NADCAP NEWSLETTER

Nadcap: 25 Years of Excellence

CONTENTS

1 How to successfully pass a Nadcap audit

10 How to address audit findings - Nadcap style

12 Nadcap document transition

14 Nadcap and Aerospace Quality Systems

15 Nadcap supplier mentoring program

IN BRIEF...

Nadcap is an approach to conformity assessment that brings together technical experts from Industry to manage the program by establishing requirements for accreditation, accrediting Suppliers and defining operational program requirements. This results in a standardized approach to quality assurance and a reduction in redundant auditing throughout the aerospace industry.

Nadcap is administered by the Performance Review Institute (PRI), a not-for-profit organization headquartered in the USA with satellite offices in Europe and Asia.

www.p-r-i.org/Nadcap/

WELCOME TO THE INAUGURAL ISSUE

Welcome to the inaugural issue of this Nadcap newsletter. The content has been designed in particular for companies that are not normally able to send a representative to Nadcap meetings to gain technical information/knowledge that will help them better prepare for a Nadcap audit and understand how to utilize Nadcap effectively to improve their performance.

Each newsletter will include articles designed for the whole Nadcap Supplier community. In this issue, there are articles about aerospace quality systems and their relationship to Nadcap, how to register your quality system approval on eAuditNet, guidelines for addressing audit findings and the Nadcap supplier mentoring program, among others.

In addition to general Nadcap articles, each newsletter will have a particular technical focus. In this issue, there is detailed information regarding Nadcap heat treat audits. Heat treaters comprise the third largest constituent group for Nadcap, representing approximately over 900 (almost 20%) of all the audits conducted annually, yet we know that many are not able to attend Nadcap meetings and benefit from free training and other information shared there.

I hope you find the content valuable. Please let us know how we can continue to make this a useful tool to help you in your Nadcap audit journey.

Joseph G. Pinto
Executive Vice President & Chief Operating Officer
Performance Review Institute

HOW TO SUCCESSFULLY PASS A NADCAP AUDIT

The best way to prepare for a Nadcap audit is to create a timeline and schedule the required preparatory tasks at appropriate points prior to the audit. For any initial Nadcap audit, it is recommended that Suppliers plan for a preparation period of no less than six months prior to the audit start date.

Six months prior to the audit

- Download the Nadcap checklists

  Register on eAuditNet (www.eAuditNet.com)

Continued on page 2

NADCAP NEWSLETTER
Nadcap: 25 Years of Excellence

HOW TO SUCCESSFULLY PASS A NADCAP AUDIT

Continued from page 1

and contact PRI or your company administrator for access to the checklists to assist in your preparation.

See more about eAuditNet on page 9.

- Create an audit plan

  One of the best ways to approach this is to review one checklist at a time over a period of two weeks, depending on how many checklists will be included in your audit. Involve everyone who will participate in the real Nadcap audit and make sure to include job (compliance) audits.

- Request an audit date

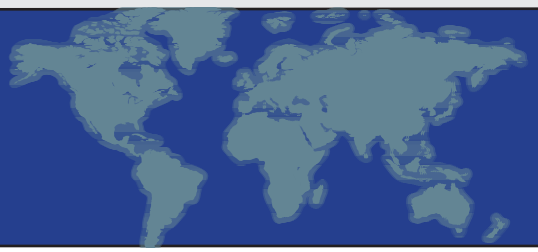
  Schedule the audit at an appropriate time for your company and key personnel. Bear in mind factors such as site closures, hardware availability for compliance, the availability of records (such as calibration, personnel, training/qualifications) and the availability of key personnel (bearing in mind vacations, part-time staff, shifts etc). If a customer has mandated your Nadcap audit, it's also important to ensure that your chosen audit date meets their expectation. Please do not leave it until the last minute to request an audit as it makes it harder to guarantee your first choice of date.

- Select and train internal auditors on the audit checklist requirements and reporting

Four months prior to the audit

- Conduct audit and identify NCR's

  It is important to be objective and record where the evidence can be found relative to each checklist question. Avoid assumptions and verbal verification - always look for objective evidence. Use the Compliance Assessment Guidance or Audit Handbooks where available.



Involve all personnel that could be questioned or witnessed during the audit to allay their concerns and make them more comfortable about the upcoming Nadcap audit.

- Do a thorough root cause corrective action analysis

  If you identify any non-conformances, they must be addressed with thorough RCCA analysis.

- Create a plan for corrective actions and ensure that they are flowed out to all affected areas such as calibration service providers, internal calibration personnel, Inspectors, Planners, Purchasing and Quality.

- 90 days before the audit, access eAuditNet to check that the checklist you are working to is the version that will be used during your audit (checklists are regularly reviewed and updated by the Task Group).

One month prior to the audit

- Conduct a follow-up audit of the non-conformances identified in the internal audit and the corrective actions implemented to address them.

- Verify that any procedures or work instructions have been amended as appropriate, and that personnel have been trained and are operating according to the revised process documentation.

- Make contact with the Nadcap auditor and send the required audit documentation to him/her - this allows the auditor to review the documentation ahead of time and be well prepared to conduct the audit.

During the Nadcap Audit

Once the Nadcap auditor arrives on-site, there are a number of things you can do to make the audit run smoothly:

- Make sure that the required personnel, hardware and records are available and easily accessible during the audit.

- Invite as many impacted staff as possible to the opening meeting.

  The opening meeting is where the audit scope is finalized and the timetable confirmed. Participation provides all participants with an opportunity to anticipate and prepare for any situations that might affect the audit schedule, including any safety or security issues, as well as to ask questions. If in doubt, ask questions, as it is much better to have clarity early in the process.

  It also represents an opportunity for the auditor to communicate directly to senior management and ensure that they appreciate the time commitment a Nadcap audit represents for the personnel involved, which can make the process easier for those staff members.

- Have enough hardware for the auditor to audit

  A key part of the Nadcap audit is the compliance job audit. This is where the auditor witnesses the inspector or processor working in accordance with the procedure.

  For Nadcap heat treating audits, the auditor is expected to witness ten job audits, including two long historical jobs shipped to the customer with all tests performed, and at least four in-process jobs. The auditor is looking for the personnel to verbally demonstrate a sound knowledge of the requirements, including audit auxiliary processes.

- Promote open communication

Continued on page 4

NADCAP NEWSLETTER
Nadcap: 25 Years of Excellence

HOW TO SUCCESSFULLY PASS A NADCAP AUDIT

Continued from page 3

To help the audit run smoothly and avoid non-conformances through misunderstandings, the inspectors and operators must communicate with the auditor, explaining the process as it is being performed so that the auditor can see what is taking place. It is also advisable to check with the auditor whether they wish to observe a particular part of the process or if it is acceptable to continue.

- Understand that auditors are human too

  It is acceptable to the auditor for the inspector to start again if they recognize they have made a mistake. The industry representatives on the Heat Treating Task Group do not expect perfection; they expect a robust system operated by competent personnel.

- Encourage attendance at the daily briefings and final briefing.

  Each day the auditor will present an overview of that day's activity and any non-conformances identified, summing it all up at the end of the audit in the final briefing. As with the initial meeting, invite all impacted staff, including senior management. Use the time to ensure you understand any NCR's as they are written - that is what you will be responding to so if they are unclear, say so.

Heat Treatment Specific Guidance

To add value to the aerospace Suppliers who participate in Nadcap, there is an ongoing effort to do more to assist them in successfully passing Nadcap audits efficiently.

The Nadcap Heat Treatment Task Group, led by Thomas Norris of UTC Aerospace (Goodrich), has been active in this area, developing tools and holding technical workshops for companies who are considering having a Nadcap audit or wanting to improve their audit performance.

Publishing detailed Nadcap audit preparation guidance is just one of the ways the Heat Treatment Task Group offers assistance. A selection of their top tips for Nadcap heat treatment audit success is described below.

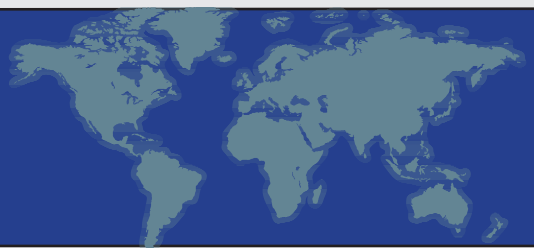
Perform a Self-Audit Prior to Nadcap Audit

A recommended timeframe for pre-audit activity is provided. Central to that activity is downloading the Nadcap checklists and using them to perform a self-audit.

Register on eAuditNet (www.eAuditNet.com) and contact PRI or your company eAuditNet administrator for access to the Nadcap checklists to assist in your preparation.

The Heat Treating Task Group conducts audits to the following audit criteria:

- AC7102: Heat Treating
- AC7102/1: Brazing
- AC7102/2: Aluminum Heat Treating
- AC7102/3: Carburizing
- AC7102/4: Gas and/or Ion/Plasma Nitriding



- AC7102/5: Hardness and/or Conductivity Testing for Heat Treating
- AC7102/6: Hot Isostatic Pressing (HIP)
- AC7102/7: Induction Hardening
- AC7102/8: Heat Treating Pyrometry
- AC7102/9: Sintering
- AC7102/10: Localized Heat Treating

Use the applicable checklists to conduct a pre-audit and address all non-conformances found using your documented corrective action system.

Keep the audit record to show the Nadcap auditor to comply with AC7102 which requires that the Supplier shall record each procedure, paragraph and page number for each checklist question. As part of your pre-audit activity, prepare and provide the following to the Nadcap auditor to facilitate his/her preparation for the site visit (also per AC7102):

- List of equipment
- List of purchased services
- List of quality personnel and approved heat treating personnel on each shift
- List of Prime customers and specifications
- List of heat treat specifications that supplier is working to
- Copy of internal general procedures for heat treat processing, Pyrometry and testing/inspection of heat treated product
- Organization chart
- Personnel Training

Personnel Training

Ensure that you have a documented personnel training program that refers to everyone with heat treating related responsibilities. An inadequate personnel training program creates uncertainty about the proficiency of the personnel processing the parts. Non-conformances may be written where a program does not include detailed reference to the following elements:

- Documented training to an established outline
- Knowledge and experience
- Initial and periodic evaluation of the competency
- Exam, observation, interview, audit
- Cleaning

Cleaning

Cleaning prior to the heat treatment of parts is critical to process integrity so during the audit, make sure that all surfaces are clean and that the parts are racked to allow access to all surfaces. The post-cleaning activity is just as important. Train your operators to not to touch the parts after cleaning and that they know how to transport them. Finger marks can destroy properties so they must use clean gloves and take all necessary steps to protect the parts from factory dust and grit.

Process Control

You must be able to demonstrate that you have reviewed the Process Control requirements for each of your customers and that you have an internal Procedure and “System” that documents compliance. Identify other testing and controls required by specifications such as:

- Pyrometric Testing
- Lotly or Periodic Tensile Testing

Continued on page 6

Nadcap

NADCAP NEWSLETTER
Nadcap: 25 Years of Excellence

HOW TO SUCCESSFULLY PASS A NADCAP AUDIT

Continued from page 5

- Periodic Metallurgical Testing (e.g. IGO/IGA Testing, Eutectic Melting, Cladding Diffusion, High Temperature Oxidation, etc.)
- Decarburization/Surface Contamination Testing
- Leak Up Rate Testing
- Hydrogen Pick Up Testing
- First Lot Forging Qualification Testing

If your audit scope includes hardness, complete the AC7102/5 checklist as part of your pre-audit, unless your company already holds Nadcap accreditation for AC7101/5: Hardness Testing (Macro) as part of a Nadcap Materials Testing accreditation.

Other testings that may apply are specified in AC7101/3: Carburizing and AC7101/4: Gas and/or Ion/Plasma:

- Metallography / Microhardness
- Surface Contamination of Steels (IGA/IGO, decarburization)
- Titanium Testing (Alpha case and Hydrogen pickup)

Refrigeration of Steels

The AC7102 checklist asks whether procedures cover sub-ambient/sub-zero cooling according to the customer requirements, or in absence of customer requirements, whether the supplier have a default procedure.

To ensure compliance to the requirement, companies must have procedures that specify timings, temperatures and tolerances and include requirements for sub-ambient (PH steels requiring <30°C or <20°C).

There must also be records to evidence time from quench (if required) and time and temperature achieved.

Sampling Plans

(c) Bodycote Heat Treating Ltd

It is expected that all heat treating sampling plans contain a method for the inspector to determine the quantity of product to check in the lot and a specified frequency and method of sampling. This reduces the opportunity for individual interpretation and improves control through consistency.

Furnace Control and Maintenance

Per AC7102, the internal procedure is expected to specify the method for determining heat-up rate, start of soaking time, end of soaking time and cooling rate.

Relevant procedures and instructions must be available at the work place and include methods or definitions of heat-up and cooling rates, start and end of soak as well as atmosphere, quench delay and quench residence times.

Start of Soak

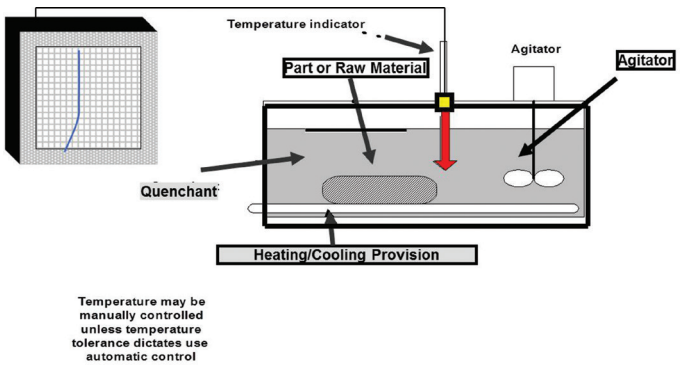
There are many different definitions of start of soak. The Nadcap auditor will be looking for your company to have rules regarding start of soak, and for your rules to conform to the specifications, so make sure that you are familiar with them.

Quench

The quench system is the subject of many questions in the Nadcap heat treating audit. There are three main liquid quenchants:

- Water
- Water Polymer mixes
- Oil

However, liquid nitrogen has also been utilized and witnessed during Nadcap audits. Forced air or gas may also be used as quenchants, although the system in place is typically an immersion system, but spray systems are also an option. Most specifications define the acceptable quench temperature range, with the maximum temperature typically expected to be <=32C / 90F at the beginning of the quench process.



The AC7102 checklist asks whether the quench mechanisms are operational and capable of meeting the maximum quench delay provisions of the specifications.

To avoid non-conformances that are commonly written against this question, make sure that the quench tank will be ready before you load the furnace as this prevents avoidable delays and their potential repercussions. It is also important that the bath temperature is recorded before the material touches the liquid and, normally, the maximum temperature during the quench process.

Quenchant maintenance is also key, with the checklist clarifying whether the quenchant agitation and/or agitation of the product during quenching conforms to the applicable specifications.

Racks, Fixtures and Baskets

AC7102 asks whether the internal procedure require that the racks/fixtures/baskets are examined for integrity, and repaired or scrapped as necessary.

The location in the furnace of the racks/fixtures/baskets is integral to this. There are many ways to define this. Using jigs and location guides such as track guides on the floor, stops inside the furnace, standard racks etc. is one approach; another is to use marks on the furnace itself to show the maximum extent of any load.

Plating

If your company carries out plating, as far as the Nadcap heat treating audit is concerned, plating is limited to the plating operations for successful heat treatment or brazing. Any reference to plating in your Nadcap heat treatment audit is not intended to replace plating for finishing purposes, as controlled by the Nadcap Chemical Processing Task Group. If your company already has a Nadcap chemical processing accreditation that includes both plating and stripping, responses to the applicable questions should be considered as “yes” unless otherwise noted as part of a finding during the Nadcap heat treatment audit.

Continued on page 8

HOW TO SUCCESSFULLY PASS A NADCAP AUDIT

Continued from page 7

(c) Special Steels Ltd

Pyrometry

There is a whole section in the Nadcap heat treatment checklist dedicated solely to pyrometry testing. AMS 2750 is the source for much of the material and is considered the leading industry specification in this area.

To ensure the general requirement is satisfied, the Nadcap auditor will ask whether you have an internal procedure for pyrometry, addressing all the aspects of AMS 2750E and other customer specifications as applicable to your operations.

But the questions go into much more detail on all aspects of pyrometry, including:

- Thermocouples
- Testing instrumentation types
- Calibration
- Process recorders / electronic data collection
- Furnace classes
- System accuracy tests (SAT)
- Temperature uniformity surveys (TUS)
- Load conditions
- Offsetting

Thermocouple Example

To illustrate the depth that the Nadcap audit goes into, take thermocouples as an example. Addressed in the AC7102 checklist, there are questions such as:

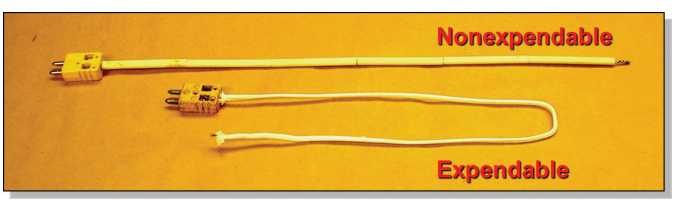
- Are the thermocouples being calibrated throughout the range in which they are to be used?

- Are procedures in place to ensure that the base metal thermocouples are only recalibrated when allowed by the AMS 2750E?

- Are procedures in place to ensure that the base metal thermocouples are only reused when allowed by the AMS 2750E?

Note how the questions are very specific, and bear this in mind during your audit preparation.

For clarity, base metal thermocouples are defined as those thermocouple sensors other than noble metal types B, R and S. It does, however, include types E, J, K, N and T.



To further highlight the depth of the audit, the Nadcap auditor will also want to know whether you are in compliance with AMS 2750E paragraphs 3.1.5.2 and 3.1.5.3, or more stringent customer requirements, for the life usage of expendable and nonexpendable base metal load thermocouples. He/she will also want to know about your procedures, to ensure that there are procedures in place governing the requirement that thermocouples made from rolls of thermocouple wire are not used when the difference in end to end (front to back) correction factors at any test temperature exceed AMS 2750E or more stringent customer requirements (1°F or 0.6°C for primary and secondary standards; 2°F or 1.1°C for all other uses including TUS).

If you have any questions, please do not hesitate to contact any member of the Nadcap heat treat department via heattreating@p-r-i.org

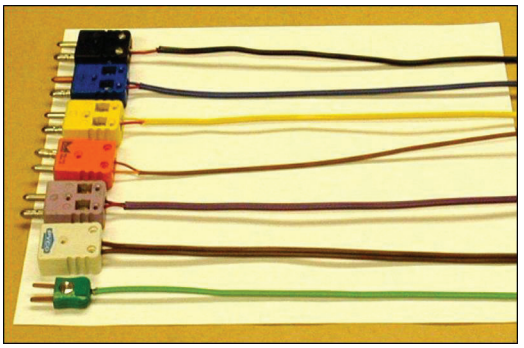
WHAT IS EAUDITNET?

eAuditNet is an online system for everything relating to Nadcap audits.

Suppliers use eAuditNet extensively: from requesting a quote to scheduling an audit; from carrying out thorough audit preparation to responding effectively to non-conformances after the audit in order to gain accreditation promptly.

The site houses many useful documents to help you navigate the Nadcap process. Some are general and some are heat treat-specific. They include User Guides, Tutorials, and other helpful Supplier documents. In addition, eAuditNet also contains the online Qualified Manufacturers List (QML), which is a searchable database of certified Nadcap Suppliers. Procurement can use the QML to research and contact Nadcap accredited potential Suppliers.

To obtain access, complete the free registration at www.eAuditNet.com



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BECOME AN AUDITOR

Use your auditing and manufacturing/engineering skills to become a Nadcap heat treatment auditor. Learn more at www.eAuditStaff.com

NEED MORE INFORMATION?

There are a number of ways to get more information to help your company successfully pass a Nadcap heat treat audit.

Contact us - if you have a Nadcap heat treat question, please use heattreating@p-r-i.org and the Staff Engineers will be happy to give you clarification. For all other questions, please use the contact details on the back page of this newsletter.

Access eAuditNet - there are many useful documents on eAuditNet, including details of common nonconformances, audit checklists, guides and presentations. To obtain access, complete the free registration at www.eAuditNet.com

Attend training - Nadcap Audit Preparation for Heat Treating and Nadcap Heat Treating Checklist Review are two of the classes offered by eQuaLearn, the training side of the not-for-profit Performance Review Institute, which administers Nadcap. Learn more at www.eQuaLearn.com

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HOW TO ADDRESS AUDIT FINDINGS - NADCAP STYLE

One of the challenges of an accreditation can be dealing with the findings - also known as nonconformances or NCR's for short. Addressing nonconformances may not always be easy, but it does not have to be painful.

The problem is typically associated with the root cause and the long term corrective (preventative) action. These two items work 'hand in hand' as it is not possible to establish the long term preventative action until you know the root cause of the situation. Many responses to Nadcap audit NCR's identify an immediate action as the long-term preventative action.

A good example would be a procedural nonconformance, where the long term preventative action was to modify the procedure to comply with the checklist requirement. This is not preventative action. To help explain the expectations and how the process works, what follows is taken from a presentation given at a Nadcap Measurement & Inspection Task Group Supplier Symposium from October 2014.

Responding to Nonconformances

There are five points that suppliers must address in an NCR response:

- Immediate Corrective Action Taken (Containment Actions)
- Root Cause of Nonconformance
- Impact of All Identified Causes
- Action Taken to Prevent Recurrence
- Effectivity Date

Immediate Corrective Action Taken (Containment Actions)

The question here is: what action was taken following the issue being discovered during the audit?

- Did you stop the problem from continuing?
- Did you become compliant with the requirement?
- Did you contain the problem found?
- Were any other aspects (procedure, hardware, etc.) affected by this NCR?

Root Cause of Nonconformance

In this instance, Suppliers are being asked to identify why this situation occurred. There are a number of tools that can be used to help determine the root cause. Five Why is one of the most well known. It is important, however, to consider the following:

- Why was this not identified during the pre-audit using the Nadcap checklists?
- How was this question answered, and what objective evidence was reviewed to consider the item as compliant?
- Why did the engineer not identify this issue?
- What involvement does the person or area have in the system?

The Root Cause is the last logical cause in the chain and it can be tricky to identify. Some examples of poor root cause responses include:

- *This checklist is wrong*

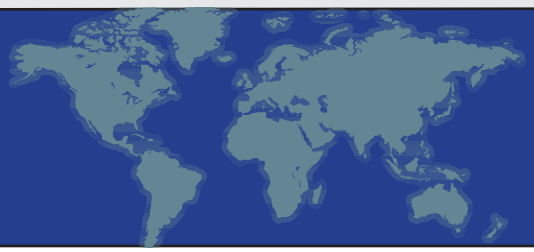
  Nadcap checklists are organic and revised over time. Anyone who genuinely believes the checklist is in error should participate in future checklist development work. However, for now, the checklist questions, and any NCR's associated with them, need to be addressed.

- *It's not a customer requirement, therefore the NCR can be voided*

  To become Nadcap accredited, compliance to the checklist is mandatory. If a customer does not have a requirement that is required in the checklist, the checklist requirement applies. Note that if a company is mandated to obtain Nadcap accreditation by their customer, then the checklist does become a customer requirement.

- *We have been audited by our customers and it has never been a problem before*

  That may be the case. However, this does not



alleviate or relinquish the obligations of meeting customer contractual requirements. Audits can be a 'snap shot in time' and some aspects may not have been reviewed before, based on the situation at the time of the audits.

- *I inherited this audit, so it was not my fault*

  Nadcap audits the company, not the individual so individual fault is not important. What is important is to address the issue.

- *Operator Error*

  Operator error - to simply blame the individual - is generally not an acceptable root cause. The supplier needs to consider why the appropriate tools (auditing training, checklist awareness, audit awareness, oversight, etc) were not in place that allowed for the individual to perform the required tasks in an environment that can help alleviate such issues occurring in the future.

Impact of All Identified Causes

What actual or potential impact did the NCR have on products previously inspected, and on processes?

- Were parts or the integrity of the process affected in any way?
- What about other individuals that are part of the inspection process?
- Consider other parts and not just the part identified in the nonconformance. It could be a systemic problem.
- Were parts shipped to customer? Failing to comply with customer requirements may result in need to contact customer for additional investigation or corrective action.

Action Taken to Prevent Recurrence

Also known as preventative action, Suppliers must consider the long term action taken to prevent the situation from occurring again.

- Can only be addressed when the root cause is understood.
- Do not rush to provide a response. Consider the effectiveness, feasibility, suitability to the company, and the company's budget.
- All nonconformances must be closed out before accreditation can be granted

Objective Evidence

Information must be provided to demonstrate the corrective action taken to address the nonconformance.

- If a procedure changed, clearly specify what the change was and show evidence the procedure was approved (as applicable).
- Potential for Impact Hardware investigations: provide the investigation report, include photographs
- Training/awareness of personnel for the immediate action taken and also the long term preventive action. Typically these would be different individuals. Evidence could be the sign-off sheet.
- If there is a new procedure, or if a procedure has changed, if a new system or method has been implemented, make sure that training has been created to address it.

Effectivity Date

If the plan is not effected immediately, the anticipated effectivity date must be specified. For example, if equipment needs to be recalibrated and you are relying on an external agent to do it, you need to make it clear when that will be done.

For more information, please contact any Staff Engineer - contact details can be found on eAuditNet at www.eAuditNet.com or to attend a training class focused on root cause corrective action - Nadcap style, visit www.eQuaLearn.com
eQuaLearn is the training side of the not-for-profit Performance Review Institute, which administers Nadcap.

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NADCAP DOCUMENT TRANSITION

Effective April 19, 2015, the Nadcap document structure has changed. The Nadcap Management Council (NMC) made the decision, with the approval of the PRI Board of Directors, to cancel AS 7003 as the controlling document of the Nadcap Program and to replace it with PD 1100 (Program Document 1100 Nadcap Program Requirements).

Unlike AS 7003, PD 1100 will be controlled by the NMC, allowing the industry stakeholders with the most invested in the Nadcap program greater influence over it. PD 1100 is a policy level document defining the Nadcap program, and is comprised of requirements from the former AS 7003, NOP-001, NOP-002 and PD 3000 documents.

In conjunction with this action, the supporting procedures were reorganized and the PRI Quality Manual was eliminated.

The former Nadcap Operating Procedures (NOPs), Nadcap Task Group Operating Procedures (NTGOPs) and Nadcap Internal Procedures (NIPs) were reorganized into Operating Procedures numbered OP 11XX; where XX are numbers from 01 to 23.

As much as possible, the new OPs follow a process methodology and were created by cutting and pasting the existing requirements into the new OPs in order to minimize the impact on the Nadcap program and the audit and accreditation process.

Editorial changes were made to forms and audit criteria to update procedure references.

The new Program Document PD 1100 and Operating Procedures are located in eAuditNet under Resources\Documents\Procedures and Forms\Operating Procedures. The obsolete NOPs, NTGOPs and NIPs were maintained for 90 days in Resources\Documents\Procedures and Forms\Obsolete Procedures as a reference only to aid in the transition process.

A table called Document Transition Reference has been provided in eAuditNet as a guide showing the relationship between the old and new procedures. You are encouraged to review this table and the new Operating Procedures to ensure that the changes are clear and any impact on your activity is minimized.

During the reorganization activity, it became apparent that there was an opportunity to remove redundancies, standardize terminology, improve clarity and flow, and streamline requirements in the resultant Operating Procedures.

Throughout the remainder of the year the document transition team will be working on this as a phase 2 transition activity. Technical changes made as a result of this activity will be balloted according to the standard balloting process.

In addition, the NUCAP program merged with the Nadcap Program. Instead of NUCAP, Subscribers will now be able to obtain Nadcap accreditation under Subscriber accreditation Options A and B.

The Subscriber audit process will be managed by the Subscriber Accreditation Committee formerly known as NuMC.

NUCAP documents PD3000 and PD3001 were transitioned to OP 11XX as well. The Subscriber Option B HQ audit checklist (PD3100) was changed into a Nadcap Audit Criteria numbered AC 7008.

If you have any questions about the document transition please contact Bob Lizewski, Manager, Nadcap Quality and NUCAP at blizewski@p-r-i.org

New Document	Previous Document
PD 1100 Nadcap Program Requirements	Sections of: AS 7003, NOP-01, NOP-002, NTGOP-001, PD 3000
OP 1101 Document Control	NIP 4-01 Document Control Procedure
OP 1102 Records	NIP 4-02 Records
OP 1103 Definitions	AS 7003, Quality Manual, PD 3000
OP 1104 Audit Scheduling	NIP 7-01 Pre-Audit Process, Parts of NIP 7-07 Export Controlled Materils and Information, PD 3000
OP 1105 Conducting an Audit	NIP 7-02 Audit Process, Parts of NIP 7-07 Export Controlled Materials and Information
OP 1106 Audit Report Processing	NIP 7-03 Audit Report Processing & Review, parts of NIP 7-04 Post Audit Process, parts of NIP 7-07 Export Controlled Materials and Information, PD 3000
OP 1107 Post Accreditation Actions	NIP 7-04 Post Audit Process, NOP-009 Suspension and Withdrawal, PD 3000
OP 1108 Pre-Assessment Audits	NIP 7-06 Pre-Assessment Audit Process
OP 1109 Supplier Advisories	NOP-006 Supplier Advisory, PD 3000
OP 1110 Audit Failure	NOP-011 Audit Failure Process, PD 3000
OP 1111 Merit Program	NOP-008 Supplier Merit Program
OP 1112 NMC Oversight Activities	NOP-004 NMC Oversight of the Accreditation Process
OP 1113 Appeals	NOP-001 Appeals, PD 3000
OP 1114 Task Groups	NTGOP-001 Nadcap Task Group Operating Procedure, NOP-002
OP 1114 Task Group Appendices	NTGOP-001 Appendices
OP 1115 Delegation of Audit Report Reviewer	NOP-003 Delegation to Audit Report Reviewer
OP 1116 Auditor Staffing	NIP 6-01 Auditor Selection, Approval and Training, PD 3001
OP 1117 Auditor Consistency	NOP-012 Auditor Consistency
OP 1118 Audit Observers	NOP-007 Audit Observers
OP 1119 Audit Criteria Development	NIP 7-08 New Audit Criteria and Pilot Audits
OP 1120 Audit Criteria Agreements	NOP-005 Cross Commodity Agreements
OP 1121 Subscriber Subscription	NIP 7-05 Subscriber Agreements
OP 1122 Subscriber Accreditation	PD 3000 17.3
OP 1123 Supplier Support Committee	NOP-001 Appendix C
PRI Training	NIP 6-02 Training and Awareness
PRI Continuous Improvement, Inernal Audit, Incident Reports	NIP 8-01 Continual Improvement Process
Not maintained as separate document. Requirements incorporated into other OPs	NIP 7-07 Export Controlled Materials and Information

NADCAP AND AEROSPACE QUALITY SYSTEMS

A Nadcap audit differs significantly from an audit for general quality or for compliance to an ISO standard.

With those types of audits, the following generic quality question may be used regardless of the nature of the work being audited:

Does the Supplier define the processes employed for calibrating, inspection, measuring, and testing?

Nadcap is much more specialized than this. To highlight the depth of a Nadcap audit, the following question would be used for NDT only - each special process would have its own specific question:

Are the fluorescent penetrant inspection (FPI) dryer ovens calibrated every three months at multiple points across the usable range?

A recognized quality system certification is a pre-requisite for companies looking to achieve Nadcap accreditation, because it means that the company already has an approved system in place that covers training, corrective action, and other key processes of control.

Consequently, Suppliers scheduling an initial Nadcap audit where no other Nadcap accreditation exists, must provide a recognized quality system certification in advance, or add AC7004 to their audit as a substitute. While AC7004 satisfies the minimum requirement for a Nadcap audit, it may not meet the expectation of your customer requirements for quality systems; some Nadcap Subscribers and Task Groups do not recognize AC7004. There are also rules in place regarding reaccreditation audits.

For more information, please refer to Nadcap Operating Procedure OP 1104 - Audit Scheduling, clause 4.7.1 or contact Susan Frailey, Lead Staff Engineer for Aerospace Quality Systems at sfrailey@p-r-i.org

EAUDITNET INTERACTION WITH OASIS

For companies that already hold an AS / EN / JISQ 9100 or 9110 certificate

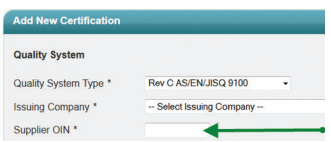
OASIS is the IAQG Online Aerospace Supplier Information System. It contains the Certified Suppliers Directory, a listing of all Suppliers holding a 91XX series or equivalent from an approved Certification Body. Each Supplier listed has a unique OASIS Identification Number (OIN) for ease of tracking. Given the requirement for Suppliers to hold a recognized quality system certification in order to achieve Nadcap accreditation, this OIN is important in the verification process. Consequently, Suppliers have been asked to ensure that their OIN is registered in eAuditNet.

To do this, after you log in to eAuditNet choose “Supplier Quality System” in the Supplier Applications menu, then complete the form, including your OIN number, as shown in steps 1 and 2A.

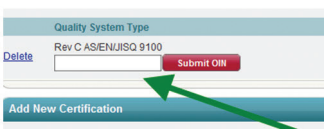
If you have an existing certification in eAuditNet, you can also update the OIN without having to submit another copy of the certification or contacting PRI by following steps 1 and 2B.

1.

2A.



2B.



NADCAP SUPPLIER MENTORING PROGRAM

For the past several years, the Nadcap Supplier Support Committee (SSC) has administered a Nadcap Supplier Mentoring program.

The Supplier Mentoring program matches Suppliers who are either new to Nadcap and/or those needing assistance with experienced Nadcap Suppliers who can help.

Lisa Donahoe of Alcoa is leading this effort and explains:

For those of us who have been involved in Nadcap for some time, it can be easy to forget the initial fear and confusion we experienced when we arranged our first Nadcap audit.

When do I send the audit documentation to the auditor? What do I do if I have a non-conformance? What if I don't agree with the non-conformance? These are all questions that many of us know the answers to, but there are still many Suppliers who do not know. Not to mention the various acronyms - NMC, SSC, SE... I could go on!

For various reasons, such as cost and time limitations, some Suppliers never attend a Nadcap meeting where they could not only gain a better understanding of the program, but benefit from the free eQuaLearn training and additional networking opportunities available to the attendees.

Being unable to participate in the Nadcap meetings can be isolating and lead Suppliers to consider Nadcap as 'just another audit' when, in fact, it is much more than that. In addition, we are aware that Suppliers can feel uncomfortable about contacting Nadcap staff engineers with questions, particularly if they have not been in contact before.

I want to emphasise now that NO Supplier should feel awkward about contacting the Nadcap staff - they really are there to help Suppliers through the Nadcap process.

However, we recognize that for some Suppliers, they prefer to make contact with a contemporary first. To address this, the Supplier Support Committee introduced the Supplier Mentoring program. Mentors cannot answer your audit non-conformances for you or act in any way as consultants, but they can guide you through the process and give you advice regarding using eAuditNet, Nadcap procedures, timeframes etc.

For mentees, the benefits are clear but mentors also benefit from this relationship: personal satisfaction, reinforcement of your expertise, the opportunity to build your leadership skills and give back to the industry are all advantages of being a mentor.

If you are interested in learning more about the Nadcap Supplier Mentoring program, please email NadcapSSC@p-r-i.org

ABOUT THE SSC...

The Nadcap Supplier Support Committee mission is to represent the Supplier community and work with the Nadcap Management Council (NMC) to enhance the effectiveness and economical value of the Nadcap system for the mutual benefit of Suppliers and Subscribers.

The SSC Leadership Team 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.

http://p-r-i.org/nadcap/supplier-support-committee/

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