Accreditation of fire laboratories – interpretation of EN ISO/IEC 17025 for fire laboratories

(revision of EGOLF EA08:2012)

Contents

European Group of Organisations for Fire testing, Inspection and Certification

Foreword

This document and its application notes provide guidelines and recommendations for the interpretation of EN ISO/IEC 17025 when applied to laboratories carrying out fire tests. These laboratories may request their national accreditation bodies to use this document alongside EN ISO/IEC 17025 when undertaking their accreditation of the laboratories.

1 Scope

This document

- provides a guideline for a common understanding between laboratories carrying out fire tests and accreditation bodies, on what is required to meet and implement the requirements of EN ISO/IEC 17025.

- creates, as a result of this understanding, a common level of technical performance and competence amongst laboratories carrying out fire tests, leading to mutual acceptance of reports between laboratories.

- provides a common interpretation of EN ISO/IEC 17025 which could assist European Accreditation Bodies in providing accreditation and surveillance services to laboratories carrying out fire tests, in particular EGOLF members.

- constitutes a guidance which helps European Accreditation Bodies to apply uniform accreditation criteria to all laboratories carrying out fire tests.

This document supplements EN ISO/IEC 17025. Where the requirements of EN ISO/IEC 17025 are considered to need specific interpretation or more detailed clarification for laboratories carrying out fire tests and for those carrying out assessments of laboratories carrying out fire tests, then guidance on that interpretation is given in the form of Application Notes.

This document is applicable to all fire tests and associated measurements, whether to International, European or National test standards or to ad hoc tests, upon materials of any type.

Part 1 gives an analysis of the applicability of all clauses of EN ISO/IEC 17025 to the work and activities of laboratories carrying out fire tests. This analysis and discussion lead to the Application Notes in Part 2.

Where possible this document is numbered as EN ISO/IEC 17025:2005 and gives reference to the appropriate clauses therein.

EN ISO/IEC 17025 is the authoritative document to be applied to laboratories carrying out fire tests in Europe.

Note: EGOLF and national fire test organisations can assist in further detailed interpretation of technical matters when required.

2 General

Besides the fact that test(s) have to be performed due to legal obligations, results from tests are often needed to be able to classify a product. A classification is what is needed to be able to use the product on the market. Besides a classification as a result of test(s), more and more extended applications are needed. This is a document where a product can be applied in fields of applications much wider than the original field of application described in the classification report. This extended fields of application can often not be supported by a test because the dimensions test(s) are also often used to back-up research.

3 Quality assurance

To ensure the quality of testing, the laboratories have the calibration procedures as described in the relevant standards. But to ensure that this quality lasts, the participation in round robins, the attendance at EGOLF coursed and/or workshops is of great importance.

The quality of testing is also guaranteed through well-trained and skilled personnel. Records of knowledge, training should be kept by the laboratory. These records are to be kept up-to-date.

The knowledge of the personnel, which is demonstrated by the training records, shows the extent to which a laboratory is capable of testing materials of performing particular tests. The participation of a laboratory to meetings, commissions, … concerning standards or related subjects, can indicate the capability of a laboratory to test a certain product/material or performing a test.

Part 1 Analysis of EN ISO/IEC 17025 and its application to laboratories carrying out fire tests

1 Scope

The principles are fully covered by the requirements of EN ISO/IEC 17025.

2 Normative references

The principles are fully covered by the requirements of EN ISO/IEC 17025.

3 Terms and definitions

The principles are fully covered by the requirements of EN ISO/IEC 17025.

4 Management requirements

Comment
The laboratory is required under EN ISO/IEC 17025: 2005, § 4.1.5j to appoint deputies for key, responsible persons and to define the roles and responsibilities within the quality manual under EN ISO/IEC 17025: 2005, § 4.1.5.f.

All communication with the client will be co-ordinated by a responsible person. EN ISO/IEC 17025: 2005, § 4.1, § 4.4.

The responsible persons within the laboratory, including those who might be qualified to sign reports, extended application reports and classification reports are defined under several clauses in EN ISO/IEC 17025: 2005, § 4.1.5a, § 4.1.5f, § 4.1.5h, § 4.2.2, §4.2.2d, § 4.4.1, § 5.2.1, § 5.2.4, § 5.2.5 .

EN ISO/IEC 17025 does not discuss the legal responsibility for the content of reports. EN ISO/IEC 17025: 2005 §5.10.2j states that names, functions and signatures of persons who release the report are mandatory.

Agreement: The detailed procedures (particularly those relating to technical/legal responsibility) in "Application Note to Clause 4" form the basis of a model to be used naming responsible persons in the quality manual.

4.1 Organisation

Comment
The organisation shall avoid potential conflicts of interest when, on the one hand, testing, classifying and drafting extended application reports, and on the other hand carrying out other activities within the same or related organisation.

Otherwise, the principles are fully covered by the requirements of EN ISO/IEC 17025.

Agreement: The detailed procedures relating to avoidance of potential conflicts of interest are given in "Application Note to Clause 4.1.4".

4.2 Quality system

The principles are fully covered by the requirements of EN ISO/IEC 17025.

4.3 Document control

The principles are fully covered by the requirements of EN ISO/IEC 17025.

4.4 Review of requests, tenders and contracts

Comment
EN ISO/IEC 17025: 2005, § 4.4, § 5.4.2, § 5.10.2 and § 5.10.3, §5.10.6, §5.10.7, §5.10.8, §5.10.9 address the preparation of a contract with the (joint) sponsor(s), the selection of methods appropriate to the clients needs and reporting to clients or groups of clients.

Co-operation and mutual exchange of information between the laboratory and the client to avoid misunderstandings in connection with the planning, preparation and performance of tests is covered in EN ISO/IEC 17025: 2005 § 4.4.

The laboratory may make enquiries from the client about any potential health & safety and environmental hazards associated with the test material, which might lead the laboratory to discover that it does not have the resources (i.e. safety equipment and procedures) to perform the test safely.

Agreement: The issue of "Contracts with Joint Sponsors" is a specific case (of a single client). Detailed procedures are given in "Application Note to Clause 4.4".

4.5 Subcontracting of tests and calibrations

The principles are fully covered by the requirements of EN ISO/IEC 17025.

4.6 Purchasing services and supplies

The principles are fully covered by the requirements of EN ISO/IEC 17025.

4.7 Services to the client

Comment
The laboratory, based on its experience, may offer professional advice and recommendations to the client before the test is carried out according to § 5.4.2. The presence of clients, which should not jeopardise the test result in any way or the confidentiality of other clients, is covered in § 4.7 and § 5.3.

Clients right to inspect test residues and decide upon disposal means if not already agreed contractually, is covered in § 4.7 and § 5.8.

Intellectual property which cannot be traced back to a certain test or sponsor (e.g. general knowledge, obtained from carrying out tests) must be considered as information that is free from any obligations and be outside the scope of EN ISO/IEC 17025: 2005, pro*vided § 4.7 is satisfied*.

4.8 Complaints

The principles are fully covered by the requirements of EN ISO/IEC 17025.

4.9 Control of nonconforming testing and/or calibration work

The principles are fully covered by the requirements of EN ISO/IEC 17025.

4.10 Improvement

This subject was a remark under paragraph §4.9 in the EN ISO/IEC 17025: 1999.

4.11 Corrective action

The principles are fully covered by the requirements of EN ISO/IEC 17025.

4.12 Preventive action

The principles are fully covered by the requirements of EN ISO/IEC 17025.

4.13 Control of records

The principles are fully covered by the requirements of EN ISO/IEC 17025.

4.14 Internal audits

The principles are fully covered by the requirements of EN ISO/IEC 17025.

4.15 Management reviews

The principles are fully covered by the requirements of EN ISO/IEC 17025.

5 Technical requirements

5.1 General

The principles are fully covered by the requirements of EN ISO/IEC 17025.

5.2 Personnel

Comment
EN ISO/IEC 17025: 2005 defines in detail the qualifications required to perform specific tasks § 5.2.1, identification of training needs § 5.2.2, job descriptions §5.2.4 and authorisation of personnel for specific tasks § 5.2.5. Records of authorisations, competence, qualifications etc. are required to be kept under § 5.2.5.

There are few universities and schools offering direct training and formal qualifications in fire related disciplines. Each laboratory is expected to address problems of recruitment and training in fire matters of civil engineers, mechanical engineers and other such persons in its quality manual.

5.3 Accommodation and environmental conditions

Comment
EN ISO/IEC 17025 requires that specific environmental conditions and controls stated within a standard should be followed, monitored, controlled and recorded. The scenario where such environmental conditions are not available is addressed by EN ISO/IEC 17025: 2005, § 5.3.1, § 5.32., § 5.3.3, §5.3.4, §5.3.5 and reported under § 10.3.1 and § 10.3.2.

EN ISO/IEC 17025: 2005, § 4.3.3.4, §4.12, § 5.3.2 and § 5.4.7 cover environmental risk (corrosion, smoke and heat) for the use of computers and control and storage of data.

Restricted access to particular areas of a laboratory for confidentiality or quality reasons are specified in § 4.7.1 and § 5.3.4.

5.4 Test & calibration methods / method validation

Comment
EN ISO/IEC 17025: 2005 covers the use of standard methods and controls to be applied when the standard methods do not fully apply or the client requires something different e.g. (a) deviations from the standard test § 5.4.1, § 5.4.2, (b) the non-standard test (including EGOLF Agreements, national instructions or individual laboratory interpretations) § 5.4.2,§ 5.4.3, § 5.4.4, and (c) the indicative test § 4.4.1, § 4.7.1, § 4.9, , § 5.4.2, § 5.4.4 and § 5.10.1.

EN ISO/IEC 17025: 2005 § 5.4.2 requires that laboratories be informed of changes in test methods and use the latest approved method and that obsolete methods are withdrawn but retained for archive purposes. They may be used at the specific request of a client. Clients should be informed of changes to fire test methods and any consequences arising.

Estimation and measurement of uncertainty of fire test results is extremely difficult due to the nature of the tests. Standardisation bodies e.g. CEN/TC127 and ISO/TC92, and professional laboratory organisations, e.g. EGOLF, are working in this field. Laboratories carrying out fire tests are expected to co-operate in this work and to apply the latest recommendations.

5.5 Equipment

Comment
EN ISO/IEC 17025: 2005 requires that laboratories to possess equipment that complies with the requirements of the standard in use etc. § 5.5.2 and meets uncertainty of measurement demands. There should not normally be a case where the equipment to be used is not defined in the standard. Should such a situation arise where the equipment to be used in a standard fire test is not defined sufficiently, further information is provided by the EC Group of Notified Bodies SH02 and EGOLF, through recommendations. Laboratories carrying out fire tests are expected to use these facilities and to apply these recommendations. Fast interpretation of standards in particular cases is offered through an EGOLF Help Desk. The Help Desk available to all EGOLF members.

5.6 Measurement traceability

Comment
As long as the item of measuring equipment contributes to the total uncertainty then components of multi-component items of test equipment, e.g. oil or gas flow indicators or controllers, pressure indicators, thermocouples etc., should be treated individually and any necessary calibration procedures or manufacturers instructions followed § 5.6.2.2.1.

EN ISO/IEC 17025: 2005 § 5.6.2.2.2 and § 5.6.2.1.2 states the conditions under which calibration that are not done in SI-measurement have to be done. This would include the situation where International or national standard procedures for calibration and maintenance of equipment to be used in fire testing do not exist. In such cases use of EGOLF Agreements, where available, is recommended.

Laboratories should have an established programme and procedure for the calibration of equipment, § 5.6.1.

A program and procedure for the calibration of Reference Standards of Reference Materials is mandatory in EN ISO/IEC 17025: 2005 § 5.6.3. No reference materials for fire testing are available (except for EN ISO 1716) due to practical problems to obtain suitable products with a guaranteed constant composition, production, and fire behaviour in the course of time.

5.7 Sampling

Comment
Sampling is fully covered under EN ISO/IEC 17025: 2005, § 5.7. The sampling process should be fully documented, whether carried out by the laboratory (or by inference, the client) and be reported § 5.10.2h. Any deviations from the sampling plan or requirements, whether laboratory or client initiated, should be recorded § 5.7.2 and § 5.10.3.
If the client performs the sampling, the laboratory should discuss clear instructions with the client on how to perform the sampling.

5.8 Handling of test and calibration items

Comment
Under EN ISO/IEC 17025: 2005, the laboratory should have a procedure for the "Receipt, handling, protection, storage etc. of test samples", § 5.8.1, § 5.8.3and § 5.8.4. Assembly of test specimens will be covered by these clauses, whether performed by the client, by the client's agent or a sub-contractor acting on behalf of the client or the laboratory.

Under EN ISO/IEC 17025: 2005, monitoring of the assembly process, inspection before testing, conditioning and client confidentiality are covered by § 4.7 and § 5.8. Any relaxation in respect of confidentiality demands should be part of the agreed contract, § 4.4. Any deviation with respect to the test standard should be agreed with the client § 4.4 and reported § 5.10.2 and 5.10.3.

The procedures for control of assembly, post test verification and disposal of fire test specimens are largely covered by EN ISO/IEC 17025: 2005, § 4.4, § 4.12.2, § 5.7, § 5.8, § 5.9 and § 5.10. However, more detailed procedures are given in Application Note 5.8/1.

Under EN ISO/IEC 17025: 2005, the laboratory should have a procedure for the "transportation, receipt, handling, protection, storage, retention and/or disposal of test samples (residues, including all provisions necessary to protect the integrity of the test item and to protect the interests of the laboratory and the customer)", § 5.8.1.

Agreement: Detailed procedures for "control of assembly, post test verification and disposal of fire test specimens" are given in "Application Note to Clause 5.8/1".

5.9 Assuring quality of test & calibration results

Comment
Participation in inter-laboratory co-operation and comparison schemes is covered by EN ISO/IEC 17025: 2005, § 5.9. Participation in such schemes is offered, amongst others, by EGOLF. At regular intervals, Round Robins are performed by EGOLF.

5.10 Reporting the results

Comment
The alternative naming of test reports as test certificates is indicated in § 5.10.1 (note 1). To avoid confusion, documents reporting test results issued by laboratories carrying out fire tests should be named 'test reports', unless national requirements state otherwise.

Documents reporting fire classification of products should be names 'classification reports'. They are drafted in accordance with EN 13501, when applicable. Documents reporting extended application work should be named 'extended application reports' and their formats should be in accordance with EN ISO/IEC 17025.

The test laboratory may issue several types of reports depending upon the type of test and clients instructions (which should be written instructions § 4.4). Each of the types of report described in ***Application Note to Clause 5.10/1*** *is permitted under EN ISO/IEC 17025: 2005, § 5.10.1 and*

any instruction about its validity for product assessment, certification or approval purposes is permitted under § 5.10.1.

Translations of reports is not addressed in EN ISO/IEC 17025, this is covered in ***Application Noteto Clause 5.10/2****.*

The procedure of ***Application Note to Clause 5.10/3*** *- Amendment of reports (To rectify incorrect information) is permitted under EN ISO/IEC 17025: 2005, § 4.9 and § 5.10.9. Under § 5.10.9 a new revised report must be identified uniquely and differently from the original report (other identification number).*

Amendment of reports is permitted under EN ISO/IEC 17025: 2005, § 5.10.9 without any specified permitted reasons for so doing. Therefore, presumably sponsors changing product / company names, ***Application Note to Clause 5.10/4****, is a valid reason for re-issue of supplementary reports. This application note explains the evaluations performed and how this is reported.*

EN ISO/IEC 17025: 2005, § 4.4, § 5.4.2, § 5.10.2 and § 5.10.3 address the preparation of a contract with the client, the selection of methods appropriate to the clients needs and reporting to clients. There is no specific reference to "joint sponsors" although § 5.10.3 addresses "additional information which may be required by "clients or groups of clients". ***Application Note to Clause 5.10/5*** *is not specifically addressed by EN ISO/IEC 17025: 2005. The issue of "Joint Sponsors" is a specific case (of a single client).*

EN ISO/IEC 17025: 2005 § 4.9, § 5.10.9 addresses the continued validity of a result if a non-conformance arises. If as a result of the investigation amendment of the report or issue of a new report is required then either is permitted.

Agreement: Detailed procedures for "types of reports, translation of reports, rectification of errors, amendment of reports and reporting to joint sponsors" are given in "Application Notes" No.5.10/1 to 5.10/5.

5.11 Remark

The application notes give laboratories carrying out fires tests, and in particular EGOLF members, a more detailed way of dealing with those subjects than EN ISO/IEC 17025.

EN ISO/IEC 17025: 2005 compared to the previous edition (EN ISO/IEC 17025: 1999) has changed little. On the following point there is a difference:

- definitions : ISO/IEC 17000 is mentioned
- §4.1.5 k and§ 4.1.6 have been added
- §4.2.2 e :
- §4.2.3, §4.2.4 and §4.2.7 have been added
- §4.10 has been changed from a remark under §4.9.2 to a new paragraph
- §5.2.2. has been elaborated
- §5.9.2
- The cross reference table in add. A is a cross reference between ISO 9001:2000 and EN ISO/IEC 17025: 2005.

Part 2: Guidelines on the interpretation of EN ISO/IEC 17025 when applied to laboratories carrying out fire tests – Application notes

Guideline - Application note to clause 4

Signatories to reports

Note: In this Application Note the term 'report' is equally applicable to test reports, extended application reports and classification reports, which are activities carried out by the laboratory.

(i) Scope

The laboratory should have named signatories who are qualified to sign reports and to be legally and technically responsible for the content of those reports.

This is also valid for electronic reports. Laboratories keep hard copies of all electronic reports.

(ii) Operating guidelines

An authorised person, or persons, with official (management) responsibility for the activities being reported and for the legal liability of the laboratory, should sign all reports.

Laboratories may decide whether one or two signatories to reports are required. For larger laboratories it is likely that two signatories might be required, but for smaller laboratories a single person might have responsibility for both aspects and sign accordingly.

Any signature relating to legal liability for the activity reported should be applied to the report after the authorised technical signatory has signed it.

Approved deputies with authority to sign reports in respect of the technical content of the report and in respect of the legal liability of the laboratory are permitted.

Only authorised signatories or approved deputies may sign reports.

The names and positions of all authorised signatories of reports in respect of the technical content of the report and their approved deputies should be recorded in the Laboratory Quality Manual or similar official controlled documentation. This information should normally be given for each individual report drafted by the laboratory.

The names and positions of all authorised signatories of reports in respect of the legal liability of the laboratory and their approved deputies should be recorded in the Laboratory Quality Manual or similar official controlled documentation.

Additional signatures to those given above e.g. that of persons carrying out the work may optionally be applied to reports, according to the rules of the laboratory.

The Laboratory Quality Manual or similar official controlled documentation should describe for the particular laboratory on what basis authorised signatories and approved deputies are chosen.

Guideline - Application note to clause 4.1.4

Impartiality and conflict of interest

Note: In this Application Note the term 'report' is equally applicable to test reports, extended application reports and classification reports prepared by the laboratory.

(i) Scope

This is a guideline for laboratories to maintain impartiality and ensure that their personnel are free from any undue pressures which might influence their technical judgement.

It especially applies to situations where laboratories are involved in design, product development or consultancy on behalf of industrial or commercial clients. It considers the means by which separation of responsibilities is made to ensure that persons involved in such design, product development or consultancy activities are not involved in, or may influence, any subsequent aspect of the proof of conformity of the products(s), i.e. testing, extended application, classification, inspection and/or certification work.

(ii) General principles

Laboratories should ensure that management practices exist whereby the impartiality of all personnel, involved in design, product development, consultancy or testing work on behalf of industrial or commercial clients, within the laboratory is maintained and situations likely to give rise to conflicts of interest are avoided.

(iii) Transparency

A significant aspect in evaluating or assessing the laboratories impartiality is considered to be transparency. There is a need to provide full information to potential end users about the scope of the laboratory activities and the relationship that the laboratory may have with any manufacturer or supplier, or with any industry or commercial based trade association(s), in connection with activities other than those directly related with proof of conformity of a product.

Of specific concern is that information accumulated from activities related to proof of conformity assessment of one or more products is not used to the benefit of other similar products. Results and information declared by the manufacturer/supplier which relates to any one product should be kept as confidential and should not be used to the benefit of any other manufacturer or supplier.

(iv) Operating guidelines

Laboratories should have a clearly stated intention that the work performed by all their personnel should be performed impartially. Laboratories should ensure that impartiality is maintained by:

- preferably, organisational arrangements being made to ensure that design, product development and consultancy work is fully separated from testing, extended application and classification activities.
- Otherwise, persons and resources being assigned to design, product development, consultancy and/or testing, classification and extended application work in a way such that confidentiality and impartiality can be demonstrated.

Laboratory management should examine, throughout every design, product development, consultancy or work programme that the integrity of that work is not influenced by any internal or external person(s) or organisation(s).

In considering the competency of personnel and authorisation to perform specific work items or practices, notice should be provided and guidance given where that stated competency or authorisation might lead to conflict of interest.

Laboratories should ensure that when design, product development, consultancy or test work programmes are defined and organised that different tasks are allocated to personnel in such a way that there can be no conflict of interest and impartiality be maintained. Where conflict of interest is possible or likely to arise, such allocation of tasks should be detailed in writing as part of the work plan.

Laboratories should ensure that when a contract to provide design, product development, consultancy or testing, classification and extended application work is made attention is paid to solving any conflict of interest problems. If this cannot be done by separation at the organisation level, special procedures may need to be devised to ensure that none of the personnel making decisions have any conflicting interests.

Laboratories should review the effectiveness of their procedures designed for the purpose of effecting impartiality and avoidance of conflict of interest according to their internal audit and management review procedures, as required under EN ISO/IEC 17025.

(v) Declaration in contract

Where a laboratory involves itself in activities other than those that are directly related to evaluating product performance for the purposes of proof of conformity, i.e. testing, extended application and classification, especially those related to the role of a notified body within the context of Community legislation, it should provide a statement within its conditions of contract that relate to each proof of conformity task.

A suitable statement is:

"In addition to testing, extended application, classification, inspection and/or certification activities that are related to demonstration of proof of conformity of products, this laboratory (or the organisation to which it belongs) is involved in aspects of design or consultancy in connection with the development of products. However, specific internal procedures are employed within the organisation to protect against any conflict of interest and to ensure impartiality in the operation of tasks associated with proof of conformity of products"

Guideline - Application note to clause 4.4

Joint sponsors for fire testing, extended application and classification

Note: In this Application Note the term 'report' is equally applicable to test reports, extended application reports and classification reports prepared by the laboratory.

(i) Scope

This procedure applies to situations where several companies or organisations combine to provide materials or components of a test specimen, and / or data leading to a test, extended application or classification report being prepared. Each company or organisation requires, as a result of the activity, a report relating to the performance of its material or component.

(ii) Definition of joint sponsorship

Joint sponsorship occurs when:

a) A material or an element of building construction to be tested is produced jointly by several manufacturers or suppliers of components, (and is assembled in or outside the laboratory). or

b) When a material or element of building construction is manufactured against a single approved product standard and is made and sold by different companies under different trade names. For instance:

- a single manufacturer selling one product through different outlets under different trade names (in which case the different reports are "connected" through the same project number)
- a single manufacturer making the same product in separate locations or divisions of the company and selling it through the same or different outlets under the same or different trade names (in which case the manufacturer declares to the laboratory that the products sold on the marketplace are exactly the same products as which were tested). The sampling procedure is included in most product standards or GNB recommendations.
- the same product is manufactured in several companies, e.g. under licence, and is sold through the same or different outlets under the same or different names.

Each manufacturing point or sales outlet for the product may be considered as a separate sponsor in the joint sponsorship.

(iii) Operating guidelines for contracts between joint sponsors and laboratories

Joint sponsorship of fire tests, extended application or classification may be allowed, at the discretion of the laboratory. If so, contractual arrangements should be agreed between the laboratory and all joint sponsors.

Elements of such contracts are:

a) Each joint sponsor should agree when the contract is drawn up between the laboratory and the joint sponsors the exact status of each and whether each may additionally receive separate individual reports - each with their own name indicated as sponsor and (if relevant), with the trade name of their product.

b) The laboratory should treat each joint sponsor equally.

c) Each joint sponsor should agree to provide details of any approved standard to which the product or its component parts may have been manufactured and all construction features on each component that are essential to the fire test result.

d) Each joint sponsor should agree to provide details of any special procedures for verification of the product or its' component parts which are to be tested or subject to extended application.

e) The joint sponsors and the laboratory should agree the individual responsibilities of each of the parties involved for the construction, assembly and erection of any test specimens, and delivery of data and information for the preparation of extended application reports and classification reports.

f) All joint sponsors should agree the legal basis of ownership and authority for the subsequent use of the reports. This includes for instance, the preparation of extended application, amendments and supplements, transfer of ownership and permission for use by 3rd parties. In order to avoid problems relating to ownership and use in the future all joint sponsors should agree, at the outset, whether permission for such subsequent use is required to be obtained from all of the joint sponsors or just one.

g) The means of disposal of any test residues should be agreed as part of the contract to test made between the laboratory and the joint sponsors.

Guideline - Application note to clause 5.8

Handling of test materials and test specimens

Incorporating: control of assembly of fire test specimens
post-test verification of fire test materials
control of disposal of fire test specimens

(i) Scope

This document provides the procedures by which laboratories carrying out fire tests can control and verify fire test specimens before test and ensure security of identity and client confidentiality at all stages of their handling from receipt until disposal.

(ii) Operating guidelines: Control of assembly of fire test specimens

These procedures apply to control of assembly of fire resistance test specimens. If appropriate to reaction to fire test specimens then the same principles apply.

General: The client is responsible for the construction and erection of the test specimens. Normally, this is carried out by the client or a sub-contractor acting for the client (the laboratory may act as the sub-contractor).

The client should provide, to the laboratory, a description of all constructional details, drawings and schedule of major components, their manufacturer/supplier and an assembly procedure, sufficiently in advance of the test to enable the laboratory to plan and carry out verification that the test specimen and its assembly conforms with the information provided. Any special procedures for verification of test specimens given in the test method or product standards for specific products should be followed.

The above verification may be carried out by a third party, e.g. sub-contractor, but the responsibility for the accuracy of that verification remains with the laboratory.

Assembly of test specimens: Assembly of test specimens can be carried out either within the laboratory or at the client's premises.

Assembly in the laboratory: The laboratory should arrange that facilities are made available to the client or client's agent, such that assembly, conditioning and storage may take place in confidence (to both client and other clients).

Assembly at the clients' premises: The client should inform the laboratory of the manufacture / assembly schedule sufficiently in advance to enable the laboratory to arrange to carry out verification of the specimen and its assembly. If it is not possible to monitor and verify the whole assembly process it should be agreed that the most important stages should be overseen and recorded. That part of the assembly process which is not monitored by the laboratory should be recorded by the client, e.g. by photographs, the results of which can be used by the laboratory for verification purposes.

If the assembly is carried out at the client's premises and the laboratory cannot monitor and verify that process, the laboratory may request an additional specimen for verification purposes. The laboratory should decide which specimen is to be tested and which is to be used for verification purposes (i.e. be dismantled and examined).

The verification process: The laboratory should monitor and verify the most important stages of the assembly process. The following should be examined and verified against the documentation provided:

- The type, manufacturer, quality and dimensions of the materials and components of the test specimen
- The identity and actual material properties (e.g. density, nominal equilibrium moisture

content, strength etc.) Determined on samples of the materials and components
- The surface preparation, amounts of adhesives and surface finishes (paints) applied (where appropriate)
- Photographs and / or other appropriate type of record, e.g. video, of the different stages of the assembly.

For test specimens assembled at the clients premises the verified test specimen should be marked (signature and date), be sealed or secured, and not opened or altered before testing takes place.

Documentation of the verification process: the following should be recorded and retained during the process of verification of the test assembly:

- Client company, address and date
- Name of company carrying out the assembly, if other than the client
- Type, manufacturer, quality and dimensions of the materials / components of the test specimen
- Fabrication method and equipment used
- Actual material properties measured on samples of the materials and components
- Ambient conditions
- The surface preparation, amounts of adhesives and surface finishes [paints] applied, as appropriate
- Photographs and / or other appropriate type of record, e.g. Video, of the different stages of the assembly.

All deviations from the drawings and specifications should be recorded (and discussed with the client before testing is commenced).

(iii) Operating guidelines: Post-test verification of fire test materials

If it is not possible to verify that the test specimen and its assembly conforms with the information provided by and specified by the client prior to the fire test, then, the laboratory should do so immediately after the test, as explicitly as possible, before any disposal of the test specimen occurs (e.g. examination of the interior of sealed components such as doors etc.).

The test specimen or its component(s) can be cut in pieces, opened or dismantled and the materials etc. therein as well as the installation and fixing methods used can be checked according to (ii) Operating guidelines: Control of assembly of fire test specimens (5.8).

(iv) Operating guidelines: Control of disposal of fire test specimens

The laboratory should ensure that fire test residues are held securely and in confidence.

Fire test residues, or representative parts thereof, may be retained, where necessary or practical at the discretion of the laboratory, for four weeks after delivery of the report to the client (or according to any different instructions in the test method used).

Note: some test specimens may be so large or so badly damaged by the test that it is not possible to retain and store them. In this case the test residues may be destroyed immediately after the post test verification.

Before disposal of fire test residues the laboratory should ensure that sufficient evidence is held about the performance of the test specimen to permit any errors arising in the report to be rectified and a supplement to the report to be issued, according to EGOLF Application Note 5.10/3.

Test residues should be subject to disposal in a manner agreed between the laboratory and the client. That disposal, which may be carried out by the laboratory or by the client, should be carried out according to locally, permitted procedures.

Where the client has supplied more test specimens than is actually required for testing the additional untested specimens should be treated in the same manner as fire test residues.

Before disposal all test residues and additional test specimens should be rendered unidentifiable, e.g. by removal or blotting out markings of the client and laboratory. The laboratory waste storage facility should be inaccessible to unauthorised persons.

Guideline - Application note to clause 5.10 / 1

Types of reports

On request of the client, reports may be needed other than the full report. To harmonise the reporting amongst laboratories performing fire tests, the following reports can be used:

a) Test reports

Full test reports

(i) Scope

The full test report is the only valid test report according to EN ISO/IEC 17025. It should be written in such a way that anybody having the technology can perform the test again and get the same test results.

Laboratories carrying fire tests may, during the course of their work, be required by their clients to issue the following other types of fire test reports in addition to the full test report:

- short form test report
- test confirmation letter
- indicative test report
- report from a non-standard or ad-hoc test

(ii) Content of the full test report

The full test report should contain and fully address all requirements of the fire test standard in use and EN ISO/IEC 17025.

(iii) Other types of test reports and their content

Laboratories may issue the other different types of test reports defined in the scope, provided the circumstances under which each is required and the data presented therein is as specified below:

- **Short form test report**

  A short form test report is one in which the test results obtained during the test and fully reported in the full test report are presented in an abbreviated and summarised form.

  A short form test report may be issued in two cases:

  a) When the use of such a report, which should be additional to the full test report, is requested by the sponsor, or required for any other reason.

  b) When the test results obtained indicate that the product fails to achieve the required level of performance.

     In this case the sponsor may ask the laboratory to present the results in a summarised format, even though the use of such a format is not prescribed or authorised as an option within the test standard. A full report of this is not made.

  All short form test reports should state "*Whilst the test data provided within this short report was obtained in a test conducted fully in accordance with .....[standard] the presentation of the results in this short form may not satisfy the requirements of that standard and EN ISO/IEC 17025: 2005. The presentation of the results in this manner is made by agreement with the sponsor and use of the information herein for product assessment, approval or certification purposes will be restricted".*

- **Test confirmation letter**

A test confirmation letter is one issued in advance of the full test report at the request of the sponsor to give an indication of the likely test results.

Test confirmation letters may be issued in advance of the full test report in cases where preparation of the full test report is likely to take some time to complete, e.g. in fire resistance testing. They should be valid for six months only or until the full test report is issued, whichever is earliest. They can be re-issued on a monthly basis until the full test report is issued.

There should be stated within the test confirmation letter that *"Whilst the test information and results provided within this test confirmation letter were obtained from a test conducted fully in accordance with…..(the standard fire test used) the presentation of the results in this manner does not satisfy the requirements of that standard and EN ISO/IEC 17025. Additionally it should be recognised that the result of the test might change during further analysis of the data during the completion of the full test report. The information provided in this test confirmation letter is valid for six months only or until the full test report is issued, whichever is earliest".*

- **Indicative test report**

An indicative test report is one that gives test results arising from a standard test performed in a non-standard manner. For instance, clients might require such testing and reporting during the development of proto-types etc., to gain some indication of performance, whilst avoiding the costs of the full test.

An indicative test report should include a statement *"These test results relate to a test carried out using the test methodology given in .....(define test), however, the full requirements of the standard were not met. The information is provided for the sponsor's information only and should not be used to demonstrate performance against the standard nor compliance with any regulatory requirement. The test was not carried out under the requirements of .....(name accreditation body) accreditation".*

- **Report from a non-standard or ad-hoc test**

Reports from non-standard or ad-hoc tests may be issued when laboratories carry out tests, which are not the subject of European, international or national test procedures. Such non-standard or ad hoc test methods should be fully documented. The continued relevance and validity of such reports may change with time and the sponsor should periodically check this with the test laboratory.

Reports from a non-standard or ad-hoc test should state, *"This report covers a test which was conducted to a procedure which is not the subject of a standard test, but utilised the principles of .....(define). Since fire tests are the subject of a continuing standardisation process and because existing tests are the subject of review and possible amendment and new interpretations, it is recommended that the report be referred back to the laboratory after a period of ...(number) years to ensure that the methodology adopted remains valid at that time".*

Note: National procedures and requirements with respect to test reports may be different to those presented herein. In that case national requirements should be paramount.

b) Extended application report

Extended application reports describe the results of a process of extension of the fields of application of test results, reported in full test reports. The process to be followed is described in the relevant extended application standards. An extended application report is drafted in accordance with the format given in EN ISO/IEC 17025. No other than full extended application reports are drafted.

c) Classification reports

Full classification reports

The full classification report should be the only solid classification report. It should be written in such a way that anybody having the full test reports use, can perform the classification process again in accordance with classification standards and arrive at the same conclusions.

Short form classification reports

Laboratories may be required by their clients to issue short form classification reports. A short form classification report is one in which the classification process and its outcome is completely described as specified by the relevant classification standard in the full classification report, it is presented in an abbreviated and summarised form.

Guideline - Application note to clause 5.10 / 2

Translation of reports

Note: In this Application Note the term 'report' is equally applicable to test reports, extended application reports and classification reports prepared by the laboratory.

For harmonisation amongst laboratories performing fire tests, this guideline gives a procedure for the translation of reports.

(i) Scope

Reports will normally be prepared in the national language of the laboratory, although on occasion EGOLF member laboratories working in the pan-European field may be required or choose to produce fire reports in a variety of other languages.

This may be especially required in situations where "mutual acceptance or endorsement of reports" is required by other laboratories in other countries.

Mutual acceptance of reports is the acceptance of results produced in one laboratory as being as valid as if produced in ones own laboratory. Endorsement of reports is defined as the process of review of reports to confirm mutual acceptance of results plus the supply of supporting documentation for use by the client for regulatory purposes.

(ii) Procedure for translation of reports

If a translation is required for "mutual acceptance or endorsement of report" or any other purpose the following procedures should be followed.

When a client requires a translation of a report the terms of that translation, including payment for translation, should be formally agreed by contract between the laboratory and client.

Competent translators should carry out translations of reports. In the case of "mutual acceptance or endorsement of reports" this translation may be carried out either by the laboratory issuing the report or by the laboratory that will review the report and provide the "endorsement" or any third party. The translation should be checked for accuracy before issue or use.

The translated report should clearly state the validity of the translation (see iii. below).

The laboratory should file copies of all language versions of the report in its records. Each language version of the same report should carry the same reference number. Each language version is dated on the date of issuance of the translated version.

(iii) Validity of translations of reports

The original language in which a report is / was written should be stated within the translation. All reports in languages different from that in which the original version is / was prepared (be it the national language of the test laboratory or any other) should clearly state that it is a translation.

The translated report should name the organisation or person(s) responsible for issuing and / or checking the translation.

Guideline -Application note to clause 5.10 / 3

Rectification of errors in reports

Note: In this Application Note the term 'report' is equally applicable to test reports, extended application reports and classification reports prepared by the laboratory.

(i) Scope

This procedure applies to situations where a report has been issued and information contained therein is subsequently discovered by the laboratory to be incorrect. The error found may relate to test data, the extended application process, or the classification result, or information provided by the sponsor or their reporting.

Sponsors should be advised of this procedure when the contract to test is made.

(ii) Operating guidelines

a) If an error in a report is discovered by a laboratory or notified to a laboratory, the laboratory may be permitted to issue a new corrected report with an identification different from the original identification, (e.g. revised version, new identification ….), provided that:

- The sponsor returns all originals and copies of the report to the laboratory and declares that no further copies have been made, and that:
- The sponsor gives assurance that the test results given in the report have not been used towards support of the product in the marketplace.

b) In all other cases the laboratory should issue a supplement to the original report, to record corrections made to all data that has been found to be incorrect.

The laboratory should examine the consequences of correction of the error with the sponsor, especially if the test results given in the report have been used towards support of the product in the marketplace.

(iii) Issue of corrected reports (and recall of all previously issued reports)

In the case of option (ii)a) above, a corrected and revised report should be issued.

The laboratory should cancel all copies of the original report or parts thereof containing the incorrect information held in the laboratory files. Cancellation should be shown by permanent marking. The cancelled report or the relevant parts thereof should be kept in the laboratory files.

(iv) Issue of supplements to reports

In the case of option (ii)b) above, the laboratory should issue a supplement to the original report.

The laboratory should ensure that an original copy of the supplement to the report is issued for each and every original copy of the report that had been issued. The laboratory and the sponsor should ensure that the supplement to the report, in its entirety, is attached to each and every copy of the original report.

In cases where the content of the original report has been used towards support of the product in the marketplace, the sponsor should ensure that the supplement to the original report is additionally used for that purpose.

The laboratory should cancel all parts of the original report containing the incorrect information in all copies of the original report held in laboratory files. Cancellation should be shown by permanent marking. The complete report, including the cancelled parts, should be kept in the laboratory files, together with a copy of the supplementary report.

(v) Format of "supplements to reports"

Supplements to reports should have a cover sheet comprising the front page of the original report, overprinted 'Supplement to test report', or 'Supplement to extended application report' or 'Supplement to classification report' and be dated according to the issue date of the supplement (not that of the original report). It should declare that it is a supplement to the report originally issued as No.... dated...".

Supplements to reports should clearly state that there was an error in the original report, that the product involved has not been retested.

(vi) Signatories to corrected reports and to supplements to reports

Signatories to corrected reports or supplements to reports should be those personnel currently authorised to sign such reports in the laboratory. In certain circumstances signatories may not be the same as for the original report.

(vii) Validity of corrected reports and of supplements to reports

Reports are statements of fact and as such are of unlimited validity. Corrected reports issued according to (iii.), and supplements to reports issued according to (iv.), should similarly be of unlimited validity.

(viii) Records

The laboratory should control and maintain a record of all copies of original reports or relevant parts thereof, cancelled according to (iii.) or (iv.), and the corresponding corrected reports or supplements to reports, which have been issued.

Guideline -Application note to clause 5.10 / 4 - 1

Amendment of reports: clients changing product / company names (i) - for technical reasons - Issue of supplementary reports

Note: In this Application Note the term 'report' is equally applicable to test reports, extended application reports and classification reports prepared by the laboratory.

(i) Scope

This procedure applies to situations where the identity of a product changes and the client desires a supplementary report relevant to that identity. Such cases, not involving commercial secrecy, include:

- ☐ The original report concerned was upon a development or prototype product carrying a development or prototype number. The product is now marketed under a different name.
- ☐ The name of the company owning the product that was originally tested has changed, e.g. take-over, transfer of rights etc.

(ii) Operating guidelines

Laboratories are permitted to issue a supplement to a report to accommodate those changes in product or supplier identity, described in clause (i.) of this Application Note, which are notified by the sponsor of the test, for a limited period after the date of the original report and provided that guarantees are given that the product is unchanged.

(a) Alterations to data given in reports before first issue

Alterations to details of product identification or supplier identity to be included in reports (from those given by the sponsor at the time the work was agreed / carried out) may be made when these occur and are notified to the laboratory before the first report is issued.

- ☐ Changes to product name are permitted if the sponsor declares, in writing, the change in name or trade name and that the product under its new name is identical to that tested.
- ☐ Changes to the named sponsor (nominated in the report) are permitted only if the initial sponsor and the new sponsor have jointly declared their approval in writing.

Written details of the full circumstances of the change, including the supplier of the test specimen(s), from all concerned parties should be included in the test records held by the laboratory.

(b) Supplementary reports after the original report is issued

The publication of a supplementary report, under a new date, after the original test report is issued is permitted when:

- ☐ Changes to product name given in the report are required to be made and when the sponsor has declared, in writing, the change in name or trade name of the product.
- ☐ Changes to the named sponsor or owner of the rights to the product given in the report are required to be made and if the original and new sponsor or owner have jointly provided written details of the organisational change and their joint approval in writing. Alternatively, an independent, professional body, e.g. a solicitor or liquidator, should provide the details.

There should be a written declaration from the sponsor that the product to be named in the supplementary report has not changed and is identical in every way to the specimen(s) which was/were in the original report. In addition any alternative named supplier should provide a written declaration that they will only use the supplementary report in connection with the product that is named in that report and that they will take all possible steps to ensure that the product that is supplied is identical to that tested.

(iii) Details to be reported in supplementary reports

The supplementary report should be named 'Supplementary test report, 'Supplementary extended application report or 'Supplementary classification report' and dated. The cover sheet should declare that "This report is a supplement to that issued as No…….. dated ……".

The supplementary report should clearly state that the product has not been retested and that it should be read and used only in conjunction with the original report.

The supplementary test report should contain reference to the identity or description of the product originally tested and should state the change in details that are being recorded, together with details of the person or company reporting the changes. Copies of all written declarations should be included in the supplementary report.

(iv) Issue of supplementary reports

The laboratory should ensure that an original copy of the supplementary report is issued for each and every original copy of the report that had been issued. The sponsor should ensure that the supplementary report is attached to every copy of the original report.

(v) Signatories to supplementary reports

Signatories to supplementary reports should be those personnel currently authorised to sign reports and may not be the same as for the original report.

(vi) Validity of supplementary reports

Reports are statements of fact and as such are of unlimited validity. Supplementary reports should similarly be of unlimited validity.

Where a supplementary report is issued the sponsor should ensure that both the original report and its adjoined supplement are available and used towards support of the product in the marketplace.

(vii) Records

The laboratory should control and maintain a record of all original copies of the report and its supplements.

Guideline - Application note to clause 5.10 / 4 - 2

Amendment of reports: clients changing product / company names (ii) - for commercial reasons - Issue of additional reports

Note: In this Application Note the term 'report' is equally applicable to test reports, extended application reports and classification reports prepared by the laboratory.

(i) Scope

This procedure applies to situations where the identity of the product or the supplier changes for commercial reasons and the client requires a new report relevant to that identity. Such situations, which involve the need for commercial secrecy, include:

- ☐ The original name of the product that was originally tested has been changed or additional names are applied to the product for commercial reasons, e.g. sale into other markets etc.

- ☐ The producer of the product wishes to sell the product to another company (or companies) that will resell the product under new company name (or names) or new trade name (or trade names).

(ii) Operating guidelines

Laboratories should be permitted to issue an additional report to accommodate those changes in company name, supplier and/or product identity, described in clause (i.) of this Application Note, which are notified by the sponsor, provided that guarantees are given that the product is unchanged. In case of AoC1 system, the conditions for this has to be verified and decided between the testing laboratory and the certification body.

(a) Alterations to data given in reports before first issue

Alterations to details of product or supplier identity to be included in reports (from those given by the sponsor at the time the work was agreed / carried out) may be made when these occur and are notified to the laboratory before the first report is published.

- ☐ Changes to product name, or inclusion of additional product names, are permitted if the sponsor declares, in writing, the change (or changes) in name or trade name and that the product under its new name (or names) is identical to that tested.

- ☐ Changes / additions to the named company commercially responsible for the product are permitted only if the original sponsor and the other company (or companies) have mutually declared their approval in writing.

Written details of the full circumstances of the change, including the supplier of the test specimen(s), from all concerned parties should be included in the test records maintained by the laboratory.

(b) Alterations to data given in reports after report first issued

The publication of an additional report, under a new date, is permitted when:

- ☐ Changes to / additions to the product name given in the report are required to be made and when the sponsor has declared, in writing, the change in name or trade name of the product.

- ☐ Changes to / additions to the name of the company, commercially responsible for the product, given in the report are required to be made and if the original sponsor or owner and the other company (or companies) have provided their mutual approval in writing.

There should be a written declaration from the original sponsor that the product named in the additional report has not changed and is identical in every way to the specimen (or specimens) which was (were) tested. In addition any alternative named supplier should provide a written declaration that they will only use the report in connection with the product that is named in the additional report and that they will take all possible steps to ensure that the product that is supplied is identical to that tested.

(iii) Details to be reported in additional reports

The additional report should be named 'Additional test report', 'Additional extended application report', or 'Additional classification report' and dated. The cover sheet should declare that "This report is additional to that issued as No..... and dated ..... and that the original report should remain valid and is not replaced by the additional report".

The additional report should clearly state that the product has not been retested and that the additional report does not involve technical change or technical review of the original report.

The additional report should indicate that both the original and new name of the product and the name of the company commercially responsible for the product are documented by the laboratory and maintained in laboratory records.

(iv) Issue of additional reports

The laboratory should issue additional reports at the instruction of the sponsor or owner of the product. The laboratory records should clearly state that an additional report has been issued and include copies of the additional report, the original report and all associated declarations.

(v) Signatories to additional reports

Signatories to additional reports should be those personnel currently authorised to sign reports and may not be the same as for the original report.

(vi) Validity of additional reports

Reports are statements of fact and as such are of unlimited validity. Additional reports should similarly be of unlimited validity.

(vii) Records

The laboratory should maintain / control a record of all original copies of the report and its additions.

Guideline -Application note to clause 5.10 / 5

Joint sponsors : issue of reports

Note: In this Application Note the term 'report' is equally applicable to test report, extended application reports and classification reports prepared by the laboratory.

(i) Scope

This procedure applies to situations where several companies or organisations combine to provide materials or components of a fire test specimen. Each requires as a result of the test a report relating to the performance of its material or component in the test.

(ii) Definition of joint sponsorship

Joint sponsorship occurs when:

b) A material or an element of building construction is produced jointly by several manufacturers or suppliers of components,

or

c) When a material or element of building construction is manufactured against a single approved product standard and is made and sold by different companies under different trade names. For instance:

- ☐ A single manufacturer selling one product through different outlets under different trade names
- ☐ A single manufacturer making the same product in separate locations or divisions of the company and selling it through the same or different outlets under the same or different trade names
- ☐ The same product is manufactured in several companies, e.g. under licence, and is sold through the same or different outlets under the same or different names.

Each manufacturing point or sales outlet for the product may be considered as a separate sponsor in the joint sponsorship.

(iii) Operating guidelines for joint sponsorship ~~in fire testing~~

Joint sponsorship may be allowed, at the discretion of the laboratory. The contractual arrangements should be agreed between the laboratory and all joint sponsors ([see Application Note 4.4/1).

(iv) Issue of reports to joint sponsors

If the joint sponsors need their own unique report they should receive an identical original copy of the report with respect to measured specimen and test result data, extended application results and classification. Only sponsor, producer, and product name may be unique.

If the joint sponsors own the report together each of them should receive an identical original copy of the report. The report should contain a statement declaring the joint ownership.

The report should describe any approved standard to which the product may have been manufactured and all construction features on each component that are essential to the result.

The report issued to each sponsor should describe any approved standard to which the product may have been manufactured and all construction features on each component that are essential to the result.

a) Each original copy should bear the name and address of all joint sponsors and should detail the source of the specimens or components and the suppliers of the information contained within the report.

b) Each joint sponsor may additionally receive separate individual reports - each with their own name indicated as sponsor and (if relevant), with the trade name of their product if agreed when the contract to test is drawn up between the laboratory and the joint sponsors [see Application Note 4.4/1].

If agreed with the sponsors the report can include the statement "further reports have been produced for other joint sponsors relating to other components of the assembly or using other trade names for this product and its components". Reference should in this case be made to the original

(v) Amendment of reports to joint sponsors

Before any amendments may be made to joint sponsored reports, all joint sponsors agree to such amendments, according to EGOLF Application Note 4.4/1.

The laboratory should ensure that any action upon any report, e.g. the issue of supplements or amendments, is taken identically upon all original copies provided to all joint sponsors.

(vi) Records

The laboratory should control and maintain a record of all original copies of reports for joint sponsors and of any action or amendment subsequently taken in relation to any such report.

Checklist for Technical Assessors

Drafted at EGOLF Workshop in Delft, The Netherlands, 6th March 2013

Document based on EN ISO/IEC 17025:2005

- This checklist addresses exclusively the technical aspects to be assessed for the accreditation of fire test laboratories for standard R2F and FR tests, including the issue of related classification reports conform the EN 13501 series.

- It does not cover the following activities:
  - fire tests in accordance with national standards
  - internal calibrations carried out by fire test labs
  - issue of EXAP reports
  - non-standard test methods (§ 5.4.3 and 5.4.4)

- Aspects typically belonging to the competence of the system/lead assessor are indicated by LA. Several requirements in EN 17025 are irrelevant for the audits covered by this document. They are identified as NA.

- This document does not cover tests undertaken at sites other than the permanent laboratory facility, nor the use of equipment not under control of the test laboratory.

- This document is composed of two parts:

  1) The limited number of elements in chapter 4: 'Management requirements' belonging mostly to the tasks assumed by the technical assessor, although conformity with this chapter is mostly assessed by the lead auditor. The relevant 17025 statements are repeated in bold in this document, followed by their interpretation for the technical assessor.

  2) A systematic overview of the tasks of the technical assessor for chapter 5: Technical Requirements, taken in the order of EN 17025. The text of the standard is not repeated.

- For the interpretation of EN 17025 for fire test laboratories, the technical assessor is expected to use the EGOLF document EGA 08rev:2012 guidelines interpretation of EN ISO/IEC 17025 for fire laboratories.

Part 1
EN 17025 – Chapter 4

4.1.5.g) provide adequate supervision of testing … staff …. by persons familiar with methods and procedures, purpose of each test … and with the assessment of the test

Check if a supervision level with sufficient technical knowledge of the tests under assessment is available.
It is expected that the supervision level has some (3 - 5) years of experience in the field of fire testing procedures.

4.2.1 … The laboratory shall document its …..procedures and instructions … to assure the quality of the test … results.

Check that for all tests under assessment, correct documents are available. An operational procedure and/or instruction shall be available and sufficient for a trained operator to carry out the test correctly.

4.3.1 The laboratory shall establish and maintain procedures to control all documents that form part of its management system … such as regulations, standards …

Check the procedures of the laboratory to be informed about relevant documents/revisions of test standards, FSG resolutions, EGOLF recommendations. Verify the system to get this information to the appropriate level: operators, project leaders etc. Check that the lab has understood the changes and have implemented them into their operational procedures. See also 4.3.3.

4.3.2 Document approval and issue

- Authorized editions … are available at all locations …
- Documents are periodically reviewed …
- Invalid or obsolete documents are promptly removed …
- Obsolete documents … are suitably marked.

Check whether a) b) c) and d) are satisfied for all tests under accreditation.

Check whether the latest revisions of test standards, FSG resolutions and EGOLF recommendations are present/available. See also 4.3.1. and 4.3.3.

4.4 Review of requests, tenders and contracts (→ LA)

4.5 Subcontracting of tests and calibration (→ LA)

4.6 Purchasing services and supplies (→ LA)

4.6.2 The laboratory shall ensure that purchased supplies and reagents and consumable materials … are not used until they have been inspected … as complying with … requirements defined in the methods for the tests …

Verify this for each method to be assessed.

4.7 Service to customer (→ LA)

4.8 Complaints (→ LA)

4.9 Control of non-conformity testing

Verify if the laboratory has a procedure and has defined actions and responsibilities to be taken when non conformity work occurs, e.g. non-conformity in temperature curve, pressure conditions, loading, etc. during an FR test, especially when immediate decisions need to be taken.

Verify how the consequences of such events are evaluated, reported in the test report.

4.10 Improvement (→ LA)

4.11 Corrective actions

Check if the laboratory has carried out the complete process described in 4.11:

- *cause analysis*
- *selection and implementation of corrective actions*
- *monitoring of corrective actions*
- *re-audit the activity*

4.12 Preventive action (→ LA)

4.13.1 Control of records (→ LA)

4.13.2 Technical records

Check if observations, data and calculations are recorded at the time they are made.
Check if they are identifiable to the specific task.
Check if mistakes in records are correctly handled.
Check all aspects detailed in 4.13.2.

4.14 Internal audits (→ LA)

4.15 Management reviews (→ LA)

Part 2
EN 17025 – Chapter 5

5.2.1 *Check the information on training and experience of the staff carrying out the tests, evaluating results, drafting and signing the test reports for each test method*

5.2.2 *Evaluate the relevancy of the specific training programmes for the tasks for which a staff member is declared competent (see 5.2.1)*

5.2.3 Task of LA

5.2.4 *Check if the following is defined in the Q-system:*

- *responsibiliy with respect to perform a test and evaluate results*
- *expertise and experience required for a test*
- *qualifications and training programme(s)*

This is a shared responsibility with the LA.

5.2.5 *Check if the prescription 5.2.5 is satisfied, unless the LA assumes this task. This requirement is closely linked with the requirements of 5.2.4 and is checked simultaneously.*

Most of the R2F and FR test methods include conditions in relation with e.g.

- *ambient temperature, its control, tolerances and registration*
- *air velocity near the specimen*
- *minimum volume/area of the test room*
- *location of the test specimen inside a test room*

Check for every test if the conditions prescribed by the test standard are satisfied.
In the absence of conditions in the test standard, EN/ISO 17025 is valid (EGA08).
Also check:

- *if no mutual influence of simultaneous testing in the same test space can occur*
- *the separation between neighbouring test areas*
- *the housekeeping in the test room*
- *access of non-lab staff to testing areas in terms of confidentiality and influence on the laboratory staff (unless checked by LA)*

5.4.1

- *In fire testing the EN standard to be applied is usually self-evident.*
- *The auditor shall spotcheck if the latest version of the test standards is used (see also 4.3.1 and 4.3.2)*

Remark: A reference to dated standards can cause contradictory situations to the requirement of EN 17025 to use the latest version of a test standard. This can be the case for test standards, product standards or national regulations. FSG is invited to take a position in this. As a consequence, the assessor should only observe the situation, but not consider it as a non-conformity.

5.4.2

- *For all tests the design of the test sample(s) covering the needs of the customer is an aspect where advice of the lab to its customer is important. However, for a technical assessor it will in most cases not be possible to conclude whether the most appropriate design has been made, as he does not have all the information available during the negotation with the customer.*
- *For fire testing, the auditor should check whether the design of the specimen(s) satisfies the requirements for the envisaged/claimed field of application. He shall also pay attention to the correct 'application' of the worst case principle and of CEN/TS 15117: Guidance on direct and extended application.*

Verify:

- *if intentional deviations from the standard test methods have been correctly handled, i.e. are documented, technically justified, authorized and accepted by the customer;*
- *If accidental deviations are explicitly reported and evaluated on their potential influence on the test results.*

5.4.3 and 5.4.4: Not Appicable

5.4.5 Covered previously and later as far as relevant

5.4.6 *For a fire test lab performing its own calibrations, an estimation of the uncertainty of measurement shall be made and reported.*
For FR and R2F tests, the laboratory shall report the information given in the test standard as far as available. It shall further inform about conclusions from RR exercises. It shall at least apply the latest decisions taken in EGOLF and the FSG on this matter.
EGA08 states that laboratories are expected to cooperate in this work.

5.4.7 *Verify for each test method that calculations and data transfers are appropriately checked, especially when computer and automated equipment are used. A manual calculation in parallel to the automated system is considered to be sufficient.*
Collection and protection of data, confidentiality, data storage, transmission and protection are generally checked by the LA.

For each test to be assessed all of the following aspects have to be checked:

5.5.1 Availability of all equipment required:

- *test apparatus*
- *measurement instruments*
- *equipment for specimen preparation (if required)*
- *system for data processing and analysis*

5.5.2 Conformity with the test method specification of:

- *test apparatus*
- *equipment for specimen preparation*

5.5.2 *Conformity with the accuracy specifications:*

- *all measurement instruments*
- *system for data processing and analysis including software*

5.5.2 *Calibration programmes/data for all relevant measuring equipment*

Special attention is paid to traceability, (5.6 …)

5.5.3 *Check direct availability of up-to-date instructions on the use and maintencance of all relevant components of the equipment. Check that operators are appropriately trained and authorized, see 5.2.*

5.5.4 *Check identification of all pieces of equipment (see also 5.5.8)*

5.5.5 *Check availability and content of an updated logbook for the test equipment with all the information as listed in § 5.5.5 of EN 17025*

5.5.6 *Check availability of maintenance and calibration schemes (see 5.5.2) for measuring and testing equipment plus labelling/identifaction of calibration status (see also 5.5.8)*

5.5.7 *Check procedure for handling of (potentially) damaged equipment and for examination / evaluation of the eventual effects of damaged equipment on previously obtained test results.*

5.5.8 Handled previously.

5.5.9 Not handled in this document.

5.5.10 *Check whether appropriate procedures are defined on the need of intermediate checks, and whether they have been carried out and recorded.*

5.5.11 *Check whether the appropriate correction factors are taken into account (see also 5.5.8).*

5.5.12 *Safeguarding of hardware and software against adjustments*

5.6.1 (see also 5.5.2)

- *In several fire tests 'verification tests' are specified. They cannot be considered as calibrations but are nevertheless important for the reliability of test results.*
- *They cover tests to be carried out on a regular basis, e.g. daily or even prior to each test run (e.g. lift landing doors test, SBI etc.).*
- *The assessor shall check that such tests are carried out and that the results are hold on file, evaluated, that approval criteria are defined and the results reported.*

5.6.2.1 Not applicable for fire test labs

5.6.2.2 *The auditor shall focus mainly on measurements that contribute substantially to the uncertainty of the test results. For such measurements the test standard usually details the required precision.*

5.6.3 Not applicable for fire test labs

5.7 Sampling

Verify that the required statements on sampling in the test and /or classification reports are made.
In order to ensure that the description of the test specimen, and in particular its construction, is in conformity with the test specimen, the laboratory shall either oversee the fabrication of the test specimen or request an additional test specimen (see 6.5 of EN 1363-1). The auditor shall check whether this information is provided in the report(s).

5.8 Handling of test and calibration items

To be agreed with the lead auditor who verifies the procedures and practice on handling of test and calibration items.
The auditor should check whether application note 5.8 of EGA08 on procedures of control of the assembly of the test specimen and post-test verification are correctly applied.
The lab shall have and apply a procedure on handling deviations of test specimens from the declared design or construction by the sponsor.

5.9 Assuring the quality of test results

- *Check participation in EGOLF and/or other proficiency testing programmes, the results for the assessed labs and possibly the actions to be undertaken (5.9.1.b).*
- *In the absence of certified reference materials, does, for R2F, the laboratories retest retained items? Or compare to results from other labs.*

The technical assessor shall examine all of the following:

- *The correct use of accreditation and notification numbers.*
- *In detail the content and format of test and classification reports.*
- *The test and classification standards include a list of mandatory content and sometimes even the format of test and classification reports. Also the information required by § 5.10.2 of EN 17025 shall be included.*
- *The description of the test specimen, especially for FR tests, shall be verified on completeness. This description shall allow verification of conformity of a product put on the market and the specimen tested and therefore include an unambiguous identification of test elements and their relevant components.*
- *Attention is paid to a correct definition of the field of application of the test results / the classification.*
- *Test reports shall not include classification, which is the subject of separate classification reports, unless stated otherwise in the*

applicable standards.

- *All reports shall include explicit statements about all intentional or accidental deviations from the test /classification standard and the estimated influence on the results.*
- *Test / classification reports shall include explicit statements on the specimen sampling procedure.*
- *Test / classification reports shall be used by the technical assessor as one of the most important ways to evaluate technical knowledge and skills of the laboratory staff.*
- *Test reports shall not include opinions nor interpretations.*
- *For amendments/corrections of test and classification reports, respect of the EGOLF rules defined in EGA 08rev:2012 guidelines interpretation of EN ISO/IEC 17025 for fire laboratories shall be verified.*
- *For other type of test reports, clause 5.10/1 of EGA08 is applied.*