

## GUIDE

### ExVÁ Testing Station for Explosion Proof Equipment Company Limited Budapest




Guide for manufacturers or their authorised representative planning to have the testing and certification of apparatus and protective systems for potentially explosive atmospheres performed by ExVÁ Testing Station for Explosion Proof Equipment Company Limited

or

to obtain IECEx Conformity Mark License issued by ExVÁ Ltd. lists the IECEx Certificate(s) of Conformity Reference Numbers covering Ex Product(s) in relation to which the IECEx Conformity Mark may be used .


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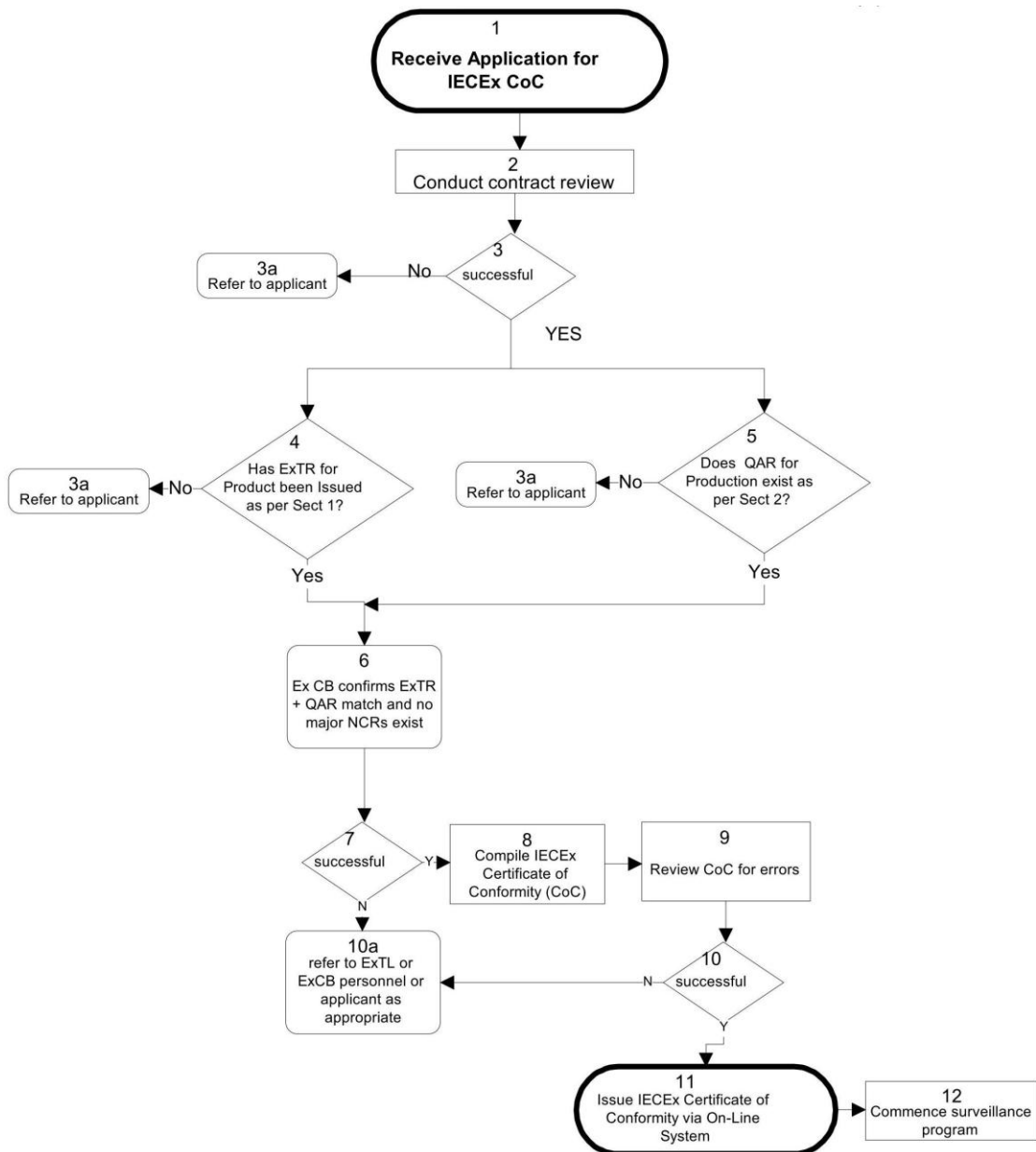
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## Issuing the Certification of Conformity



Issuing a Certification of Conformity according to IECEx are performed on the basis of the scheme specified in the IECEx OD 009 document. In the scheme the numbers mean the relevant clauses of the OD 009 document, but these are not certainly equal to the numbers of this document.

## **Application / Contract review**

1. The applicant (the manufacturer or his authorised representative) presents an application, the form of which is specified, to the Certification Body for testing and certification. The application form, created by ExVÁ Ltd., is available on the web site of it, [www.bki.hu](http://www.bki.hu).
2. To the application the applicant encloses the complete documentation of the product, which describes in details how the features of the product are complied with the requirements of the IECEx standards and what is the protection mode. The product and all of its variations shall be clearly identifiable and the manufacturer shall take the responsibility for the compliance with the standards and other requirements.
3. The applicant shall make available the prepared samples as required for the tests. The Testing Laboratory of the Certification Body will not take the responsibility for defects, damages occurred on the samples during the tests.
4. The Certification Body, involving the Testing Laboratory, examines the documentation and the samples and informs the applicant about his modification proposals, if any.
5. The Certification Body concludes a contract with the applicant for the testing and certification activity concerning the product. The contract covers:
  - that the application for testing and certification is within the scope of activity of the testing/certification body,
  - whether the applicant is in possession of an approved quality assurance system,
  - a surcharge applying if the manufacturer from a non member country,
  - the period and the costs of the complete project,
  - special requirements if any (e.g. travelling costs in connection with the site audit),
  - mode and term of payment.
6. If the contract review is unsuccessful, the Certification Body communicates in writing with the applicant to amend his application.
7. If the contract review is successful, the Certification Body sends an offer to the applicant describing the scope of the work involved, the applicable technical and IECEx system requirements, testing and certification costs and time.

## **Documentation / Test sample(s)**

1. The following documents shall be presented in two copies as test documents in printed form or in electronic form – duly signed, dated and stamped:  

Description and drawing(s) of the apparatus emphasising the parameters essential for explosion safety e.g. sizes, tolerances, materials, voltages, currents, creepage distances and clearances, gap lengths and widths. Furthermore the mode of considering the requirements of the relevant standards shall be indicated.
2. The test documentation shall specify the standards on the basis of which the apparatus, the safety or protective system was manufactured, the type of protection and temperature class considered for designing.
3. In order to shorten the test period care should be taken to ensure that the presented documentation is clear and brief but rich in informative contents. The copies of prospectuses and catalogues cannot be assessed as materials of binding character.
4. The language of the test documentation (description and drawings) is Hungarian resp. English language. The dimensions and units shall be specified in the International Unit System (SI).
5. If certain parts of the apparatus (e.g. terminal blocks, bushings) were made by other manufacturer and IECEx test certificates are available to confirm this, the copy of these certificates shall be presented. The reports on electrical and temperature measurements, the copy of test certificates issued by other test stations and similar documents shall also be presented.
6. In certain cases more production samples shall be presented for sample test. However, these test samples shall be presented only on request and following the elucidation of the technical questions. The test samples shall be prepared (e.g. test bores, non-encapsulated samples etc.) as required by the test requirements. The manufacturer or his authorised representative shall provide for the delivery and returning of the product (as agreed).

## **IECEx Test Report (ExTR) / Assessment Report (QAR)**

1. The ExTR(s) covering the product(s) that are listed on the CoC must be in the possession of the Certification Body. If not, the “Issuing of ExTR” section of this document provides a process, how will the Testing Laboratory provide and issue an ExTR.
2. The QAR covering the product(s) that are listed on the CoC must be in the possession of the Certification Body. If not, the “Issuing of QAR” section of this document provides a process, how will the Certification Body provide and issue a QAR.

### **Certification review**

1. The Certification Body conducts a certification review to ensure
  - the ExTR(s) relate to the same product(s) as in the Coc,
  - the occurrent non conformances have been closed,
  - all stages of the certification process have been followed and documented,
  - the applicant accepted the rules of IECEx system and the certification conditions of the Certification Body,
  - the applicant and the manufacturer ensure that any promotional material doesn't contain misleading information that may infer products not covered by IECEx certification.

The Certification Body reviews the manufacturer's QAR summary report to ensure that

- type of protection,
- product type,
- manufacturing location,
- validity date,
- issuing Certification Body still approved

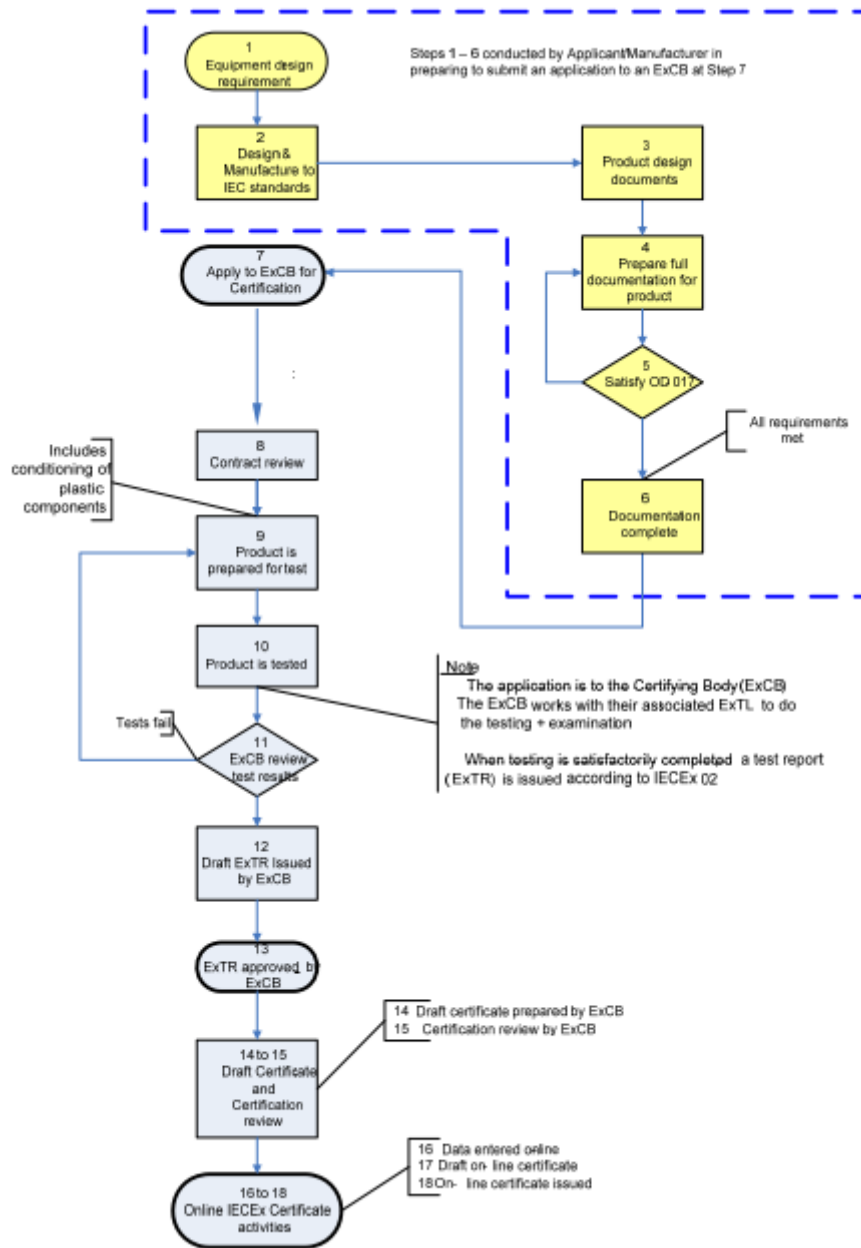
of the certified product are covered.

2. If the certification review is not successful, the matters must be resolved by relevant persons (applicant or manufacturer, personnel of the Testing Laboratory and Certification Body).

## **Issuing of the Certificate of Conformity / Invoice**

1. The Certification Body issues the CoC using the IECEEx On-line system on the base of the ExTR and the QAR.
2. A draft of the CoC is to be reviewed for errors to the applicant.
3. In the case of any errors, they have been corrected prior to issuing the certificate.
4. After issuing the CoC via the IECEEx On-line system, the Certification Body informs the applicant in writing via letter or e-mail.
5. After issuing the CoC, the Certification Body begins the maintenance of the CoC:
  - conducts of surveillance assessments/audits is covered by the QAR process,
  - responds to public inquiries regarding the certificate,
  - takes the necessary action when aware of possible breaches by the applicant.
6. The Certification Body forwards an invoice to the applicant covering the incurred costs. The fees for the tests and issuing of the CoC depend on the type and extent of the works required for the completion of the testing and certification procedures and have been calculated in the prevailing form according to the relevant cost compensation.
7. The fees for the test and certification or a proportional part of them will be invoiced even in case of the implied interruption of a test procedure on the part of the applicant or the express withdrawal of the order or if the certificate is not issued on the basis of the test result.

## Issuing of Unit Verification Certificate of Conformity



Issuing of Unit Verification Certificate of Conformity the test and certification process are almost the same as in the case of issuing of product certificate of conformity except the following features:

- the product has a serial number or any other identification one in the Unit Verification CoC,
- the Certification Body does not produce a QAR to the Unit Verification CoC,
- the Certification Body issues the Unit Verification CoC for more than one product for the request of the Applicant,
- in case of any modification of the product the Certification Body issues a quite new Unit Verification CoC instead of issuing of a new version to the old Unit Verification CoC.

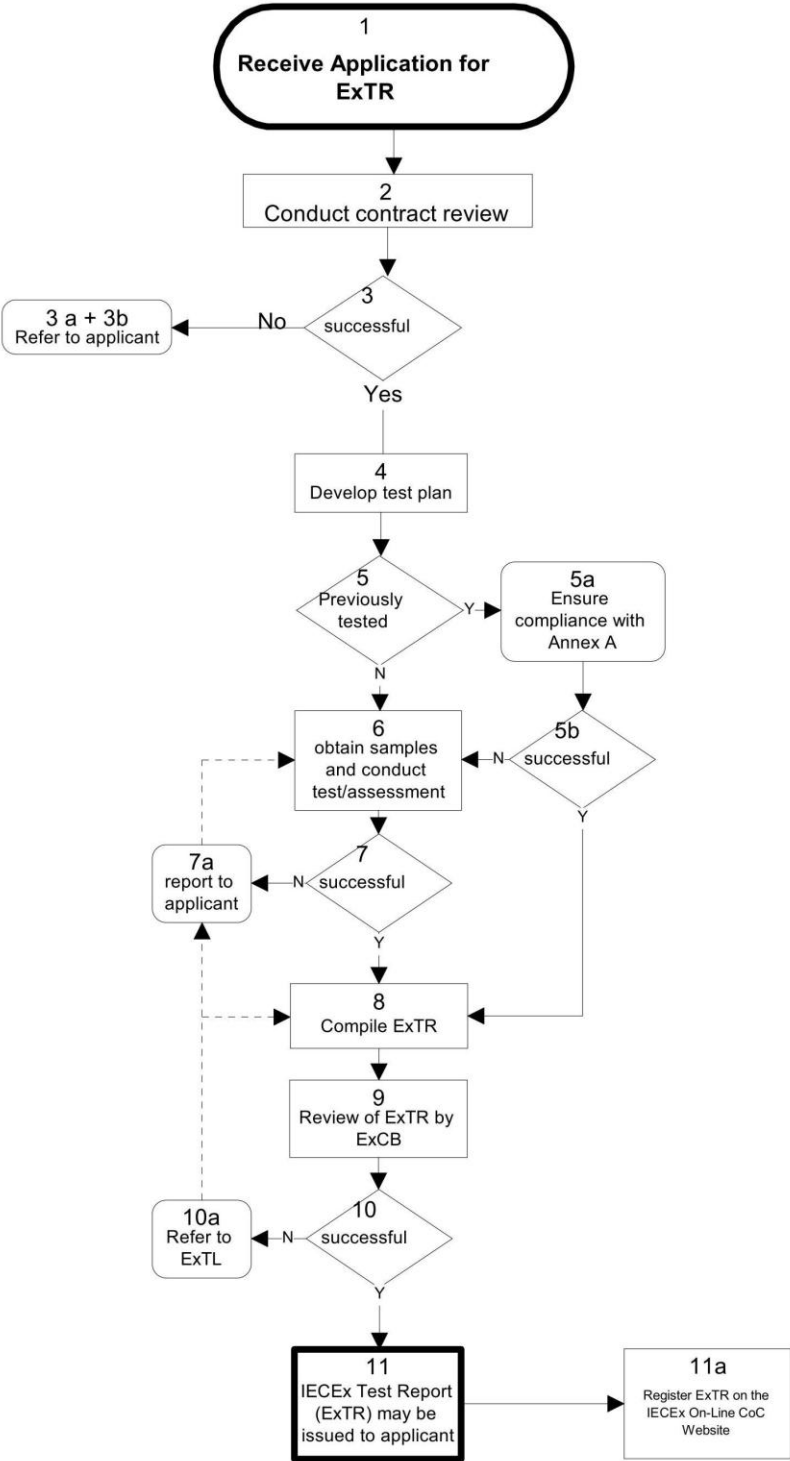
### **Complaint / Appeal / Modification**

1. In case the applicant is of the opinion that the certification body acted not according to the provisions, he may lodge a complaint with the director of ExVÁ Ltd., resp. directly with the Board of Appeal of IECEEx.
2. If the applicant does not agree with the decision made by the Certification Body, he may lodge an appeal with the Governing Board or in the frame of civil jurisdiction.
3. Any modification made by the applicant on the certified product involves the performance of a new test and certification procedure.

### **Certificate / Marks / Trade-mark**

1. The manufacturer or his authorised representative shall affix the trade-mark of the Certification Body and the number of the Certificate on the data-plate of the product provided with a Certificate.
2. If the manufacturer or his authorised representative manufactures resp. puts on the market the certified product not in accordance with the documentation, the Certification Body shall cancel the Certificate.

**Issuing of IECEx Test Report - ExTR**



In the scheme the numbers mean the relevant clauses of the OD 009 document, but these are not certainly equal to the numbers of this document.

## **Test and assessment plan**

1. After the Certification Body received an application to test and certify a product, the Testing Laboratory (ExTL) makes a test and assessment plan for the product covered by the application.
2. The ExTL is in conjunction with the Certification Body to get the necessary product sample(s) from the manufacturer of them.
3. The ExTL accounts of any relevant ExTAG decisions or IECEx Operational Document using the official website of IECEx system.

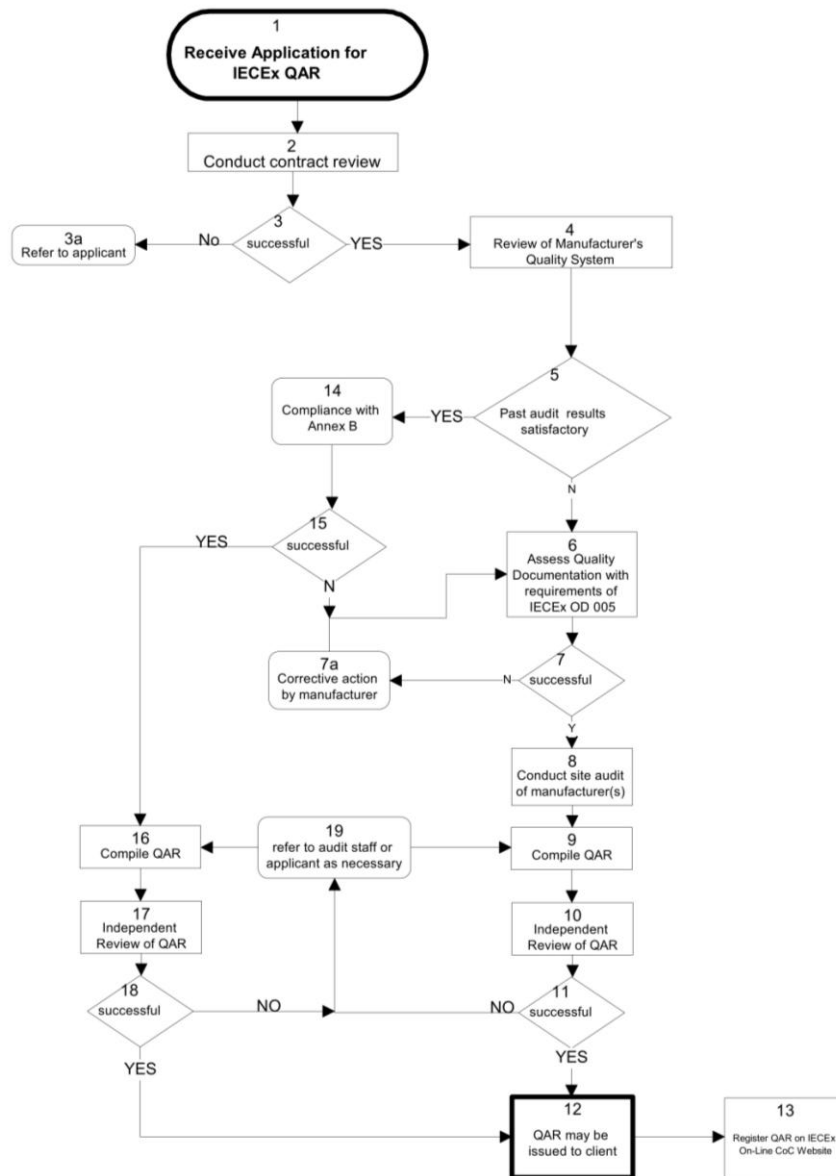
## **Acceptance of previous test results**

1. If the products or components covered by the application, have been previously tested without ExTR and the applicant wishes to utilise these tests then a review of the previous test data is necessary including:
  - determination whether the test requirements, methods and pass/fail criteria used previously are the same as those contained in the standard for which application is made,
  - facilities and methods previously used are still appropriate.
2. The ExTL must to use the criterias from OD 009 Annex A to determine whether the test results from the previous test are acceptable or not. The ExTL makes a file note about the outcome of this action.

## **Issuing of the ExTR**

1. The ExTL conducts the tests and assessments as required by the Standard(s).
2. Where testing and assessments are unsuccessful, then such results and any non conformances identified during the assessment are reported to the applicant by the ExTL, in writing, requesting corrective action. Such action may include modification of the design and provide new samples for testing or amend their original application or withdrawing their application.
3. The ExTL uses the relevant blank ExTR form to compile the ExTR or to transfer information from a previously issued test report. The ExTR blank forms are available from the IECEx website.
4. The Certification Body reviews the ExTR prior to issue of it. Where the review is unsuccessful, the Certification Body reports it to the ExTL for correction or refers back to the applicant for their action.
5. After a positive review of ExTR, the Certification Body issues the ExTR via the IECEx On-line system and informs the applicant or continues IECEx CoC procedure.

## Issuing of IECEx Quality Assessment Report – QAR



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## **Reviewing of the manufacturer's quality management**

1. After the Certification Body (ExCB) received an application to test and certify a product, the ExCB reviews the manufacturer's quality management as follows:
  - conducts a site audit of the manufacturing location, or
  - for manufacturers previously audited, conducts a document review of past audits and other documentation to cover new products, reviews the QAR summary report at the IECEx web site to ensure, that the product type, type of protection and manufacturing locations and all IECEx CoCs are covered by a valid QAR.
2. If the ExCB takes into account the second case, the ExCB receiving the application considers at least the following:
  - the scope and product types covered by the previous audit,
  - the time since the previous audits and where more than 1 year ago considers that a new audit may be required,
  - the results of the past audits,
  - any changes in management, manufacturing etc. since the last audit.The OD 005-2 provides a checklist for the requirements in connection with the assessment of the manufacturer's quality system.

## **Acceptance of quality assessment and audit data obtained prior to the application for an IECEx quality assessment report**

1. If the ExCB to which the original application was made or an other ExCB took place a related program and within the last 18 month, such results may be used by the ExCB where the applicant wishes to do so. The results of the past audit are acceptable, if the manufacturer can demonstrate that the production of equipment, to be covered by new CoC, was included as a part of the previous audit.
2. The ExCB must to use the criterias from OD 009 Annex B to determine whether the audit results from the previous audit are acceptable or not.

## **Documentation review and issuing of QAR**

1. The assessment, conducted by the ExCB, ensures that all requirements contained in IECEx ISO/IEC 80079-34 for the manufacturer's quality system, as they relate to the product, are adequately addressed by the manufacturer's quality system procedures and work instructions. This is the documentation review.
2. Where serious deficiencies in the manufacturer's documented quality plans may give rise to non-complying product being produced, the ExCB raises these as major non-conformances and the applicant and manufacturer must take action to correct this situation (usually by the introduction or amendment of quality plans), prior to proceeding with the issue of an IECEx CoC.

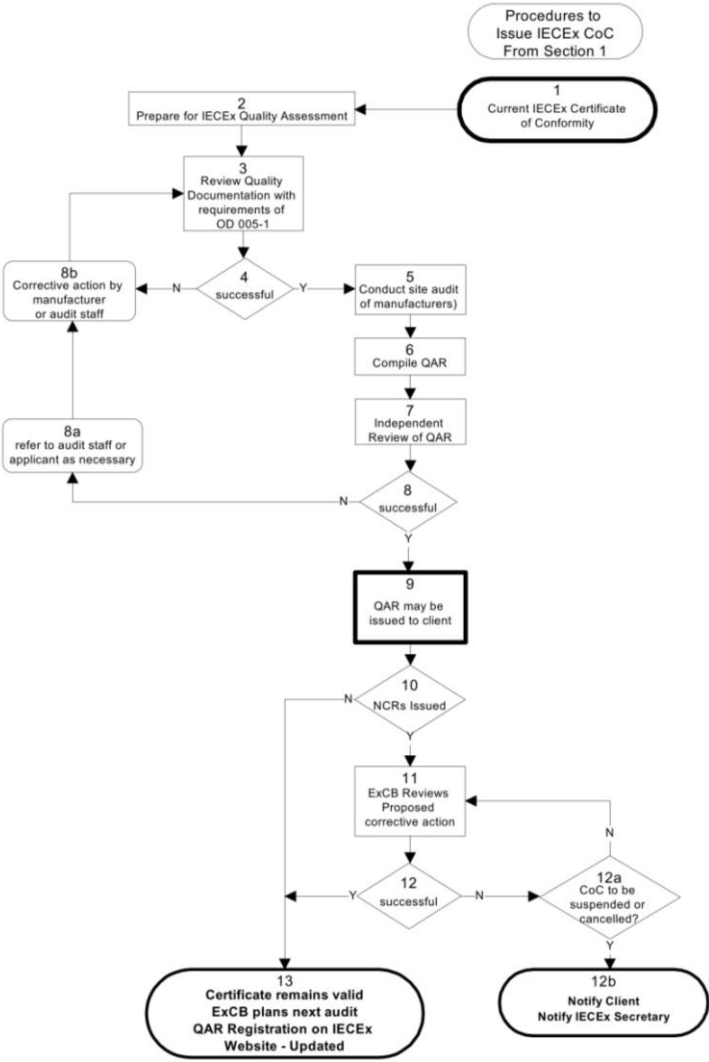
Where non compliance with various clauses of ISO/IEC 80079-34 are judged to be of a minor nature by the ExCB, the ExCB will continue the process of on-site auditing.

3. The ExCB conducts on-site audit, what seeks to verify that relevant quality system procedures and work instructions are in place and that there are records and evidence to demonstrate that the requirements of IECEx ISO/IEC 80079-34 are being met by the manufacturer(s).
4. The Annex 34 of the Quality Manual of the ExCB provides guidance in the management of assessments of manufacture's quality system.
5. The "Criteria to establish an audit team" document from the Quality Manual of the ExCB provides informations for the qualification of ExCB lead auditor and technical experts conducting IECEx audits.
6. The ExCB uses the relevant blank QAR form(s) to compile the QAR. The QAR blank forms are available from the IECEx website.
7. The ExCB conducts an independent review of the QAR by a personnel of the ExCB that is not responsible for the audit.
8. The ExCB controls during the review, that the QAR is complete and complies at least with the following:
  - IECEx rules and procedures,
  - ExCB's own quality management system,
  - all NCRs provide a clear description of their nature,
  - shows a clear relationship to the products covered by the ExTR(s), which are the subject of the IECEx CoC, where part of the original application.

Where discrepancies are identified by the ExCB, the ExCB will inform the applicant and or the IECEx Secretary where errors or discrepancies are of a major nature.

9. If the manufacturer's quality system fulfils the relevant requirements, the ExCB issues the QAR via the IECEx On-line system and informs the applicant or continues IECEx CoC procedure.

**Surveillance Audits - Procedures for maintaining the IECEx CoC**

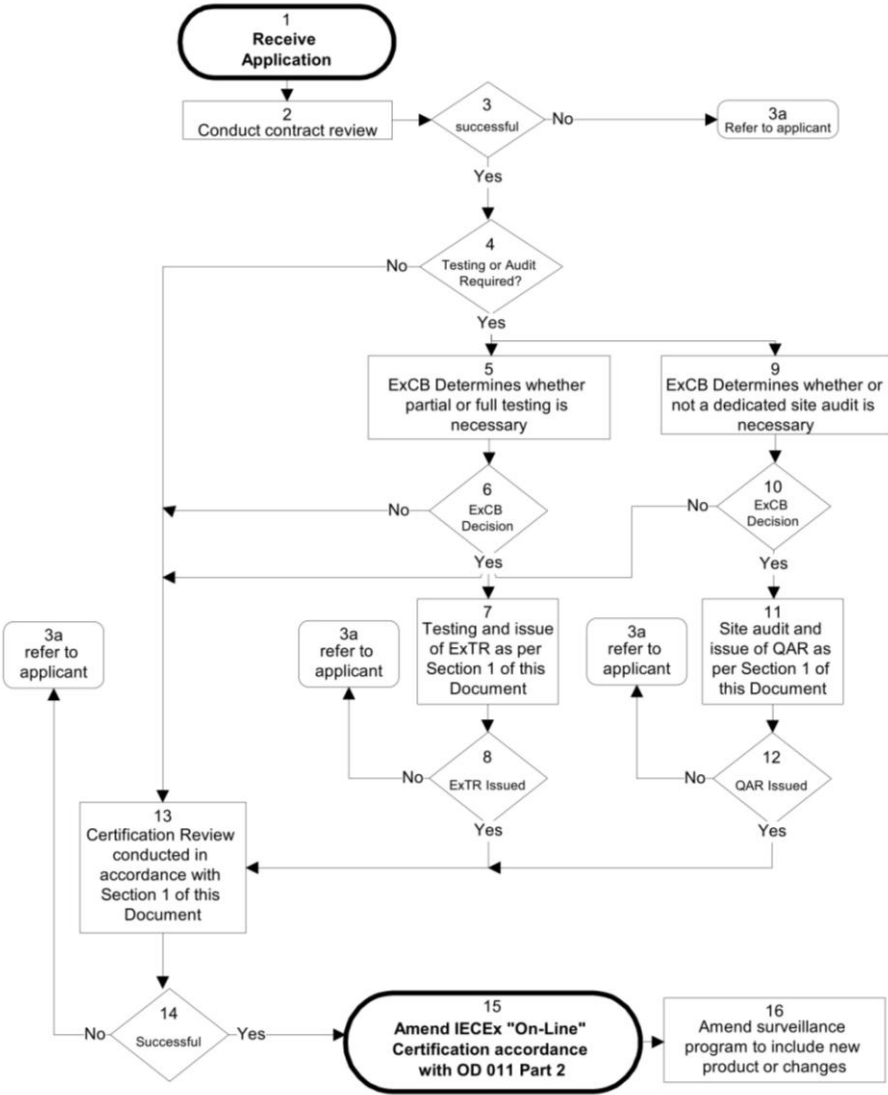


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## **Maintenance**

1. The ExCB, who issued the CoC, verifies the validity of CoC and confirms the details of it on the IECEx website.
2. The ExCB, who issued the CoC, conducts a surveillance audit. If the QAR issued previously and linked to the CoC, there is possibility to choose an other ExCB to conduct the audit as the original one. If the holder of the CoC wants to choose an other ExCB, it is possible, but need to issue a new QAR and a supplementary of the CoC by the ExCB, who issued the original one, showing the change in ExCB conducting the surveillance audit as the reason for the new issue of the CoC. In such instances the new ExCB conducting the surveillance visit will treat the transfer” as a new/initial assessment.
3. The ExCB reviews the manufacturer’s quality documentation to ensure that any changes since the last audit complies with the requirements of IECEx ISO/IEC 80079-34. This review of documentation may take place either prior to the site visit or as part of the site visit and audit of the manufacturer’s premises.
4. Where the document review reveals non-compliance with the requirements of ISO/IEC 80079-34, the ExCB determines whether the non-conformance is such that they need correction prior to continuing with the site audit. Corrective action by the manufacturer or audit staff will be documented.
5. The ExCB carries out the site audit in accordance with OD 025 and prepares a QAR.
6. The ExCB conducts an internal independent review of the QAR by a person not conducting the assessment.
7. This review will verify among other items:
  - that a complete audit as planned had been conducted,
  - the necessary documentation and records are available,
  - that the lead auditor and the technical expert were appropriate.
8. If the audit was incomplete, the ExCB informs the applicant listed on the CoC to make the corrective actions and in the case of prompt action the IECEx Secretariat in writing that the CoC be suspended or withdrawn.
9. When the surveillance audit satisfies all the requirements, the ExCB up-dates the QAR registration on the IECEx website.

**Procedures for the processing of changes to issued IECEx CoC**



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## **Application / Contract review**

1. After receiving an application for changes the ExCB that issued the CoC conducts a contract review to determine, among others, that:

- the application is within the scope of the IECEx system,
- all necessary information has been provided by the applicant,
- the requested changes are within the area of operation of the ExCB,
- whether the requested changes will generate a new CoC.

2. The ExCB informs the applicant of the results and in the case of any unfavourable stages consults with him to decide on whether to proceed by way of correcting any non conformity or to amend or even withdraw his application.

## **Nature of change – test, site audit**

3. The ExCB determines whether the change has a technical nature or administrative:

- change to product identification,
- change of company name, with no change to systems or personnel,
- model redesignation.

4. In the case of administrative change, the ExCB reviews the submitted documentation. In the case of technical change, the ExCB determines the level of testing and the ExTL prepares the test(s) and the ExTR(s) according to the relevant section of this document. The ExTR will be an annex to the existing ExTR. The ExCB documents why was necessary to make new tests.

5. The ExCB determines whether or not a dedicated site audit is necessary and the scope of such audit. The ExCB documents why was necessary to make new site audit.

6. The ExCB conducts the site audit according to the relevant section of this document and issues the QAR.

## **Issuing of the changed CoC**

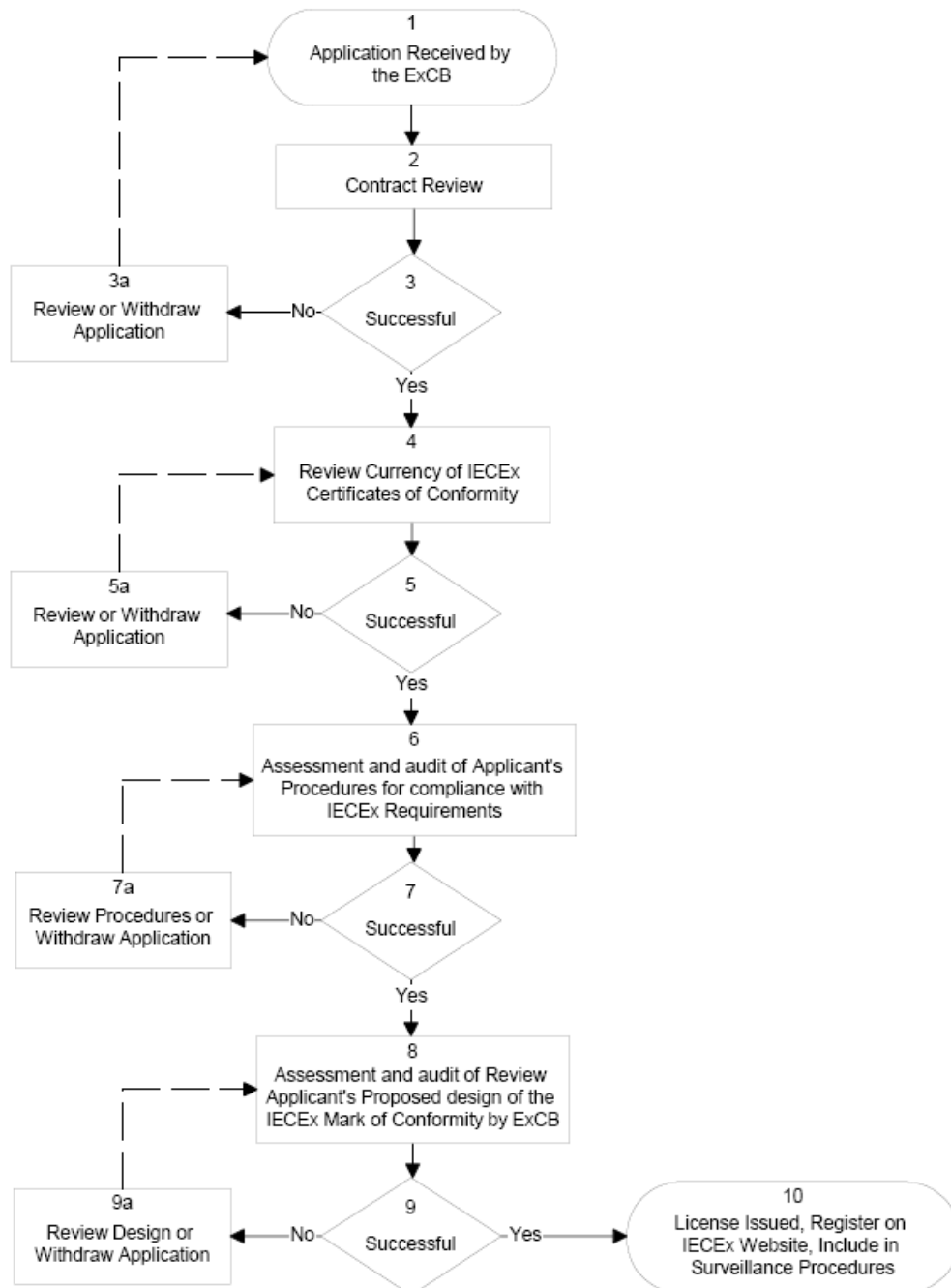
1. The ExCB responsible for issuing the original CoC conducts a final CoC review to ensure among others that:

- ExTR and QAR relate to the same product(s),
- any major Non Conformances have been successfully closed ,
- all stages of the certification process have been documented and followed, including those contained in this document,
- the ExCB have a signed commitment by the applicant to abide by the rules of the IECEx System and ExCB's certification conditions,
- the applicant is aware of his/her obligations under the system, including ensuring that any promotional material does not contain misleading information that may infer products not covered by IECEx certification are certified.

2. Where all the requirements have been successfully met, the ExCB issues the new issue of the CoC as Issue 1 or higher. In the case of any non conformances the ExCB informs the applicant to make the corrective actions.

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3. The ExCB sends the draft version of the new CoC to the applicant to assist the final review prior to issuing the certificate via the IECEx On-line system.

## IECEX Conformity Mark License



In the scheme the numbers mean the relevant clauses of the OD 022 document, but these are not certainly equal with the numbers in this document.

## **1. Application from the supplier (manufacturer)**

ExVÁ Ltd. receives an application for an IECEx Conformity Mark from a supplier, who is the holder of an IECEx Certificate of Conformity, issued by ExVÁ Ltd..

The application form, created by ExVÁ Ltd., is available on the web site of it, [www.bki.hu](http://www.bki.hu) .

The application of the supplier should consist of:

- a) Copies of the supplier's internal procedures for use, display and control of the IECEx Conformity Mark;
- b) A controlled document detailing the design of the IECEx Conformity Mark, proposed by the supplier (usually in the form of a Manufacturer's Drawing);
- c) The signed License agreement between ExVÁ Ltd. and the supplier which shall include reference to the supplier's agreement with the Terms and Conditions with OD 023 IECEx document, as a minimum ( the License agreement form, created by ExVÁ Ltd., is available on the web site of it, [www.bki.hu](http://www.bki.hu) ); and
- e) Payment of any application fee as determined by ExVÁ Ltd..

## **2. Contract Review**

ExVÁ Ltd. conducts contract review to evaluate the application to ensure the following is met:

- a) The application information is complete;
- b) The application for an IECEx Conformity License identifies Ex products covered by IECEx Certificates of Conformity, issued by ExVÁ Ltd. receiving the Conformity Mark License application.

Where the requirements have not been met ExVÁ Ltd. informs the supplier who may then arrange for review of their application.

In this case the following actions are possible:

- a) Submission of additional information by the supplier to ExVÁ Ltd.;
- b) Withdrawal of the application by the supplier;
- c) Termination of the application by ExVÁ Ltd., where the application does not meet IECEx requirements.

ExVÁ Ltd. reviews the application and requested scope of coverage by the supplier to ensure that products listed only relate to those products covered by:

- a) A current IECEx Certificate of Conformity;
- b) Only IECEx Certificates of Conformity which ExVÁ Ltd. has issued.

## **3. Assessment and audit of the supplier's procedures**

ExVÁ Ltd. arranges for an assessment and audit of the supplier's procedures for compliance with the OD 23 and OD 22 IECEx documents. This assessment includes but not limited to the following:

- a) Ensuring the procedures require that the IECEx Conformity Mark is only associated

- with products covered by IECEx Certificates of Conformity, listed in the application;
- b) A review of promotional material where the IECEx Conformity Mark is likely to be used;
  - c) A clear identification of the senior position with responsibility and authority to control use of the Mark with the supplier's organisation;
  - d) Ensuring the requirements of OD 23 and OD 022 IECEx documents are met.

This assessment may be conducted either at the supplier's premises or ExVÁ Ltd.'s offices and may also be included as an extension to the normal IECEx CoC surveillance visit by ExVÁ Ltd..

Where the result of the assessment/audit is negative the supplier may submit additional or revised information and procedures to ExVÁ Ltd. for additional reviews.

#### **4. Supplier's design**

Upon successful completion of the assessment, ExVÁ Ltd. reviews the proposed design by the supplier. This proposed design shall have been submitted by the supplier in the form of a controlled document, usually in the form of a drawing.

Where the assessment according to the design is successful ExVÁ Ltd. stamps of its acceptance on the supplier's controlled document, create a copy for ExVÁ Ltd.'s records and then forward the document back to the supplier.

Where the result according to the design is unsuccessful the supplier may re-submit a revised document showing a modified Mark design for further review by ExVÁ Ltd.

#### **5. Issuing the IECEx Conformity Mark License**

If all steps successfully completed and subject to payment of fees by the supplier, ExVÁ Ltd. :

- a) Issues the IECEx Conformity Mark License;
- b) Registers the License Certificate on the IECEx Website;
- c) Updates ExVÁ Ltd.'s surveillance procedures and audit plans, for the supplier, to include ongoing assessment and review of the supplier's ability to comply with the IECEx Conformity Mark Regulations, OD 23 and OD 22 IECEx documents.

## **6. Appeal, cancelling the IECEx Conformity Mark License from the the supplier**

The appealing procedure of using the IECEx Conformity Mark License by supplier is the same as the appealing procedure of the IECEx CoC.

The cancelling procedure of using the IECEx Conformity Mark License by supplier is in the Quality Manual of Certification Body of ExVÁ Ltd..

### **Fees of the testing and certification procedures**

1. ExVÁ Ltd. performs the testing-certification and IECEx Conformity Mark License issuing activity against a fee. It's depending on the contract between the applicant and the ExVÁ Ltd.
2. Bank keeping the account of ExVÁ Ltd.:  
Budapest Bank Rt.  
account number: 10102103-04648404-00000006

### **Guide / Other publications**

1. The guide issued by ExVÁ Ltd. is available for anybody.
2. Other publications issued by ExVÁ Ltd. (e.g. the list of certified products, manual, etc.) are also available.

### **Documents can be founded on the website of ExVA Ltd.**

- Application of testing-certification
- Declaration of impartiality and confidentiality
- Application of obtaining an IECEx Conformity Mark License issued by ExVÁ Ltd.
- Agreement between ExVÁ Ltd. and the supplier concerning operation as a supplier to obtain IECEx Conformity Mark License