



DRIVING WORLDWIDE BUSINESS EXCELLENCE

Aerospace

Training & Workshop Catalog





AEROSPACE QMS



CORE TOOLS



PROBLEM SOLVING



IMPROVEMENT METHODOLOGIES



SOFTWARE

One of the largest quality consulting companies in the world with 33 years of professional service experience & strategic operations consulting

Every hour, somewhere, someone is getting trained by Omnex

Omnex has extensive expertise in many industries including:

MANUFACTURING

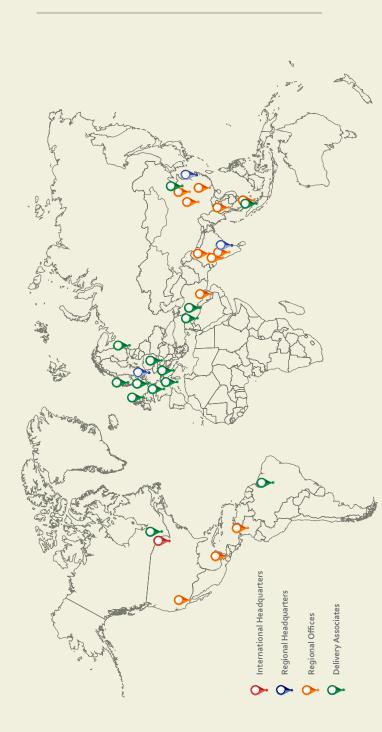
- Automotive
- Semiconductor
- **Medical Devices**
- Pharmaceutical
- Aerospace

SERVICE

- Transportation
- Health Care
- Construction
- Telecommunication
- Electronics
- Engineering
- Oil/ Natural gas
- Banking
- Hospitality
- Information technology/ BPO

Our capability and global reach provides clients a reliable approach in use of methodologies, training/workshop materials and consistent deployment methods at all their locations even in the local languages used by our clients.

Worldwide locations



40

77

Sales/Support **SMEs Engaged**

Consultants

USA, Europe

Worldwide Staff

255

Consultants

Africa, Asia Pacific

25

Sales/Support **SMEs Engaged**

USA - Global Headquarters

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CHINA / Far East - Headquarters

888

Total

China, Japan, Far East

185

Consultants

35

Sales/Support

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Who do we serve? Our global clients will tell you...

























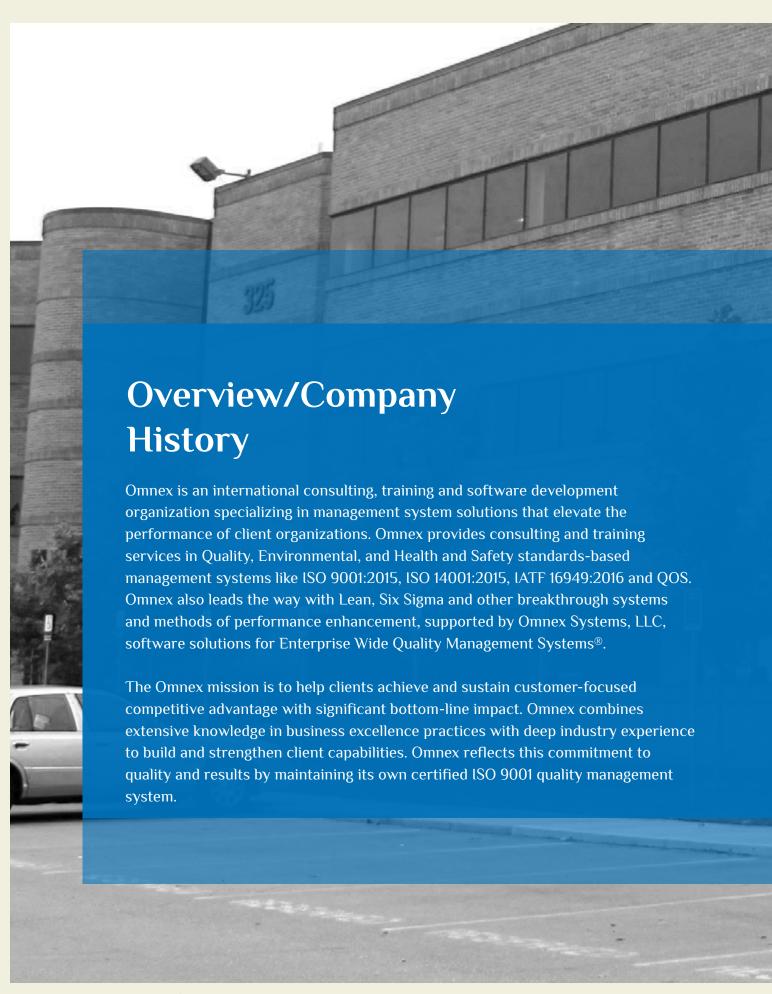












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MESSAGE FROM THE CTO

At Omnex, we have the world's leading quality experts at work. If you have a quality or productivity issue that doesn't seem solvable, contact me directly. I will personally work with you to find a solution.

Chad Kymal cto@omnex.com

Founded in 1985, Omnex is headquartered in Ann Arbor, Michigan and has branch offices throughout the world. Omnex is strategically placed globally to better serve the expanding international marketplace providing services in over 51 countries. Omnex is also a global leader in consulting and training that directly impact clients profitability by significantly improving quality and productivity through a unique integrated methodology designed to continuously improve their business management systems.

Omnex is the leading provider of performance-focused training to both the manufacturing and service sectors, regularly conducting public and in-company seminars on many subjects. Omnex has more than 200 workshops that are being conducted worldwide. These training workshops are available globally in more than a dozen languages and dialects. Every month Omnex trains more than a 1000 people worldwide. Many of our workshop training programs are accredited worldwide by renowned bodies such as Exemplar, RAB QSA, AlAG, IRCA, to name a few.

Profile







Omnex Management and Engineering Consultants, LLC specializes in creating management systems that elevate the performance of client organizations. As a leading international consulting and training organization, Omnex brings together world-class talent with local presence to deliver high impact expertise in today's global business environment.

Founded in 1985, Omnex is headquartered in Ann Arbor, Michigan and has branch offices throughout the world. Omnex is strategically placed globally to better serve the expanding international marketplace and has worked in over 51 countries. Omnex is also a global leader in consulting and training that directly impact clients' profitability by significantly improving quality and productivity through a unique integrated methodology designed to continuously improve their business management systems.

Omnex emphasizes and facilitates cost savings and improvement to business processes while meeting and exceeding customer expectations for product quality. This enables our clients to maintain and expand their existing business in the face of a more competitive world market. Our goal is to transfer our knowledge and industry experience to our clients so that they may fully utilize this competitive advantage.



CONSULTING

Omnex provides Quality, Environmental, Safety and Performance Enhancement consulting/integrated training to an extensive array of service and manufacturing sector companies. Omnex identifies and effectively deploys strategies, goals and methodologies in close participation with its clients to achieve and sustain operationalexcellence. The consulting services deployed and available worldwide to our client base include the implementation of the following standards: ISO 9001, ISO 14001, AS9100D and a host of other standards including a unique integrated management system of EMS,OH&S and QMS.



TRAINING SERVICES

Omnex is the leading provider of performance-focused trainingto both the manufacturing and service sectors, regularly conducting public and in-company seminars on many subjects. Omnex has more than 240 workshops that are being conducted worldwide. The training workshops are available in more than a dozen languages and dialects. Every month Omnex trains more than a 1000 people worldwide. Many of our workshop training programs are accredited worldwide by renowned bodies such as Exemplar Global, AlAG, IRCA to name a few.



CONSULTING AND TRAINING INTEGRATED APPROACH

Recognizing the strategic importance of product commercialization, Omnex integrates consulting and training services to support the development and deployment of effective processes for product planning, development (product and process design), verification, launch and continual improvement to help ensure the supplier's ability to meet all of its customers' requirements. We have notable experience in having framed the New Product Development methods and strategies for our OEM clients from Truck, Automotive, Aerospace, Engineering and Railway industries specifically.



SOFTWARE

Omnex's EwQIMS or Enterprise-wide Quality and Integrated Management Systems Suite is a revolutionary software suite of 12 modules that are completely integrated to form Enterprise Quality Planning Suite, QHSE/IMS Solutions, Automotive QMS, Aerospace QMS and Supplier Management. It empowers you to run quality and business processes efficiently.

Omnex Training Overview

Operational and Business Excellence

Each hour, somewhere in the world, Omnex is educating people on how to achieve their business and operational excellence objectives. Omnex has taught more than 400,000 individuals in over 30 countries. Recognizing that people learn in different ways and that knowledge transfer is critical to learning, Omnex offers a variety of approaches from the traditional classroom approach to hands-on workshops to project-based learning experiences-in over a dozen languages and dialects.

Training at the Cutting Edge

Our business is knowing the management systems, methodologies, technologies and standards that are constantly changing in your business. We stay on top of these changes. By working with Omnex, you know you are getting the most up-to-date information that conforms with the latest requirements for business excellence in your industry.

Omnex Educators: Operational People

With an average of 25 years' experience in their industries of specialty, our trainers teach you the latest innovations, techniques, procedures and systems that they are deploying with our current consulting clients.

Certifying Bodies

Omnex worldwide training is regularly evaluated and certified by the governing bodies like Exemplar Global and IRCA. If you are a Lead or Internal Auditor, you can be confident that you are receiving auditor training that has been certified or approved and that meets customer specific requirements.

On-site Training / Workshop Approach

On-site training courses are delivered to your team, at your location, on your schedule, without sacrificing your organization's project plans. This training method eliminates your travel-related expenses and it offers the convenience of arranging the training to fit your time constraints. If your goal is to train five or more employees in the near term, then on-site training generally is your most cost-effective strategy.

On-site training allows you to focus course content on the issues that are affecting your organization today. This level of personal attention cannot be accomplished through public seminars, videos, or any other training option. The on-site allows you to dive deeper into your most important corporate issues and determine their root causes.

Project-based Workshop Approach

Many companies find that a traditional training-based approach is less-than-effective for participants' ability to learn. The Omnex Project-based Workshop is only taught by educators trainers who have extensive and in-depth knowledge of product and process engineering. In fact, our educators/instructors have an average of 25 years of industry experience.

This project-based workshop approach has two major advantages:



Your investment in training is measurable when the project is completed



By the end of the workshop, the participants successfully manage a project of your choosing under the direction of Omnex consultants

This results in substantial business improvements even while people are still in training, and helps your employees develop self-sufficiency. The project-based workshop approach provides the ultimate in value, cost savings and profitability



AS9100 - Aerospace and Defense Training and Workshops

Omnex helps organizations who are implementing AS9100D, AS9110, AS9115 or AS9120 for the first time or those who are making a transition from either ISO 9001 or older versions of the AS9100 series. Not only do we offer a full range of training classes from simply understanding the standard to implementing and/or documenting the standard all the way to internal and/or lead auditor training, but Omnex experts can also come to your site(s) for implementation assistance. Note, Omnex auditor training not only teaches AS9100 auditing, but also includes Aerospace auditing practices as per AS9101 requirements.

Omnex brings our specialized methodologies for Risk Management, Aerospace APQP/PPAP (AS9145), New Product Launch, and Characteristic Classification that we have practiced for over 26 years. We offer training in AS9102 First Article Inspection, AS9103 Variation Management of Key Characteristics and other Aerospace requirements.

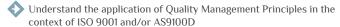


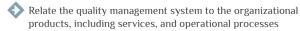
Understanding the Requirements for AS9100D for Aerospace Quality Management Systems

Duration: 2 Days



Seminar Goals





Seminar Content

- · Introduction and Welcome
- The ISO 9000 & AS9100 Family of Standards Explained
- Introduction to ISO 9001 and AS9100D
- ISO 9001 and AS9100D Requirements
 - Group Exercise 1: Context of the Organization
 - · Group Exercise 2: Interested Party Expectations
- ISO 9001 and AS9100D Requirements (cont'd)
 - Group Exercise 2: Audit Scenarios Clauses 4-6
 - Group Exercise 3: Audit Scenarios Clauses 7-8
 - Group Exercise 4: Audit Scenarios Clauses 9-10

AS9100D Internal Auditor Training for Aerospace Quality Management Systems

Duration: 4 Days



Seminar Goals

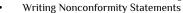
- Understand the application of Quality Management Principles in the context of ISO 9001 and/or AS9100D
- Relate the quality management system to the organizational products, including services, and operational processes
- Understand the application of the principles, procedures and techniques of auditing
- Understand the conduct of an effective audit in the context of the auditee's organizational situation
- Understand the application of the regulations, and other considerations that are relevant to the management system, and the conduct of the audit
- Practice personal attributes necessary for the effective and efficient conduct of a management system audit

Seminar Content

- Introduction and Welcome
- The ISO 9000 & AS9100 Family of Standards Explained
- Introduction to ISO 9001 and AS9100D
- ISO 9001 and AS9101F Requirements
 - Group Exercise 1: Context of the Organization & Interested Parties
- ISO 9001 and AS9101F Requirements (cont'd)



- Group Exercise 2: Audit Scenarios Clauses 4-6
 Group Exercise 3: Audit Scenarios Clauses 7-8
- Group Exercise 4: Audit Scenarios Clauses 9-10
- Introduction to Turtle Diagrams and Audit Trails
- Management of Audit Programs
- · Audit Planning and Preparation
 - Breakout Exercise 1: Scope and Objectives
 - Breakout Exercise 2: Documentation Review
 - Breakout Exercise 3: Creating an Audit Plan
- · Performing the Audit
 - Breakout Exercise 4: Performing an Audit



- Breakout Exercise 5: Writing Nonconformities
- Closing Meeting
- Completing the Audit Report
- Corrective Action and Closeout
- Exam



Omnex's AS9100 Series of training integrated APQP/PPAP/AS9145. Additionally it integrates all relevant IAQG standards since Omnex recommends integration of all Aerospace standards into one management system.





AS9100D Lead Auditor Training for Aerospace Quality Management Systems

Duration: 5 Days

Exemplar Global

Seminar Goals

- Understand the application of Quality Management Principles in the context of ISO 9001 and/or AS9100D
- Relate the quality management system to the organizational products, including services, and operational processes
- Understand the application of the principles, procedures and techniques of auditing
- Understand the conduct of an effective audit in the context of the auditee's organizational situation
- Understand the application of the regulations, and other considerations that are relevant to the management system, and the conduct of the audit
- Practice personal attributes necessary for the effective and efficient conduct of a management system audit
- Establish, plan and task the activities of an audit team
- Communicate effectively with the auditee and audit client
- Organize and direct audit team members
- Prevent and resolve conflict with the auditee and/or within the audit team
- Prepare and complete the audit report

Seminar Content

- Introduction and Welcome
- The ISO 9000 & AS9100 Family of Standards Explained
- Introduction to ISO 9001 and AS9100D
- ISO 9001 and AS9101F Requirements
- ISO 9001 and AS9101F Requirements (cont'd)
- Introduction to Turtle Diagrams and Audit Trails
- Management of Audit Programs
- Audit Planning and Preparation
 - Breakout Exercise 1: Scope and Objectives
 - Breakout Exercise 2: Documentation Review
 - Breakout Exercise 3: Creating an Audit Plan
- Performing the Audit
 - Breakout Exercise 4: Performing an Audit
- Writing Nonconformity Statements
 - Breakout Exercise 5: Writing Nonconformities
- · Closing Meeting
- Completing the Audit Report
- Corrective Action and Closeout
- Leading Audit Teams
- Customer-Specific Requirements
- Management System Certification Scheme and Auditor Oualifications
- Review of Audit Process and Audit Management Strategies
 - · Case Study Mock Audit
- Practical Application of Audit Principles and Instructor Interviews



Understanding the Requirements for AS9110C for Aerospace Quality Management Systems

Duration: 2 Days



Seminar Goals

- Understand the application of Quality Management Principles in the context of ISO 9001, AS9100D and/or AS9110C
- Relate the quality management system to the organizational products, including services, and operational processes

- · Introduction and Welcome
- The ISO 9000 & AS9100 Family of Standards Explained
- Introduction to ISO 9001, AS9100D and AS9110C
- ISO 9001, AS9101D and AS9110C Requirements
 - Group Exercise 1: Context of the Organization
 - Group Exercise 2: Interested Party Expectations
- ISO 9001, AS9101D and AS9110C Requirements (cont'd)
 - Group Exercise 3: Audit Scenarios Clauses 4-6
 - Group Exercise 4: Audit Scenarios Clauses 7-8
 - Group Exercise 5: Audit Scenarios Clauses 9-10



AS9110C Internal Auditor Training for Aerospace Quality Management Systems

Duration: 3 Days



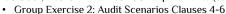
Seminar Goals

- Understand the application of Quality Management Principles in the context of ISO 9001, AS9100D and/or AS9110C
- Relate the quality management system to the organizational products, including services, and operational processes
- Understand the application of the principles, procedures and techniques of auditing
- Understand the conduct of an effective audit in the context of the auditee's organizational situation
- Understand the application of the regulations, and other considerations that are relevant to the management system, and the conduct of the audit
- Practice personal attributes necessary for the effective and efficient conduct of a management system audit

Seminar Content

- · Introduction and Welcome
- The ISO 9000 & AS9100 Family of Standards Explained
- Introduction to ISO 9001, AS9100D and AS9110C
- ISO 9001, AS9101D and AS9110C Requirements
 - Group Exercise 1: Context of the Organization & Interested Parties





- Group Exercise 3: Audit Scenarios Clauses 7-8
- Group Exercise 4: Audit Scenarios Clauses 9-10
- Introduction to Turtle Diagrams and Audit Trails
- Management of Audit Programs
- Audit Planning and Preparation
 - Breakout Exercise 1: Scope and Objectives
 - Breakout Exercise 2: Documentation Review
 - Breakout Exercise 3: Creating an Audit Plan
- · Performing the Audit
 - Breakout Exercise 4: Performing an Audit
 - Writing Nonconformity Statements
 - Breakout Exercise 5: Writing Nonconformities
- Closing Meeting
- Completing the Audit Report
- Corrective Action and Closeout

AS9110C Lead Auditor Training for Aerospace Quality Management Systems

Duration: 5 Days

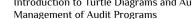


Seminar Goals

- Understand the application of Quality Management Principles in the context of ISO 9001, AS9100D and/or AS9110C
- Relate the quality management system to the organizational products, including services, and operational processes
- Understand the application of the principles, procedures and techniques of auditing
- Understand the conduct of an effective audit in the context of the auditee's organizational situation
- Understand the application of the regulations, and other considerations that are relevant to the management system, and the conduct of the audit
- Practice personal attributes necessary for the effective and efficient conduct of a management system audit
- Establish, plan and task the activities of an audit team
- Communicate effectively with the auditee and audit client
- Organize and direct audit team members
- Prevent and resolve conflict with the auditee and/or within the audit team
- Prepare and complete the audit report

- Introduction and Welcome
- The ISO 9000 & AS9100 Family of Standards Explained
- Introduction to ISO 9001, AS9100D and AS9110C
- ISO 9001, AS9101D and AS9110C Requirements
- ISO 9001, AS9101D and AS9110C Requirements (cont'd)





- Audit Planning and Preparation
 - Breakout Exercise 1: Scope and Objectives
 - Breakout Exercise 2: Documentation Review
 - Breakout Exercise 3: Creating an Audit Plan
- Performing the Audit
 - · Breakout Exercise 4: Performing an Audit
- Writing Nonconformity Statements
 - Breakout Exercise 5: Writing Nonconformities
- Closing Meeting
- Completing the Audit Report
- Corrective Action and Closeout
- Leading Audit Teams
- Customer-Specific Requirements
- Management System Certification Scheme and Auditor Oualifications
- Review of Audit Process and Audit Management Strategies
 - Case Study Mock Audit
- Practical Application of Audit Principles and Instructor Interviews





Understanding and Documenting AS9120B Aerospace Quality Management Systems

Duration: 2 Days

Exemplar Global

Seminar Goals





Relate the quality management system to the organizational products, including services, and operational processes

Seminar Content

- Introduction and Welcome
- Understanding Aviation, Defense and Space Industry Standards
- The Challenge for Top Management and the Eight Quality Management Principles
- The ISO 9001 and AS9100 Standards Explained
- Overview of AS9120B Requirements
 - **Breakout Exercise 1: Exclusions**
- Overview of AS9120B Requirements (cont'd)
- Introduction to AS9120B Audit Trails
 - · Breakout Exercise 2: Documentation Review

AS9120B Internal Auditor Training for **Aerospace Quality Management Systems**

Duration: 3 Days

Seminar Goals



- Understand the application of Quality Management Principles in the context of ISO 9001 and/or AS9120B
- Relate the quality management system to the organizational products, including services, and operational processes
- Understand the application of the principles, procedures and techniques of auditing
- Understand the conduct of an effective audit in the context of the auditee's organizational situation
- Understand the application of the regulations, and other considerations that are relevant to the management system, and the conduct of the audit
- Practice personal attributes necessary for the effective and efficient conduct of a management system audit

Seminar Content

- Introduction and Welcome
- Understanding Aviation, Defense and Space Industry Standards
- The Challenge for Top Management and the Eight Quality Management Principles
- The ISO 9001 and AS9100 Standards Explained
- Overview of AS9120B Requirements
 - Breakout Exercise 1: Exclusions
- Overview of AS9120B Requirements (cont'd)
- Introduction to AS9120B Audit Trails
 - · Breakout Exercise 2: Documentation Review
- Management of Audit Programs
- Audit Planning and Preparation
 - Breakout Exercise 3: Scope and Objectives
 - · Breakout Exercise 4: Audit Plan
- Performing the Audit
 - · Breakout Exercise 5: Opening Meeting
 - Breakout Exercise 6: Conducting the Audit
- Writing Nonconformity Statements
 - Breakout Exercise 7: Writing Nonconformities
- **Closing Meeting**
 - Meeting
- Completing the Audit Report
- Corrective Action and Closeout
 - Breakout Exercise 9: Verification and Closeout

Breakout Exercise 8: Summary Statement and Closing

Note: The Aerospace Auditor Transition Training (AATT) must also be completed in order to become a certified Aerospace Auditor

AS9120B Lead Auditor Training for **Aerospace Quality Management Systems**

Duration: 5 Days



Seminar Goals

- Understand the application of Quality Management Principles in the context of ISO 9001 and/or AS9120B
- Relate the quality management system to the organizational products, including services, and operational processes
- Understand the application of the principles, procedures and techniques of auditing
- Understand the conduct of an effective audit in the context of the auditee's organizational situation
- Dunderstand the application of the regulations, and other considerations that are relevant to the management system, and the conduct of the audit
- Practice personal attributes necessary for the effective and efficient conduct of a management system audit
- Establish, plan and task the activities of an audit team
- Communicate effectively with the auditee and audit client
- Organize and direct audit team members
- Prevent and resolve conflict with the auditee and/or within the audit
- Prepare and complete the audit report

Seminar Content

- Introduction and Welcome
- Understanding Aviation, Defense and Space Industry
- The Challenge for Top Management and the Eight Quality Management Principles
- The ISO 9001 and AS9100 Standards Explained
- Overview of AS9120B Requirements
 - · Breakout Exercise 1: Exclusions
- Overview of AS9120B Requirements (cont'd)
- Introduction to AS9120B Audit Trails
 - · Breakout Exercise 2: Documentation Review
- Management of Audit Programs
- **Audit Planning and Preparation**
 - Breakout Exercise 3: Scope and Objectives
 - Breakout Exercise 4: Audit Plan
- Performing the Audit
 - · Breakout Exercise 5: Opening Meeting
 - · Breakout Exercise 6: Conducting the Audit
- Writing Nonconformity Statements
 - **Breakout Exercise 7: Writing Nonconformities**
- Closing Meeting
 - Breakout Exercise 8: Summary Statement and Closing Meeting
- Completing the Audit Report
- Corrective Action and Closeout
 - Breakout Exercise 9: Verification and Closeout
- Review of Audit Process and Audit Management Strategies
 - · Case Study Mock Audit
- Practical Application of Audit Principles and Instructor



Understanding the Requirements for AS9115A for Aerospace Quality Management Systems

Duration: 2 Days



Seminar Goals

- Understand the application of Quality Management Principles in the context of ISO 9001, AS9100D, and AS9115A
- Relate the quality management system to the organizational products, including services, and operational processes

- Introduction and Welcome
- The ISO 9000 & AS9100 Family of Standards Explained
- Introduction to ISO 9001 and AS9115A
- ISO 9001 and AS9115A Requirements
 - Group Exercise 1: Context of the Organization & Interested **Parties**
 - · Group Exercise 2: Assessing and Evaluating Risk
- ISO 9001 and AS9115A Requirements
 - Group Exercise 3: Audit Scenarios Clauses 4-6
 - Group Exercise 4: Audit Scenarios Clauses 7-8 Group Exercise 5: Audit Scenarios Clauses 9-10



AS9115A Internal Auditor Training for Aerospace Quality Management Systems

Duration: 3 Days

Exemplar Global

Seminar Goals

- Understand the application of Quality Management Principles in the context of ISO 9001 and/or AS9115A
- Relate the quality management system to the organizational products, including services, and operational processes
- Understand the application of the principles, procedures and techniques of auditing
- Understand the conduct of an effective audit in the context of the auditee's organizational situation
- Understand the application of the regulations, and other considerations that are relevant to the management system, and the conduct of the audit
- Practice personal attributes necessary for the effective and efficient conduct of a management system audit

Seminar Content

- Introduction and Welcome
- The ISO 9000 & AS9100 Family of Standards Explained
- Introduction to ISO 9001 and AS9115A
- ISO 9001 and AS9115A Requirements
 - Group Exercise 1: Context of the Organization & Interested Parties
 - · Group Exercise 2: Assessing and Evaluating Risk
- ISO 9001 and AS9115A Requirements
 - Group Exercise 3: Audit Scenarios Clauses 4-6
 - Group Exercise 4: Audit Scenarios Clauses 7-8
 - Group Exercise 5: Audit Scenarios Clauses 9-10
- · Introduction to Turtle Diagrams and Audit Trails
- Management of Audit Programs
- Audit Planning and Preparation
 - Breakout Exercise 1: Scope and Objectives
 - Breakout Exercise 2: Documentation Review
 - Breakout Exercise 3: Creating an Audit Plan
- Performing the Audit
 - Breakout Exercise 4: Performing an Audit
- Writing Nonconformity Statements
 - Breakout Exercise 5: Writing Nonconformities
- Closing Meeting
- Completing the Audit Report
- Corrective Action and Closeout

AS9115A Lead Auditor Training for Aerospace Quality Management Systems

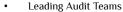
Duration: 5 Days

Seminar Goals



- Understand the application of Quality Management Principles in the context of ISO 9001 and/or AS9115A
- Relate the quality management system to the organizational products, including services, and operational processes
- Understand the application of the principles, procedures and techniques of auditing
- Understand the conduct of an effective audit in the context of the auditee's organizational situation
- Understand the application of the regulations, and other considerations that are relevant to the management system, and the conduct of the audit
- Practice personal attributes necessary for the effective and efficient conduct of a management system audit
- Establish, plan and task the activities of an audit team
- Communicate effectively with the auditee and audit client
- Organize and direct audit team members
- Prevent and resolve conflict with the auditee and/or within the audit team
- Prepare and complete the audit report

- Introduction and Welcome
- The ISO 9000 & AS9100 Family of Standards Explained
- ISO 9001 and AS9115A Requirements
 - Group Exercise 1: Context of the Organization & Interested Parties
 - · Group Exercise 2: Assessing and Evaluating Risk
- ISO 9001 and AS9115A Requirements
 - Group Exercise 3: Audit Scenarios Clauses 4-6
 - Group Exercise 4: Audit Scenarios Clauses 7-8
 - Group Exercise 5: Audit Scenarios Clauses 9-10
- Introduction to Turtle Diagrams and Audit Trails
- Management of Audit Programs
 - Audit Planning and Preparation
 - Breakout Exercise 1: Scope and Objectives
 - Breakout Exercise 2: Documentation Review
 Preakout Exercise 7: Creating an Audit Plan
 - Breakout Exercise 3: Creating an Audit Plan
- Performing the Audit
 - · Breakout Exercise 4: Performing an Audit
- Writing Nonconformity Statements
 - Breakout Exercise 5: Writing Nonconformities
- Closing Meeting
- Completing the Audit Report
- Corrective Action and Closeout



- · Customer-Specific Requirements
- Management System Certification Scheme and Auditor Qualifications
- Review of Audit Process and Audit Management Strategies
 - Case Study Mock Audit
- Practical Application of Audit Principles and Instructor Interviews





AS9145 with Design and Process FMEA

Duration: 5 Days

Seminar Goals

- Describe the Aerospace APQP and PPAP requirements
- Assist an organization in implementing these requirements
- Provide a hands-on approach to FMEAs and their relationship to program deliverables and status reporting
- Provide the competencies needed to introducing new products and processes smoothly
- Gain knowledge and understanding in the creation and use of Design FMEAs
- Gain knowledge and understanding in the creation and use of Process FMEAs

Seminar Content

- Introduction to AS9145
- General APQP and Phase 1 Requirements
- APOP Phase 2 Requirements
- APQP Phase 3 Requirements
- APQP Phase 4 Requirements
- APQP Phase 5 Requirements
- Production Part Approval Process
- FMEA Introduction
- Putting an FMEA Together
- DFMEA Prerequisites
- Developing the DFMEA
- DFMEA Component Level
- Test Planning and Reporting
- PFMEA Prerequisites
- · Developing the PFMEA
- $\bullet \qquad \text{Using PFMEA to Improve the Process}\\$
- FMEA and the Product Realization Process
- · Control Plans
- Work Instructions

Understanding AS9145 — APQP and PPAP for Aviation, Space and Defense Organizations

Duration: 1 Day

Seminar Goals

- Describe the Aerospace APQP and PPAP requirements
- Assist an organization in implementing these requirements

Seminar Content

- Introduction to AS9145
- General APQP and Phase 1 Requirements
 - Phase 1 Discussion: Gaps and Opportunities
- APQP Phase 2 Requirements
 - · Phase 2 Discussion: Gaps and Opportunities
- APQP Phase 3 Requirements
 - · Phase 3 Discussion: Gaps and Opportunities
- APQP Phase 4 Requirements
 - Phase 4 Discussion: Gaps and Opportunities
- APQP Phase 5 Requirements
 - Phase 5 Discussion: Gaps and Opportunities
- Production Part Approval Process
 - · PPAP Discussion: Gaps and Opportunities

Design Tools Including SFMEA / DFMEA and Associated Tools

Duration: 2 Days

Seminar Goals

- Provide a hands-on approach to S/DFMEAs and their relationship to program deliverables and status reporting
- Provide the competencies needed to introduce new products and processes smoothly
- Gain knowledge and understanding in:
 - · Block Diagrams and Interface Matrix
 - Linkages between Block Diagrams, SFMEAs, DFMEAs, DVP and other design tools
 - · Linkages between PFMEAs and S/DFMEAs
 - Using FMEA as an analytical process
 - S/DFMEAs and DVPs

Seminar Content

- FMEA Introduction
- Putting an FMEA Together
- DFMEA Prerequisites
 - Breakout Exercise: Customers & Functional Requirements
 - Breakout Exercise: Boundary Diagrams
- Developing the DFMEA
 - Breakout Exercise: Starting the DFMEA Form
 - Breakout Exercise: Failure Modes
 - Breakout Exercise: Design Causes
 - Breakout Exercise: Design Control
 - Breakout Exercise: Effects, Severity and Action Plans
- DFMEA Component Level
 - Breakout Exercise: Developing a Component DFMEA
- Test Planning and Reporting

These courses can be offered as a five day or a 10 day training followed by hands on facilitation and certification for design engineers, manufacturing engineers and supplier quality engineers.

Process Tools Including Process Flow, PFMEA, **Control Plans and Work Instructions**

Duration: 2 Days

Seminar Goals



Gain knowledge and understanding in:

- Process Flows
- · Linkages between Process Flows, PFMEAs, Control Plans and Work Instructions
- · Linkages between PFMEAs and S/DFMEAs
- · Using FMEA as an analytical process
- Characteristics Matrix
- · Process FMEAs and Control Plans

Seminar Content

- Putting an FMEA Together
- **PDFMEA Prerequisites**
 - · Breakout Exercise: Customers & Functional Requirements
 - · Breakout Exercise: Process Flow
- Developing the PFMEA
 - Breakout Exercise: PFMEA Steps, Functions, Requirements and FMs
 - Breakout Exercise: PFMEA Causes
 - Breakout Exercise: PFMEA Prevention/Detection Controls, Occurrence & Detection Index
 - Breakout Exercise: PFMEA Effects, Severity Indices and RPN
- Using PFMEA to Improve the Process
 - · Breakout Exercise: PFMEA Actions
- FMEA and the Product Realization Process
- Control Plans
 - Breakout Exercise: Control Plans
- Work Instructions

Team Leader Facilitation

Duration: 1 Day

Seminar Goals



Understand the characteristics of a good facilitator



Learn good facilitation skills

Learn the tools for running an effective meeting

Seminar Content

- **Facilitation Fundamentals**
- **Essential Meeting Tools**
 - · Breakout Exercise: Charter and Team Development
- Effective Meetings
- Interventions
 - · Breakout Exercise: Intervention
- Conflict Management
 - · Breakout Exercise: Conflict Management
- **Essential Process Tools**
 - Breakout Exercise: Decision Making Exercise

Risk Assessment, Characteristics Designation and Flow Down

Duration: 1 Day

Seminar Goals



Provide an understanding of the Risk Classifications for Special Requirements, Critical Items and Key Characteristics



Provide an understanding of how these risk classifications were developed and how to evaluate at the sub-assembly or component



Learn how to ensure that historical failures are shared, included in FMEAs and controlled in manufacturing or design

Seminar Content

- The Improvement Strategy
- Failure History and Risk Assessment
 - Breakout Exercise: Failure History and Developing the Grid
- Risk Classifications
 - Breakout Exercise: Flow Down and Handling Failures from System FMEA to DFMEA to PFMEA
- FMEA Tables and Risk
 - · Breakout Exercise: Tracking Improvement Actions

Setting Up for Process Capability and MSA

Duration: 1 Day

Seminar Goals



Define and understand measurement systems



Define and understand the causes of variation

Be able to qualify the sources of variation Choose appropriate system for data collection

Ability to maintain measurement systems over the life of the manufacturing process

Seminar Content

Process Controls, SPC and MSA (KCs, CIPs and MCCs)



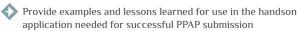
- · Capability and Control
- Sources of Variation
- Control Charts: Basic Control Charts: Short Run
- Capability Analysis
- · Breakout Exercise: Process Control and Capability
- Measurement System Analysis: Overview
 - Breakout Exercise: Graphing GRR
 - Breakout Exercise: Calculating GRR

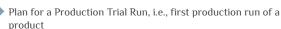
Planning and Conducting the Aerospace PPAP (Production Trial Run)

Duration: 1 Day

Seminar Goals







Learn how to conduct a Process Readiness Assessment

Seminar Content

- Introduction Advanced Quality Process
 - · Breakout Exercise: What's Needed?
- Planning for PPAP
- Preparing for the Initial Production Run
- · Process Readiness
 - Breakout Exercise: Planning and Conducting the Process Readiness Assessment
- · Conducting Initial Production Run
- The PPAP Report
 - Breakout Exercise: Revisiting What's Needed

Statistical Process Control (SPC)

Duration: 2 Days

Seminar Goals





Understand the role that SPC plays in the overall control strategy for a process and/or company

Seminar Content

- · Introduction to Statistical Process Control
- · Process Variation
- Normal Theory and Central Limit Theorem
- Visible Signs of Special Causes
- · Other Types of Charts
- Process Capability
- Control Charts for Non-normal Processes

Reviewing the Aerospace PPAP

Duration: 1 Day

Seminar Goals

Learn how to review and PPAP package for completion



Seminar Content

- Introduction Advanced Quality Process
 - Breakout Exercise: Assessing an PPAP Package
- Verifying Initial Production Run
- PPAP Documentation Review
- Review of Each PPAP Submission Item
 - Breakout Exercise: Assessing an PPAP Package

Capability Analysis and Advanced SPC

Duration: 3 Days

Seminar Goals

- Present a hands-on approach to learning the principles and practices of SPC and process analysis
- Understand the uses and benefits of control charts and be able to construct and interpret them
- Understand the role that SPC plays in the overall control strategy for a process and/or company
- Explain optional statistical methods when traditional SPC practices have failed or are inadequate
- Understand the uses and benefits of advanced control charts and be able to construct and interpret them

- Review of Basic Descriptive Statistics
- Fundamental of Process Control
- Process Control (Behavior) Charts
- Charts for Variables Data
- Charts for Attribute Data
- The Process Improvement Cycle and Process Control
- Capability Analysis
- Prevention vs. Detection
- Other Types of Control Charts
- Capability Analysis
- Suggested Use of Process Measures
- Effective Use and Benefits of Control Charts



Effective Problem Solving (EPS) – Problem Solving Methodology and Concepts

Duration: 2 or 3 Days

Seminar Goals

Understand the problem solving process

Understand continual improvement and the problem solving process

Understand the uses of problem solving tools

Understand how the problem solving process is managed

Understand relationships between EPS and other problem solving methodologies

Seminar Content

- Introduction to Effective Problem Solving
- The Effective Problem Solving Process (Team Breakout exercises conducted for each step)
 - Step 1: Problem Identification
 - Step 2: Initiate Containment
 - · Step 3: Determine Failure Mode
 - Step 4: Root Cause Analysis
 - Step 5: Corrective Action
 - Step 6: Implement Preventive Action
 - · Read-Across Process

Problem Solving Tools (Optional)

- Decision Analysis and Team breakout exercise
- Seven Statistical Tools Introduction (Team breakout exercises conducted for all seven tools)
 - · Check Sheets
 - · Flow Charts
 - Trend Charts and Scatter Diagram
 - Pareto Charts
 - · Creativity, Brainstorming and Cause and Effect Diagrams
 - · Histogram and Process Capability
 - · Control Charts

Problem Solving – Employing the 8D Methodology

Duration: 2 Days

Seminar Goals

Demonstrate an ability to complete all sections of an 8D report

Explain the relationship of all the different entries on an 8D

Evaluate an existing 8D to determine its effectiveness

Demonstrate the linkage between 8D and FMEA

- Problem Solving Overview
- D1: Form Team
- D2: Describe the Problem
 - · Breakout Exercise: Problem Identification and Containment
- D3: Contain Symptoms Implement and Verify Interim Actions
 - Breakout Exercise: Interim Containment Actions
 - D4: Find and Verify Root Causess
- Breakout Exercise: ARoot Cause Analysis
- D5: Select Permanent Corrective Actions
- Breakout Exercise: Corrective Actions
- Decision Making
 - · Breakout Exercise: Decision Making Exercise
- D6: Implement Permanent Corrective Actions
 - Breakout Exercise: Implementing and Validating the PCA
- D7: Prevent System Problems
- D8: Closure and Team Congratulation
 - Breakout Exercise: Preventive Action and Close-Out

Understanding and Documenting Integrated Management Systems (AS9100D and/or IATF 16949:2016, ISO 14001:2015 and ISO 45001)

Duration: 2 Days

Seminar Goals

- Study the structure of AS9100D and/or IATF 16949:2016, ISO 14001:2015 and ISO 45001
- Understand the Process Based Approach to integration
- Understand how the AS9100D, ISO 14001:2015 and/or ISO 45001 requirements and clauses integrate
- Recognize the challenges and advantages of implementing an Integrated Management System
- Understand how to integrate Quality, Environmental and Health and Safety Risks

Seminar Content

- · Rationale for Integration
 - · Breakout Exercise 1: Rationale for Integration
- Overview of the Standards
 - AS9100D
 - · ISO 14001:2015
 - ISO 45001
- Understanding the Requirements and Their Relationships
 - · Clause-by-clause Analysis
 - Comparing ISO 14001:2015 and/or ISO 45001 to IATF 16949:2016
 - · Similarities and Where to Integrate
 - Breakout Exercise 2: Where to Integrate
- The Process Approach Strategies for Integration
 - Breakout Exercise 3: Review the Business Map (Process Approach)
- Defining Policies and Objectives
 - Breakout Exercise 4: Gather Requirements and Expectations
- Integrating Process Controls Risk Analysis Tools and Methodologies
 - Failure Modes & Effects Analysis
 - Breakout Exercise 5: Understanding the Use of FMEAs
 - · Control Plans
- Review

Integrated Management Systems – Internal Auditor Training (AS9100D and/or IATF 16949:2016, ISO 14001:2015 and ISO 45001) Exemplar

Duration: 4 Days

Seminar Goals

Global

- Understand the Integrated Management Systems auditing process
- Understand how the AS9100D and/or IATF 16949:2016, ISO 14001:2015 and ISO 45001 requirements and clauses integrate
- Understand the application of the principles, procedures and techniques of auditing
- Understand the conduct of an effective audit in the context of the auditee's organizational situation
- Understand the application of the regulations, and other considerations that are relevant to the management system, and the conduct of the audit
- Practice personal attributes necessary for the effective and efficient conduct of a management system audit

Seminar Content

- · Introduction and Welcome
- The Rationale for Integrated Management Systems
- Overview of the Standards
- · Understanding the Requirements and Their Relationships
- Strategies for Integration
- Introduction to Turtle Diagrams and Audit Trails
- Management of Audit Programs
- Audit Planning and Preparation
 - Breakout Exercise 1: Writing an Objective and Scope Statement
 - Breakout Exercise 2: Documentation Review
 - Breakout Exercise 3: Creating an Audit Plan
- Performing the Audit
 - Breakout Exercise 4: Performing an Audit
- Writing Nonconformity Statements
 - Breakout Exercise 5: Writing Nonconformity Statements
- Closing Meeting
- Completing the Audit Report
- · Corrective Action and Closeout

Note: The Aerospace Auditor Transition Training (AATT) must also be completed in order to become a certified Aerospace Auditor

Integrated Management Systems – Lead Auditor Training (AS9100D and/or IATF 16949:2016, ISO 14001:2015 and ISO 45001)

Exemplar Global

Duration: 5 Days

Seminar Goals

- Understand the Integrated Management Systems auditing process
- Understand how the AS9100D and/or IATF 16949:2016, ISO 14001:2015 and ISO 45001 requirements and clauses integrate
- Understand the application of the principles, procedures and techniques of auditing
- Understand the conduct of an effective audit in the context of the auditee's organizational situation
- Understand the application of the regulations, and other considerations that are relevant to the management system, and the conduct of the audit
- Practice personal attributes necessary for the effective and efficient conduct of a management system audit
- **Establish**, plan and task the activities of an audit team
- Communicate effectively with the auditee and audit client
- Organize and direct audit team members
- Prevent and resolve conflict with the auditee and/or within the audit team
- Prepare and complete the audit report

Seminar Content

- Introduction and Welcome
- The Rationale for Integrated Management Systems
- Overview of the Standards
- Understanding the Requirements and Their Relationships
- Strategies for Integration
- Introduction to Turtle Diagrams and Audit Trails
- Management of Audit Programs
- Audit Planning and Preparation
 - Breakout Exercise 1: Writing an Objective and Scope Statement
 - Breakout Exercise 2: Documentation Review
 - Breakout Exercise 3: Creating an Audit Plan
- Performing the Audit
 - Breakout Exercise 4: Performing an Audit
- Writing Nonconformity Statements
 - Breakout Exercise 5: Writing Nonconformity Statements
- Closing Meeting
- Completing the Audit Report
- Corrective Action and Closeout
- Leading Audit Teams
- Customer-Specific Requirements
- Management System Certification Scheme and Auditor Qualifications
 - · Case Study Mock Audit

Integrated Management Systems – Internal Auditor Training (AS9100 and IATF 16949)

Duration: 4 Days

Exemplar Global

Seminar Goals

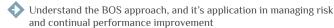
- ◆ Understand the Integrated Management Systems auditing process
- Understand how AS9100D and IATF 16949:2016 requirements and clauses integrate
- Understand the application of the principles, procedures and techniques of auditing
- Understand the conduct of an effective audit in the context of the auditee's organizational situation
- Understand the application of the regulations, and other considerations that are relevant to the management system, and the conduct of the audit
- Practice personal attributes necessary for the effective and efficient conduct of a management system audit

- Introduction and Welcome
- The ISO Standards Explained
- · Basic Principles and Methodologies
- AS9100D and IATF 16949:2016 Requirements
- Introduction to Turtle Diagrams and Audit Trails
- Management of Audit Programs
- Audit Planning and Preparation
 - Breakout Exercise 1: Writing an Objective and Scope Statement
 - Breakout Exercise 2: Documentation Review
 - Breakout Exercise 3: Creating an Audit Plan
- Performing the Audit
 - Breakout Exercise 4: Performing an Audit
- Writing Nonconformity Statements
 - Breakout Exercise 5: Writing Nonconformity Statements
- Closing Meeting
- Completing the Audit Report
- Corrective Action and Closeout

BOS: Aligning Objectives – Risk in Planning including Context and Interested Party Expectations

Duration: 2 Days

Seminar Goals





Provide and understanding of how to use the BOS methodology to identify and analyze risks, & improvement opportunities, and to manage improvement activities as part of the Business Plan

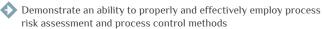
Seminar Content

- Introduction to the BOS Managing Risk Performance and Continual Improvement
- Organizational Context Aligned Mission & Vision Statements and Policies with the Expectations of Interested Parties
 - Breakout Exercise 1: Defining Organizational Context –
 Determining and Assessing Expectations and Requirements
 - Breakout Exercise 2: Aligning and Rating Expectations Setting Goals and Objectives, Selecting Key Performance Indicators
- Aligning Strategic Goals and Objectives Based on Interested Parties' Expectations
- Identifying Measurables and Key Performance Indicators
- Improvement Action Planning Systemic Correction, Prevention and Continual Improvement
- Operational Business Reviews and Improvement Activities Managing Risk and Continual Improvement
 - Breakout Exercise 3: Assessing BOS Processes

Conducting Risk Analysis for Business Processes for ISO 9001:2015

Duration: 2 or 3 Days

Seminar Goals



- Demonstrate an ability to properly construct a Process Flow Diagram
- Identify steps, requirements, failure modes, causes and controls and properly enter the information in a PFMEA
- Be able to document and implement a control strategy through process documentation or Technical Process Control Plans
- Explain the relationship among a Process Flow Diagram, PFMEA and Control Plan/Process Documentation
- Explain how to prioritize continual improvements employing qualitative risk analysis

- · Overview of Enterprise Risk Assessment
 - Risk and ISO 9001:2015
 - · Risk Assessment
 - Planning and Control of Risk Responses
- Overview of the Process Review Approach
 - · Developing the Process Approach
 - · Alignment of Objectives, KPIs and Processes
- Conducting a Process Review
 - Developing a Process Definition
 - Characteristics and Requirements
 - C-O-P-I-S and Turtle Analysis
 - Defining a Process
 - Breakout Exercise 1: Developing Turtle Diagram
- Developing a Process FMEA
 - · Preparing for PFMEA: Process Flow Diagram
 - Breakout Exercise 2: Developing a Process Flow Diagram
 - Process FMEA for a Business or Service Process
 - Breakout Exercise 3: Developing a Process FMEA
- Process Control Methods
 - Process Documentation & Standardization
 - Technical Process Control Plan
 - Breakout Exercise 4: Developing a Technical Process Control Plan
- Summary



Risk and Implementing Risk Strategies for ISO Management Systems

Duration: 1 Day

Seminar Goals

- Understand risk and risk-based thinking in the context of ISO management systems
- Understand and account for the influence of organizational context in determining risk at the enterprise level, in products, processes, projects and generic operations
- Employ the tools for risk management in business processes and in new product development
- Understand and address risk management in projects
- Employ appropriate methodologies and tools for general risk identification, assessment, analysis and mitigation

Seminar Content

- · Introduction to Risk and Risk-Based Thinking
 - Breakout Exercise 1: Defining Organizational Context
- Business Operating System (BOS) and Process Risk
- Risk in New Product Development
- Project Risk
- General Risk Management; Risk Matrix
 - Breakout Exercise 2: Assessing and Evaluating Risk

NADCAP AC7102 Heat Treat Requirements

Duration: 3 Days

Seminar Goals

- Describe the Aerospace NADCAP AC7102 Heat Treat requirements for all methods and checklists
- Assist an organization in implementing and auditing these requirements
- Assist an organization in preparing for third party special process

- · Introduction to NADCAP
- Chapter 1: Heat Treat Requirements
 - AC7102 General Baseline Checklist Requirements
 - AC7102/S Supplemental Heat Treat Requirements
 - AC7102/2 Aluminum Heat Treat Requirements
 - Localized Heat Treat Requirements
- Chapter 2: Brazing, Carburizing and Nitriding
 - AC7102/1 Brazing Requirements
 - AC7102/3 Carburizing Requirements
 - AC7102/4 Nitriding Requirements
- Chapter 3: Hot Isostatic Press, Induction Hardening and Injection Mold and Sintering
 - AC 7102/6 HIP (Hot Isostatic Press) Requirements
 - AC7102/7 Induction Hardening Requirements
 - AC7102/9 Injection Mold and Sintering Requirements
- Chapter 4: Hardness and Pyrometry
 - AC7102/5 Hardness and Conductivity Requirements
 - AC7102/8 Pyrometry Requirements
- Chapter 5: Internal Auditing and Implementation
 - Effective Internal Auditing of the Heat Treat Process
 - Heat Treat Process Implementation Strategies
- Chapter 6: Third Party Audit Preparation
 - NADCAP Third Party Audit Preparation



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