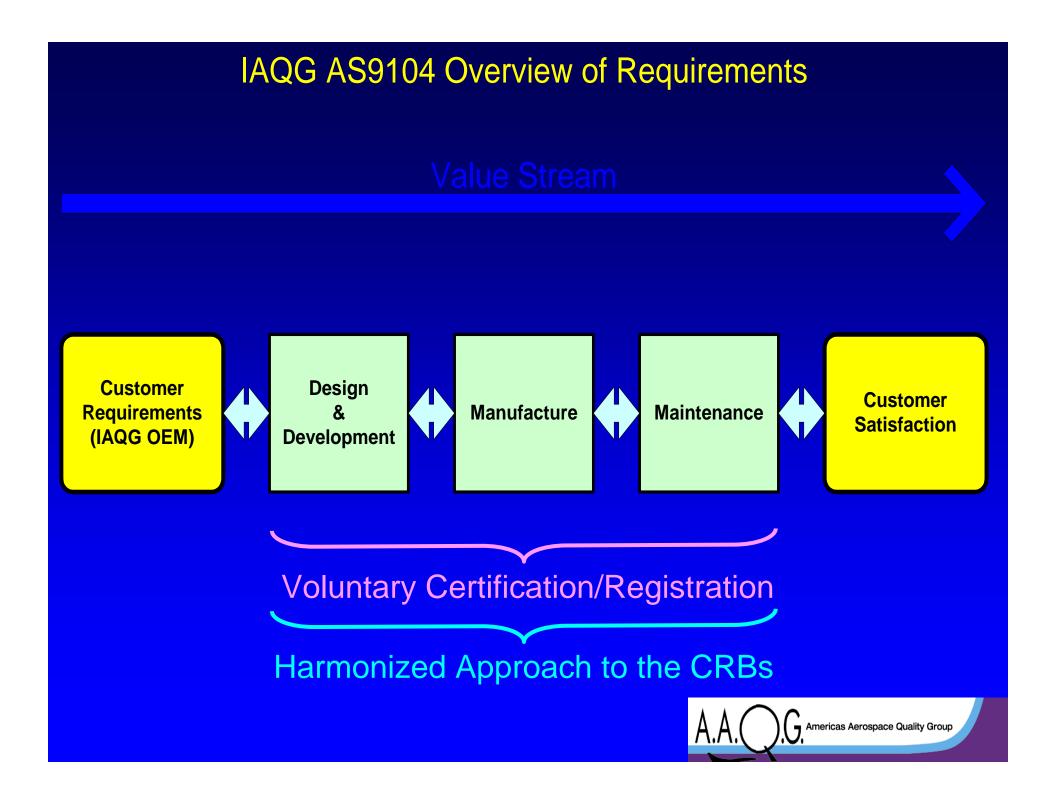
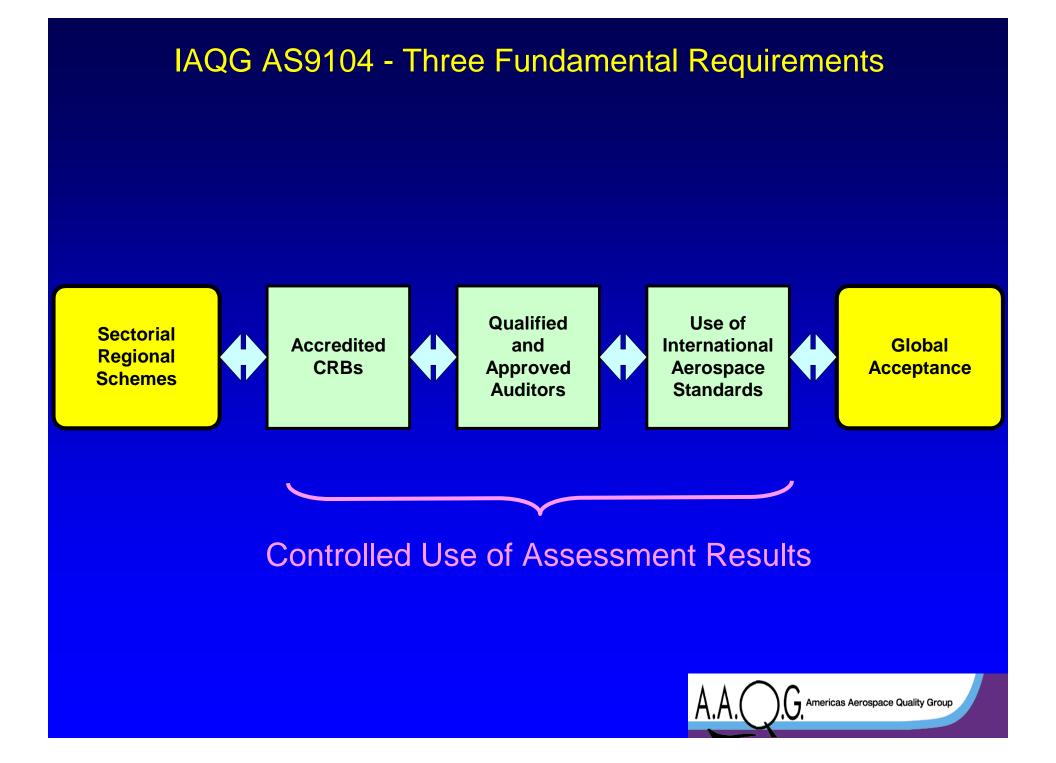
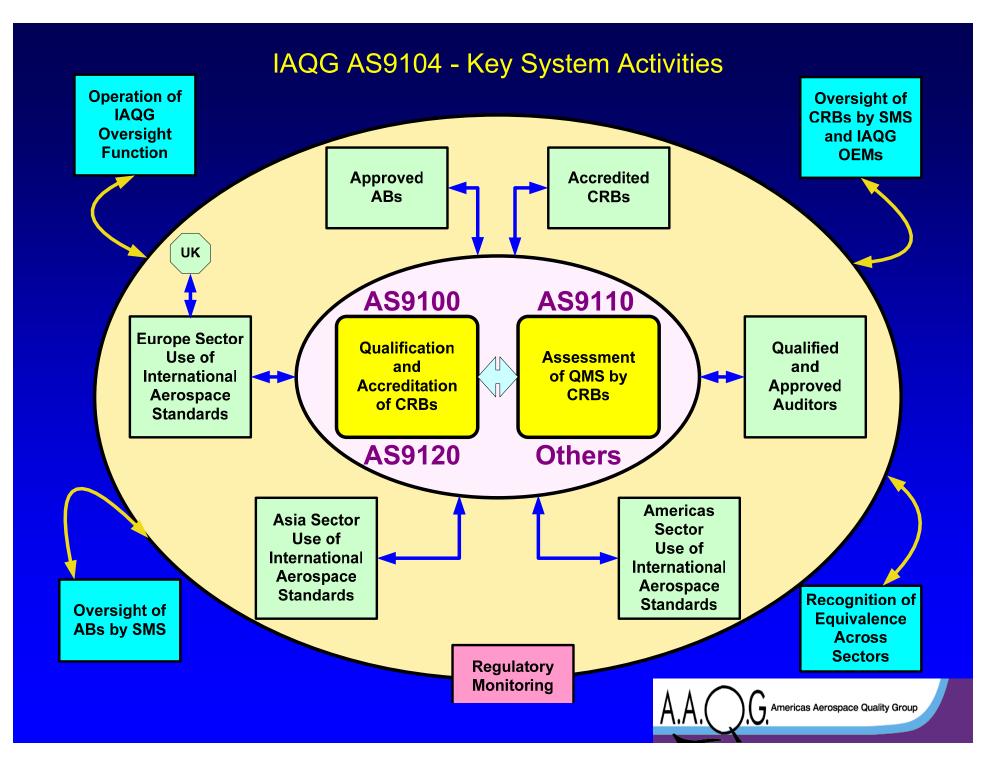
# AQG AS 9104 System Process Flowcharts









### Scope – AS9104 Clause 1.

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 AS9104.

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.



# Purpose – AS9104 Clause 1.1

The purpose of AS9104 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.



# **References – AS9104 - Clause 2**

Assessments shall be based on the latest versions of the following quality systems standards and guidelines as appropriate, by accredited CRBs.

- 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 AS9104 as AQMS Standards.



# **References – AS9104 – Clause 2**

- 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 to throughout AS9104 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.



# **References – AS9104 – Clause 2**

- 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.
- NOTE:
- ISO/IEC Guide 61 is being replaced by ISO 17011.
- ISO/IEC Guide 62 is being replaced by ISO 17021.



- 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 AS9104.

**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 subsystems 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 AS9104.
[1] [2] NOTE: Sectors may use

[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.

- 3.6 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.
  - 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 nonconformities 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 Clause 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).

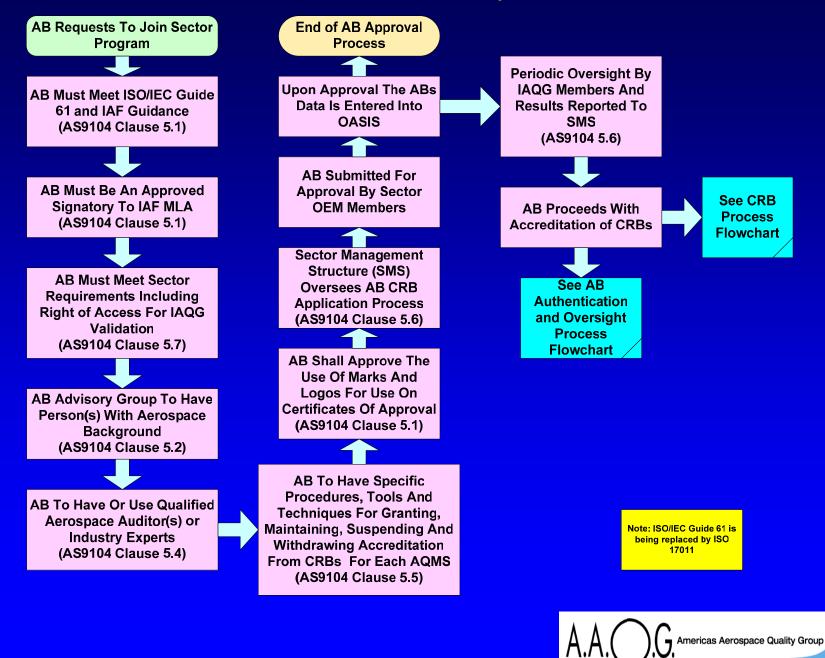


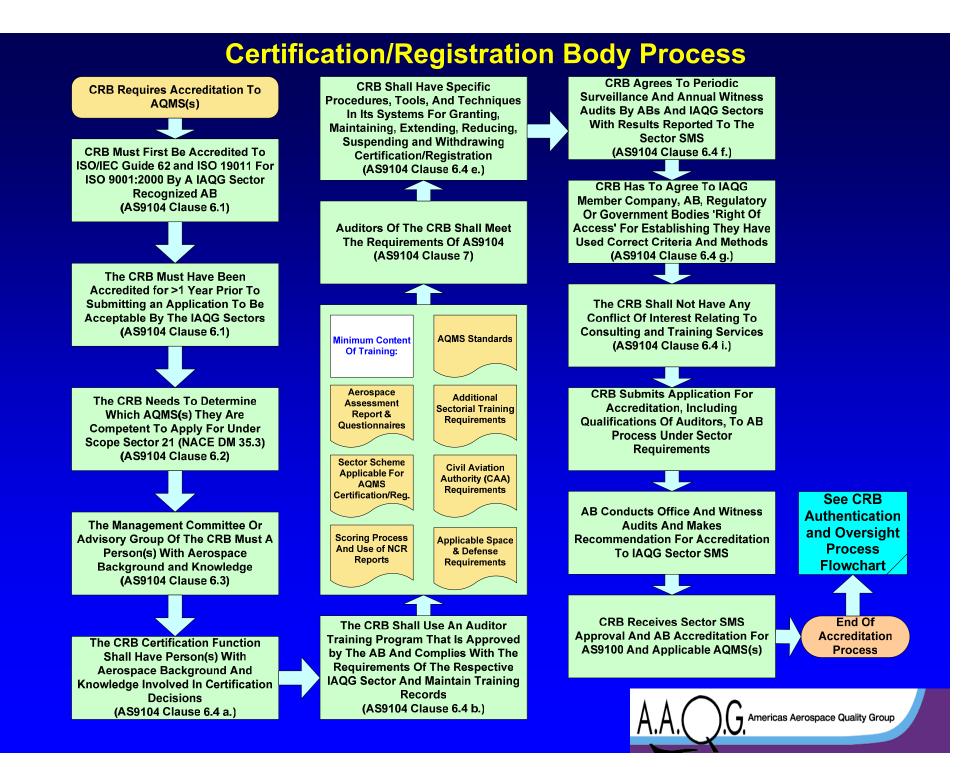
# General – AS9104 – Clause 4

- 4.1 The requirements stated in AS9104 shall be based on the latest versions of the documents listed in AS9104 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 AS9104 Section 14.



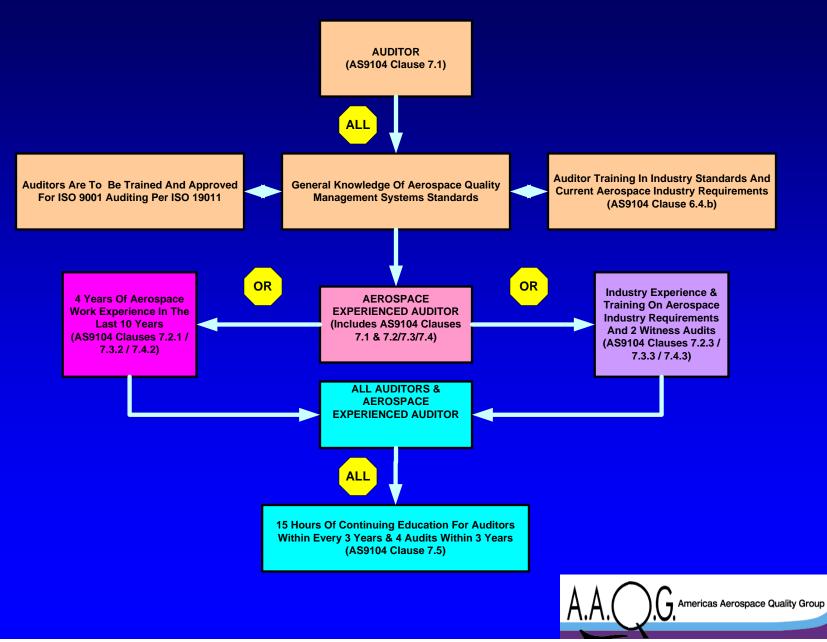
### **Accreditation Body Process**





### **Summary Of Requirements For Aerospace Industry Auditors**

AS9104 Clause 7.6 TABLE 1



### **Requirements For Auditors**

#### **Start Auditor Qualification Process**

Auditors Of AQMS Shall As A Minimum Continually Meet ISO 19011 Requirements For Education, Training, Work And Audit Experience (AS9104 Clause 7.1)

Auditing Experience - Participated >4 Audits For >20 That Covers Complete ISO 9001 or AQMS standard(s) Within Last 3 Years. (AS9104 Clause 7.1 a.)

Auditor Shall be trained In AQMS Standard Requirements Relevant To Audit Being Performed. CRB Can Perform Training Or Outsource It. (AS9104 Clause 7.1 b.)

CRB Training Program Shall Be Reviewed And Approved By AB (AS9104 Clause 7.1 b.)

CRB Training Program Shall Be In Accordance With Sectorial Training Requirements (AS9104 Clause 7.1 b.)

Aerospace Experience Auditors (AEA) Shall Have 4 Years Aerospace Industry Experience Within Prior 10 Calendar Years And Meets Clause 7.1 Requirements (AS9104 Clause 7.2) If <4 Years Aerospace Industry Experience In Last 10 (Or >6 Consecutive Years Since Last Industry Work Experience From Date Of Application) The Completion Of In-depth Aerospace Industry Competency Course

Developed By CRB Or Independent Organization. Both Course And Training Organization Shall Be Approved By SMS. The Course Shall Include, As A Minimum, The Following Topics: (See Next Box) (AS9104 Clause 7.2.2.1)



Or

And

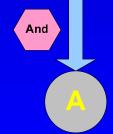
Where An Auditor Holds Current Certification Under Existing Accredited Aerospace Auditor Procedure Acceptable To The SMS Not Based On Above Requirements (e.g. SBAC TS 157 Before January 2001) For The Initial 3 Years The Auditor Requirements Shall Be Satisfied Plus Addition Of Required AQMS Standard Training (AS9104 Clause 7.2.2)

Work Experience: 4 Years Full Time In Aerospace Industry Directly Involved In Engineering, Design, Manufacturing, Quality Or Process Control For 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). Work Experience To Include Direct Involvement Or Knowledge Of Elements In Clause 7.2.2.1 (AS9104 Clause 7.2.1)

# Aerspace Industry Perspective # CAA Requirements # Principles Of Military Aerospace **Requirements And Regulations** # First Article Inspection (AS9102) # Airworthiness And Safety Requirements # Design, Development, Verification And Validation # Aerospace Subcontractor Approval And **Control Requirements** # Variation Management Of Key Characteristics (AS9103) # 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** # Sampling Inspection Requirements and Limitations # Special Processes # Configuration Management/Requirements Control

(AS9104 Clause 7.2.2.1)

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### **Requirements For Auditors (2)**



In Addition To 7.2.2.1, Auditor Shall Have Participated In At Least 2 Full AS9100 Aerospace Industry Audits Within The Past 3 Years And Have Been Witnessed By Currently Qualified AEA Or The AB, Who Themselves Have Not Become Qualified Via Training Per 7.2.2.1. Audits Shall Cover All Elements Of The Standard And Shall Have Been Conducted At Organizations That Are Predominately Aerospace Oriented. Auditor Shall Receive Positive And Documented Recommendation For Qualification On All Audits. (AS9104 Clause 7.2.2.2)

NOTE: Exceptions To Clause 7.2.2.2. Requirements Will Be Considered Providing Candidates Can Demonstrate Adequate And Relevant Aerospace Knowledge And Experience Per 7.2.1 and 7.2.2.1 (AS9104 Clause 7.2.2.2)

AEA For AS9120 (Distributors/Stockists): AEA Shall Have 4 Years Aerospace Industry Experience Within Prior 10 Calendar Years, Meet The Requirements Of Clause 7.1 And The Following: (Two Boxes) (AS9104 Clause 7.3)

Training In AS9120 Requirements: This may Be Self-taught, But With Formal Test To Demonstrate Knowledge Of the Specification. (AS9104 Clause 7.3.1) If <4 Years Aerospace Industry Experience In Last 10 (Or >6 Consecutive Years Since Last Industry Work Experience From Date Of Application) The Completion Of In-depth Aerospace Industry Competency Course Developed By CRB Or Independent Organization. Both Course And Training Organization Shall Be Approved By SMS. The Course Shall Include, As A Minimum, The Following Topics: (See Next Box) (AS9104 Clause 7.3.2.1)



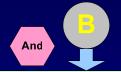
Work Experience: 4 Years Full Time In Aerospace Industry Directly Involved In Engineering, Design, Manufacturing, Quality Or Process Control For Major Airframe Manufacturer, Prime Supplier, Auxiliary Equipment Supplier And/Or Appropriate Official Civil, Military Or Space Organization, Such As National Aviation Authorities (NAA), European Space Agency (ESA)/NASA, Ministry Of Defence (MoD). Work Experience To Include Direct Involvement Or Knowledge Of Elements In Clause 7.3.2.1 (AS9104 Clause 7.3.2)

# Aerspace Industry Perspective # CAA Requirements # Principles Of Military Aerospace **Requirements And Regulations** # First Article Inspection (AS9102) # 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 (AS9104 Clause 7.3.2.1)





### **Requirements For Auditors (3)**



In Addition To 7.3.2.1, Auditor Shall Have Participated In At Least 2 Full AS9100 Or AS9110 Aerospace Industry Audits Within The Past 3 Years And Have Been Witnessed By Currently Qualified AEA Or The AB, Who Themselves Have Not Become Qualified Via Training Per 7.3.2.1. Audits Shall Cover All Elements Of The Standard And Shall Have Been Conducted At Organizations That Are Predominately Aerospace Oriented. Auditor Shall Receive Positive And Documented Recommendation For Qualification On All Audits. (AS9104 Clause 7.3.2.2)

NOTE: Exceptions To Clause 7.2.2.2. Requirements Will Be Considered Providing Candidates Can Demonstrate Adequate And Relevant Aerospace Knowledge And Experience Per 7.3.2 and 7.3.2.1 (AS9104 Clause 7.2.2.2)

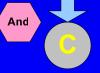
AEA For AS9110 (Maintenance): AEA Shall Have 4 Years Aerospace Industry Experience Within Prior 10 Calendar Years, Meet The Requirements Of Clause 7.1 And The Following: (Two Boxes) (AS9104 Clause 7.4)

Training In AS9110 Requirements And Tested. (AS9104 Clause 7.4.1) If <4 Years Aerospace Industry Experience In Last 10 (Or >6 Consecutive Years Since Last Industry Work Experience From Date Of Application) The Completion Of In-depth Aerospace Industry Competency Course Developed By CRB Or Independent Organization. Both Course And Training Organization Shall Be Approved By SMS. The Course Shall Include, As A Minimum, The Following Topics: (See Next Box) (AS9104 Clause 7.4.1.2)



Work Experience: 4 Years Full Time In Aerospace Industry Directly Involved In Engineering, Design, Manufacturing, **Quality Or Process Control For 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). In Addition They Shall Had Specific Training In Repair/Overhaul Or Demonstrated 2 Years Full-time Experience In The Last 4 Years. Work Experience To Include Direct Involvement Or Knowledge Of Elements In Clause 7.4.1.2 (AS9104 Clause 7.4.1.1)

# Aerspace Industry Perspective # CAA Requirements # Principles Of Military Aerospace **Requirements And Regulations** # First Article Inspection (AS9102) # Airworthiness And Safety Requirements # Design, Development, Verification And Validation # Aerospace Material Traceability Requirements # Aerospace Subcontractor Approval And **Control Requirements** # Variation Management Of Key Characteristics (AS9103) # 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 # Special Processes # JAR/FAR 145/136 (EASA IR M) # Tool Control # "Return To Service" Process # Fliaht Test # Functional Check Flight # Weight And Balance # Wing Walking Or Aircraft Marshalling Techniques # Configuration Management/Requirements Control (AS9104 Clause 7.3.2.1)





### **Requirements For Auditors (4)**



In Addition To 7.4.2.1, Auditor Shall Have Participated In At Least 2 Full Aerospace Industry Audits Within The Past 3 Years And Have Been Witnessed By Currently Qualified AEA Or The AB, Who Themselves Have Not Become Qualified Via Training Per 7.4.2.1. Audits Shall Cover All Elements Of The Standard And Shall Have Been Conducted At Organizations That Are Predominately Aerospace Oriented. Auditor Shall Receive Positive And Documented Recommendation For Qualification On All Audits. (AS9104 Clause 7.4.1.3)

NOTE: Exceptions To These Requirements Will Be Considered Providing Candidates Can Demonstrate Adequate And Relevant Aerospace Knowledge And Experience Per 7.4.1.1and 7.4.1.2 (AS9104 Clause 7.4.1.3)

To Maintain Qualification All Auditors And AEAs 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 (AS9104 Clause 7.5)

#### Summary Of Requirements For Aerospace Industry Auditors TABLE 1

		Auditors Are To Be Trained And Approved For ISO 9001 Auditing Per ISO 19011				
	AUDITOR (AS9104 Clause 7.1)	General Knowledge Of Aerospace Quality Management Systems Standards				
		Auditor Training In Industry Standards And Current Aerospace Industry Requirements (AS9104 Clause 6.4.b)				
	AEROSPACE EXPERIENCED AUDITOR (Includes AS9104 Clauses 7.1 & 7.2/7.3/7.4)	OR 4 Years Of Aerospace Work Experience In The Last 10 Years (AS9104 Clauses 7.2.1 / 7.3.2 / 7.4.2)	OR Industry Experience & Training On Aerospace Industry Requirements And 2 Witness Audits (AS9104 Clauses 7.2.3 / 7.3.3 / 7.4.3)			
	ALL AUDITORS AEROSPACE EXPERIENCED AUDITORS	15 Hours Of Continuing Education For Auditors Within Every 3 Years & 4 Audits Within 3 Years (AS9104 Clause 7.5)				



### **Requirements For Assessment And Reporting (1)**

Start Requirements For Aerospace Assessment Teams (AS9104 Clause 8.1)

The Audit Team Leader: Qualified Auditor Per ISO 19011 and CRB,s Accredited System, An AEA, Qualified & Authenticated For The Applicable AQMS Standard (AS9100, AS9110, AS9120)

(AS9104 Clause 8.1.1)

Audit Team May Include Other Auditors Per Clause 7.1 As Required (AS9104 Clause 8.1.2)

Assessment Team Needs: \* Members To Understand The Requirements Relating to System Being Assessed. \* General Understanding And Background In Each Technological And Industrial Sector It Operates In. (AS9104 Clause 8.1.3) Non-Auditor Experts: \*CRB May Attach To Assessment Teams.

\* Where Used CRB System Shall Include Details For Selection and How Technical Knowledge Is Assured on A Continuing Basis. \* CRB May Rely on Outside Help (i.e.

Industry or Professional Institutions). (AIR5359 Clause 8.1.3)

Knowledge of Audit Team -Certain Instances Such As Critical Requirements And Special Procedures May Require Background Knowledge To Be Supplemented By: \* Organization Briefing \* Specific Training, Or \* Experts In Attendance (AS9104 Clause 8.1.3) Assessment Team Leader Shall: \* Ensure All Team Members Are Aware Of Requirements of AS9104 Per The Scope Of The Assessment Activity.

\* Provide Guidance To Assessment Team Throughout Assessment On Interpretation Of Aerospace Requirements Plus, When Requested, The Significance Of Any Issues Identified. (Any AEA Can Provide This Guidance)

(AS9104 Clause 8.1.4)

ABs, IAQG & OEM Members, Regulatory Agency or Customer Representatives or OEMs May Accompany Assessment Team As Observers Of Assessment process At Any Time

(AS9104 Clause 8.1.5)

When Customer or Government Reps Participate In Audit The Team leader Has Option Of Including In The Assessment Report Any Findings Raised By The Reps. (AS9104 Clause 8.1.5)





(AS9104 Clause 8.2)	Upgrading From ISO 9001:2000 Requires Full Assessment of AQMS Standard's Requirements Using The Whole Questionnaire (AS9104 Clause 8.2.4)						
RB To Establish Requirements For Inimum Auditor-Person Days For Initial, Surveillance and Re- certification Assessments Appropriate To Size of Assessed Organization (AS9104 Clause 8.2.1)	Where Multi-site Organizations Have Individual Sites Engage in a Subset of Overall Processes of Total Organization Then Assessment of Specific Site Can be Limited to Processes Performed at Each Site (AS9104 Clause 8.2.3)	Existing and Valid AS9100 Registration/Certificate May be Extended For AQMS Standards AS9110 and AS9120 at Surveillance Assessments by Assessing Requirements not Covered by Existing AQMS Standard (AS9104 Clause 8.2.5)					
To Take Account Of Complexity Of Quality System and Variety of Activities. IAF Guidance on The Application Of ISO/IEC Guide 62,	Surveillance/Re-certification Assessment Shall Assure Each Site Under a Single Registration/ Certificate is Assessed During The	Additional Auditor-days		Total Number of Employees in the Organization			
Annex 2 Used As Minimum. (AS9104 Clause 8.2.1)	Period of Validity of Registration/ Certification [AS9100, AS9110 &			5-100	101- 1000	Over 1000	
cipated That Requirements Of	AS9120] (AS9104 Clause 8.2.3)	9100	Initial Assessment	+1.5	+2.0	+3.0	
MS Standards Shall Add On-Site sessment Time Based On gnaization's Size and Commodity.	AQMS 9120 Only, Sampling of Multiple Sites Shall Comply with IAF		Annual Surveillance	+1.0	+1.5	+2.0	
ration of Assessment To Be reed Between Organization and	Guidance on Application of ISO/IEC Guide 62 [Annex 3] but Shall be Limited to Sites Located in same	9110	Initial Assessment	+1.0	+2.0	+3.0	
RB. (AS9104 Clause 8.4)	Country. (AS9104 Clause 8.2.3)		Annual Surveillance	+0.5	+1.0	+1.5	
Additionally On-site Assessment	Assessment of Multiple Sites for a Single Registration/Certificate Shall	9120	Initial Assessment	+0.5	+1.0	+1.5	
r Adjacent Table and Dependent on ganization Size and Specific Scope of AQMS Assessed.			Annual Surveillance	+0.5	+0.5	+0.5	

# **Requirements For Assessment And Reporting (3)**

Start Audit Team Conclusions and Reporting (AS9104 Clause 8.4)

Audit Team shall record all nonconformities identified during audit to aerospace categories of "Major" or "Minor" (AS9104 Clause 8.3)

The Audit Team Leader Presents Audit Report To Organization Based On Aerospace Assessment Report and Questionnaires As A Minimum (AS9104 Clause 8.4)

State Conclusions on Conformity and Effectiveness of QMS To AQMS Standards Requirements (AS9104 Clause 8.4)

AQMS Audits Shall Be Documented On Aerospace Assessment Report And Questionnaires Paper Or Electronic Versions (AS9104 Clause 8.4)

For Surveillance, Audit Team Leader Advises If Any Nonconformities Jeopardize An Existing Certificate (AS9104 Clause 8.4)

Data Entry Done By CRB, SMS In Accordance With Sector Or National **Aerospace Industry Association** Arrangements (AS9104 Clause 8.4) CRB Shall Submit Summary Results Of Audit To AQMS Standard(s) Into **IAQG-OASIS** Database Within 1 Month After Certificate Issue Date Or Surveillance Visit Date (AS9104 Clause 8.4) Failure to Agree Course of Action -Invoke CRB's Appeals Process (AIR5359 Clause 8.4) Where CRB Denies Or Suspends Certification/Registration They Agree Appropriate Course Of Action With Organization (AS9104 Clause 8.4) **CRB Shall Provide Organization** With Copies Of All Information On Audit Results (Checklists, Findings, Supporting Documents, Other **Correspondence**) For Sharing with Customers (AS9104 Clause 8.4)

Information To Go IAQG-OASIS Database:

- CRB Name, Contact Person, Phone, Fax, E-mail Address
- Supplier Name, Address/ Locations Involved in Audit, Contact Person, Phone, Fax, Email Address
- Certificate(s) Issued, Including Issue And Expiry Date
- Scope Of Certification
- Type Of Audit Performed (Initial, Surveillance, or Re-certification)
- Audit Dates And Number Of AuditorDays
- Aerospace Experience Auditor(s) Involved
- Number Of Major/Minor NCRs (Per Clause Of The AQMS Standard)
- > Scoring Results
- > Audit Summary
- Date And Audit Summary (Surveillance And Re-Certification Audits)
   NOTE: Training/Guidance On Data/ Entry Provided By SMS Upon CRB's Accreditation

#### (AS9104 Appendix A)





## **Registration/Issue of Certificates**

Start Registration/Issue of Certificates (AS9104 Clause 8.6)

No certificates or approvals to AQMS Standards or any combination of these standards with ISO 9001 shall be issued unless:

- All Major and Minor nonconformities have been satisfactorily corrected
- Root cause analysis has been conducted
- Effective corrective action has been implemented
- CRB has verified bullets two and three above.
   (AS9104 Clause 8.3)

Certification/registration documentation shall meet ISO/IEC Guide 62 requirements (AS9104 Clause 8.6) In addition, certificates issued by an AQMS accredited CRB shall at a minimum contain statements that certify the following concepts:

- Conformity of the suppliers QMS to the requirements of ISO 9001:2001\* and/or applicable specific AQMS 9100/9110/9120\* version used (e.g. AS9100 or prEN9110).
- Audit performed i.a.w requirements of relevant SMS Aerospace Supplier Quality System Certification/Registration requirements, including reference to applicable SMS document.
- Effective date of certification / registration and term of validity with maximum period of 3 years.
- CRB is accredited under the control of the aerospace sector scheme

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

NOTE: Above statements are NOT pro-forma words. CRB shall establish own wording to certify above concepts. Separate certificates for ISO 9001 and relevant AQMS are permitted.

(AS9104 Clause 8.6)

Certificate may show National Aerospace Industry Association or SMS logo. If logo used then certificate shall mention CRB is accredited and qualified under this scheme (AS9104 Clause 8.6)

Letters of Conformance and unaccredited assessment statements shall be clearly distinguishable from accredited certificates. Unaccredited certificates shall not be issued. (AS9104 Clause 8.6)

Where CRB misuses a logo or AS9104 their accreditation may be suspended or revoked. (AS9104 Clause 8.6)





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### **Surveillance and Re-certification Assessments**

Start Surveillance and Re-certification Assessments (AS9104 Clause 8.5)

For accredited certificates CRB shall conduct surveillance and recertification audits i.a.w AS9104, SMS requirements, ISO/IEC Guide 62 and IAF Guidance on the Application of ISO/IEC Guide 62 (AS9104 Clause 8.5)

#### Surveillance scoring:

- Only the audited areas of the AQMS shall be scored using the Aerospace Assessment Report and Questionnaires.
- Scoring for non-assessed areas of AQMS remain unchanged from previous audit.
- If no scoring performed on previous audit, then scores shall be calculated and assigned to non-assessed areas of AQMS based on previous audit report.
- (AS9104 Clause 8.5)

Results from all sureveillance and recertification audits shall be entered into the IAQG-OASIS database. (AS9104 Clause 8.5)

End Of Sub-Process



### Loss of Certification/Registration

Start Loss of Certification / Registration (AS9104 Clause 8.7)

- Detected systemic findings by IAQG OEMs during their regular surveillance activities (e.g. process product audits) could trigger additional surveillance activities by the CRB.
- The ultimate result could be loss of Registration/Certification by the supplier.

(AS9104 Clause 8.7.1)

IAQG OEMs require suppliers to notify them when:

- > They lose registration, OR
- Their CRB loses AQMS accreditation. (AS9104 Clause 8.7.2)

- CRBs shall update the IAQG-OASIS database when suppliers lose or lapse their AQMS certificates.
- OASIS shall be updated by the CRB or database administrator (See Clause 6.4 h.) (AS9104 Clause 8.7.2)

End Of Sub-Process



### Authentication and Oversight of Accreditation Body Process

Start Authentication and Oversight of ABs Process

The SMS shall approve/ determine which ABs may participate in selection of CRBs and auditors (AS9104 Clause 9.1)

The method of recognition and oversight shall be documented and SMS shall enter AB details entered into OASIS (AS9104 Clause 9.1) SMS shall perform oversight of ABs participating in AQMS qualification of CRBs using the following criteria as a minimum:

- Annual review of AB oversight activity of CRBs participating in AQMS programs.
- Annual onsite office audit of AB.
- Annual witness audit of at least one AQMS accreditation or surveillance audit of a CRB.

(AS9104 Clause 9.2)

Note: SMS may perform above witness audit with AB as part of the combined oversight visit mentioned in Clause 10.9 'NOTE'. End of AB Authentication and Oversight Process See CRB Authentication and Oversight Process Flowchart



### Authentication and Oversight of Certification/Registration Bodies

Start Authentication and Oversight of Certification/Registration Bodies (AS9104 Clause 10.0)

The AQMS Standard qualification of CRBs shall be granted and surveillance performed i.a.w AS9104. (AS9104 Clause 10.1)

The SMS shall conduct an annual

review to evaluate CRBs and the

effectiveness of the process for

(AS9104 Clause 10.1)

The review shall be i.a.w AB

procedures and have SMS

The CRB's Audit Management

IAQG sector schemes shall

the AQMS certification/

does not exist for AQMS

registrations).

standards.

Program shall be approved via AB

(AS9104 Clause 8.4)

accredit management offices of

The concept of "satellite offices"

(AS9104 Clause 10.3)

CRBs ( the office which manages

approval of CRBs.

approval.

oversight.

 $\geq$ 

 $\geq$ 

#### 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. (AS9104 Clause 10.6)

Member companies of IAQG sectors will perform oversight of CRBs used by their suppliers and report results to the SMS, as necessary. (AS9104 Clause 10.6)

ABs shall conduct annual surveillance audits and one witness audit per year (minimum) of CRBs having AQMS Standards accreditation, per ABs operating procedures. (AS9104 Clause 10.5)

 CRBs can conduct audits in any country from the accredited office.

- The accredited office shall manage the audit and make the certification decision.
- When auditing in other countries the audit team shall address any applicable local aerospace regulations.

(AS9104 Clause 10.4)

The SMS shall perform oversight on participating CRBs by:

- Annual onsite office assessment at each CRB.
- Witness at least one audit of an AQMS standard by the CRB at a supplier.

(AS9104 Clause 10.9)

#### 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 Clause 10.5.

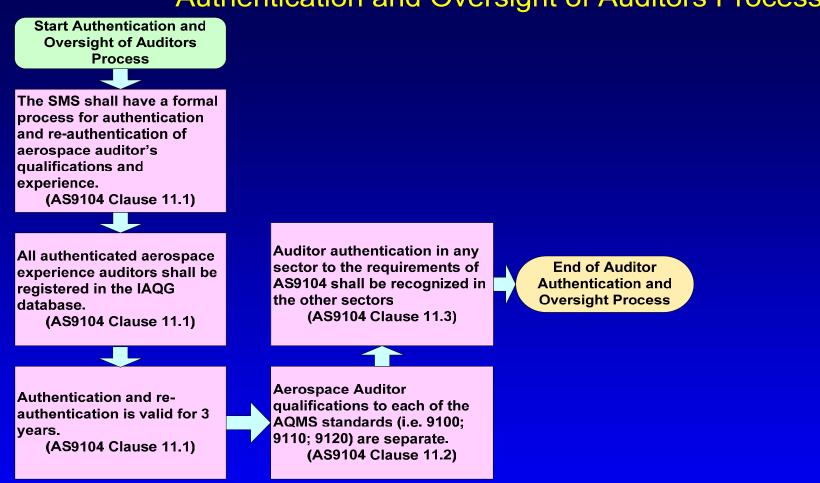
- CRBs may lose AQMS
   Standard(s) accreditation based on performance, per ABs
   operating procedures.
- ABs shall immediately notify the SMS when CRB accreditation is suspended or withdrawn.
- SMS shall notify IAQG OEMs of this change.
- AB shall update OASIS to reflect any change in CRB accreditation status.

(AS9104 Clause 10.8)



End Of Sub-Process

<sup>(</sup>AS9104 Clause 10.9)



### Authentication and Oversight of Auditors Process



### **Complaints Process**

Start Complaints Process Clause 10.7

Any complaints from either the audited organization or OEM regarding CRB's performance shall be handled directly by complainant with that CRB. (AS9104 Clause 10.7)

CRB's internal disputes/ appeals/complaints process is to be used before other actions are taken. (AS9104 Clause 10.7)

If supplier/OEM cannot resolve issues with CRB then matter is referred to AB. (AS9104 Clause 10.7)

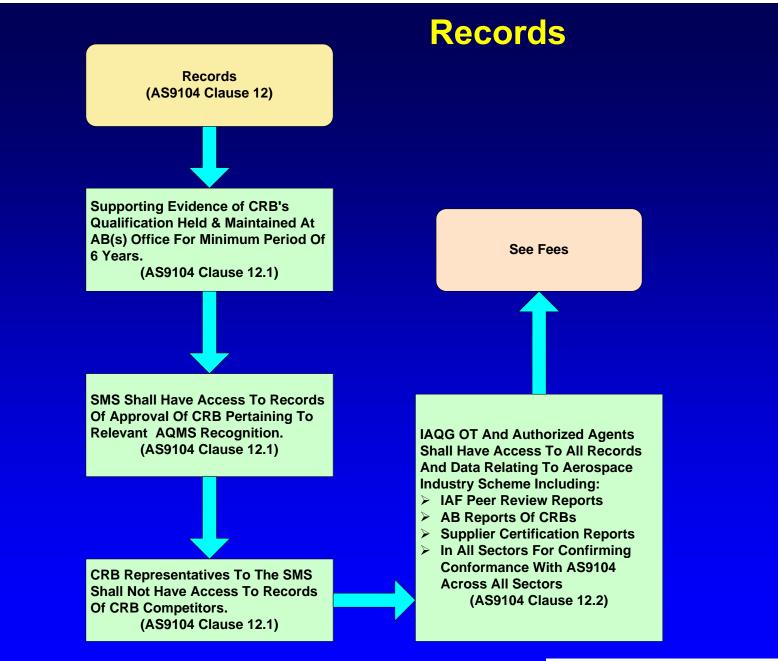
If problem is related to CRB performance and cannot be resolved to the satisfaction of the organization or the OEM(s) involved, the matter shall be referred to the SMS. (AS9104 Clause 10.7) Any issues which cannot be resolved at the SMS level shall be elevated to the IAQG Oversight function i.a.w Clause 14.1. (AS9104 Clause 10.7)

The SMS will investigate and could recommend:

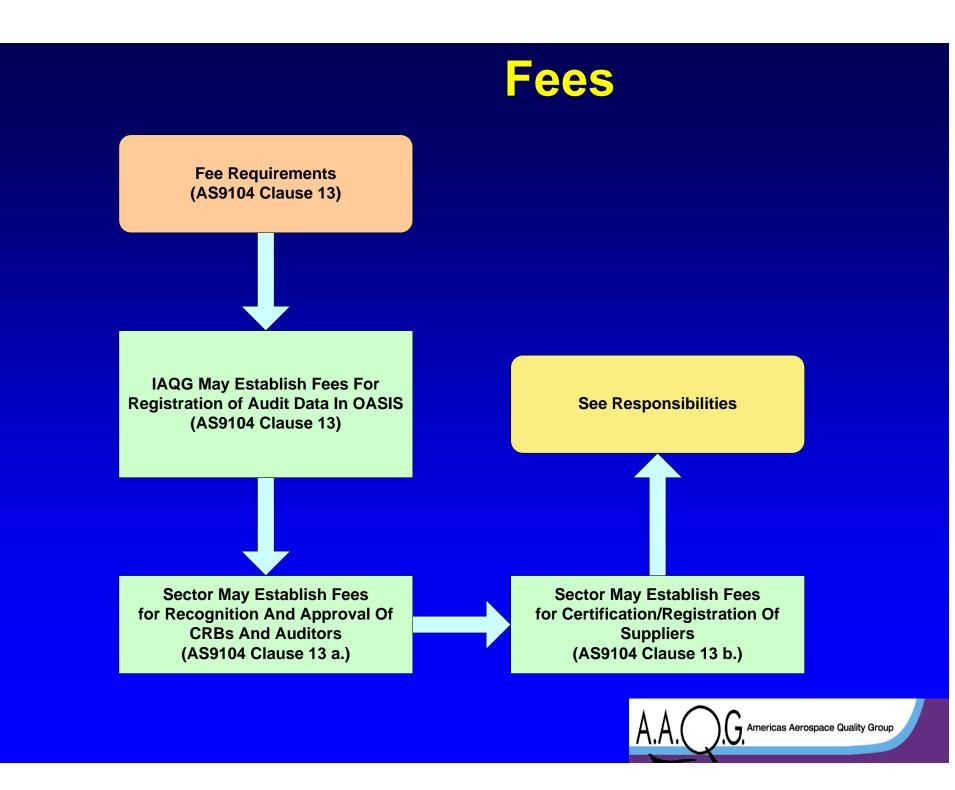
- Loss of CRB's accreditation, OR
- Loss of CRB's AQMS qualification.
- Removal of an individual auditor's approval.
- Removal of AB for failure to properly govern CRBs. (AS9104 Clause 10.7)

End of Complaints Process









## **Responsibilities**

#### Start Responsibilities (AS9104 Clause 14.)

Procedure – Any issues related to implementation or use of AS9104 shall be referred to IAQG OT. (AS9104 Clause 14.1)

- Any issues regarding AS9104 that are not resolved by the IAQG OT shall be referred to the IAQG Council.
- The decision of the IAQG Council is final.

(AS9104 Clause 14.1)

#### Responsibilities of the IAQG OT:

- Perform an annual operational review of each Sector scheme to verify implementation as documented and agreed upon by the other Sectors.
- Provide a mechanism for a periodic review of lessons learned by each sector and review any proposed changes to Sector schemes.
- Ensure IAQG OASIS database operates effectively and is accessible to IAQG members.
- Provide summary report to the full IAQG on the periodic reviews of each Sector scheme.
- Evaluate results of IAF Peer Reviews of ABs and participate in those reviews, as necessary.
- Monitor feedback from IAQG members, registrars and suppliers.
- Review the management of OASIS database. (AS9104 Clause 14.2)

#### Composition of the IAQG OT:

- Each IAQG Sector appoints 3 representatives with voting rights (that are part of the SMS) to meet at least annually with counterparts from other Sectors to accomplish objectives (See previous box).
- Their meeting can be coordinated with a regularly scheduled IAQG meeting.
- Meetings will be <u>open</u> for general topics and <u>closed</u> for oversight activities or other industry specific topics.
- Representatives from IAF and regulatory authorities may participate in these meetings as observers.

(AS9104 Clause 14.3)

IAQG Oversight Activities: IAQG shall perform reviews as indicated in AS9104, Appendix B. (AS9104 Clause 14.4)

End Of Sub-Process



# **Sector Management Structure (SMS)**

Start Sector Management Structure (AS9104 Clause 15.)

#### Responsibilities of the SMS

The SMS is responsible for the:

- > Management
- > Review
- > Approval
- Implementation, and
- Modification
- of their sectorial procedure(s). (AS9104 Clause 15.1)

The SMS shall be the governing body by which the requirements for and approval of CRBs and auditors to AQMS Standards are determined. (AS9104 Clause 15.1)

#### **Composition of SMS**

The composition of each SMS is based on the local situation of each Sector and can be comprised of representatives from:

- > ABs
- > CRBs
- Suppliers
- Regulatory authorities
- Sector group (i.e. Americas Aerospace Quality Group (AAQG); Asia Pacific Aerospace Quality Group (APAQG); European Aerospace Quality Group (EAQG); AECMA)

(AS9104 Clause 15.2)

#### Reporting of Essential Data Each SMS shall report essential

data that describes deployment activities to the IAQG OT.

Essential data includes information on:

- The auditor population (approvals, disapprovals, Number of Aerospace Experience Auditors)
- The CRB population (approvals, disapprovals)
- Auditor training and authentication organizations
- Number of AQMS Standards certifications issued, and
- > IAQG OEM oversight activity.

AB, CRB, auditor approval documents and audit reports by CRBs of suppliers, and by ABs of CRBs may be audited by the IAQG OT.

(AS9104 Clause 15.3)

The following serve in an advisory capacity without formal voting rights:

- > ABs
- CRBs
- Suppliers
- Regulatory authorities. (AS9104 Clause 15.2)

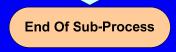
#### Sector Resolutions

Each Sector may define a process for, and issue resolutions (i.e. a change or an interpretation to their scheme). However, they shall ensure to get concurrence from the other Sectors IAQG OT representatives before issuance. (AS9104 Clause 15.4)

#### SMS Authority

The SMS has the authority for suspending a national scheme (ABs and CRBs in case of lack of evidence on compliance to or serious breach of the requirements of AS9104.

The actions and resolutions associated to a national scheme suspension will be established by the involved SMS and communicated through the IAQG -OT to the other Sectors (AS9104 Clause 15.5)





# **IAQG Oversight Team (OT) Activities**

Start IAQG OT Activities (AS9104 Appendix B)

#### **Oversight Team (OT) Meetings**

During meetings the oversight function shall review the following topics, as appropriate:

- > Reports from each of the sector schemes.
- > IAF Peer Reviews.
- > Appeals.
- Changes to this document and sector scheme documents.
- > 'Resolutions' made by individual sector schemes.
- Lessons learned.
- > Feedback from Members, Registrars, Suppliers.
- Database performance review (see Section B.3). (AS9104 Appendix B.1)

Oversight Team (OT) Annual Review of a Sector Scheme The annual oversight of each scheme format will involve a presentation by the SMS to the OT that demonstrates the compliance of the national scheme to the requirements of this document, including review of:

- Controlling procedures.
- Minutes of SMS meetings.
- Reports of CRB accreditation.
- > Certification/Registration Reports from CRBs.
- > Auditor authentication records.
- Training body approvals.
- Any feedback from IAQG Members, Registrars and Suppliers as to the kind of job that is being done.
- > IAF Peer Reviews (oversight) of IAF AB signatories.

An Oversight report shall be prepared. In addition, separate minutes containing lessons learned from other SMS's shall be produced. (AS9104 Appendix B.2)

#### **Review of OASIS Database Operations**

The review of database operations shall consider:

- Reviewing reports from database administrator relating to rejections of any input data
- Checking that each SMS has a process of assuring the accuracy of data being generated and maintained in their sector.
- > Each sector should look at its own data.
- > Sampling of data is permitted.
- Effectiveness and accessibility of the database through feedback monitoring from IAQG Members, ABs, Registrars and Suppliers.

(AS9104 Appendix B.3)

Actions in the Event of Serious Problems If serious problems are discovered in the operation of a CRB or AB the OT shall make arrangements for an audit or other actions necessary to address the problem. (AS9104 Appendix B.4)

#### NOTE:

- Each SMS has the responsibility to manage/resolve these kinds of issues within their sector.
- > Only unresolved issues are escalated to the IAQG OT.

#### End Of AS9104 Process

