EA-6/02 • EA Guidelines on the use of ISO/IEC 17065 and ISO/IEC 17021-1 for Certification to EN ISO 3834



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# EA Guidelines on the use of ISO/IEC 17065 and ISO/IEC 17021-1 for Certification to EN ISO 3834

#### PURPOSE

The purpose of this document is to provide the basis for the harmonisation of the audit of welding fabricators under accreditation by members of the European co-operation for Accreditation (EA).

#### Authorship

This document has been prepared by the Joint Working Group of EA and the European Federation for Welding, Joining and Cutting (EWF).

#### Official language

The text may be translated into other languages as required. The English language version remains the definitive version.

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#### 1. SCOPE

EN ISO 3834 defines quality requirements for welding both in workshops and on site, and is appropriate when demonstration of a manufacturer's capability to produce welded construction in accordance with specified criteria is required; it can also be used as the basis for assessing a manufacturer's welding quality arrangements.

The properties of welded products cannot be confirmed by testing alone, assurance is gained by controlling the production process. If the welding production processes are controlled in accordance with EN ISO 3834 it is recognised that the quality of the welds in the final product will meet the specified criteria.

EN ISO 3834 'Quality requirements for fusion welding of metallic materials' (reference 6) is in six parts:

Part 1 Criteria for the selection of the appropriate level of quality requirements Part 2 Comprehensive quality requirements Part 3 Standard quality requirements Part 4 Elementary quality requirements Part 5 Documents with which it is necessary to conform to claim conformity to the quality requirements of EN ISO 3834-2, EN ISO 3834-3 or EN ISO 3834-4 Part 6 Guidelines on Implementing EN ISO 3834

The General Assembly of EA has confirmed that the evaluation and certification of the welding capability of a manufacturer in accordance with the requirements of EN ISO 3834 Part 2, 3, or 4, can be provided either as an integral part of EN ISO 9001 audit and certification (EN ISO/IEC 17021-1), or as a stand-alone audit and certification of the welding operations and associated activities which influence the integrity of welds (EN ISO/IEC 17065). In both cases, meaningful certification should provide interested parties with a clear statement of the manufacturer's capability to produce welded construction.

EA guidance on EN ISO 3834 evaluation and certification is required because welding is a special process and the evaluation of all the welding related activities and welding process operations implemented by the manufacturer to achieve the required welding quality requires particular attention to the requirements of the conformity assessment scheme (CAS) and the competences of the audit team.

Since both audit routes require the rigorous evaluation of welding controls and associated activities, the auditor's qualifications, and requirements for audit in these guidelines apply to both routes.

In conjunction with EN ISO 9001 standard the audit should be of sufficient depth and rigour to evaluate and confirm that the required EN ISO 3834 controls are exercised over all aspects of the welding operations appropriate to the manufacturer's range of activities covered by the scope of QMS certification.

A similar rigorous audit of the welding controls and activities in accordance with EN ISO 3834 – Part 2, 3, or 4 as a stand-alone audit should confirm the adequacy of welding controls to achieve the specified welded product quality requirements.

The applicable part of EN ISO 3834 (Part 2, 3, or 4) for stand-alone audit and certification of the welding operations and activities (EN ISO/IEC 17065) will depend on the nature of the welding activities required to meet the agreed specifications and influenced by how critical the welding operations are to the quality and fitness of the final product.

EN ISO 3834 is not certification of the final product, and therefore use of marks on the product is not permitted. Any certification/declaration issued by the manufacturer must confirm which part of EN ISO 3834 has been applied.

Please note that this does not prevent the certified manufacturer making a statement as being certified to EN ISO 3834 in accordance with EA/EWF guidelines.

Fulfilment of Section 6 of EN ISO 3834 Part 1 shall be assessed in case of seeking certification according to EN ISO 3834 Part 2 or Part 3.

Where related activities are covered by accredited conformity schemes and standards, for example certified welders; welding engineers and weld inspectors under ISO/IEC 17024, these shall also be utilised in addition to this document.

For welders, NDT inspectors and welding inspectors, full recognition shall be given to accredited, third-party conformity assessment schemes in accordance with EN ISO/IEC 17024 and relevant industry standards, without additional role competence assessment.

Only accredited conformity assessment bodies (CAB) with an accredited conformity assessment scheme in accordance with this document shall make conformity statements to EN ISO 3834.

The term 'audit' is used extensively through this document, this should be read as referring to all evaluation techniques used for the evaluation of conformity for the requirement in question for conformity, (references 4).

The term "shall" is used throughout this document to indicate those provisions which, reflecting the requirements of ISO/IEC Guides, are mandatory.

The term "should" is used to indicate guidance which, although not mandatory, is provided as a recognised means of meeting the requirements.

These Guidelines have been drawn up with the assistance of EWF.

#### 1.1 Definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 17000 and the following apply.

**EN ISO 3834 Conformity assessment scheme (CAS)**: Scheme operated by the Conformity assessment body (CAB) for the certification of a manufacturer's welding activities in accordance with EN ISO 3834 including the process for competence evaluation of applicant EN ISO 3834 Auditors, Technical Experts, Audit Team and Lead Auditor.

**EN ISO 3834 Competence Evaluation Process:** A process involving competent person(s) for the evaluation of applicant EN ISO 3834 Auditors and Technical Experts, see clause 4.2.

**EN ISO 3834 Auditor**: Person used by the conformity assessment body who conducts EN ISO 3834 conformity assessment audits and satisfies the criteria given in clause 4.1.

**EN ISO 3834 Audit Team**: One or more EN ISO 3834 auditors, supported if needed by EN ISO 3834 technical experts, appointed by the conformity assessment body, which assesses the manufacturer for compliance with the EN ISO 3834 conformity assessment scheme. Note: One auditor of the audit team is appointed by conformity assessment body as the audit team leader.

**EN ISO 3834 Technical Expert**: Person used by the conformity assessment body who provides specific welding knowledge to the EN ISO 3834 audit team and satisfies the criteria given in clause 4.1.

**Authenticated experience:** Demonstratable experience in the auditing of a company for the EN ISO 3834.

International/European Welding Engineer (I/EWE) and International/European Welding Technologist (I/EWT): The qualifications defined in references section.

#### 2. REFERENCES

- 1. EN ISO/IEC 17021-1, Conformity assessment Requirements for bodies providing audit and certification of management systems Part 1: Requirements.
- 2. EN ISO/IEC 17065, Conformity assessment Requirements for bodies certifying products, processes and services.
- 3. EN ISO/IEC 17067, Conformity Assessment Fundamentals of product certification and guidelines for product Conformity assessment schemes.
- 4. EN ISO/IEC 17000, Conformity assessment Vocabulary and general principles.
- 5. EN ISO 19011, Guidelines for auditing management systems
- 6. *EN ISO* 3834, Quality requirements for fusion welding of metallic materials, Parts 1, 2, 3, 4, 5 and 6.
- 7. EN ISO 14731, Welding coordination Tasks and responsibilities

- 8. EA-1/22 A-AB, EA Procedure and Criteria for the Evaluation of Conformity Assessment Schemes by EA Accreditation Body Members.
- 9. IAF MD 4, IAF Mandatory Document for the Use of Information and Communication Technology (ICT) for Auditing/Assessment Purposes.
- 10. IAB 252, IIW Guideline for International Welding Engineers, Technologists, Specialists and Practitioners Personnel with Qualification for Welding Coordination Minimum Requirements for the Education, Examination, and Qualification
- 11. IAB-341, IIW Scheme for Certification of Welding Personnel Rules for Implementation of IIW Scheme for Certification of Welding Personnel.

#### 3. GENERAL REQUIREMENTS

Conformity assessment body shall establish a conformity assessment scheme for evaluation and certification based on the requirements of EN ISO 3834. The conformity assessment scheme shall be evaluated by EA Accreditation Body Members (reference 8) and provide criteria for chosen the baseline of conformity assessment (EN ISO/IEC 17021-1 or EN ISO/IEC 17065).

Scheme Owners (SO), e.g. conformity assessment bodies, may need to specify further details on how evaluation/auditing will be performed in their respective certification.

#### 4. **RESOURCE REQUIREMENTS**

This section provides the requirements for personnel involved in the certification activities for EN ISO 3834.

The conformity assessment body shall have sufficient, competent personnel for managing and supporting all activities for the EN ISO 3834 Conformity assessment scheme.

## 4.1 Qualification and experience requirements of EN ISO 3834 Auditors and EN ISO 3834 Technical Experts

Applicant EN ISO 3834 Auditors:

- a) shall be competent in quality management system auditing (for example in accordance with EN ISO 19011), and
- b) shall have a minimum of three years' experience in the field of welding within the last five years.

Applicant EN ISO 3834 Technical Experts shall:

- a) be recognised by the Conformity assessment body as experienced specialists in a specific welding field, or trained and qualified to the level of I/EWE or equivalent, or for group1, 2, 8 and 22 without PWHT (Post Welding Heat Treatment) to the level of I/EWT or equivalent, and
- b) *be able to demonstrate* current work experience spanning at least three years in fabrication by welding,

c) be qualified and experienced in welding to a level that is sufficient to demonstrate that he/she is competent to assess the competence of the manufacturer's welding coordinator(s) in accordance with EN ISO 14731, 'Welding co-ordination – tasks and responsibilities' (reference 7).

## 4.2 Competence Evaluation of applicant EN ISO 3834 Auditors and Technical Experts

Applicants shall provide the following documentation, as applicable, to the Conformity assessment body:

- i) curriculum vitae including details of training and qualifications
- ii) experience in the field of welding (including a brief description of each major employment, preferably supported by relevant documentation from the employer)
- iii) experience in quality management systems (including a brief description of each major employment, preferably supported by relevant documentation from the employer or other body(ies)) This requirement could be exempted for Technical Experts.
- iv) Professional integrity of applicant including his/her independence, impartiality, objectivity, reliability, confidentiality, and freedom from influence shall verified.

The Evaluation System shall be used to evaluate compliance of the applicants' professional profile with the qualification and experience requirements, by examination of the above documentation.

The competence evaluation team should consist of competent persons who should be qualified to the level of I/EWE or equivalent, or for group1,2 and 8 without PWHT to the level of I/EWT or equivalent and have a minimum of three years' immediate past experience (in the last five years) in welding at the level of professional engineer in one or more of the following environments: university, industry or national welding body.

Note: The term equivalent states for comparable generally accepted qualification.

#### 4.3 Orientation meetings

In order to provide the applicant EN ISO 3834 Auditors and Technical Experts with exhaustive information on the EN ISO 3834 Conformity assessment scheme, the Conformity assessment body shall organise a specific orientation meeting that all applicant EN ISO 3834 Auditors and Technical Experts are required to attend (see clause 5).

#### 4.4 Interview

Applicant EN ISO 3834 Auditors and Technical Experts who have satisfactorily completed steps 4.2 and 4.3 above shall undergo a Professional Interview covering the subjects related to the qualification and experience requirements and the EN ISO 3834 Conformity assessment scheme. The Professional Interview should be conducted by one or more competent person(s) as defined under 'EN ISO 3834 Competence Evaluation Process' see Definitions, clause 4.2.

In the case of a positive result, the approved EN ISO 3834 Auditors and EN ISO 3834 Technical Experts should be registered in a manner that indicates their specific experience of different welded products, processes and materials.

#### 4.5 Maintenance of proficiency

The EN ISO 3834 Auditors and Technical Experts shall maintain their proficiency through:

- active participation in relevant audit activities
- sufficient updating and/or refreshing of knowledge and understanding of the relevant standards and scheme procedures

#### 4.6 Lead Auditor requirements

Adding to the requirements and steps defined in points 4.1 to 4.4 the EN ISO 3834 Lead Auditor shall have authenticated experience in the EN ISO 3834 Conformity assessment scheme. The Conformity assessment body shall be able to demonstrate that appointed EN ISO 3834 Lead auditors are competent to lead EN ISO 3834 audits.

#### 5. REQUIREMENTS FOR KNOWLEDGE OF THE CERTIFICATION SCHEME

#### 5.1 Introduction

The Orientation Meetings are designed to provide the applicant auditors and technical experts with adequate information on the EN ISO 3834 conformity assessment scheme.

The following Orientation Meeting Syllabus is intended as a "minimum"; each conformity assessment body may give more extensive information as it sees fit.

#### 5.2 Orientation Meeting Syllabus

#### Items

#### Certification standards and accreditation systems

- Conformity assessment body: general organisation and procedures
- Comparison between EN ISO 3834 and EN ISO 9001
- Relationship of EN ISO 3834 to EN ISO/IEC 17065 or EN ISO/IEC 17021-1
- Procedures for the evaluation and registration of Auditors and Technical Experts
- EA and Conformity assessment body's interpretation of EN ISO 3834

#### Manufacturers management and evaluation according to EN ISO 3834

- Process, product and system standards
- Structure of the standard;
- Criteria for choosing the application level
- Interpretation of requirements
- Specific characteristics of the personnel involved
- Procedures for Manufacturer audit and certification according to EN ISO 3834
- Procedures for evaluation of welding co-ordinators according to EN ISO 14731

#### Audit activities

- General criteria according to EN ISO 19011
- Specific criteria for quality management systems and for EN ISO 3834
- Drafting of audit plans and programs
- Questionnaires for audit and use of checklists
- Drafting of the audit **report**

## 6. PROCESS REQUIREMENTS FOR AUDITS OF MANUFACTURERS IN ACCORDANCE WITH EN ISO 3834 PARTS 2, 3 AND 4.

Following criteria and methods shall be used by conformity assessment bodies to evaluate a manufacturer in accordance with the EN ISO 3834 Conformity assessment scheme.

#### 6.1 Procedure

#### 6.1.1 Information phases and audit planning

It is important for the Conformity assessment body to acquire sufficient initial information from the manufacturer so that it can:

- Accurately estimate the scope and cost of the task.
- Distinguish the different levels of welding quality.
- Ensure that appropriate EN ISO 3834 Auditors and/or Technical Experts are appointed.

The EN ISO 3834 Audit Team shall contain persons with direct product/process/materials competence in the products/processes/materials being audited, and contain at least one individual who is qualified at the level of the Technical Expert (see clause 4.1).

The number of auditors constituting the EN ISO 3834 Audit Team (one or more persons) depends on the specific circumstances of the audit (e.g. size of the welding department (in function of WPQR and welder/welder operator approval) of the manufacturer, the complexity of its processes, etc).

The EN ISO 3834 Audit Team shall ensure that the aggregate of their detailed qualifications, knowledge and experience is adequate and relevant for the tasks involved in the proposed audit.

If it is proposed/decided to use only one person to conduct the audit, this person shall fulfil the requirements for both the EN ISO 3834 Lead Auditor and the Technical Expert. (also to be considered under 4.6)

#### 6.1.2 Audit phase

Conformity assessment scheme shall content an audit programme for evaluation in accordance with the requirements of EN ISO 3834. Conformity assessment body shall establish audit questionnaires list which covers the requirements of the chosen part of EN ISO 3834 and is appropriate to the manufacturer's welding processes and products.

The EN ISO 3834 Audit Team shall ensure that all the requirements of the chosen part of EN ISO 3834 are audited through interviews, examination and analysis of documents by direct observation of the activities in the manufacturer's plant, and by inspection of the welded product and weldments. Appendix 1 contains guidance on supporting activities regarding the development of questionnaires.

Special care shall be taken by the EN ISO 3834 Audit Team when assessing the competence of the manufacturer's appointed welding co-ordinator(s) in accordance with EN ISO 14731 (reference 7). The appointed welding coordinator(s) shall comply with EN ISO 14731. The conformity assessment scheme shall include procedures, which demonstrate that this important aspect of EN ISO 3834 is properly evaluated. Such procedures shall take into consideration of the following criteria:

- a) If an EWF/IIW qualification is available (E/IWE, E/IWT, E/IWS) the welding coordinator(s) could be accepted provided there is an adequate experience and competence in the applied processes, products being manufactured to be verified by means of a professional interview\* with manufacturer's welding coordinator(s) and examination of the welding coordinator's curriculum vitae and the review of the Continuing Professional Development (CPD).
- b) Welding coordinators with EWF/IIW Personnel Certification (CE/IWE, CE/IWT, CE/IWS) with a schedule supporting the scope of work allocated to the welding coordinator, may also be accepted provided adequate experience and competence in the applied processes, products being manufactured are verified by means of a professional interview\* and the review of the Continuing Professional Development (CPD).
- c) If none of the above EWF/IIW certifications or qualifications are available, additional to the professional interview\* the conformity assessment body shall verify compliance based on an 'extended interview' according to EN ISO 14731 to accept the level of knowledge determined by the manufacturer. Furthermore the understanding of welding technology, materials, design fundamentals of welded construction, and fabrication and inspection aspects (including knowledge of standards) relevant to the applied processes

and the products being manufactured (equivalent knowledge at the level I/EWE or I/EWT). If such extended interview is satisfactory, the technical scope of the welding coordinator(s) responsibilities (according to the EN ISO 14731 annex B) and the interview should be accepted by conformity assessment body.

The professional interview<sup>\*</sup> process shall involve the examination of specific contract(s) to Audit compliance with the customer's specification in, for example, the following areas:

- i) selection/development of welding procedures
- ii) welding sequences
- iii) NDT and heat treatment
- iv) approval of personnel
- v) traceability
- vi) quality control and acceptance
- vii) sub-contracting
- \* This means that technical discussions must take place between each responsible Welding Co-ordinator and Audit Team (see section 6.1.1) regarding the detailed technical scope of the Welding Co-ordinator's responsibilities and the interview should take the form of a peer review and challenge process. This process will require the Audit Team to examine evidence of completed work done by each Welding Co-ordinator and to investigate his/her knowledge and understanding of it. The Conformity assessment body shall maintain full records of the process of evaluation of the manufacturer's welding co-ordinator(s).

In order to achieve full conformity to EN ISO 3834 Part 2, 3, or 4, a manufacturer is required to conform either to the ISO documents listed in EN ISO 3834 Part 5, Section 2.2, to other documents that can be demonstrated to provide technically equivalent conditions, or to other documents that are referenced in the product standards for the products being made by the manufacturer.

Conformity assessment bodies shall ensure that any certificates of conformance to EN ISO 3834 that they issue clearly identify the documents used by the manufacturer. The way of doing this shall be covered by conformity assessment scheme.

Although EN ISO 3834 refer to 'inspection' and 'testing', it does not specify criteria for organisations performing these activities. The results of inspections and tests carried out by the manufacturer, or by sub-contractors, and presented as objective evidence to confirm satisfactory process controls and/or achievement of specification requirements should be fully audited by the Conformity assessment body.

The EN ISO 3834 Audit Team shall confirm that the manufacturer's and/or sub-contractor's facilities and personnel performing the evaluation activities, shall meet the applicable requirements of the relevant International Standards and, as specified by the conformity assessment scheme, any other documents. For testing, the manufacturer or sub-contractor shall meet the applicable requirements of EN ISO/IEC 17025 and for inspection, shall meet the applicable requirements for EN ISO/IEC 17020.Testing and inspection personnel shall be observed and interviewed by EN ISO 3834 Audit Team and it shall be checked if current

qualifications (e. g. NDT Certificates) and, where necessary, physical capability (e.g. eye examination) are kept on file by manufacturer.

A finding of nonconformity shall be recorded by EN ISO 3834 Audit Team against a specific requirement, and shall contain a clear statement of the nonconformity, identifying in detail the objective evidence on which the nonconformity is based. Any nonconformities shall be presented in such a manner that they are understood, and the timeframe for responding shall be agreed. The requirements for handling of nonconformities including responses, corrective actions and any consequences relating to the status of the manufacturer's certification shall be documented in the conformity assessment scheme.

In case of combined certification ISO 9001 and EN ISO 3834 the audit of both standards shall be conducted as combined or integrated audit (see EN ISO/IEC 17021-1).

#### **Certification phase**

The Report of the EN ISO 3834 Audit Team shall be submitted to the conformity assessment body. If certification is recommended, a competent, independent, decision-maker, appointed by the conformity assessment body has the responsibility to decide on the issue of a certificate and on the scope of certification. The individual (s) appointed to conduct technical aspects of certification decision and scope of certification shall not be involved in the audit.

Persons responsible for technical aspects of the review shall have appropriate competence; at minimum an E/IWE or E/IWT diploma or equivalent (see Note in clause 4.1) and at least three years of experience in welding coordination at comprehensive level.

#### 6.2 Validity

EN ISO 3834 certificates issued in combination with EN ISO 9001 under EN ISO/IEC 17021-1 accreditation have a validity of three years beginning with the certification or recertification decision.

EN ISO 3834 certificates issued under EN ISO/IEC 17065 accreditation have a validity of no more than five years from the date of issue, subject to satisfactory surveillance. Re-certification is required accordingly, at which time the manufacturer must follow the same procedure as for initial application and certification.

#### 6.3 Surveillance

Conformity assessment scheme shall contain the process for periodic surveillance of EN ISO 3834 certified manufacturer(s) in accordance to the requirements of EN ISO/IEC 17021-1 or EN ISO/IEC 17065. The process shall be based on consideration of risk assessment about manufacturers processes and products, including decision regarding frequency of audits and use of Information and Communication Technology (ICT). If ICT is applied by conformity assessment body, the requirements of IAF MD 4 shall be fulfilled (Reference 9).

Conformity assessment body shall request to be informed that the EN ISO 3834 certified manufacturer(s) notify the CAB whenever any critical changes to the manufacturer's processes and/or products occur, e.g.:

- changes in the scope and/or design of products manufactured,
- changes in the application of or range of welding processes used,
- changes in the grades of materials welded or notable increases in existing material thicknesses,
- changes in welding coordinators or their authority,
- changes in organisation and its management to control welding activities
- performance in relation to achievement of delivery schedules,
- performance in relation to extent and type of nonconformity
- changes in regulatory requirements

If critical changes occur, conformity assessment body shall initiate suitable activities to verify continuing conformity with the EN ISO 3834.

In all cases, the surveillance period of 12 calendar months (with a tolerance of an additional 3 months) shall not be exceeded. For the first certification cycle (period from 1<sup>st</sup> certification until 1<sup>st</sup> renewal), a surveillance visit shall be carried out after 12 months. After the first surveillance visit, the frequency of on-site surveillances shall be reviewed. If nonconformities are identified that raise concern for the clients' ability to comply with all the requirements then the frequency of on-site surveillance very 12 calendar months. If no nonconformities are raised and no changes to scope applied for, then on-site surveillance frequency may be reduced to a minimum of one visit every 36 months, at the discretion of the CAB.

Any statutory regulations e.g. PED (2014/68/EU) or the CPR (305/2011) shall also be followed.

#### 6.4 Recertification

Conformity assessment scheme shall contain the process for evaluation of recertification of EN ISO 3834 certified manufacturer(s) in accordance to the requirements of EN ISO/IEC 17021-1 or EN ISO/IEC 17065.

The recertification audit shall be planned and conducted on-site in due time to enable for timely renewal before the certification expiry date.

#### 6.5 Records

Conformity assessment body shall maintain records on the audit and other certification activities for all clients, including all organisations that submitted applications, and all organizations audited, certified, or with certification suspended or withdrawn.

#### APPENDIX 1 GUIDELINE FOR QUESTIONNAIRES ON QUALITY REQUIREMENTS FOR WELDING

The list of questions given below is developed together with EWF based on EWF-638/9. This is not a complete list of the requirements of EN ISO 3834, but is designed to present the overview of the requirements of EN ISO 3834 Part 2.

Certification Bodies are required to develop their own questionnaires which covers the requirements of the relevant Parts of EN ISO 3834.

The guidance below can be used as a basis for, but will not in themselves provide a complete, questionnaire.

The Questionnaires should be formulated in such a way that the manufacturer, as part of the Information Phase, can provide answers to the questions, which can then be evaluated by the EN ISO 3834 <u>Audit</u> Team.

#### **5 REVIEW OF REQUIREMENTS AND TECHNICAL REVIEW**

#### Does the manufacturer consider the following aspects for the review of requirements?

- a) the product standard to be used, together with any supplementary requirements.
- b) statutory and regulatory requirements.
- c) any additional requirement determined by the manufacturer.
- d) the capability of the manufacturer to meet the prescribed requirements.

Is there any documented evidence of the above?

#### Does the manufacturer consider the following technical review? E.g.

- a) parent material(s) specification and welded joint properties.
- b) quality and acceptance requirements for welds.
- c) location, accessibility and sequence of welds, including accessibility for inspection and for non-destructive testing.
- d) the specification of welding procedures, non-destructive testing procedures and heattreatment procedures.

Is there any documented evidence of the above?

#### 6 SUB-CONTRACTING

- a) Does the manufacturer give the sub-contractor of service or activities (e.g. welding, inspection, non-destructive testing, heat treatment) the necessary information to meet the applicable requirement?
- b) Does the manufacturer ensure that the sub-contractor can comply with the quality requirements as specified?
- c) Is there any documented evidence of the above?

#### 7 WELDING PERSONNEL

- a) Are welders and welding operators duly qualified according to the relevant standards?
- b) Are welding coordinator(s) duly qualified?
- c) Is there any documented evidence about task and responsibilities assigned to welding coordinator(s)?

#### 8 INSPECTION AND TESTING PERSONNEL

a) Has the manufacturer at his disposal sufficient and competent personnel for planning and performing and supervising the inspection and testing of the welding production according to the specified requirements? b) Are NDT operators duly qualified?

#### 9 EQUIPMENT

- a) Does the manufacturer maintain a list of essential equipment, used for production?
- b) Does this list identify items of major equipment, essential for an evaluation of workshop capacity and capability?
- c) Does the manufacturer maintain documented equipment maintenance plan?
- d) Is there any documented evidence of execution of maintenance?

#### **10 WELDING AND RELATED ACTIVITIES**

- a) Does the manufacturer carry out an adequate production planning (e.g. specification of the sequences by which the construction shall be manufactured, work instructions, drawings, etc.)?
- b) Does the manufacturer prepare and qualify the welding procedure specification(s) according to the relevant standards and ensure that these are used correctly in production?
- c) Are tasks and responsibilities to prepare and control production planning documentation and other quality documents assigned?

#### 11 WELDING CONSUMABLES

- a) Are tasks and responsibilities for control of welding consumables specified and implemented in production (identification, storage and handling etc.)?
- b) Is storage such that the consumables will not be adversely affected?

#### **12 STORAGE OF PARENT MATERIALS**

- a) Are tasks and responsibilities for control of parent materials specified and implemented in production (identification, storage and handling)?
- b) Is storage such that the material, including material supplied by the client will not be adversely affected?

#### **13 POST-WELD HEAT TREATMENTS**

- a) Does the manufacturer prepare and qualify a heat treatment procedure?
- b) Are records of heat treatment maintained? Does the manufacturer issue adequate records, made during the process, of the post weld heat treatment?
- c) Do records demonstrate that the specification has been followed and are traceable to the particular product?

#### 14 INSPECTION AND TESTING

- a) Are inspections and tests planned and carried out at appropriate points in the manufacturing process to assure conformity with contract requirements?
- b) Does location and frequency of such inspections and/or tests comply with the contract and/or product standard?
- c) Are records maintained?
- d) Are measures taken, as appropriate, to indicate, e.g. by marking of the item or a routing card, the status of inspection and test of the welded construction?

#### 15 NON-CONFORMANCE AND CORRECTIVE ACTION

- a) Are non-conformance records maintained?
- b) Are measures implemented to avoid recurrence of non-conformances?
- c) When repair and/or rectification is undertaken by the manufacturer, are descriptions of appropriate procedures available at respective workstations where repair or recertification is performed?

#### 16 CALIBRATION AND VALIDATION OF MEASURING, INSPECTION AND TESTING EQUIPMENT

Is all equipment used to Audit the required quality of the welded construction suitable, controlled and calibrated or validated at specified intervals?

#### **17 IDENTIFICATION AND TRACEABILITY**

- a) Where appropriate, is identification maintained throughout the manufacturing process?
- b) Where appropriate, is traceability maintained throughout the manufacturing process?

#### **18 QUALITY RECORDS**

- a) Does the manufacturer prepare and maintain a list of required quality records?
- b) Are quality records retained for a minimum period of five years in the absence of any other specified requirements?
- c) If use of standards not in EN ISO 3834-5: does the Manufacturer specify the use of standards different than those referred to in EN ISO 3834-5?
- d) For use of the certificate: Does the use of the certification by the manufacturer give a true and accurate image of the manufacturer's capability covered by the certification?

#### **19 QUALITY SYSTEM**

Does the manufacturer evaluate the effectiveness of the welding control system (for instance,. management review, internal audit, weld quality registrations (e.g. weld defects), etc.)

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Auditor Number	Auditor Name	Registration Date	Engineering Profile (1)	Quality Profile (2)	Type of Product	Process experience	Materials experience	Con	firmation [	Date				

#### Note 1: Insert A, B or C according to the following:

A for an I/EWE\* with at least three years of work experience in the field of welded fabrication B for an I/EWT\* with at least three years of work experience in the field of welded fabrication C for a person experienced in the field of welding (three years minimum) to be an EN ISO 3834Technical Expert requires A or B in this column

#### Note 2: Insert D or E according to the following:

D for a person competent in quality system auditing

E for a person familiar with quality management systems.

A person with a D in this column can be an EN ISO 3834 Auditor, in other cases he/she is an EN ISO 3834 Technical Expert

Refer to Part 4 of the Guideline for further explanation of the above

\* or equivalent qualification (see Note in clause 1.1)

1. EXEMPLAR 1 (INFORMATIVE) REGISTER OF EN ISO 3834 AUDITORS AND EN ISO 3834 TECHNICAL EXPERTS

#### EXEMPLAR 2 (INFORMATIVE)

#### PRELIMINARY INFORMATIVE ENQUIRY

#### 1 GENERAL INFORMATION

Name of the Unit to be audited .....

Address of the Unit to be audited .....

Telephone	 Fax	
E-mail		

#### 2 CERTIFICATION ISSUED BY OTHER ORGANISATIONS/BODIES

If yes specify the following:

Type of Certification	Certifying Body	Date of issue	Date of expiry

#### **3** INFORMATION TO SUPPORT APPLICATION FOR CERTIFICATION

- 3.1 The basic standard for which the certification is requested.
- 3.2 Description of the manufacturer's organisation structure, with details of the part of the organisation involved in the welding related activities. Functions and number of persons shall be indicated.

Function	Total number of persons	Number of persons involved in welding activities

Please provide an organisation chart for the Unit including welding co-ordination (EN ISO 14731) and a description of the job responsibilities of the authorised welding co-ordinator(s).

EA-6/02 • EA Guidelines on the use of ISO/IEC 17065 and ISO/IEC 17021-1 for Certification to EN ISO 3834

3.3	Type of manufactured product(s)						
3.4	Type of production						
	• By product o • By mass o						
3.5	Standards and/or specifications applied						
	<ul> <li>List of product standards and/or other specifications used</li> </ul>						
	Standards used for welder approval						
	<ul> <li>Standards used for welding procedure approval</li> </ul>						
3.6	Maximum weight and size of product the manufacturer is able to handle						
	Maximum weight						
	Maximum size						

3.7 Parent materials welded (reference to the relevant groups of CEN ISO/TR 15608 should be made) and related thickness ranges

Range	-	Parent material	Range
	-		
	-		
	-		
	Range	Range	Range   Parent material

3.8 Welding and allied processes

Welding Processes	Allied Processes

EA-6/02 • EA Guidelines on the use of ISO/IEC 17065 and ISO/IEC 17021-1 for Certification to EN ISO 3834

3.9 Use of Post Weld Heat Treatment

Yes o No o

3.10 Activities generally subcontracted
3.11 Organisation and index of welding co-ordination procedures

#### 4 FORMAL INTERFACES WITH THE CERTIFICATION BODY

Manufacturer Unit reference person and function

Address	
Telephone	Fax
E-mail	
Date	Manufacturer Manager
	Signed

.....

General Note:

If for any of the above items more space is required, please issue, with the reference to the correct item number, an attached sheet.

#### EXEMPLAR 3 (INFORMATIVE)

#### SCOPE OF ACTIVITY

(to be included with the Certificate)

1 Type of product(s)

.....

2 Product standards(s) or alternative standard(s) (see EN ISO 3834-5

.....

3 Parent materials group(s) (according to CEN ISO/TR 15608)

.....

4 Welding and allied processes

CEN ISO/TR 15608)

#### 5 Responsible Coordination Personnel

NAME	QUALIFICATION	JOB TITLES & TECHNICAL KNOWLEDGE*

\*The technical knowledge must be stated in order to comply with EN ISO 14731: Comprehensive or Specific or Basic

Authorised Signature: \_\_\_\_\_

#### EXEMPLAR 4 (INFORMATIVE)

#### Questionnaire

Company

Contact Road Place

#### Questionnaire for the Monitoring of Your Company According to EN ISO 3834 Registration Number:

Dear

We have enclosed the questionnaire and are asking you to fill it in and to send it directly to our lead auditor. Please indicate only <u>those changes with regard to the last monitoring</u>. On the basis of the results, we will stipulate whether a monitoring audit is necessary at your plant. Please understand that any incomplete information will necessitate a monitoring audit in situ. Note: Pages 3 and 4 are intended to be filled in by our lead auditor. You can send the questionnaire to our lead auditor using the address printed on Page 3. Thank you very much for your cooperation.

Date of the last monitoring: .....

- 1. Changes in the company organisation
  - □ Yes (please enclose a new organisation chart or explain) □ No
- 2. Change with regard to the welding co-ordinator (WC)
  - □ Yes (please enclose qualification documents)
  - □ No. Name of the supervisor: .....
- 3. Change in the responsibilities of the WC (in relation to EN ISO 14731)
  - ☐ Yes (please explain)
    - 🗆 No

- Current certificates for welders' qualification tests, e.g. according to EN ISO 9606; or for operators, e.g. according to EN ISO 14732 (please enclose one example of each standard used)

- 7. Change in welding processes
  - □ Yes (enclose procedure qualification tests (new PQR(s)))
  - 🗆 No
- 8. Change in the range of materials□ Yes (please explain)
  - 🗆 No
- 9. Change with regard to heat treatments
  □ Yes (please explain)
  □ No
- 10. Range of products (standards) changed
  □ Yes (please explain)
  □ No
- 11. Objections and complaints

  Tes (internal (in the case of in-house testing) and external (by customers), please explain)

  No
- 12. Change with regard to suppliers/subcontractors (welding, NDT, coating)
   □ Yes (please enclose the supplier assessment)
   □ No
- 13. Change to the management system procedures
  - □ Yes (please enclose the revised procedures)
  - 🗆 No

I confirm the truthfulness of the above information.

Date

Management, Signature

#### EXEMPLAR 5 (INFORMATIVE)

#### Recommendation for the EN ISO 3834-Lead Auditor

Criteria to be audited:

1. Changes in the company organisation

In the case of fundamental changes (e.g. setting-up of new fields of fabrication by means of welding technology), monitoring audit in situ necessary.

Yes

🗆 No

Remarks:

- 2. Change with regard to the welding co-ordinator (WC) If the WC is changed in relation to the name on the certificate, monitoring audit in situ
  - necessary.
  - 🗆 Yes
  - 🗆 No

Remarks:

3. Change in the responsibilities of the WC

In the case of a fundamental extension to the activities (performance of the tasks according to EN ISO 14731 questionable), monitoring audit in situ necessary.

Yes

🗆 No

Remarks:

4. Changes with regard to the testing personnel

In the case of fundamental changes, monitoring audit in situ necessary.

- 🗆 Yes
- 🗆 No

Remarks:

5. Change in the number of welders

In the case of a fundamental extension to the welding technology activities (increase greater than 25%), monitoring audit in situ necessary.

Yes

🗆 No

Remarks:

 Current certificates for welders' qualification tests, e.g. according to EN ISO 9606; or for operators, e.g. according to EN ISO 14732

If there are no certificates about current welders' qualification tests, monitoring audit in situ necessary.

🗆 Yes

🗆 No

Remarks:

7. Change in welding processes

If new welding technologies are used, monitoring audit in situ necessary.

□ Yes (please enclose the welding procedure qualifications (new PQR(s)))

🗆 No

Remarks:

8. Change in the range of materials

If new groups of materials are used, monitoring audit in situ necessary.

□ Yes

🗆 No

Remarks:

9. Change with regard to heat treatments

If heat treatments are now carried out in house or in the case of fundamental changes in the technology, monitoring audit in situ necessary.

🗆 Yes

🗆 No

Remarks:

10. Range of product (standards) changed In the case of fundamental changes with regard to the use of fabrication processes by means of welding technology, monitoring audit in situ necessary.

Remarks:

11. Objections and complaints

In the case of fundamental customer complaints, monitoring audit in situ necessary.

Remarks:

12. Change with regard to suppliers/subcontractors (welding, NDT, coating,...) If fundamental suppliers are changed, monitoring audit in situ necessary unless an adequate supplier assessment is proven.

adequate supp

Remarks:

13. Change with regard to the documented management system if significant changes have been made to the management system procedures

□ Yes (please enclose the revised procedures)

🗆 No

Note:

If the answer by the manufacturer in points 1, 2, 3, 7, 8 and 10 is positive, the scope of activity of the manufacturer must be reviewed to identify whether or not it's necessary to issue a new document with the new scope of activity of the manufacturer."

Date Name, Signature