AEROSPACE STANDARD

AS9104	REV. A

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Superseding AS9104

Requirements for Aerospace Quality Management System Certification/Registrations Programs

RATIONALE

AS9104A has been reaffirmed to comply with the SAE five-year review policy.

FOREWORD

In December 1998, the Aerospace Industry established the International Aerospace Quality Group (IAQG) with the purpose of achieving significant improvements in quality and reductions in cost throughout the value stream.

The IAQG has developed specific requirements for quality systems that are to be implemented and maintained throughout the supply chain in the design, manufacture and maintenance of products used in aviation and space applications. These requirements are published simultaneously as AS/EN/JISQ 9100-series by SAE in the Americas, AECMA in Europe and JISQ in Asia/Pacific. Other countries will follow with technically identical national standards.

In this document, these standards are indicated as Aerospace Quality Management Systems (AQMS) Standards.

A further initiative of the IAQG was the development of a truly global scheme for the use of assessment results performed by Certification/Registration Bodies (CRBs), based on the 9100-series standards and taking into account the schemes already in use or under development in the various IAQG sectors.

All these schemes have two major elements in common:

- Use of a voluntary certification/registration scheme with specific aerospace elements and requirements under the supervision and control of the aerospace industry.
- A harmonized approach to the CRBs with the purpose to improve the quality level and control throughout the whole supply chain.

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This document provides requirements for sectorial/regional schemes for the controlled use of assessment results of CRBs, based on three fundamentals:

- Use of accredited CRBs.
- Use of qualified and approved aerospace auditors.
- Use of international aerospace standards for quality management systems in aerospace industry.

This document addresses the following issues:

a. Qualification and accreditation of CRBs.
b. Assessment of quality systems by accredited CRBs.
c. The principles for determining the content and duration of assessments.
d. Reporting and control of nonconformities.
e. The form of registration recommendations.
f. Minimum standards of qualification and experience for aerospace auditors employed by CRBs.
g. Authentication of auditors by CRBs, Accreditation Bodies (ABs) and the IAQG sectors.
h. Oversight of ABs by applicable Sector Management Structure (SMS).
i. Oversight of CRBs by applicable SMS and IAQG Original Equipment Manufacturers (OEM).
j. Operation of the IAQG oversight function.

This document introduces certification/registration to the 9110 (maintenance organizations) and 9120 (stockist/distributors) standards, use of ISO 19011, mandatory use of the scoring process, as well as a number of clarifications and detail improvements resulting from the initial operation of the scheme. The requirements of this document are effective upon publication.

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1. SCOPE:

These requirements are applicable to IAQG sector schemes when making use of ABs, CRBs and their auditors, for the assessment and certification/registration of supplier quality systems in accordance with the requirements of this document.

The quality management system standard used by the CRB shall be 9100/9110/9120, as appropriate to the supplier's activities. It shall be applied to the supplier's complete Quality System that covers aerospace products. Sectors may use these requirements for other standards.

IAQG members have committed to recognize the equivalence of certification/registration of a suppliers quality management system to either of the AS, EN or JISQ/SJAC standards.

1.1 Purpose:

The purpose of this document is to give requirements on the process for providing aerospace companies and their suppliers with assessment and certification/registration of their quality systems, by accredited CRBs.

2. REFERENCES:

Assessments shall be based on the latest versions of the following quality systems standards and guidelines, as appropriate:

AS/EN/JISQ 9100	Quality Management Systems - Aerospace - Requirements
AS/EN 9110	Quality Management Systems - Aerospace - Requirements for Maintenance Organizations
AS/EN 9120	Quality Management Systems - Aerospace - Requirements for Stockist / Distributors

NOTE: The above standards are referred throughout this document as AQMS Standards.

2. (Continued):

AS/EN/SJAC 9101	Quality Management Systems Assessment
AS/EN 9111	Quality Management System Assessment applicable to Maintenance Organizations
AS/EN 9121	Quality System Assessment Applicable to Stockist Distributors

NOTE: The above standards are referred throughout this document as the Aerospace Assessment Report and Questionnaires.

AS/EN/SJAC 9102	Aerospace First Article Inspection Requirement
AS/EN/SJAC 9103	Variation Management of Key Characteristics
ISO 9000	Quality Management Systems - Fundamentals and Vocabulary
ISO 9001	Quality Management Systems - Requirements
ISO 9004	Quality Management Systems - Guidelines for Performance Improvements
ISO 19011	Guidelines for Quality and/or Environmental Management Systems Auditing
ISO/IEC Guide 61	General Requirements for Assessment and Accreditation of Certification/Registration Bodies
ISO/IEC Guide 62	General Requirements for Bodies Operating Assessment and Certification/Registration of Quality Systems

IAF Guidance on the Application of ISO/IEC Guide 61

IAF Guidance on the Application of ISO/IEC Guide 62

3. DEFINITIONS:

For the purpose of this document the following definitions are used:

3.1 Accreditation Body (AB):

A body recognized by an IAQG sector that has the primary responsibility for the accreditation of CRBs to issue certifications/registrations to AQMS standards.

3.2 Aerospace:

The business of design, manufacture, maintenance, distribution and support of aviation vehicles and engines, accessories and component parts, all ancillary and allied businesses including aerospace vehicle operations.

3.3 Aerospace Experience Auditor[1]:

An auditor that has met the requirements set forth in 7.2, 7.3 or 7.4 of this document.

3.4 Aerospace Product:

An aircraft, rotorcraft, guided weapon, launcher, spacecraft or other product designed to travel through the air, inside or outside the ground effect, or to travel outside the influence of the earth's atmosphere or major components of these products such as engines or major sub-systems or parts, appliances, equipment and materials as contained in these.

3.5 Auditor[2]:

A person that has met the requirements set forth in 7.1 of this document.

3.6 Certification/Registration Body (CRB):

A party that audits and certifies/registers the quality management system of organizations with respect to published quality management system standards and any supplementary documentation required under the system.

3.7 International Aerospace Quality Group (IAQG):

A body of prime aerospace OEMs. This group is chartered to develop common requirements for use by the aerospace industry for quality improvement.

[1, 2] NOTE: Sectors may use other names for 'Auditor', Aerospace Auditor' and 'Aerospace Experienced Auditor' as long as the requirements of this documents are applied.

3.8 International Aerospace Quality Group (IAQG) Sector or Sector:

A sub-structure of the IAQG, consisting of the members in a specific area, such as Americas, Europe and Asia/Pacific.

3.9 Nonconformity:

The absence of, or the failure to implement and maintain, one or more quality management system requirements, or a situation that would, on the basis of available objective evidence, raise significant doubt as to the quality of what the organization is supplying.

Major: The absence of, or total breakdown of a quality management system element specified in the AQMS standard or any non-conformities where the effect is judged to be detrimental to the integrity of the product, processes or service.

Minor: A single system failure or lapse in conformance with a procedure relating to the AQMS standard.

NOTE: A number of minor non-conformities against one requirement can represent a total breakdown of the system and this can be considered as a major nonconformity.

Any finding (e.g., comments, observations) that equates to the above definition shall be documented as a nonconformity, categorized as major or minor, and dealt with in accordance with 8.3.

3.10 On Line Aerospace Supplier Information System (OASIS):

The web-based IAQG database containing information on participating National Aerospace Industry Associations, ABs, accredited CRBs, authenticated Aerospace Experience Auditors, Certified Suppliers and Assessments

3.11 Sector Management Structure (SMS):

The organization established in a sector that manages the application of the sector scheme based on this document. Each sector may use a different name for this organization (e.g., Registrar Management Committee in the Americas and Asia/Pacific, Certification Body Management Committee in Europe within AECMA).

4. GENERAL:

4.1 The requirements stated herein shall be based on the latest versions of the documents listed in Section 2.

4.2 Aerospace additional requirements are identified in the AQMS Standards as bold italic items. These elements are in addition to ISO 9001 elements and should also be applied in the organization's quality system.

4.3 Data, in the form of checklists, approvals or other company specific information, generated in the application of this document shall be handled as "confidential, proprietary and sensitive" between the parties generating, collecting, or using the data. Companies using this data shall keep its usage confidential both internally and externally, unless otherwise agreed in writing by the consenting parties. Data resident at the ABs and CRBs on OEMs shall not be shared with OEM competitors. However, this data may be subject to audit or review at any time by applicable ABs, SMS, government or regulatory bodies and the IAQG Oversight Team (OT) (see Section 14).

5. REQUIREMENTS FOR ACCREDITATION BODIES:

5.1 The responsibilities of the AB shall be to review and recommend accreditation of the CRBs to the requirements of this document. The AB shall approve the use of "marks" and logos for use on certificates of approval. The AB shall work with the IAQG sector to give assurance that CRBs continue to perform in a manner consistent with the requirements contained herein and in the IAQG sector scheme. ABs shall be members of the IAF (International Accreditation Forum) and signatories of the IAF MLA (Multi-lateral Agreement) to participate in this process. ABs shall be in conformance to ISO/IEC Guide 61 and IAF Guidance on the Application of ISO/IEC Guide 61.

5.2 ABs shall have a person(s) with aerospace background on their advisory group, as defined in ISO/IEC Guide 61.

5.3 The basis for AB accreditation of CRBs to AQMS shall include an initial full system witness audit of a AQMS certification/registration per the AB's operating procedures.

5.4 AB audit teams who are conducting assessments of CRBs for the purposes of this scheme shall include an auditor with aerospace experience (same as 7.2, 7.3, or 7.4) or have aerospace industry expert(s) with experience (same as 7.2, 7.3, or 7.4) as part of the audit team.

5.5 The AB shall have the specific procedures, tools and techniques in its systems for granting, maintaining, suspending and withdrawing accreditation of CRBs (e.g., AQMS Standards and Aerospace Assessment Report and Questionnaires, briefing notes) and for compliance with Section 8 of this document.

5.6 The AB shall agree to periodic surveillance and witness audits by IAQG sectors. IAQG member companies shall perform oversight of scheme involved National Accreditation Bodies (NABs) and report results to the SMS as established in each sector.

5.7 The AB shall agree to the “Right of Access” by IAQG member companies, IAF and other regulatory or Government bodies for the purpose of establishing that the correct criteria and methods were used in accrediting CRBs. This includes information or records pertaining to IAF approval of the AB.

6. REQUIREMENTS FOR CERTIFICATION/REGISTRATION BODIES:

6.1 CRBs seeking qualification under the sectorial procedures based on these requirements shall first be accredited in accordance with ISO/IEC Guide 62 and IAF Guidance on the Application of ISO/ IEC Guide 62 for ISO 9001 for at least one year prior to submitting an application. As such, the CRB shall have been successfully assessed for conformance to ISO/IEC Guide 62 and ISO 19011.

6.2 ABs shall accredit the CRB’s audit management program for each AQMS standard in accordance with the requirements of this document.

6.3 Accreditation requirements shall include, among other things, evidence that the CRB’s management committee or advisory group have a person(s) with aerospace background and knowledge. A CRB may or may not already be approved by the AB for the scope category of aerospace represented by Scope Sector 21 (NACE DM 35.3) (formerly U.S. SIC Code 372 and 376) in accordance with AB procedures and requirements. The CRB shall have qualified auditors and/or technical experts engaged in registration activities.

6.4 Requirements for CRBs to obtain AQMS Standards accreditation shall include as a minimum:

a. The CRB's certification function shall have a person(s) with aerospace background and knowledge involved in the certification decisions of the CRB.

b. The CRB shall use an auditor training program that complies with detailed requirements per IAQG sector and records thereof for quality system requirements. Minimum content of this training program is:

- AQMS Standards.
- The Aerospace Assessment Report and Questionnaires.
- The scheme as used in the specific sector for Certification/Registration of AQMS.
- The scoring process and use of nonconformity reports.

6.4 (Continued):

- Additional sectorial training requirements.
- Civil Aviation Authority (CAA) requirements (such as Federal Aviation Administration [FAA] Title 14 CFR Part 21, Joint Aviation Requirements (JAR)21 or equivalent per the national CAA) and applicable advisory material.
- Applicable Space and Defense organizations requirements.

c. CRB shall document their auditor-training program and it shall be reviewed and approved by the AB during the accreditation process.

d. The CRB shall utilize qualified auditors as defined in Section 7 of this document. The CRB audit team shall meet the requirements of Section 8 of this document.

e. The CRB shall have the specific procedures, tools and techniques in its systems for granting, maintaining, extending, reducing, suspending and withdrawing certification/registration at aerospace organizations per AB and IAQG requirements (e.g., AQMS Standards and Aerospace Assessment Report and Questionnaires, briefing notes) and Section 8 of this document.

f. The CRB shall agree to periodic surveillance and witness audits by the ABs and by IAQG sectors. ABs shall conduct annual witness audits of CRBs holding AQMS accreditation. IAQG member companies shall perform oversight of CRBs used by their suppliers and report results to the SMS as established in each sector.

g. The CRB shall agree to the “Right of Access” by IAQG member companies, ABs and other regulatory or Government bodies for the purpose of establishing that the correct criteria and methods were used in issuing organization approvals to AQMS Standards. This includes information or records pertaining to AB approval of the CRB.

h. The CRB shall be responsible for entering assessment data into the OASIS database by following a process defined by their SMS or by providing the information to a designated database administrator, in accordance with Section 8.4.

i. No CRB shall be allowed to certify an organization to an AQMS Standard with which the CRB or a related body has provided consulting services related to registration within the past two years. In addition, any individual who has, in the past two years, provided consulting services to an organization, shall have no involvement with the AQMS Standard certification/registration of that organization. Where there might appear to be a conflict of interest, either through consulting or the offering of training to a potential client this shall be disclosed to the AB and the SMS prior to performing the registration process to determine if there is a conflict of interest.

6.4 (Continued):

NOTE: If a CRB performs training for an organization for which it will provide registration services, the training shall be conducted and managed separately from the CRB's certification/registration program and in full conformance with ISO/IEC Guide 62 and IAF Guidance on the Application of ISO/IEC Guide 62. In addition any training of auditors for AQMS Standards shall be conducted in accordance with sectorial schemes.

6.5 An accredited CRB is responsible for ensuring the continued integrity and validity of the certificates it issues and for drawing up and implementing a procedure to enable it to carry out this responsibility.

7. REQUIREMENTS FOR AUDITORS:

7.1 Auditors:

Auditors of AQMS shall, as a minimum, continually meet the education, training, work experience and audit experience of ISO 19011 and continually have the following:

a. Auditing Experience: To have participated in at least 4 audits for a minimum of 20 days, that cover the complete ISO 9001 standard or AQMS Standards within the last 3 years and has the ability to cover the complete ISO 9001 as determined by the CRB's Audit Program Manager or equivalent.

b. The Auditor shall be trained in the AQMS Standard requirements relevant to the assessment being performed. This training can be performed by the CRB or may be obtained independently. For the CRB, this training program shall be reviewed and approved by the AB as part of the accreditation process. The CRB's AQMS Standards training program shall also be in accordance with sectorial training requirements.

7.2 Aerospace Experience Auditors for 9100:

Auditors that are to be considered, as Aerospace Experience Auditors shall have 4 years aerospace industry experience within the prior 10 calendar years, meet the requirements of 7.1 and the following:

7.2.1 Work Experience: 4 years full time in the aerospace industry directly involved in Engineering, Design, Manufacturing, Quality or Process Control for a major airframe manufacturer, prime supplier, auxiliary equipment supplier and/or appropriate official civil, military or space organization, such as National Aviation Authorities (NAA), European Space Agency (ESA)/NASA, Ministry of Defence (MoD). The work experience should have included direct involvement or knowledge of the elements as defined in 7.2.2.1,

or

7.2.2 If an auditor holds a current auditor certification under an existing accredited aerospace auditor procedure acceptable to the SMS not based on above requirements (e.g., Approval to SBAC TS 157 before January 2001) for the initial 3 years the requirements for an auditor shall be satisfied with the addition of the required AQMS standard training;

or

7.2.2.1 If less than 4 years aerospace industry experience in the last 10 (or more than 6 consecutive years since last industry work experience from date the of application), the completion of an in-depth Aerospace Industry Competency course developed by the CRB or an independent organization is required. Both the course and the training organization shall be approved by the SMS. The course shall include the following topics as a minimum:

- Aerospace industry quality perspective.
- CAA requirements.
- Principles of military aerospace requirements and regulations.
- First Article Inspection (9102).
- Airworthiness and safety requirements.
- Design, development, verification and validation.
- Aerospace material traceability requirements.
- Aerospace subcontractor approval and control requirements.
- Variation management of key characteristics (9103).
- Flow down of Quality requirements.
- Foreign Object Damage (FOD) prevention program requirements.
- Use of Customer supplied products.
- Calibration controls and positive recall system.
- Acceptance authority media.
- Nonconforming material, system requirements and operation.

7.2.2.1 (Continued):

- Sampling inspection requirements and limitations.
- Special processes.
- Configuration management/requirements control.

and

7.2.2.2 In addition to 7.2.2.1, the auditor shall have participated in at least 2 full 9100 aerospace industry audits within the past 3 years and have been witnessed by a currently qualified Aerospace Experienced Auditor or the AB, who themselves have not become qualified via training as per 7.2.2.1. The audits shall cover all elements of the standard and shall have been conducted at organizations that are predominately aerospace oriented. The auditor candidate shall receive a positive and documented recommendation for qualification on all audits.

NOTE: Exceptions to these requirements will be considered providing candidates can demonstrate adequate and relevant Aerospace knowledge and experience as per 7.2.1 and 7.2.2.1.

7.3 Aerospace Experience Auditors for 9120 (distributors/stockists):

Auditors that are to be considered as Aerospace Experience Auditors for 9120 shall have 4 years aerospace industry experience, within the prior 10 calendar years, meet the requirements of 7.1 above and the following:

7.3.1 Training in the 9120 Requirements: This may be self-taught, but with a formal test to demonstrate knowledge of the specification.

7.3.2 Work Experience: Four years full time in the aerospace industry directly involved in Engineering, Design, Manufacturing, Quality or Process Control for a major airframe manufacturer, prime supplier, auxiliary equipment supplier and/or appropriate official civil, military or space organization, such as NAA, ESA/NASA, MoD. The work experience should have included direct involvement or knowledge of the elements as defined in 7.3.2.1;

or

7.3.2.1 If less than 4 years aerospace industry experience in the last 10 (or more than 6 consecutive years since last industry work experience from date the of application), the completion an of an in-depth Aerospace Industry Competency course developed by the CRB or an independent organization is required. Both the course and the training organization shall be approved by the SMS. The course shall include the following topics as a minimum:

- Aerospace industry quality perspective.
- CAA requirements.
- Principles of military aerospace requirements and regulations.
- Airworthiness and safety requirements.
- Aerospace material traceability requirements.
- Flow down of Quality requirements.
- FOD prevention program requirements.
- Use of Customer supplied products.
- Calibration controls and positive recall system.
- Acceptance authority media.
- Nonconforming material, system requirements and operation.
- Sampling inspection requirements and limitations.
- Configuration management/requirements control.

and

7.3.2.2 In addition to 7.3.2.1, the auditor shall have participated in at least 2 full 9100 or 9110 aerospace industry audits within the past 3 years and have been witnessed by a currently qualified Aerospace Experienced Auditor or the AB, who themselves have not become qualified via training as per 7.3.2.1. The audits shall cover all elements of the standard and shall have been conducted at organizations that are predominately aerospace oriented. The auditor candidate shall receive a positive and documented recommendation for qualification on all audits.

NOTE: Exceptions to these requirements will be considered providing candidates can demonstrate adequate and relevant Aerospace knowledge and experience as per 7.3.2 and 7.3.2.1.

7.4 Aerospace Experience Auditors for 9110 (maintenance):

Auditors that are to be considered, as Aerospace Experience Auditors for 9110 shall have 4 years aerospace industry experience, within the prior 10 calendar years, meet the requirements of 7.1 and the following:

7.4.1 Training in the 9110 requirements and tested.

7.4.1.1 Work Experience: 4 years full time in the aerospace industry directly involved in Engineering, Design, Manufacturing, Quality or Process Control for a major airframe manufacturer, prime supplier, auxiliary equipment supplier and/or appropriate official civil, military or space organization, such as NAA, ESA/NASA, MoD . In addition they shall have had specific training in Repair/Overhaul or demonstrated 2 years full time experience in the last 4 years. The work experience should have included direct involvement or knowledge of the elements as defined in 7.4.1.2;

or

7.4.1.2 If less than 4 years aerospace experience in the last 10 (or more than 6 consecutive years since last industry work experience from date the of application), the completion of an in-depth Aerospace Industry Competency course developed by the CRB or an independent organization is required. Both the course and the training organization shall be approved by the SMS. The course shall include the following topics as a minimum:

- Aerospace industry quality perspective.
- CAA requirements.
- Principles of military aerospace requirements and regulations.
- First Article Inspection (9102).
- Airworthiness and safety requirements.
- Design, development, verification and validation.
- Aerospace material traceability requirements.
- Aerospace subcontractor approval and control requirements.
- Variation management of key characteristics (9103).
- Quality requirements flow downs.

7.4.1.2 (Continued):

- FOD prevention program requirements.
- Use of Customer supplied products.
- Calibration controls and positive recall system.
- Acceptance authority media.
- Nonconforming material, system requirements and operation.
- Sampling inspection requirements and limitations.
- Special processes.
- JAR/FAR 145/136 (EASA IR M).
- Tool control.
- “Return to service” process.
- Flight test.
- Functional check flight.
- Weight and balance.
- Wing walking or aircraft marshalling techniques.
- Configuration management/requirements control.

and

7.4.1.3 In addition to 7.4.2.1 the auditor shall have participated in at least 2 full aerospace industry audits within the past 3 years and have been witnessed by a currently qualified Aerospace Experienced Auditor or the AB, who themselves have not become qualified via training as per 7.4.2.1. The audits shall cover all elements of the standard and shall have been conducted at organizations that are predominately aerospace oriented. The auditor candidate shall receive a positive and documented recommendation for qualification on all audits.

NOTE: Exceptions to these requirements will be considered providing candidates can demonstrate adequate and relevant Aerospace knowledge and experience as per 7.4.1.1 and 7.4.1.2.

7.5 Continuing Qualification and Education:

To maintain qualification all auditors and aerospace experience auditors shall participate in at least 4 aerospace audits in 3 years and participate in continuing education in accordance with sectorial training requirements that requires review of the changes to the aerospace industry standards, auditing methods and ISO requirements at a minimum of 15 hours total within 3 years.

7.6 Summary of the Requirements for Aerospace Industry Auditors:

TABLE 1

<table>
<tr><td rowspan="3">AUDITOR
(7.1)</td><td colspan="2">Auditors are to be trained and approved for ISO 9001 auditing per ISO 19011</td></tr>
<tr><td colspan="2">General knowledge of Aerospace Quality Management Systems Standards</td></tr>
<tr><td colspan="2">Auditor training in industry standards and current aerospace industry requirements (6.4.b)</td></tr>
<tr><td>AEROSPACE EXPERIENCED AUDITOR
(INCLUDES 7.1 & 7.2/7.3/7.4)</td><td>or
4 years of aerospace work experience in the last 10 years
(7.2.1. & 7.3.2 & 7.4.2)</td><td>or
Industry experience less than 4 years
&
training on aerospace industry requirements and 2 witness audits
(7.2.2.1/7.2.2.2 & 7.3.2.1/7.3.2.2 & 7.4.2.1/7.4.2.2)</td></tr>
<tr><td>ALL AUDITORS & AEROSPACE EXPERIENCED AUDITORS</td><td colspan="2">15 hours of continuing education for auditors within every 3 years & 4 audits within 3 years
(7.5)</td></tr>
</table>

NOTE: Numbers in ( ) refer to paragraph numbers in this document

8. REQUIREMENTS FOR ASSESSMENT AND REPORTING:

8.1 Aerospace Assessment Teams:

8.1.1 The Assessment Team Leader, shall be a qualified auditor per ISO 19011, as identified in the CRB's accredited system, and "Aerospace Experience Auditor" qualified and authenticated for the AQMS standard concerned (9100:7.2, 9110:7.4, 9120: 7.3).

8.1.2 The team may include other auditors according to 7.1, as required.

8.1.3 The assessment team needs a background to ensure that the members understand the requirements relating to the system they are assessing. Each assessment team shall have a general understanding and background in each technological and industrial sector in which it operates. In certain instances, particularly where there are critical requirements and special procedures the background knowledge of the audit team may be supplemented by an organization briefing, specific training or experts in attendance. The CRB may attach non-auditor experts to their assessment teams. If a CRB does use technical experts, its system shall include details of how technical experts are selected and how their technical knowledge is assured on a continuing basis. The CRB may rely on outside help (i.e., from industry or professional institutions).

8.1.4 The team leader shall ensure that all members of the team are aware of the requirements of this document as it may affect the scope of their assessment activity.

Additionally the Aerospace Experience Auditor(s) shall provide guidance to the assessment team throughout the assessment on the interpretation of aerospace requirements and, when requested, the significance of any issues identified.

8.1.5 The ABs, IAQG OEM members, Regulatory Agency or Customer representatives or OEMs may accompany the assessment team as observers of the assessment process at any time. When Customer or Government representatives are participating in the audit, the Team Leader shall have the option of including in the assessment report any findings brought forward by these representatives.

8.2 Duration of Assessment:

8.2.1 Requirements are to be established for minimum auditor-person days, for initial assessment, surveillance and re-certification assessment, appropriate to the size of the organization being assessed. For aerospace organizations these requirements may be varied to take into account the complexity of the quality system and the number and variety of activities, but the guidance in Annex 2 of the IAF Guidance on the Application of ISO/IEC Guide 62 is to be used as minimum.

8.2.2 It is anticipated that the requirements of the AQMS Standards shall add on-site assessment time, depending on size and commodity of the organization involved. The duration of an assessment shall be as agreed between the organization being assessed and the CRB, using ISO/IEC Guide 62 and IAF Guidance on the Application of ISO/IEC Guide 62 Annex 2 as a minimum. In addition the on-site assessment time for the applicable AQMS shall be according to the following table, also depending on organization size and the specific scope of the AQMS being assessed:

TABLE 2

Additional Auditor-days		Total Number of employees in the organization		
		5-100	101-1000	Over 1000
9100	Initial Assessment	+1.5	+2.0	+3.0
	Annual Surveillance	+1.0	+1.5	+2.0
9110	Initial Assessment	+1.0	+2.0	+3.0
	Annual Surveillance	+0.5	+1.0	+1.5
9120	Initial Assessment	+0.5	+1.0	+1.5
	Annual Surveillance	+0.5	+0.5	+0.5

8.2.3 The assessment of multiple sites for a single Registration/Certificate shall be conducted by assessing each site to the complete and applicable AQMS requirements prior to Certificate issuance. For AQMS 9120 only, sampling of multiple sites shall comply with the guidance provided in the IAF Guidance on the Application of ISO/IEC Guide 62 and shall be limited to sites located in the same country. Surveillance/Re-certification assessment shall assure that each site under a single Registration/Certificate is assessed during the period of validity of the Registration/Certificate. Some multi-site organizations may have individual sites engage in a subset of the overall processes of the total organization and the assessment for a specific site can be limited to the processes performed at each site.

8.2.4 A full assessment of all AQMS Standard requirements (ISO 9001 and Aerospace) using the whole questionnaire is required when assessing suppliers who have an existing 'basic' ISO 9001:1994 or: 2000 certificate and are upgrading to the aerospace standard.

8.2.5 Existing and valid 9100 Registration/Certificate may be extended to other AQMS standards 9110 or 9120 during surveillance assessments, by assessing the requirements of the other standard that are not covered by the existing certificate.

8.3 Nonconformity:

The assessment team shall record all nonconformities identified during an assessment. The team shall assign a nonconformity to the aerospace categories of “Major” or “Minor”. See Definitions 3.9.

No certificates or approvals to AQMS Standards or any combination of AQMS Standards with ISO 9001 shall be issued unless all major and minor nonconformities have been satisfactorily corrected with the root cause analysis and corrective action verified by the CRB.

8.4 Audit Team Conclusions and Reporting:

The Assessment Team leader shall present the audit report to the organization using the items listed in Aerospace Assessment Report and Questionnaires as a minimum, stating its conclusions on conformance and effectiveness of the quality system to the AQMS standards requirements. The AQMS audits shall be documented on the Aerospace Assessment Report and Questionnaires (paper or electronic version). For surveillance, the team leader shall advise whether recorded nonconformities jeopardize an existing certificate. In the event that certification/registration is denied or suspended, an appropriate course of action shall be agreed between the organization and the CRB. Where there is a failure to agree on a course of action, the appropriate appeals procedure of the CRB may be invoked.

The CRB shall submit the summary results of the assessments performed to AQMS Standards into the IAQG-OASIS database within 1 month after the certificate issue date or surveillance visit date. This may be performed either directly by the CRB or through the SMS, in accordance with the arrangements defined by the Sector or National Aerospace Industry Association. The database will make this information globally accessible through electronic means to members in each sector for the purposes of validating OEM recognition of sub-tier supplier AQMS certification/registration. Information will not be provided to members for the purpose of competitive advantage. The information to be included is defined in Appendix A.

The CRB shall leave copies of all information pertaining to the audit results (including checklists, findings, supporting documents, or other correspondence) with the organization for the purpose of the organization sharing this information with their customers.

8.5 Surveillance and Re-certification Assessments:

Accredited certificates issued by CRBs shall have surveillance and re-certification assessments conducted by the CRB in accordance with SMS requirements, ISO/IEC Guide 62 and IAF Guidance on the Application of ISO/IEC Guide 62 . The requirements of this document shall apply to all surveillance and re-certification assessment visits.

During surveillance scoring, only the audited areas of the standard shall be scored using the Aerospace Assessment Report and Questionnaires. Scoring for the non-assessed areas of the standard remain unchanged from the previous assessment. If there was no scoring performed on the previous assessment, then scores shall be calculated and assigned to non-assessed areas of the standard based on the previous assessment report

Results from all surveillance and re-certification assessments shall be entered into the IAQG-OASIS database.

8.6 Registration/Issue of Certificates:

In addition to certification/registration documentation requirements stated in ISO/IEC Guide 62, certificates issued by an AQMS accredited CRB shall at minimum contain statements that certify the following concepts:

a. Conformity of the suppliers Quality Management System to the requirements of ISO 9001:2000* and/or the applicable specific AQMS 9100/9110/9120* version used (e.g., AS9100 or prEN9110).

b. The assessment was performed in accordance with the requirements of the relevant SMS Aerospace Supplier Quality System Certification/Registration requirements, including reference to the applicable SMS document.

c. Effective date of certification/registration and the term for which it is valid with a maximum period of 3 years.

d. The CRB is accredited under the control of the aerospace sector scheme*.

[* References to be appropriate to the scope of certification/registration]

NOTE: The above statements are not intended to be pro-forma words, the CRB shall establish certificate wording to certify the above concepts. If necessary separate certificates, one for ISO 9001 and another for the AQMS standard, could be issued.

The certificate may show the National Aerospace Industry Association or SMS logo. In the case where the logo is not used, the certificate shall mention that the CRB is accredited and qualified under this scheme.

Letters of conformance and unaccredited assessment statements shall be clearly distinguishable from accredited certificates. Unaccredited certificates shall not be issued. In case of misuse of the logo or this document by the CRB, the accreditation may be suspended or revoked.

8.7 Loss of Certification/Registration:

8.7.1 When the IAQG OEM detects systemic findings during their regular surveillance activities (e.g., process or product audits), this could trigger additional surveillance activities by the CRB that could result in the loss of Registration/Certificate of a supplier.

8.7.2 IAQG OEMs shall require suppliers notify them when they lose registration or their CRB loses AQMS accreditation. CRBs shall also arrange for the OASIS database to be updated when suppliers lose or lapse their AQMS certificates. This may be performed either directly by the CRB or by a database administrator, as stated in Section 6.4.h.

9. AUTHENTICATION AND OVERSIGHT OF ACCREDITATION BODIES:

9.1 The SMS shall approve and determine which ABs may participate in selection of CRBs and auditors. The method of recognition and oversight shall be documented and ABs approved by the SMS shall be recorded in the OASIS database.

9.2 The SMS shall perform oversight of ABs participating in AQMS qualification of CRBs by the following as a minimum:

a. Annual review of AB oversight activity of CRBs participating in AQMS programs.

b. Annual onsite office assessment of AB.

c. Annual witness audit of at least one AQMS accreditation or surveillance audit of a CRB.

NOTE: SMS may perform the above witness audit with applicable AB as a part of the combined oversight visit as mentioned in 10.9 'NOTE'.

10. AUTHENTICATION AND OVERSIGHT OF CERTIFICATION/REGISTRATION BODIES:

10.1 The AQMS Standard qualification of CRBs shall be granted and surveillance performed by the AB in accordance with this document. This shall require an annual review by the SMS to evaluate CRBs and the effectiveness of the process for approval of CRBs. The review shall be in accordance with AB procedures and have SMS approval.

10.2 The CRB's Audit Management Program shall be approved via AB oversight.

10.3 IAQG sector schemes shall accredit management offices of CRBs (the office which manages AQMS certification/registrations). The concept of "satellite offices" does not exist for AQMS standards.

10.4 CRBs can conduct assessments in any country from the accredited office. The accredited office shall manage the assessment and make the certification decision. When operating in countries away from the "home" office the assessment team shall take into account the local aerospace regulations.

10.5 ABs shall conduct annual surveillance audits and one witness audit per year (minimum) of CRBs having AQMS Standards accreditation, per the ABs operating procedures.

10.6 Member companies of IAQG sectors will perform oversight of CRBs used by their suppliers and report results to the SMS, as necessary.

NOTE: Member companies of IAQG sectors may choose to participate in a shared CRB oversight process. This process should be documented and managed by the respective SMS.

10.7 Any complaints from either the audited organization or OEM regarding CRB performance shall be handled directly by complainant with the appropriate CRB. The CRB's internal appeals/complaint process is to be used before other actions are taken. If any supplier/OEM cannot resolve issues with the CRB then the matter shall be referred to the AB. If the problem is related to CRB performance and cannot be resolved to the satisfaction of the organization or the OEM(s) involved, the matter shall be referred to the SMS. The SMS could recommend loss of the CRBs accreditation or AQMS qualification, removal of an individual auditor's approval or removal of the AB for failure to properly govern CRBs. Any issues which cannot be resolved at the SMS level shall be elevated to the IAQG Oversight function, in accordance with Section 14.1.

10.8 CRBs may lose their AQMS Standards accreditation based on performance, per the ABs operating procedures. The SMS shall be notified immediately by the ABs when accreditation is suspended or withdrawn from a CRB. The SMS shall notify IAQG OEM's of the change. The AB shall update the OASIS database to reflect any change in CRB accreditation status.

10.9 The SMS shall perform oversight on participating CRBs by:

a. Annual onsite office assessment at each CRB.

b. Witness at least one audit of an AQMS standard by the CRB at a supplier.

NOTE: SMS may choose to utilize the data generated by the shared CRB oversight process referenced in Section 10.6 to meet these requirements. It is recommended, whenever possible, that SMS combine this oversight with AB's office and witness audits of CRBs defined in Section 10.5.

11. AUTHENTICATION AND OVERSIGHT OF AUDITORS:

11.1 Each SMS shall have a formal process for authentication and re-authentication of aerospace auditor's qualifications and experience. All authenticated aerospace experience auditors shall be registered in the IAQG database. Authentication and re-authentication is valid for 3 years.

11.2 Aerospace Auditor qualifications to each of the AQMS standards (i.e., 9100, 9110, 9120) are separate.

11.3 Auditor authentication in any sector to the requirements of this document shall be recognized in the other sectors.