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FIRE RESISTANCE ASSESSMENTS

GUIDELINES FOR PERFORMING ASSESSMENTS IN LIEU OF FIRE RESISTANCE TESTS



THE EUROPEAN GROUP OF OFFICIAL LABORATORIES FOR FIRE TESTING

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Note: All laboratories performing or responsible for performing assessments in compliance to these guidelines shall be fully responsible for all problems or complaints arising from such assessments. EGOLF shall not be responsible in any respect for any complaints or actions arising.

Organisations that are not members of EGOLF may use the guidelines given in this document only with written permission from EGOLF and shall indicate in the assessment that these EGOLF guidelines have been followed.

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Foreword

EGOLF was formed in 1988 to provide a focus for collaboration between the official fire testing laboratories in Europe. It aims to advance the removal of barriers to trade in Europe, especially through mutual acceptance of fire test reports, supported by the adoption of consistent, high quality performance amongst its members. It also aims to provide a forum for discussion of problems related to fire tests (including the development of unified test methods, test reports, their assessment and their application) and to promote research and development in fire testing.

The Statutes of EGOLF were formally published in Moniteur Belge on 16.01.1997 under publication reference N928/97 "Associations sans but lucratif" - "Verenigingen zonder winstoogmerk". EGOLF members have a duty to follow these Statutes and their supplementary internal regulations.

Much of the guidance that supports fire safety legislation is given in terms of performance in relation to National or European Standards for products or methods of test or design or in terms of National or European Technical Approvals. Typically therefore a material, product or structure should:

- a] Be in accordance with a specification or design, which has been shown by test to be capable of meeting that performance;
- or
- b] Have been assessed from test evidence against appropriate standards, or by using relevant design guides, as meeting that performance.

EGOLF members when performing assessments in lieu of fire resistance tests shall follow the guidelines presented herein. Where comparable national guidelines exist then EGOLF members shall follow one or other of these guidelines, according to national priorities or requirements.

The performance of assessments following the guidance contained within this document will provide confidence to the customer that those assessments have been carried out with the necessary care and expertise and are appropriate for the intended use, particularly for regulatory purposes.

It will also provide a means whereby organisations and individual performing assessments in lieu of fire resistance tests will provide those assessments in a unified manner and thereby contribute to the technical aims and objectives of EGOLF.

THE EUROPEAN GROUP OF OFFICIAL LABORATORIES FOR FIRE TESTING

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1. INTRODUCTION

This document has been produced by EGOLF, the European Group of Official Laboratories for Fire Testing to provide guidelines against which assessments should be performed in lieu of fire resistance tests.

The aim of the document is to give confidence to end-users of assessments that those assessments produced by laboratories according to these guidelines are of a satisfactory standard to be used in lieu of fire tests for building control and other purposes.

Laboratories producing assessments in lieu of fire resistance tests, according to these guidelines, should satisfy the requirements of this document, particularly, in respect of the professionalism of those experts performing the assessments and the standard of quality management and technical performance of the laboratory itself.

These guidelines define the levels of complexity of different types of assessment, the requirements for organisations performing assessments, the requirements for individual performing such assessments and the procedure for undertaking assessments.

2. SCOPE

These guidelines relate to the production of assessments that are offered in the absence of specific fire resistance test results. Some areas where assessments may be offered are:

- Where a modification (e.g. size or configuration) is made to a construction, which has already been tested.
- Interpolation or extrapolation of results of a series of fire resistance tests or utilisation of a series of fire test results to evaluate a range of variables in a construction design or a product.
- Where, for various reasons it is not possible to subject a construction or a product to a fire test. However, it is necessary to have as reference a test result performed on a test specimen as close as possible to the building element or structure to be assessed.

Assessments will vary from relatively simple judgements on small changes to a product or construction through to detailed and often complex engineering appraisals of large or sophisticated constructions.

However, the assessment made will be based on a single product, which could possibly be tested to an existing European or national test method. The assessment does not include fire safety engineering assessments, which consider interactions between various building elements.

3. DEFINITIONS

3.1 Assessment

In the majority of cases covered by this document an assessment is the evaluation of the likely performance of a product were it to be subjected to a standard fire test (without performing that test). Examples include: assessing modest size increases in doors, changes in fixing centres, etc.

For the product to be given this type of assessment no significant product redesign or re-engineering is permitted.

All assessments should be subjected to a comprehensive review and check of the technical data, the reasoning and the derived opinion by a second person, the reviewer (see 3.7), who has the appropriate experience and expertise.

3.2 Engineering Appraisal

A technical evaluation of the likely fire performance of a building element or structure, which cannot be subjected to a standard fire test method. Examples include: large partitioning constructions: e.g. very high / wide glazed screens, composite high stud and plasterboard walls.

Structures requiring engineering appraisal require significant re-engineering of the product compared to what was tested. A different kind of assessment is needed, one that cannot rely solely on judgement / opinion but one which needs an additional input of engineering knowledge and experience.

All engineering appraisals should be subjected to a comprehensive review and check of the technical data, the reasoning and the derived opinion by a second person, the reviewer (see 3.7), who has the appropriate experience and expertise.

3.3 Assessment Appraisal Report [Engineering Appraisal Report]

The written report arising from an assessment or engineering appraisal.

3.4 Fire Test

A test performed to evaluate the fire performance of a material, product, assembly, building element or structure in accordance with a Standard Method.

3.5 Applicant

The person or body requesting an assessment or engineering appraisal.

3.6 Assessor

The person making the assessment or engineering appraisal, on behalf of the laboratory making the assessment or engineering appraisal, in response to a request from the applicant.

3.7 Reviewer

The person responsible for checking and confirming the validity of an assessment or engineering appraisal on behalf of the laboratory making the assessment or engineering appraisal.

3.8 Relevant Experience

Current [recent] experience of conducting fire resistance tests (as technical person in charge) and of undertaking assessments or engineering appraisals (as Assessor or Reviewer) on materials, products, assemblies or elements of structure relevant to the product or product group subject to assessment or engineering appraisal.

4. REQUIREMENTS FOR LABORATORIES RESPONSIBLE FOR PERFORMING OR REVIEWING ASSESSMENTS

The requirements for laboratories responsible for performing assessments or engineering appraisals and their review are as follows:

4.1 Professional Indemnity Cover

The laboratory should hold adequate professional indemnity insurance that covers all of its activities relating to the issuing of assessments and engineering appraisals in lieu of fire resistance tests.

4.2 Quality Management Requirements

The laboratory should have a nationally recognised quality management system, preferably one following the principles of EN ISO 9000 or EN ISO/IEC 17025: 2000 [EN 45001: 1989 whilst it is still operational].

That system shall include within its scope the performance of assessments or engineering appraisals in lieu of fire resistance tests. Its quality manual should contain a commitment to comply with all the requirements of these EGOLF guidelines.

The quality management system should require that the laboratory keeps records of the names and the fields in which all Assessors and/or Reviewers are permitted to provide assessments and engineering appraisals and to review the results of assessments and engineering appraisals, on behalf of that laboratory.

The quality management system should also require that the laboratory keeps records of the experience, competence, qualifications, responsibilities and details of 'Continuing Professional Development' of those individual performing assessments and engineering appraisals and reviewing the results of such assessments and engineering appraisals.

4.3 Responsibility for choosing Assessors & Reviewers

The selection of qualified individuals for performing assessments and engineering appraisals and for reviewing the results of such assessments and engineering appraisals should be made by a named individual within the laboratory [or by a named deputy (during periods of absence)]. Persons with this responsibility should be named in the laboratory quality manual.

5. REQUIREMENTS FOR INDIVIDUALS PERFORMING OR REVIEWING ASSESSMENTS

5.1 Experience and competence

The level at which Assessors and Reviewers may be permitted to operate should depend upon their experience and competence, particularly in respect of the building element or structure concerned (see clause 6).

Assessors and reviewers should ensure that the laboratory holds records of their experience and competence and regularly updated and reviewed by the laboratory.

5.2 Qualifications

The level at which Assessors and Reviewers may be permitted to operate should depend upon the qualifications they possess relevant to their ability to perform or review assessments or engineering appraisals (see clause 6). Assessors and reviewers should ensure that the laboratory holds records of their qualifications and regularly up-dated and reviewed by the laboratory.

5.3 Continued development of experience [“Continued Professional Development”].

All Assessors and Reviewers should maintain and continuously develop their professional status and experience (sometimes known as “Continued Professional Development”) through, for instance:

- Membership of professional bodies

- Conducting and / or watching relevant fire tests
- Attending and/or giving papers at conferences, workshops and seminars in appropriate fire related areas
- Reading appropriate trade and/or scientific journals
- Contributing to national and/or international standardisation.

Assessors and reviewers should ensure that records of their “continuing development of experience” are held by the laboratory and regularly up-dated and reviewed by the laboratory.

5.4 Levels of complexity of assessment

The level at which Assessors and Reviewers may be permitted to operate should depend upon the complexity of the assessment required. Definition and examples of differing levels of complexity of assessments are given in **Annex 2**.

5.5 Code and rules of conduct for Assessors and Reviewers

Assessors and Reviewers employed by a laboratory performing or responsible for performing assessments or engineering appraisals in lieu of fire resistance tests, in compliance with these guidelines, should follow the “Code and Rules of Professional Conduct for Assessors and Reviewers” given in **Annex 3**.

6. LEVELS OF ASSESSORS & REVIEWERS

All Assessors and Reviewers should be “experienced senior staff members” and should exhibit competence profiles relating to education and knowledge, experience, management abilities, communication skills and personal qualities such as those given in Annex 1, Section 3.

The level at which an individual Assessor and / or Reviewer may be permitted to operate should depend upon that individuals’ qualifications, experience and the complexity

of the assessment to be undertaken [refer to **Annexes 1 and 2** for details].

An example of qualifications for four levels of assessors & reviewers is given below. The laboratory may choose to adopt a greater or lesser number of levels depending upon its availability of personnel.

6.1 Level 1 - Principle Assessor / Reviewer [a 'professional']: a principle assessor / reviewer should be:

- An 'experienced technical manager' (see Annex 1, Section 2.2) [i.e. not a "people manager"].
- Highly experienced in the test method.
- Highly experienced in a wide range of different forms of construction.
- Able to undertake 'engineering appraisals' (see Annex 2).
- Experienced in reviewing assessments.

6.2 Level 2 - Senior Assessor/Reviewer [an 'expert']: a senior assessor / reviewer should be:

- An advanced 'technical manager', or, experienced 'technical specialist' or higher (see Annex 1, Section 2.2).
- Employed in a managerial or supervisory capacity [but not a "people manager"].
- Experienced in the test method.
- Experienced in a range of different forms of construction.
- Able to undertake 'complex assessments' (see Annex 2).
- Able to review assessments.

Level 2 Assessors are not qualified or permitted to undertake 'engineering appraisals'.

6.3 Level 3 - Assessor [demonstrates experience]: an assessor should be:

- An advanced 'technical specialist', or, experienced skilled 'laboratory technician' or higher (see Annex 1, Section 2.2) with experience in the test method.
- Able to work unsupervised.
- Able to show limited experience in different forms of construction.

- Able to undertake "intermediate complexity assessments" (see Annex 2).

Level 3 Assessors are not qualified or permitted to undertake 'complex assessments', 'engineering appraisals' or to review assessments.

6.4 Level 4 - Trainee Assessor [demonstrates awareness]: a trainee assessor should be:

- An 'advanced skilled laboratory technician' or higher (see Annex 1, Section 2.2) with relevant test experience.
- Able to undertake 'simple assessments' only (see Annex 2).
- Only undertakes 'simple assessments' under supervision.

Level 4 Assessors are not qualified or permitted to undertake 'intermediate complexity and complex assessments', 'engineering appraisals' or to review assessments.

7. PROCEDURE FOR UNDERTAKING OR REVIEWING ASSESSMENTS

Within this section the use of the term 'assessment' refers to both 'assessments (of all complexity types) and 'engineering appraisals'.

7.1 Application for Assessment

All requests for assessment should be made in writing. Any initial request made by facsimile, telex or e-mail should be subsequently confirmed by letter and should provide:

- A detailed specification of the proposed construction (e.g. reference to drawing numbers)
- Information about test results obtained from the closest specimen(s) to the proposed construction that has (have) been tested (for which the client has the rights of access) and disclosure of any evidence or data, whether favourable or otherwise, which may be relevant to the assessment.

- Information whether any other organisation or individual has been approached for an assessment of the same or similar construction
- Any other information relevant to the assessment of which the applicant is aware.

7.2 Selection of Assessor / Reviewer

Both Assessor and Reviewer, chosen by the responsible person (see clause 4.3), should have the appropriate qualifications, experience and responsibility (see clause 5) and be of the necessary level (see clause 6) for the complexity of the assessment being undertaken and the type of product / construction being assessed.

The assessment report should be subject to a comprehensive review of the technical data, the reasoning and the derived opinion by a 'Reviewer'. That 'Reviewer' should also possess the appropriate experience (see clause 5) be of the appropriate level and have relevant product expertise (see clause 6 and **Annex 2**).

7.3 Impartiality

Both the Assessor and the Reviewer should act with complete impartiality in their judgement. There should not be any:

- Any involvement of the assessor or reviewer in the design or development of the product or construction
- Any involvement with or attachment to a manufacturer or an industry sector relevant to the product or construction subject to the assessment.

7.4. Supporting Information

Supporting information to which reference is to be made during the assessment should be provided entirely by the applicant. Such information must be the property of the applicant or alternatively, the applicant must provide written authority from the owner of the information for it to be used.

Where supporting information provided by the applicant is not the original property of the applicant, or where the test report(s) provided

are not from the assessing laboratory, the Assessor should be given written authority from the applicant to approach directly both the owner of the information and the test laboratory(ies) that conducted the test(s).

Where an assessment has been provided (or declined) on the proposed construction, or on a similar construction by another body, the Assessor should be given written authority from the applicant to approach directly that body which provided or declined the assessment.

Supporting information, permitted to be used during an assessment or engineering appraisal, should be divided into two types, i.e. primary and secondary test information.

Primary information is test data obtained from one or more fire tests and is essential to the formulation of the assessment.

Secondary information is that which may be used to provide supplementary data or to fill gaps in knowledge. The following sources of supporting information should be used.

Primary information (which must come from test reports) should satisfy all four of the following criteria:

- The test from which the information is derived must be a full test to the standard against which the assessment is being based.
- The laboratory performing the test must be:
 - Accredited to EN ISO/IEC 17025 (EN ISO 9000 or EN 45001) for that particular test.

or

- An official or nationally approved laboratory to carry out that test and have a recognised quality management system, preferably one following the principles of EN ISO 9000, EN ISO/IEC 17025 [or EN 45001: 1989 whilst it is still operational]. In this case the test should have been witnessed by the assessing organisation.

- The laboratory performing the test should be independent of the business of the applicant.
- The test method, from which primary data older than 5-years had been obtained, should be reviewed by the assessor to ensure that it has not changed sufficiently over that period and thereby invalidate the applicability of that primary data. In case of any change to the test method the validity of the primary data needs to be confirmed.

Secondary information – should satisfy the following criteria:

- Secondary data may be other test reports
- Secondary data may be data published in codes and standards.

Test reports from foreign laboratories may be used in the assessment provided that they meet the above criteria and that the report is, either:

- Translated (if requested by the assessor and reviewer) into the national language of the assessor and that translation validated by the original laboratory.
- Translated but not validated by the original laboratory, and is accompanied by the original full test report in the foreign language.
- Not translated, in which case the assessor takes full responsibility for understanding the original test report in its' original language.

Assessments should not be based on other assessments. However, reference may be made to publicly available standard information (e.g. that contained in Industry Codes of Practice), if endorsed by the assessor/reviewer.

7.5 The Assessment Report

The assessment report should contain:

- Details of the applicant and the request for making the assessment.
- All information used in performing the assessment, including primary and secondary information, relevant correspondence from the applicant, drawings and specifications and any

calculation methods which may have been adopted.

- Reference to the test Standard and the version against which the assessment / review has been carried out.

The considerations of the Assessor should be adequately documented such that the user can understand the basis and technical justification of the opinion formulated. That opinion must be provided, clearly and unambiguously, in the same terms as required by the appropriate regulating authority.

Assessments may in some cases be valid only for a given part of the works or building. This will be clearly indicated in the assessment report, together with a definition of the actual scope of the validity of that assessment.

The assessment report should bear the following statement:

"This assessment is issued on the basis of test data and information to hand at the time of issue. If contradictory evidence becomes available to the assessing authority the assessment will be unconditionally withdrawn and the applicant will be notified in writing. Similarly the assessment is invalidated if the assessed construction is subsequently tested since actual test data is deemed to take precedence over an expressed opinion. This assessment is only valid for a period of time, defined by the appropriate Regulatory Authority, after which time it is recommended that it be submitted to the assessing authority for re-appraisal".

The signature page of the assessment report should include the following statement:

"This assessment report is not valid unless it incorporates the declaration duly signed by the applicant".

In this respect, that declaration, to be signed by the applicant for whom the assessment is carried out and included in the assessment report, should be of similar format to that given in Annex 4.

The assessment report should additionally contain statements [where appropriate] related

to the following:

- A statement stating that the assessment has been carried out in accordance with this EGOLF guidance document.
- If the report bears the EGOLF logo, the following statement should be included in order to comply with EGOLF requirements: "EGOLF bears no responsibility for the opinions and interpretations expressed in this assessment".

The Assessor and the Reviewer should both sign the assessment report.

8 Extending the validity of an Assessment

If requested by the applicant an Assessor may re-appraise an assessment with a view to extending its validity for a period of time beyond that defined by the appropriate Regulatory Authority.

The purpose of the re-appraisal is to ensure that current opinion, the basis of the assessment, the supporting information etc. upon which the original assessment was made remain current and consistent with current methodology. Any re-appraisal of an assessment should be conducted in accordance with this EGOLF guidance document.

ANNEX 1

QUALIFICATIONS AND EXPERIENCE OF ASSESSORS AND REVIEWERS

1 Introduction

It is generally agreed that personnel performing specific tasks in laboratories should be qualified on the basis of appropriate education, training, experience and/or skills, as required by the management or as resulting from the duties. In this context several problems arise:

- When one considers professional or academic levels of education or degrees and titles it becomes evident that in the European countries there are different philosophies and systems of education and vocational training.
- The level after having finished an educational path and the meaning of a title connected with this education differs from country to country. There are no harmonised European criteria to assess the titles and degrees coming from different schools and countries in Europe. They are not directly comparable and additional clarifications are needed in order to achieve comparability, [Council 1996-05-06(96/C 195/02)].
- There is no harmonised system for the acceptance and/or rejection of degrees and diplomas between European countries.
- There is not necessarily a uniform policy and procedures for laboratories to identify training needs and providing training of personnel throughout Europe [unless EN ISO/IEC 17025 (or EN 45001) fully implemented].
- There is not necessarily a uniform philosophy as to how to connect real assignments presented by the clients of a laboratory with the services and activities of the laboratory.
- There is not necessarily a uniform procedure applied by laboratories on how to assess the performance of a method on one hand and to decide whether it is appropriate for the task to be performed (for the needs of the laboratory's client) on the other.
- In the field of expert services, i.e. professional judgement (e.g. opinions, interpretations, predictions, simulations and models etc.) and professional advice. The client must be sure that in the field of his interest he can rely on the expert's technical competence and skills. The job description of the expert offering professional judgement or giving advice to the client should define the expert's responsibilities, theoretical and practical background, recent experience and specify the expert's integrity and reputation.

2 Description of the qualification of personnel

2.1 General observation

Personnel in a laboratory have to fulfil a number of tasks depending e.g. on the scope of the activities, the size of the laboratory, and the status of the laboratory with respect to its degree of independence and impartiality. In addition, the tests also depend on the individual responsibilities of the staff members.

When analysing the requirements a laboratory imposes on individual employees a certain pattern emerges. They must know something about the technical field (field competence), the methods to be used (method competence) as well as being able to co-operate and communicate (social competence).

These competence areas have been analysed in some more detail and they encompass e.g. the following:

Field competence

- basic knowledge
- knowledge of a special field
- interdisciplinary knowledge

Method competence

- ability to use, to combine or to create knowledge of a special field
- development of the ability of abstraction,
- readiness to learn thinking systematically,
- planning, solving problems and correct decision making.

Social competence

- ability for teamwork
- ability to co-operate
- ability to communicate
- tolerance
- sense of responsibility
- solidarity
- ability to set up an understandable description or presentation verbally or in writing
- ethical behaviour in the profession

In the following an attempt is made to relate competence and responsibilities for laboratory staff members and laboratory managers, respectively.

2.2 Laboratory staff

Competence and responsibility of staff members in a laboratory may be divided into e.g. 4 categories as follows. They refer to different levels of responsibilities. In each category, experience can be described under three levels called "basic", "experienced" and "advanced". The proposed number of years in the following chapters is only a hint and can differ from laboratory to laboratory but also depend on other circumstances.

A. Managerial level

a) "Basic" (acceptable)

The pre-requisite should generally be a university degree or a comparable level. The training should cover the specific technical field. In addition, sound training is required in quality management and basic economic issues and general principles of testing i.e. traceability, calibration, uncertainty, comparability, etc. Training in the production and usage of relevant products is also of benefit for better understanding of the product and the feasibility of the laboratory operations in the relevant field. Training in interdisciplinary fields is important for the general overview. Good knowledge of foreign language(s) is an advantage and is desirable.

b) "Experienced"

As above plus approximately two years of practical experience in several areas of the field for which the person is responsible. Training in communication is needed.

c) "Advanced"

With approximately five years practical experience in several areas of the field for which the person is responsible.

Training in communication and training in practical economic issues is needed. The person should have the ability to solve technical, logistic and managerial problems. Training in a foreign language is desirable.

Relevant publications and active work in national and/or international standardisation as well as

lectures at e.g. conferences and training courses are expected. Project management skill is also needed.

B. Technical specialist level

a) "Basic" (acceptable)

The pre-requisite should generally be an education to degree level, although not necessarily in a closely related subject. A Certificate from a technical school should be the absolute minimum requirement. Additional training in quality management and statistics and in general principles of testing is a pre-requisite. Basic knowledge in production methods of the relevant goods is necessary.

b) "Experienced"

With approximately two years of practical experience in the fields for which the person is responsible.

c) "Advanced"

With approximately five years practical experience in the fields for which the person is responsible, together with additional theoretical background knowledge of comparable measurement methods for which the person is not directly responsible. Ability to solve technical and logistic problems is needed.

C. Skilled worker level (laboratory technician)

a) "Basic"

A certificate of training as a technician or a skilled worker is necessary. Training in quality management and in an appropriate range of relevant test methods is needed.

b) "Experienced"

With approximately two years of practical experience in the fields for which the person is responsible. Ability to carry out tests without assistance and to cope with problems arising from test items, testing instruments etc. is needed.

c) "Advanced"

With approximately five years of practical experience in the fields for which the person is responsible. Ability to carry out tests, even difficult ones without assistance and to cope with problems arising from test items, testing instruments etc. is needed.

D. Assistant level

a) "Basic"

Certificate as an assistant (laboratory support staff) or an adequate level of school education is a pre-requisite. Training in the specific methods, standards and Standard Operating procedures within the person's working field is needed together with basic training in quality management.

b) "Experienced"

With approximately two years of practical experience in the fields in which the person is working. Ability to carry out tests under supervision is the pre-requisite.

c) "Advanced"

With approximately five years of practical experience in the fields in which the person is working. Ability to carry out tests under supervision is the pre-requisite.

3 Personnel carrying out expert judgement

Expert judgement is mainly related to inspection activities (EN 45004) and research activities in the sense of giving opinion on test results and interpretation. Expert judgement must not at all be confused with evaluation in certification activities.

Experts and their activities have a different legal status in different EU and EFTA member countries. Experts play an important role in many fields and are expected to fulfil a number of obligations, such as:

- Independence
- Integrity
- Impartiality
- Active in a relevant international and /or national field
- Experience (provable) in testing and inspection of relevant goods etc.

The technical expert can in principle be an individual or an employee. However, in many cases more credit is given if the expert belongs to a third party testing laboratory or inspection body as the expert can call on the collective knowledge of the whole organisation.

An expert should almost by definition belong to the highest category (level) of staff and should exhibit the following competence profile:

3.1 Education and knowledge

- Sound education, preferably a degree or equivalent qualification in a relevant scientific or technological discipline
- Theoretical knowledge as well as basic knowledge of mathematics, simulation and modelling methods, prediction methods, and reliability techniques
- Knowledge of recent literature

3.2 Experience

- Vocational activity of at least four years, including at least two years performing tests in technical fields covered by the activities of the laboratory
- Professional experience in outlining, design, planning, calculation, construction, development and research related to the activities
- Professional experience in cases of failure and damage, in a wide range including border zones of application and in case study exercises
- Knowledge of e.g. testing, measurement and inspection techniques as well as estimating applicability of methods and procedures
- Recent experience in expert judgement activities

3.3 Management abilities

- Knowledge of quality systems to be used in calibration or testing laboratories, gained through practical experience and/or attending relevant training course
- Experience in managerial duties preferred.

3.4 Communication skills:

- Ability to negotiate skilfully
- General aptitude for describing complex connections of facts in an understandable way, verbally and/or in writing
- Ability to communicate and co-operate in teamwork (acceptable from the view of human aspects)
- General aptitude for the generalisation of coherent facts in the field of testing, ability to create

new ideas.

3.5 Personal qualities:

- Perseverance and persistence
- Capability to observe, analyse, recognise and arrive at conclusions without delay
- Self control
- Good ethical behaviour in the profession.

This annex is an extract from Eurolab Report No. 2/99, "An analysis of the competence, qualifications, responsibilities and authorisations of personnel involved in testing, investigations and expert judgement".

ANNEX 2

LEVELS OF COMPLEXITY OF ASSESSMENTS

Four (4) different levels of assessment, performed in lieu of a fire resistance test, have been identified. These are, (in decreasing order of complexity):

'Engineering Appraisals' [the highest level of complexity]

The technical evaluation of the likely fire performance of a building element or structure, which cannot be subjected to a standard fire test method. Such appraisals require a different kind of assessment, one that does not rely solely on judgement / opinion but one which needs an additional engineering input. Examples of constructions requiring 'engineering appraisals' are:

- Large partitioning constructions e.g. high/wide glazed screens, composite high stud and plasterboard walls and curtain walls that cannot be tested due to the limitations of current fire testing equipment, large ducting systems etc.

'Engineering Appraisals' can only be undertaken by level 1 Assessors. Such 'engineering appraisals' must be reviewed by independent level 1 Reviewers [see clause 6 for definitions of levels of assessor].

'Complex Assessments'

Assessment of complex and significant multiple changes to a group of tested products or constructions. Such assessments often rationalise the results of several tests in a 'Global' assessment to cover ranges of products in different combinations and permutations. Such changes are always fundamental to the fire performance of the product or construction being assessed. Examples of 'complex assessments' are:

- Interpolation/extrapolation of a range of tests on fire doors to cover a large range of sizes or different configurations (single/double doors, single/double action, side panels, and unequal pairs)
- Interpolation/extrapolation of a range of test data to cover the fire resistance performance of different thicknesses of a product.

'Complex assessments' can only be undertaken by either level 1 or 2 Assessors. Such 'complex assessments' must be reviewed by independent level 1 or 2 Reviewers [see clause 6 for definitions of levels of assessor].

'Intermediate Complexity Assessments'

Assessment of less complex but significant changes to a tested product or construction. Such changes may be critical to the fire performance of the product or construction being assessed. Examples of 'intermediate complexity assessments' are:

- Changes to major components e.g. facing materials, framing studs in a partition system
- Substitution of critical items of ironmongery and/or intumescent strips in fire doors

'Intermediate complexity assessments' can be undertaken by Assessors of level 3 and above. All 'intermediate complexity assessments' must be reviewed by independent level 1 or 2 Reviewers [see clause 6 for definitions of levels of assessor].

'Simple Assessments' [the lowest level of complexity]

Assessment of relatively minor changes to a tested product or construction. Such changes should not be critical to the fire performance of the product or construction being assessed. Examples of 'simple assessments' are:

- Substitution of non-critical items of ironmongery to fire doors
- Minor changes to the fixing centres of a partition or external wall

'Simple assessments' can be undertaken by Assessors of all levels. All 'simple assessments' must be reviewed by independent level 1 or 2 Reviewers [see clause 6 for definitions of levels of assessor].

ANNEX 3

CODE AND RULES OF CONDUCT FOR ASSESSORS AND REVIEWERS

1. INTRODUCTION

Fire test laboratories have objectives that relate to increasing the competence and professionalism of their staff members. Consequently, the standing of fire test laboratories as a whole is enhanced, if such laboratories employ staff to conduct and review assessments that are not only well qualified, but also have a professional commitment to excellence in their work and in their dealings with other people.

This Code of Conduct is designed to embody broad ethical principles is necessarily drawn up in general terms.

These Rules of Conduct define the behaviour of persons from the organisation performing or responsible for performing assessments, in lieu of fire resistance tests and reviewing assessments in general situations. However, in exception to these rules, the guiding principle is that the interests of the wider community should prevail over those of the individual from the responsible organisation.

2. CODE OF CONDUCT

Every Assessor and Reviewer employed by an organisation performing or responsible for performing assessments, in lieu of fire resistance tests, should conduct himself or herself at all time so as to uphold the dignity and reputation of their profession and to safeguard the general public. They should exercise their professional skill and judgement to the best of their ability and discharge their professional responsibilities with integrity.

3. RULES OF CONDUCT

3.1 Professional Competence and Integrity

When discharging their professional duties every Assessor and Reviewer employed by an organisation performing or responsible for performing assessments, in lieu of fire resistance tests, in terms of professional competence and integrity, should:

- have the responsibility to upgrade their professional skill. They should maintain adequate awareness of current technical developments, standards, procedures and regulations. They should encourage subordinates to do likewise.
- not knowingly act for a client for whom an Assessor or Reviewer employed by a different organisation is acting in the same matter until either the first contract has been terminated by the client or the other organisation has consented to his / her involvement.
- not maliciously or recklessly injure or attempt to injure, whether directly or indirectly, the professional reputation of another.

3.2 Public Interest

When discharging their professional duties every Assessor and Reviewer employed by an organisation performing or responsible for performing assessments, in lieu of fire resistance tests, in the public interest, should:

- not do anything, or permit under their authority anything to be done, which the probable and involuntary consequences thereof would, in their professional judgement, endanger human life or safety, expose valuable property to risk of destruction or serious damage, or needlessly pollute the environment, except when legally authorised to do so.

- respect all relevant laws and statutory regulations in their work.

3.3 Duty to employers

When discharging their professional duties every Assessor and Reviewer employed by an organisation performing or responsible for performing assessments, in lieu of fire resistance tests, in terms of duty to their employers, should:

- satisfy themselves as to their scope, obtaining in advance if necessary any clarification or confirmation, and should not accept assessments or reviews which they believe they do not have sufficient competence, authority or experience to perform.
- accept all responsibility for all work carried out by themselves, or under their supervision or direction, and should take all reasonable steps to ensure that all persons working under their authority are competent to carry out the tasks allotted to them and that they accept responsibility for work done under the authority delegated to them.
- disclose to their client or employer any benefits or interests that they may have in any matter in which they are engaged.
- neither communicate to any person, nor publish any information or matter not previously known by him or published in the public domain, which has been communicated to him in confidence by a client or employer without the express authority of that client or employer.
- not offer, give or receive inducement (financial or otherwise) to / from a third party in return for the introduction of clients or professional assignments without making such actions known to the client.

ANNEX 4

DECLARATION BY THE APPLICANT

This declaration applies only when the assessment or review performed in lieu of fire tests has been carried out by the laboratory according to the “EGOLF Guidelines for performing assessments in lieu of fire resistance tests”.

Assessment Reference No.

We the undersigned confirm that we have read and complied with the following obligations placed on us by the “EGOLF Guidelines for performing assessments in lieu of fire resistance tests”.

We confirm that the building element or structure, which is the subject of this assessment, has not to our knowledge been subjected to a fire test to the Standard against which this assessment is being made.

We confirm that we are not aware of any undisclosed information that could affect the assessment process and hence, the conclusions reached by the assessor.

If we subsequently become aware of any such information we agree to withdraw this assessment from circulation and use for regulatory purposes, where applicable.

We also agree to withdraw this assessment from circulation and use for regulatory purposes, where applicable, should the building element or structure, which is the subject of this assessment, be tested to the fire test standard against which this assessment is being made.

Signed:

For and on behalf of: