14 |
| Maintain equipment in explosive atmospheres | Part 17 |
| Overhaul and repair of explosion-protected equipment | Part 19 |
| Test electrical installations in or associated with explosive atmospheres | Part 14 |
| Perform visual & close inspection of electrical installations in or associated with explosive atmospheres | Parts 17 & 14 |
| Perform detailed inspection of electrical installations in or associated with explosive atmospheres | Parts 17 & 14 |
| Design electrical installations in or associated with explosive atmospheres | Part 14 + Extracts from others |
| Perform audit inspection of electrical installations in or associated with explosive atmospheres | Parts 17 & 14 |

A.7 DOCUMENTATION

Document and Change Control

.....
.....
.....
.....

A.8 RECORDS

.....
.....
.....
.....

A.9 CONFIDENTIALITY

.....

.....
.....
A.10 PUBLICATIONS

.....
.....
.....
A.11 APPEALS

.....
.....
.....
A.12 NATIONAL ACCREDITATION

.....
.....
.....
A.13 RECOGNITION AND AGREEMENTS

.....
.....
.....
A.14 QUALITY MANUAL

.....
.....
.....
A.15 INTERNAL AUDIT AND PERIODIC REVIEW

.....
.....
.....
A.16 COMPLAINTS

A.17 WITHDRAWAL AND CANCELLATION OF CERTIFICATES

.....
.....

A.18 SPECIAL FACTS TO BE NOTED

.....
.....

A.19 RECOMMENDATION

.....
.....

A.20 LIST OF ANNEXES

.....
.....