NADCAP SUPPLIER SUPPORT COMMITTEE HANDBOOK



Nadcap Supplier Support Committee Handbook

Overview

The Nadcap Supplier Support Committee Handbook provides information to help Auditees understand the Nadcap program. This handbook contains relevant information, enabling easier access for Auditees. It also provides an overview of Nadcap, along with participating parties and associated groups. Instructions for using eAuditNet are included, guiding Auditees through the preparation, undertaking and response process for Nadcap audits. The last section of the handbook describes the attendees guide for Nadcap meeting, detailing the scope, purpose and benefits of the meetings.

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What is **Nadcap** and How Does it Work?

<u>The aerospace industry vision is to use Nadcap</u> to develop a global network of world-class Suppliers and Subscribers, who use a cost effective and efficient industry managed accreditation process to ensure compliance with global industrial standards and prime requirements as well as to standardize special process requirements.

This program improves standardization of special processes across the supply chain, whilst reducing the level of customer audits. Nadcap <u>accreditation</u> can be used as a tool to deliver internal value-added business improvement along with regulatory compliance. In addition, increased quality levels generally lead to a positive effect on revenue.

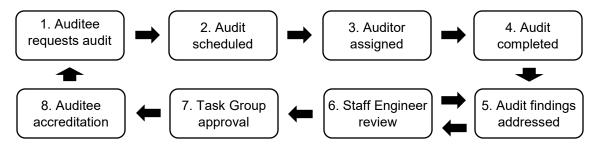
All participants must comply with the Nadcap personal code of ethics and conflict of interest policy whilst safeguarding the confidentiality of information being shared through the program.

Other Performance Review Institute (PRI) programs include:

- <u>Counterfeit Avoidance Accreditation Program (CAAP)</u>: industry effort to mitigate the risk of introducing counterfeit parts into the supply chain
- eQuaLearn: process, product and personnel improvement via training and membership
- <u>eQualified</u>: personnel qualification, developed and managed by industry
- MedAccred: similar to Nadcap but for the medical devices industry
- <u>PRI Registrar</u>: ANSI National Accreditation Board (ANAB) approved registrar covering process, product and personnel quality
- Qualified Products List (QPL): like Nadcap, but focused on products rather than processes
- <u>Transport and Power Generation (TPG)</u>: similar to Nadcap but for the transportation and power generation industries

Initially, Nadcap audits are carried out annually, but this may be extended if the Auditee obtains Merit Status. A company must be registered on eAuditNet to go through the Nadcap audit process. eAuditNet can then be used to obtain the relevant audit procedures, Audit Criteria (formerly called Audit Checklists) and handbooks, as well as audit planning and correspondence with PRI. NOTE: Some Audit Criteria are available in different languages but are for reference only.

Steps in the Nadcap audit process:



More information can be found on the following websites:

- PRI / Nadcap Overview on YouTube.com
- <u>www.p-r-i.org</u>: whitepapers, information on meetings, Supplier Support Committee and general training
- <u>www.eQuaLearn.com</u>: professional development, including training and tutorials

 www.eAuditNet.com: web-based system developed by PRI covering audits, Operating Procedures, Audit Criteria, and handbooks

eAuditNet support is also available by contacting their help desk:

Call: +1 724 772 8679

Email: eAuditNetsupport@p-r-i.org

Who Participates in the Nadcap Program?

Who is Performance Review Institute (PRI)?

PRI is a global provider of customer focused solutions designed to improve process and product quality by adding value, reducing total cost and promoting collaboration among stakeholders in industries where safety and quality are shared goals. PRI, which administers the Nadcap program, is a "not-for-profit" trade association founded in 1990 by SAE International.

A <u>Board of Directors leads PRI</u> with responsibility for strategic direction and financial stability. The Board is comprised of leading Executives from some of the world's largest aerospace companies.

What are PRI's responsibilities within the Nadcap program?

- Schedule audits with qualified Auditors on pre-agreed dates
- Perform audits on behalf of the Subscribers and submit reports via eAuditNet (Auditors)
- Review reports and liaise with Auditees to close out any non-conformance(s)
- Issue Nadcap certificates to Auditees after approval from Task Groups
- Facilitate Nadcap meetings around the world and reach consensus on Audit Criteria (AC)
- Ensure appropriate staffing, including sourcing and onboarding Auditors
- Add value through relevant communication and education including the Nadcap newsletters and free Nadcap technical symposia
- What is a Subscriber?

Subscribers are Nadcap members who have the design authority to write their own special process specifications and have internal engineering organizations to provide technical directions and support. Subscriber representatives are required to attend Nadcap meetings and are encouraged to become active members with specific Task Group(s).

Subscriber voting members review Supplier Audit reports and vote to approve accreditation of each Auditee.

What is a Supplier?

A Supplier is an organization that provides special processes for Subscriber's products, and that undertakes a Nadcap special process audit based on Nadcap Audit Criteria (AC) and either their customer flow-down requirements or new business opportunities to develop their position within the marketplace.

Suppliers are required to follow the Nadcap process and participate in undertaking scheduled audits to the relevant Audit Criteria (AC). They also need to demonstrate through using appropriate documentation and hardware, which key parameters and levels are achieved against a standard set of Audit Criteria (AC) questions.

Suppliers can also decide to use the structure of the Audit Criteria as a framework to improve consistency and standardization within their organizations.

What Groups Make up the Nadcap Program?

Nadcap Management Council (NMC)

<u>The NMC</u> consists of Subscribers and Suppliers, whose role is to speak for the needs of the global aerospace industry and their organizations in promoting teamwork, facilitating consensus, focusing on quality and ensuring the Nadcap program is robust and representative, from a management perspective.

The NMC members are responsible for:

- Overseeing the operation of Nadcap
- Establishing and implementing policies and procedures
- Coordinating and developing the Task Groups
- Identifying, developing and deploying improvements

The NMC also has a number of committees that oversee various projects or aspects:

- Metrics Committee: this committee monitors the health of the Nadcap program and manages a framework for responding to Task Group and NMC requests for analysis to determine the effects of proposed strategic initiatives. This is achieved by establishing measurable goals and consistently reviewing the program's progress in achieving set goals. In addition to the necessary data analysis, they also assist the NMC in developing strategic improvements and recovery plans.
- ➤ Ethics & Appeals Committee: this committee ensures the effectiveness of the Nadcap program, which has formalized a standard Ethics & Appeal process for all program participants. The committee is tasked with finding appropriate resolutions on any appeals that arise through the established process. In addition, they also promote awareness of common issues raised by Suppliers and Subscribers.
- Standardization Committee: this committee is continually reviewing the Nadcap Task Group functions to better understand operational differences and drive changes to bring commonality between Task Groups, when appropriate. The committee regularly assesses best practices and recommends strategic actions to ensure that all groups can operate efficiently.
- Oversight Audit Committee: this committee is tasked with overseeing the operation of the Nadcap program, verifying that the Nadcap process is being carried out in a way that is compliant to all procedural documents and continues to achieve its objectives relative to customer expectations.
- Globalization & Strategy Committee: this committee works to develop the future vision for Nadcap. It includes development of potential new Task Groups as well as liaising with other global quality programs, all with a goal of continuing to add value to the Nadcap program for all stakeholders.
- Continuous Improvement Committee: this committee works on initiatives focused on improving the overall consistency of the Nadcap program.

Task Group

The Nadcap audit and accreditation process are overseen and managed by industry. For each special process, product or system audited by Nadcap, there is a <u>Task Group</u> made up of technical experts from Nadcap Subscribers and Suppliers. Their role is to speak for the needs of the global aerospace industry and their organizations in promoting teamwork, facilitating consensus, focusing on quality and ensuring the Nadcap program is robust and representative, from a technical perspective.

All Task Group members work together to determine audit requirements, and develop documents such as Audit Criteria and training materials. Members work with the Nadcap Management Council to continually improve the program.

Task Groups make the final decision on Nadcap accreditation, based on the audit report and subsequent Supplier activities to address any non-conformance(s) identified by the Auditor. For reasons of confidentiality, only Subscribing members of the Task Group are responsible for accreditation decisions.

Subscriber voting members are members of Nadcap with voting rights in Nadcap Task Groups. In addition, each Nadcap Task Group may have one confirmed Supplier member with full voting privileges per company except on matters pertaining to accreditation.

Staff Engineers are members of PRI staff assigned to each Task Group. They facilitate associated Task Group operations including creating and revising Audit Criteria (AC), reviewing audits, and dispositioning non-conformance responses(NCRs). Each Task Group has one or more Staff Engineers who are the Auditee's primary contact for help with technical questions regarding the Audit Criteria (AC) and for resolving non-conformance(s) resulting from audits.

Audit Reviewers are individuals assigned by PRI staff to each Task Group specifically to review audit reports and be the Auditee's primary contacts for help in resolving non-conformance(s) resulting from audits.

Information regarding the Nadcap Task Groups can be found on the PRI website under the Nadcap tab then click <u>Task Groups</u>. In addition, Nadcap Task Group information can be found in <u>eAuditNet</u> under the Resources tab → Documents → Public Documents → Task Groups.

The information listed below can be found on the PRI website, Nadcap → Accreditation

Audit Criteria	<u>Document</u>	Examples/Summary
Aerospace Quality System (AQS)	AC7004	Used to verify Nadcap Quality System requirements, in conjunction with a separate Nadcap audit
Aero Structure Assembly (ASA)	AC7135	Aero structure assembly, fastening, electrical bonding of aero structure assemblies and components, bushing and bearing installation and sealing of aerospace assemblies and components
Chemical Processing (CP)	AC7108	Etching & etch inspection, stripping, cleaning, surface preparation, anodizing, conversion coatings, plating, solution analysis, etc.
Coatings (CT)	AC7109	Application, examination & processing of thermal spray, vapor deposited & diffusion coatings
Composites (COMP)	AC7118	Fabrication of composite materials

Conventional Machining as a Special Process (CMSP)	AC7126	Holemaking, broaching, turning, milling & hobbing, grinding, and edge treatment
Elastomer Seals (SEAL)	AC7115	Manufacturing of elastomeric components, such as seals, metal to elastomer bonded and textile reinforced components, etc.
Electronics (ETG)	AC7119 AC7120 AC7121	Printed boards, soldering, coating, programming, assembly, cable & harness assembly, final testing, repackaging, etc.
Fluid Distribution Systems (FLU)	AC7112 AC7123	Fluid systems components, hose manufacturing, fittings & other machined components, couplings, assembly, etc.
Heat Treating (HT)	AC7102	Conventional heat treating, brazing, carburizing, nitriding, induction hardening, sintering, hardness/conductivity testing, etc.
Materials Testing Laboratories (MTL)	AC7101 AC7006	Materials/mechanical/fastener/hardness/ corrosion testing, chemical analysis, specimen heat treating, metallography, etc.
Measurement & Inspection (M&I)	AC7130	Coordinate measuring machines, laser tracker, articulating arm, 3D structured light systems, mass airflow measurement, etc.
Metallic Materials Manufacturing (MMM)	AC7140	Forging, i.e. using compressive forces to shape metals, incorporating pre-& post forging processes
Nonconventional Machining (NM)	AC7116	Electrochemical machining/grinding, electrical discharge machining, abrasive water jet machining, laser machining/marking, etc.
Nondestructive Testing (NDT)	AC7114	Component inspection using penetrant, magnetic particle, ultrasonic, eddy current, or radiography techniques
Non Metallic Materials Manufacturing (NMMM)	AC7124	Non-metallic components manufactured from resin, prepreg, adhesive films, core, fibers, etc.
Non Metallic Materials Testing (NMMT)	AC7122	Physical/chemical/thermal/flammability testing of non-metallic materials
Sealants (SLT)	AC7200 AC7202 AC7129	Accreditation of sealing of aerospace assemblies/components, sealant manufactures, and sealant valves
Subscriber Accreditation Option B HQ Audit	AC7008	Accreditation in the governance & administration of an industry managed special process oversight system
Surface Enhancement (SE)	AC7117	Manual/automated/computer-controlled peening, including flapper peening and peen forming
Welding (WLD)	AC7110	Fusion/resistance/electron beam/laser/friction/ inertia/diffusion/percussion stud welding etc. including torch & induction brazing

Supplier Support Committee (SSC)

The Nadcap <u>Supplier Support Committee (SSC)</u> represents the Supplier community and works with the Nadcap Management Council (NMC) to enhance the effectiveness and economic value of the Nadcap program for the mutual benefit of both Subscribers and Suppliers.

Supplier representatives address non-technical, systemic issues relevant to the Nadcap program and provide a mechanism for the Suppliers to support the process and be supported. The SSC is an opportunity within the Nadcap program where the Nadcap Supplier community is represented.

The SSC is made up of active Nadcap accredited Supplier volunteers from around the globe who are willing to help new Suppliers through the process, as well as assisting experienced Suppliers to establish, maintain and improve their accredited processes. Each Task Group has a Supplier member who represents the SSC to the Task Group and communicates systemic Supplier issues to the SSC.

The Supplier Support Mentoring program matches Suppliers who are either new to the process and/or those needing assistance with experienced Nadcap Suppliers who can help. The Supplier Support Committee Mentoring Program's purpose is to establish a Supplier driven program designed to provide fellow Suppliers basic information on the Nadcap program and process, with a focus to continue spreading the word across the global Supplier community.

What is eAuditNet?

• Introduction - click here to access the eAuditNet supply chain training video

<u>eAuditNet</u> is the web-based system used by Nadcap participants, developed and maintained by the Performance Review Institute to support and improve efficiency in the Nadcap auditing and accreditation system.

Getting started, registration and log in

When web visitors get onto eAuditNet, the software requires them to either sign in or register as a new user, which is free. When registering as a new user, eAuditNet requires common personal information, including signing Terms and Conditions, to make sure PRI communicates only relevant information with each user."

Set up and navigation

Once the registration has been completed and approved, all users are able to access the Resources applications. A company link is not required for access to these applications. This will allow access to Public Documents, and general documents covering:

- a) Procedures and Forms, covering Nadcap Operating Procedures (OP) and Nadcap controlled forms.
- b) Audit Criteria (AC), are PDF official versions of all the Nadcap Audit Criteria.

Once associated with a particular company, eAuditNet users will get access to "Supplier Applications" which include:

c) Audit Pricing – view the status of the audit quotation, request a quote, review Subscriber matrices, process specific documents, access Microsoft Word copies of Audit Criteria.

- d) Audit Scheduling Schedule an audit for the company or companies. Indicate what will be audited by checking the applicable processes. Read the ITAR/EAR information (scroll down) and make the ITAR/EAR selection. Auditor assignment is matched based on this selection.
- e) Supplier Audits View audit status, audit details, and respond to audit non-conformance(s) for your company or companies. Audits can be filtered by commodity. Each audit will have an audit number, which will detail the audit. Click on the Audit Criteria (AC) to view the Auditor's responses when the audit is in Supplier Review status.
- f) Supplier Advisory View and respond to Supplier advisories issued to the company or companies. The level of advisory is decided by the Task Group.
- g) Online QML Qualified Manufacturers Listing (QML) of certified Suppliers, which can be searched by name, country and commodity. When clicking on a Supplier name, the scope of approval can be viewed along with the Nadcap Supplier's history. By refining the search further, additional information can be viewed to include sub scope, method or specification.
- h) Online QPL Qualified Products Listing (QPL) of manufacturers who have received a PRI product qualification approval letter to a specific standard for specific product designations and plant locations.
- i) Metrics Run Task Group / NMC Metrics. View monthly metrics that measure the overall health of the program against Management Council set goals.
- j) Supplier Quality System View and update the Company Quality System information, Company Profile, company contact information, and add additional company associations. This sections also allows eAuditNet users to change their password.
- k) Company Administrator User Manager Guide

User Manager (accessible to the Company Administrators only) can be accessed through the Supplier Applications tab. It is under this section that Company Administrators can create/edit users and manage their eAuditNet applications access for the company. Company Administrators receive annual emails to review user access. A guide, called "Company Administrator User Management Guide - Auditee Access" can be found by under Resources / Documents / Public Documents / eAuditNet / User Guides / Tutorials / Auditee/Supplier Guides, which will help you with the process.

New User Queue (Company Administrator) – Accept or reject users that have selected the company or companies for association.

• Quote & Schedule

The audit quote can be found by using the Supplier Applications tab. A tutorial called "How to Register Company/Request Quote/Schedule Audit" is available for reference and held within Resources / Documents / Public Documents / General Nadcap User Information / Audit Information. It can also be accessed by clicking on the "Get Quote" button on the login page or the home page after login. The audit quotation can be checked for status within the Supplier Applications tab, under Supplier Audits. Once the quote has been issued by the Scheduling department, the Nadcap audit can be scheduled and viewed for the company or companies and provides a list of all current and previous audits undertaken.

Timeframe for Audit

Audits generally are scheduled six to nine months in advance.

PRI Staff Directory -Technical Assistance

A <u>PRI Staff Directory</u> is available. For information on the Nadcap program there is a listing of appropriate contacts within PRI who can provide answers to technical questions or assistance in other areas. The Directory can be found at <u>www.eAuditNet.com</u> by clicking on the "Contact Us" link at the top right-hand corner of the page.

Examples of when to contact a Staff Engineer:

- Commodity Audit Criteria clarifications / expectations
- Clarification on what the Staff Engineer is asking on non-conformance(s) responses*
- Questions on Task Group operations
- · Questions on how to file an appeal
- Questions on Audit Failure and Risk Mitigation
 *Please note that PRI staff will not provide the answer, but provide directions in terms of expectations

How do I Prepare for an Audit?

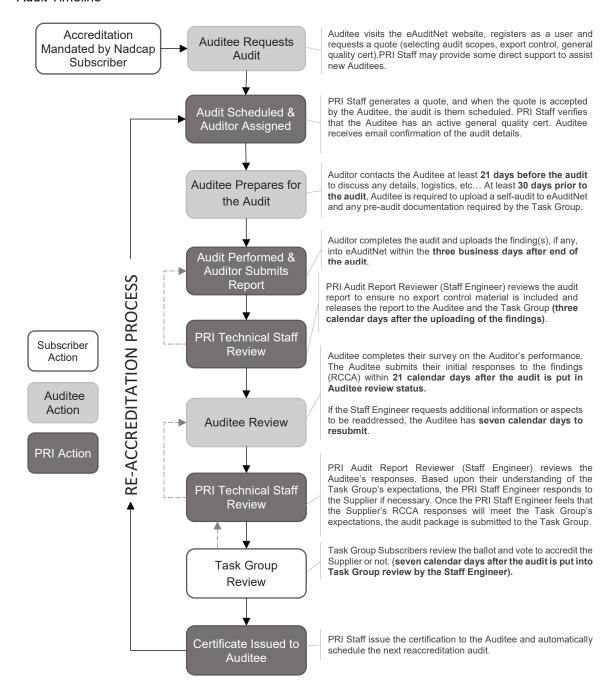
As a first step for the audit preparation, Auditee has to determine the scope of the audit and identify which Audit Criteria (also referred to as a checklist) should be included. This determination can be based on:

- Customer requirement or expectation
- Audit scope the Auditee wants to be accredited for, regardless of customer requirement or expectation
- Auditee desire to attract aerospace work

It is not necessary for processes included in the audit scope to be performed on aerospace hardware or to be required by a Nadcap Subscriber.

The audit scope does not need to cover all the processes performed at the facility, only those that should be included in the scope of accreditation.

Audit Timeline



Planning

The expected time of preparation for initial audits is about a six to nine months for new Auditees, and between three to five months for reaccreditation audits. These timeframes depend on the size of the company, the audit scope and the Auditees' experience with other accreditations.

9-12 months before the audit:

- Download and review the required Audit Criteria and handbooks/guides.
- Create an audit plan.
- Select and train Internal Auditor(s). Identify ITAR/EAR issues.
- It is highly recommended to take an eQuaLearn <u>Nadcap Audit Preparation Course</u> on the commodity to be accredited and the <u>RCCA Nadcap Style course</u>.

6-9 months before the audit:

- Schedule the initial Nadcap audit in eAuditNet.
- Declare the ITAR/EAR status of the facility.
- Update the Subscriber list and upload QMS certification or schedule an Aerospace Quality System (AQS) Nadcap audit.

3-6 Months before the audit:

- Continue working on the action plan.
- Review the audit plan and follow up on corrective actions to ensure effectiveness.
- Review the revised procedures.
- Update training and qualifications records.

90-120 days before the audit:

- Conduct a thorough self-audit and address all identified non-conformance(s) with adequate corrective actions.
- Nadcap reviews and updates its documentation very often, and the changes in these documents are applicable 90 days from the date they are issued, so it is recommended to check the status of all the Nadcap documentation 90 days before the audit.
- Review any applicable Auditor Advisories.

One month prior to the audit:

- The Auditor should have made initial contact via email.
- Auditee submits required information into eAuditNet as detailed on the applicable Audit
 Criteria. If the required documentation is not uploaded into eAuditNet at least 30 days prior to
 the start of the Nadcap audit, it may result in a non-conformance.

A few days before the audit:

- Review and confirm that all corrective actions taken are in place for ALL internally identified non-conformance(s).
- Review any new applicable Auditor Advisories.
- Confirm personnel availability (vacations, part time personnel, and more) and ensure hardware is available for job audits.
- Prepare a workspace for the Auditor with Internet access.

Audit Criteria (AC – formerly referred to as a checklist)

The Audit Criteria (AC) are based on Industry Standards and Subscriber requirements. Subscribers and Suppliers participate on Task Groups to develop and revise these Audit Criteria. PRI Staff handles all administration aspects of the Audit Criteria balloting process, along with mediating and facilitating comment(s) resolution.

Key audit documents include:

- a) Core Audit Criteria, which contain the main requirements for each commodity (i.e. AC71XX)
- b) Technology Specific Audit Criteria: requirements that supplement core Audit Criteria, provide specific technical requirements. They are published as "slash sheets" (i.e., AC71XX/X).
- c) Subscriber Supplements: Audit Criteria that contain Subscriber specific requirements, when required by the applicable Task Group. They are published as "supplemental requirements" (i.e. AC71XX/ XS) but are not used by all Task Groups.
- d) Audit Handbook: guides and aids that provide interpretation and guidance and may be created and made available to Auditors and/or Auditees as needed.
- e) Audit Advisories: formal means of communicating audit failures; potential or confirmed product impact issues; lapsed, suspended, or withdrawn accreditations.

Audit Criteria may include requirements that are not part of the Auditee's current process due to not being part of the requirements of the specific customer(s) they perform work for. However, these will need to be incorporated into the process as the Task Group has determined there is sufficient customer and industry requirements to make it a standard audit item. Audit Criteria have questions that require documented procedures and other questions that require records. Audit Criteria questions may have guidance statements identifying when a question or a section is not applicable or identifying what to look for to establish compliance.

Documentation

It is recommended that the Auditee sets up its documentation to match the Audit Criteria flow. Especially for initial accreditations, this might mean to implement many changes in the internal documentation. These documents should have sufficient details such as:

- All relevant steps defined
- Tolerance for all values
- Acceptance criteria for all checks
- Methods of measurement

Internal documentation must be in English (Nadcap official language) or bilingual, and in case of differences between English and the other language version, the Auditee has to indicate which version prevails. A Nadcap audit does not have to be in English and can be conducted in another language, but it must be agreed upon prior to the audit with the Nadcap Auditor performing the audit.

Nadcap Auditees have to ensure that there is a process to maintain control of procedures, specifications and standards:

- Internal documentation (procedures, work instructions, forms etc.)
- International standards such as ASTM, ASM, or ISO etc.)
- Subscriber specifications

At least 30 days prior to the audit, all Nadcap Auditees need to submit the required information into eAuditNet. While no ITAR/EAR restricted information is to be submitted, Auditees may be required to submit the below depending on the Audit Criteria being audited:

- A full self-audit
- List of specifications used
- List or copy of procedures
- List of processes to be approved
- List of Approved Personnel

Auditees are required to carry out an effective self-audit to the relevant Audit Criteria. An effective self-audit will:

- a) Identify on the Audit Criteria the internal document number (procedure, instruction, form) and paragraph that meets the Audit Criteria requirement. By using this method, there is objective evidence of meeting the requirements rather than an assumption of compliance.
- b) Be carried out by somebody who is familiar with the process but independent of the area being audited. This should ensure that the person understands the question and what is required for compliance. It should also ensure that the person looks for objective evidence to meet the requirements.
- c) As a part of the self-audit, a different number of job audits shall be performed, depending on the applicable Audit Criteria. A job audit is a step-by-step review of the process on actual hardware, evaluating how the customer requirements are met using a Nadcap Audit Criteria.

Job audits should be selected based on:

- Rotation of customers technologies, processes, specifications
- Non-conformance history
- Process variability/complexity
- Changes of personnel and equipment

All non-conformance(s) issued during the self-audit must be resolved prior to the actual Nadcap audit or the Auditee will receive a non-conformance during the Nadcap audit.

Quality Management System (QMS) approval

Auditees scheduling an initial Nadcap audit are required to upload a recognized Quality Management System (QMS) certification into eAuditNet that is valid through the last day of the scheduled Nadcap audit. If not, an AC7004 or AC7006 assessment audit shall be added to the special process audit unless the Task Group requires more than AC7004 or AC7006, then the Nadcap audit will not be scheduled at all.

Nadcap recognizes these QMS approvals:

- a) 9100 and 9110 Quality Management System approvals performed by approved Certification Body listed in the IAQG OASIS database (<u>www.iaqg.org/oasis</u>). Some Product groups require 9100.
- b) ISO/IEC 17025 for testing laboratories (AC7101). This accreditation must cover the Nadcap scope of accreditation and come from an approved ILAC accreditation body.

For reaccreditation audits, where no existing recognized QMS approval exists, Auditees shall have two options:

- a) A minimum of 90 days prior to the audit start date schedule an assessment to AC7004 or AC7006, unless the relevant Task Group requires more than AC7004 or AC7006.
- b) Upload a valid QMS accreditation certificate into eAuditNet no later than 60 days following the end of the Nadcap audit.

Auditees failing to provide a valid QMS accreditation certificate to PRI within the above timeframes shall have the process audit automatically failed without further notice.

Competency (internal)

Ensure personnel are competent in the requirements of the process and the changes in the procedures due to the deployment of these requirements. Training, if conducted, must be documented.

The training of personnel responsible for carrying out internal audits is particularly important. Internal Auditor(s) should clearly understand the requirements of the Audit Criteria and be familiar with the processes audited yet being independent of the area being audited and demonstrate their competency.

Conducting self-audits

Performing thorough, objective self-audits against each question in the Audit Criteria is a critical step in the Nadcap accreditation process. This can significantly reduce the number of non-conformance(s) issued by the Nadcap Auditor and the time required to achieve accreditation. The Internal Auditor reviews the Audit Criteria with the documentation at hand to clearly understand all the questions and then to work hand in hand with the appropriate personnel. Use a process expert from outside the company/facility if necessary.

All the questions on the Audit Criteria must be answered:

- a) **If the answer is YES:** include the applicable procedure number, revision, and paragraph addressing the requirement, and/or the identification and location of the applicable record.
- b) If the answer is N/A: an explanation why the question is not applicable must be given.
- c) If the answer is NO: either a non-conformance shall be issued, or corrections documented and actioned. The results should be reviewed with the Production Manager. A team should be put together to address any issues. Personnel must be trained on updated documents if necessary. All issues must be closed prior to the actual Nadcap audit.

As part of the self-audit, Auditees have to carry out job audits based on the daily work. During a job audit, the required documents should be identified, and the traceability of the documents and works must be checked out. The Internal Auditor should check that all the points of the procedure and traveler/shop order/process have been followed.

Who is involved with the audit?

A Nadcap audit is not a QMS audit. A Nadcap audit is a technical audit focused on the specific commodity requirements. Most accreditations are for production processes, meaning that the Process Owners must be involved in the preparation and development of the audit, working hand in hand with Quality Department. These Process Owners should understand what is required by the Audit Criteria.

In addition, they should have an active role during the audit as they will be in charge of implementing any change needed after the audit.

Ideally, Auditees' top Management should be involved in the preparation of the audit as well as in the decision-making process with regards to costs and benefits of Nadcap.

During a Nadcap audit, non-technical documents such as purchase orders, training records and/or contracts are reviewed, meaning that some departments which are not directly involved with a Nadcap audit have to be regarded to.

How Does a Nadcap Audit Work?

Meeting attendance

Key stakeholders and Senior Management are encouraged to be present, certainly at the opening and closing meetings. It is important management understands the stages of the audit process and what the Auditor goes through.

The audit is structured and demonstrates the same systematic approach all Auditors use, for every audit.

Opening meeting

At the start of any Nadcap audit, ensure all key stakeholders are in attendance. It is crucial for the Auditor to note who is responsible for what specific elements of the audit process in order to enable the Auditor to plan and organize times to suit everyone's availability. The aim of the meeting is to discuss the audit scope in its entirety.

The Auditor will focus on specific areas including any previous non-conformance(s) requiring validation, and any Auditor Advisories, or non-conformance(s) that have been previously identified by the Task Group.

- A Nadcap audit includes the elements below:
 - Quality Management System and Scope Verification The Auditor will verify that the Auditee has a valid Quality Management System Certificate such as 9100 / 9110 / 9120.
 If these QMS certificates are not available, the Auditor will audit the Auditee to the Aerospace Quality System Audit Criteria AC7004 or AC7006.
 - Special process and product specific requirements also known as Audit Criteria (AC –
 formerly referred to as "checklists"). The Nadcap Auditor will verify whether or not the
 Auditee's documentation meets the AC requirements to which you are being audited.
 - Compliance / Job Audits The Auditor will observe the Auditee's staff performing the special process to which you are being audited.
- Daily closing session

This is a briefing of the day's events, including an overview of the status and the planned activities for the following day. If any finding has been identified, the Auditor will clarify the reason(s) and the paragraph within the Audit Criteria. Additionally, if the Auditee hasn't been able to provide evidence of compliance to a specific paragraph, the Auditor will ask for provision of supporting documentation to satisfy the requirement during the remainder of the audit.

Final review

The Auditor will carry out a review of the audit and discuss the accreditation process, including clarification of any major and minor non-conformance(s). This debriefing meeting allows the Auditor and Auditee to fully understand any findings as well as the methods and tools which are available on eAuditNet to help complete the audit process successfully.

How do I Respond to a Non-Conformance?

Findings

If the Auditor has witnessed any non-conformance, the Auditee should follow the Operating Procedure OP 1106 – Audit Report Processing. Within 21 calendar days of the audit results being posted to eAuditNet, the Auditee shall submit response(s) to all non-conformance(s). If subsequent rounds of responses are required, the Auditee will have seven calendar days to respond to each round.

No extensions shall be granted for response due dates. However, up to 30 cumulative late days are available to the Auditee, though caution is required as after 30 late days, audits are processed per OP 1110 – Audit Failure and Risk Mitigation. Additionally, OP 1111 – Merit Program falls into consideration for Auditees who benefit from the Nadcap Merit program. Auditees on an 18-months merit scheme cannot be more than 14 cumulative days late while Auditees on the 24-months merit scheme cannot be more than seven cumulative days late. Failing with these cumulative days requirements may impact an Auditee's Merit status.

There are key questions Auditees need to answer in response to a non-conformance(s), and answers need to be robust. If a procedure changed, the Auditee should clearly specify what the change was and show evidence to the Staff Engineer of the approved procedure (as applicable).

a) Immediate corrective action taken

What actions are taken following the issue being discovered during the audit? Was the problem stopped from continuing, and has the problem been contained? Were there any other aspects, procedures, or hardware affected by this non-conformance?

b) Root cause of non-conformance

Why did the error occur? Use our <u>Quality Tools</u> (i.e. 5 Why's, Fishbone) Understand why the error was not identified during the internal audit and/or self-audit. Review how the initial question was answered and what evidence was available to deem the item was compliant. Was an assumption made to believe the method or technique used was better than it actually was?

c) Impact of all identified causes

What impact did the non-conformance actually have? Were parts or the integrity of the process affected? Does the customer need to be notified of any non-conformance(s) and is there any additional investigation or corrective action required? Have any parts been shipped to the customer? Did you address the impact of the root cause and contributing causes?

d) Action taken to prevent recurrence

What is the long-term action to prevent recurrence? It cannot be the immediate corrective action, for example, changing of the procedure to address the issue, as it can only be established once

the root cause is fully understood. Ensure all procedure changes have appropriate training with a record. Take enough time before making the right decision. This should be based on the effectiveness, feasibility, and suitability to the company. One of the actions to prevent recurrence have to address the root cause.

e) Objective evidence provided

Provide the investigation report and include objective evidence (records, photographs, and more) if applicable. Examples include updated procedures, training records, calibration certificates, data logs, test results, sign off and communication of approved changes within the business, validation of new equipment, and maintenance schedules amongst others.

f) Effectivity date

Identify when all the actions to correct the non-conformance(s) will be fully implemented.

Auditor feedback

The company being audited has to submit feedback when non-conformance(s) responses are submitted or, if the audit has no NCR, within three working days of the audit being uploaded onto eAuditNet. The evaluation of Auditors is crucial in ensuring consistency is monitored and maintained within the Nadcap program. It is also important in establishing if the Auditor has the technical expertise for the subject matter and is confident in communicating at all levels. Failure to complete the feedback will not allow the audit to proceed to the next phase and may ultimately result in audit failure.

Audit feedback

The Audit feedback aims at providing information regarding how the Auditee perceived the audit process. This looks at audit scheduling, if any changes were requested, were they handled effectively. How clear were the responses from the reviewing Staff Engineer? Does eAuditNet provide all the support and information needed to help pass an audit successfully? Is the communication effective and how useful was the self-audit process in helping prepare for the audit? All of the comments and feedback help develop the program if changes are introduced.

Appeals process

If an Auditee disagrees with a decision made by the Task Group, Nadcap Operating Procedure OP 1113 details the stages of appealing the decision.

What Actions are Taken After an Audit is Completed?

Lessons learned - review

The Auditee should review the recent audit with appropriate stakeholders and discuss how the audit went and whether there are areas of improvement that could be introduced. This could be related to, but is not limited to, inadequate training, limitation of equipment or process, and documentation control.

· Internal actions conducted

Carry out a thorough review of all impacted processes and procedures. This should include any training enhancements to eradicate gaps in working knowledge of the Audit Criteria questions for assurance and clarity of compliance in meeting the desired criteria.

· Explain changes within the business

Communicate all changes using an appropriate method such as staff briefings, presentations and focus groups, including a detailed reason for any change, and how they are going to be incorporated within the business.

• Review changes for effectiveness - sustainability

Upon audit completion and accreditation, any finding(s) needs to have a scheduled review to ensure the changes have the desired effect and have been successfully implemented. This is a time-based process and should be part of the internal and self-audit processes for subsequent audits. It is imperative that there are no reoccurrence of previous non-conformances during the next Nadcap audit, otherwise this will result in two major findings, one for a non-sustaining action and another one for a failure of the Corrective Action process.

Plan the next audit

After completion of the audit, eAuditNet will set a placeholder showing the target quarter for the next planned audit. Approximately six months prior to the target quarter, the placeholder will be converted into actual audit dates. The Auditee may request changes to the schedule by contacting a PRI scheduler. However, changes made within 120 days of the start date will incur a fee, as defined in the Supplier Agreement. The Auditee has 21 days from the notification email with the next audit dates to request a change to those original dates for free.

Risk Mitigation Process

The purpose of the Risk Mitigation process is to provide the opportunity for:

- The Auditee to document corrective actions for non-conformance(s) (NCRs);
- Corrective action responses to undergo a formal review and approval process;
- Subscribers to have visibility of the Auditee's corrective action responses and ability to provide input into their acceptability;
- Visibility of corrective action responses to the next Auditor to allow effective verification of implementation.

What is eQuaLearn?

eQuaLearn:

<u>eQuaLearn</u> offers professional development programs and managed learning resources to improve the quality of personnel, products and processes through public and onsite courses and memberships. Custom learning solutions, including onsite learning and hosted learning, are also available – <u>contact the eQuaLearn staff for more information</u>.

<u>Complimentary Training</u>: eQuaLearn offers training at Nadcap meetings, some of which is complimentary, for the benefit of the aerospace industry special processors who participate. Places are allocated on a first-come, first-served basis. *Registration information can be found on the eQuaLearn website here*

eQuaLearn Training Options:

<u>Public Session:</u> recommended for companies with a small number of individuals requiring training. Training is conducted by subject matter experts who come to the classroom with content expertise, industry experience, and on-the job know-how. This also affords attendees the opportunity to network with peers from key industry players from around the world.

<u>Onsite Training:</u> recommended for companies with multiple individuals requiring training. Customized training is scheduled for an eQuaLearn Instructor to conduct one or more of the courses detailed in the eQuaLearn catalogue (available on the <u>eQuaLearn website</u> under "Additional Resources") at your facility or facilities. It is a truly flexible option that allows you the opportunity to:

- a. Schedule courses at your convenience
- b. Reduce costs by saving money on travel expense and reducing time out of the office
- c. Customize the course content to ensure programs are job-related and that new skills are immediately usable

<u>Hosted Training:</u> recommended for companies with a small number of individuals who require training when a public session is not convenient. Companies are offered the option of hosting the training session at their company facility with enrolment open to other organizations. eQuaLearn markets and manages outside registrations and coordination of all details. As a benefit, the host company receives a limited number of free enrolments and reduced training fees.

<u>Webinar Training:</u> recommended for companies who wish to provide training while limiting time out of the office. Delivered using interactive web technology, these live training sessions can be viewed from your desk. Convenient, eQuaLearn webinars save you the expense of travel and time away from the workplace by delivering training online. Companies also have the option of private virtual sessions.

What are Nadcap Supplier Symposia?

PRI and Nadcap Subscribers invest in Suppliers' success by sponsoring technical seminars presented at no charge to you, worldwide. These are day-long tutorials focused on particular processes.

Typically, there will be at least three <u>symposium events</u> hosted in Europe, three in the Americas and three in Asia throughout the year. Supplier symposia are opportunities to introduce other members of your company to the Nadcap program in a positive environment, other than an audit.

It's PRI's intent for Suppliers to understand Nadcap as something much greater and more valuable than the "stressful" audit experiences. By understanding why Nadcap certification processes are in place, everyone tends to better support those processes and requirements, and realize value in conformance and effectiveness.

There are several advantages to participating in a Nadcap Supplier technical symposium, such as:

- a) Intense and focused technical data about a special process that you can immediately takeback to your facility.
- b) Helps to simplify real organizational change and improvement by exposing your co-workers to new concepts and technical ideas.

 Interactive format as each attendee is encouraged to bring their questions and concerns to talk about.

Supplier technical symposia are usually organized to have at least one representative speak from each of the three core Nadcap groups, presenting valuable information:

- a) A peer Supplier is invited to make a short presentation and openly present and discuss their experience in achieving, maintaining, and improving their Nadcap accreditation. This fellow Supplier is someone whom you can openly talk with about the certification experience and Nadcap audits in general.
- b) A Subscriber that you could be supplying and supporting; or a Subscriber representative who might be a voting member on your Nadcap Task Group. Subscriber representatives are intimately informed about their own OEM requirements.
- c) Technical presentations at Nadcap symposia generally include recommendations for audit preparation, a review of the top non-conformances, conducting the onsite audit, and NCR response guidelines.

Attending <u>Supplier technical symposia</u> is easy and the information is widely available. Open invitations to all Supplier symposia are emailed to your organization's PRI contacts, from PRI. All symposia are presented in English, and you're encouraged to attend, anywhere, worldwide.

Please do not hesitate to contact PRI staff at Nadcapsymposia@p-r-i.org., or phone them from the PRI contacts list. You can also find information on the PRI website under Nadcap – Nadcap Symposia.

What is an Attendees Guide?

The <u>Nadcap Meeting Attendees' Guide</u> is your written reference of the global Nadcap structural overview and the individuals and companies involved in the program. It is distributed at each Nadcap meeting, but if you are unable to attend a Nadcap meeting, it is also available on the PRI website under Nadcap — Nadcap Meetings.

The Attendees' Guide, or "Blue Book" as the Nadcap community calls it, provides six practical informational benefits to all companies involved with Nadcap:

- a) Direct contact information to your PRI Staff Engineer(s)
- b) Direct contact information with all PRI Nadcap staff
- c) Direct connections with your peer Supplier process Task Group mentors, on the SSC
- d) Potential relationships and insights among most of your direct Subscriber authorities
- e) An abridged registry of all Nadcap participants and Nadcap groups, scheduled to attend
- f) Conventional conduct among meeting attendees and groups is expected and stated

Most of the Guide is a simple alphabetic atlas of all of the several Task Group rosters.

As previously described in this handbook, there are six basic categories of the interrelated Nadcap macro-structure groups at Nadcap Meetings. These groups are identified in the Attendees' Guide. The most relevant for Nadcap Auditees are:

- a) The Task Groups
- b) The Supplier Support Committee
- PRI Nadcap administrative staff, including Nadcap PRI Staff Engineer(s). PRI is the Auditees' primary Nadcap point of contact.

The top page of each Task Group roster begins with the detailed PRI Staff Engineer and contact information – other Task Group members are listed without contact information.

In addition to the Nadcap PRI Staff Engineer contacts heading each Task Group roster, a detailed PRI staff contacts directory is also provided at the end of the Guide.

PRI contacts identified in the Attendees' Guide are the Auditees' immediate certification authorities and points of contact for most of the Nadcap certification affairs. It's always good to introduce yourself and your company, to each of your PRI staff members, during the meeting week.

It's significant to repeat that all PRI Staff Engineers' contact information is listed at least twice throughout the Attendees' Guide. Nadcap Staff Engineers are the direct-contact authorities and helpful resource with regards to special process(es), task, or commodity.

Task Group memberships are also provided as information to benefit the aerospace industry as a whole. Task Groups represent the core Nadcap Supplier association and authority. The SSC membership of fellow Suppliers, as well as the Subscriber members, are listed on each Task Group roster throughout the Guide.

Within the normal course of Nadcap business, Auditees will work with a variety of PRI administrative staff members, some much more often than others. It is PRI's most sincere wish that Auditees are continually aware that each PRI staff member is pleasantly and eagerly service-driven. Managing literally thousands of audits per year, the PRI staff is profoundly patient and experienced with helping Auditees navigate audit preparation, audits, and ongoing certification. The PRI staff is an incredible resource for all Auditees. PRI is eager for you to introduce yourself and your company to each of the attending PRI staff members during the Nadcap meeting week and learn more about how they can serve you.

Your Supplier Support Committee membership among your fellow Task Group Suppliers is your closest Nadcap association and most dedicated advocate. The Attendees' Guide identifies who and how Supplier's interests are represented with Nadcap voting authority on each Task Group, and on the overriding Nadcap Management Council (NMC).

What is the Benefit of a Nadcap Meeting?

Attending these meetings can have great benefits for all Nadcap Auditees as they offer an opportunity to meet others in the industry and get to know the key contacts from PRI and the various Subscribers that could assist Auditees when they have concerns or questions about the process.

It gives the opportunity to become involved with the various Nadcap teams and help mold the direction and improvements that Nadcap is pursuing by providing input and expertise.

In addition, Auditees can become voting members of the Task Group(s) they are accredited by or become Task Group representatives to the NMC and have a voice in how the NMC is running the program.

There are a number of activities and events occurring during the Nadcap meetings that Auditees are encouraged to participate in, which include the individual Task Group meetings, various events sponsored by the Supplier Support Committee (SSC), free training sessions provided by eQuaLearn and the general session of the Nadcap Management Council (NMC).

Agenda-at-a-Glance

Prior to each meeting, PRI creates a high-level agenda with all the key meeting and session times that Auditees can use to plan their week. The agenda also indicates whether the meeting is 'open' to all Nadcap participants to attend, or 'closed', which means only certain participants are allowed to attend due to the sensitive nature of the topics, with the limitations listed on the agenda.

Task Group Meetings

- 1) Each Task Group is responsible for developing the Audit Criteria (AC) related to the technologies they oversee and offer an opportunity for Auditees to have technical questions answered by process experts from PRI and the applicable Subscribers.
- 2) Within these meetings, Auditees are able to bring their knowledge and understanding of the processes to the team and can aid in creating or modifying Audit Criteria questions that are appropriate to the requirements.
- 3) Certain meetings will be listed as 'closed', which allow the Subscribers to discuss accreditation issues that would contain sensitive or proprietary information.

SSC Events

- 1) On Monday morning the SSC sponsors a line-up of activities focused on helping Auditees understand how to navigate the Nadcap process, which typically includes:
 - a. A meet and greet session where Auditees can meet other peers and the members of the SSC, ask questions and discuss any topics pertaining to the Nadcap process.
 - b. A Supplier Tutorial, <u>available on the PRI website</u>, where Auditees can learn about the SSC and how it fits within the structure of Nadcap, the accreditation steps each audit goes through, and some key points on how to prepare for audits and how to respond to NCRs. The tutorial is also available on <u>eAuditNet</u> under Resources / Documents / Public Documents / Supplier / SSC Meeting Presentations.
 - c. A presentation by a fellow Supplier on what they have found to be 'Keys to a Successful Audit'. This gives Auditees an opportunity to see what other Suppliers have done in the past that has helped them successfully become accredited.
 - d. Other presentations by PRI and the SSC on topics that Auditees have indicated they would like to hear about, such as tutorials on the eAuditNet website, how to become a Supplier voting member and others.
- On Monday afternoon the SSC frequently sponsors events on various topics that are important to the Auditees, such as updates by a Subscriber on their focus for the Nadcap process.

- 3) On Tuesday evening the SSC holds its General Meeting to give all Auditees the opportunity to hear from the SSC about the projects the SSC is working on to assist the Auditees with the Nadcap process as well as to give feedback to the SSC on what projects Auditees would like the SSC to work on or feed back to the NMC. Other topics during the meeting may include:
 - a. Discussions with the NMC Chair on the NMC focus for Nadcap
 - b. Presentations on key topics by various stakeholders
 - c. Brainstorming sessions to get Auditees' feedback on topics to identify areas of improvement the SSC can work on

NMC Meetings

During each Nadcap meeting, the NMC holds an open meeting for all participants to hear about activities the NMC and various Task Groups are working on, which may include:

- a. An address by the Chair of the PRI Board of Directors
- b. A report on the status of the Nadcap program
- c. An address by the Chair of the NMC on activities the NMC is working on
- d. Reports by the various NMC committees on their individual projects
- e. Reports by the Chairs of the various Task Groups on what their Task Group is working on during this meeting
- f. A report by the Chair of the SSC on what projects and activities the SSC is working on

In addition, the NMC conducts several other meetings that may only be attended by NMC voting members or, in some cases, only NMC Subscriber voting members.

- a. Continuous Improvement Committee (NMC Voting Members)
 This team meets to plan, review and discuss improvement activities the NMC is working on.
- b. Ethics & Appeals Committee (NMC Subscriber Members)
 This team meets to review any pending appeals that have been raised to the NMC.
- Globalization & Strategy Committee (NMC Voting Members)
 This team meets to plan, review and discuss key activities the NMC is working on to add value to stakeholders.
- d. Standardization Committee (NMC Voting Members)
 This team meets to plan, review and discuss standardization activities to improve consistency and efficiency the NMC is working on.
- e. Oversight Committee (NMC Subscriber Members)
 This team meets to plan, review and discuss compliance oversight activities of the Nadcap program.
- f. Oversight Audit Sub-Team (NMC Subscriber Members) Reviews annual PRI Internal Audit Plan and completion Status

- g. Oversight Auditors Meeting (Oversight Auditors & Audit Lead)
- h. Planning & Operations (NMC Voting Members, Task Group Chairs/Vice Chairs & Staff Engineers)

This meeting is intended to provide a forum for Task Group Chairpersons, Staff Engineers, PRI Management and NMC Voting Members to improve communication between the NMC and Task Groups and identify issues for the purpose of improving the effectiveness and efficiency of the Nadcap process.

PRI Training Sessions sponsored by eQuaLearn

During each Nadcap meeting, PRI, via its <u>eQuaLearn program</u>, conducts various training sessions that Auditees may attend. These sessions require advanced registration and will typically fill up well before the week of the Nadcap meeting.

However, once the session is full, PRI will start a waiting list so that if a registered attendee does not show up, someone else may be able to step into that spot and attend the session.

Please check the Agenda-at-a-Glance prior to each meeting to see what sessions eQuaLearn is offering. You can also follow <u>eQuaLearn's LinkedIn</u> account to remain up-to-date on all PRI training news and opportunities.