

# NADCAP NEWSLETTER

*Nadcap: 25 Years of Excellence*

## CONTENTS

- 1 Nadcap Auditor Conference Update
- 4 Common NDT NCRs Review
- 8 Procedural Review - Audit Scheduling
- 12 Audit Scheduling in eAuditNet
- 14 Auditor View
- 15 Nadcap Supplier Survey 2015

## 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/](http://www.p-r-i.org/Nadcap/)

## HAPPY HOLIDAYS!

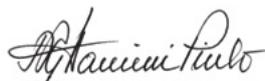
Welcome to the second issue of this Nadcap newsletter. The content has been designed in particular for companies that are not normally able to send a representative to Nadcap meetings to gain technical information/knowledge that will help them better prepare for a Nadcap audit and understand how to utilize 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 audit scheduling with a review of OP 1104, the operating procedure that governs that process. In addition, the Nadcap Scheduling team have put together a list of their top tips for pre-audit success. A long-standing Nadcap auditor also shares his insight.

Now in its seventh iteration, there is information about the 2015 Nadcap Supplier Survey and the importance of giving your feedback on the program. I encourage you to do so as it helps us to improve Nadcap for everyone's benefit.

In addition to general Nadcap articles, each newsletter will have a particular technical focus. In this issue, there is detailed information regarding Nadcap NDT audits. Over 1,000 Nadcap NDT audits are conducted annually, yet we know that many people 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



## NADCAP AUDITOR CONFERENCE UPDATE

In October 2015, the annual Nadcap Auditor Conference took place. In the past, this event has occasionally been open for Suppliers to attend. However, this year, in response to auditor feedback, it was an event reserved for auditors. It is important that we achieve a good balance between communicating important information to Suppliers and respecting the need for auditors

*Continued on next page*

## NADCAP NEWSLETTER

Nadcap: 25 Years of Excellence

# NADCAP AUDITOR CONFERENCE UPDATE

Continued from previous page

to be able to openly discuss situations they have encountered and learn from each others' experiences without breaking customer confidentiality.

However, because PRI recognizes that much of what is presented at the annual Nadcap Auditor Conference is of interest and relevance to the aerospace Suppliers involved with Nadcap, every Task Group was required to report out pertinent information during the Nadcap meeting in Pittsburgh, PA in October 2015.

What follows is a summary of some of the key points that were discussed during the Nadcap Auditor Conference. More details are available in the minutes of each Task Group meeting (online at [www.p-r-i.org](http://www.p-r-i.org) under Nadcap - Nadcap Meetings) as well as in eAuditNet (shown below: [www.eAuditNet.com](http://www.eAuditNet.com) under Resources - Documents - Public Documents - Auditor Documents - 2015 Auditor Conference).

- [-] 2015 Auditor Conference
  - [-] 2015 Agenda at a Glance
    -  [2015 Auditor Conference Agenda](#)
  - [-] 2015 Commodity Specific Agenda and Presentations
    - [-] General Sessions
      - [-] CP
      - [-] CT
      - [-] COMP/NMM
      - [-] CMSP
      - [-] ETG
      - [-] Fluids
      - [-] HT
      - [-] MI
      - [-] MTL
      - [-] NDT
      - [-] NMSE
      - [-] SEALS
      - [-] SLTS
      - [-] WLD

### Chemical Processing

At the conference, AC7108: Nadcap Audit Criteria for Chemical Processing, sections 5.4 and 5.5 were discussed, for clarification about how deep to go into the AMS 2750 requirements, especially those that are not in AC7108. Auditor consistency, NCR writing and ITAR / EAR regulations were among the more general topics on the agenda.

### Coatings

From a technical standpoint, there was a discussion on key changes to AC7109/1: Nadcap Audit Criteria for Thermal Spray and an introduction to AC7109/8: Nadcap Audit Criteria for Grinding of Coatings as a Special Process, including technical training. In addition, there was a review of NCR trends and current Coatings Auditor Advisories.

### Composites/Non-Metallic Materials

Changes to AC7118: Nadcap Audit Criteria for Composites Revision D were presented, including an in-depth overview of the new operator self verification requirements. Other technical topics were structural adhesive bonding, ply-by-ply verification, poly film removal verification methods and the Task Group expectations regarding calibration traceability and NIST.

### Conventional Machining as a Special Process

Much of the conference was comprised of technical presentations provided by various Nadcap Subscribers, including GE Aviation, UTC Aerospace (Goodrich), Honeywell and SAFRAN.

### Electronics

Auditors shared best practices for eAuditNet and reviewed changes in AC7120: Nadcap Audit Criteria for Circuit Card Assemblies Revision D and AC7121: Nadcap Audit Criteria for Electronics Cable and Harness Assemblies Revision C. The upcoming changes to AC7119: Nadcap Audit Criteria for Electronic Printed Boards were also discussed, and there was an IPC update and presentation regarding counterfeit parts awareness.



Joseph Pinto of PRI presenting at a previous Auditor conference

### Fluids

The auditors reviewed the dry film lube audit process per AC7108/1: Nadcap Audit Criteria for Painting & Dry Film Coatings. In addition, there was a review of the most common nonconformances and a discussion on auditor consistency. Periodic testing was reviewed in detail, covering topics such as subcontracted machining, reporting of periodic test failures and verifying part counting system effectiveness.

### Heat Treating

Changes to AC7102/1: Nadcap Audit Criteria for Brazing Revision F and AC7102: Nadcap Audit Criteria for Heat Treating Revision I were reviewed, as well as changes to AC7102/3: Nadcap Audit Criteria for Carburizing Revision D. Clarification was provided on the difference between cleaning and cleanliness, best practices were shared for performing job audits and writing nonconformances.

### Measurement & Inspection

As a relatively new Task Group, much of the Nadcap Auditor Conference was spent reviewing the checklists in detail with the auditors in attendance, to ensure that the Task Group expectations are clear. More generally, the compliance job tracker and how to handle non-sustaining nonconformances were among the topics discussed.

### Materials Testing Laboratories

The auditors reviewed AC7006: Nadcap Audit Criteria Equivalent to ISO/IEC 17025:2005, and continued on to discuss each of the MTL audit checklists, covering major changes to the content, the Handbook Supplements and Task Group guidance.

### Nondestructive Testing

There was a presentation on the changes to NAS410 and AC7114: Nadcap Audit Criteria for NDT, as well as the etch inspection checklist AC7108/2: Nadcap Audit Criteria for Etch Processes. General topics included auditor consistency, how to handle ITAR data, documenting end user information and Subscriber supplement changes.

### Nonconventional Machining & Surface Enhancement

The new draft water jet machining checklist was reviewed with the auditors in order to address any questions. There was also a discussion on laser cutting, fixed or frozen processes, spark erosion grinding and laser marking. In addition, a number of Nadcap Subscribers presented updates to their company specifications/requirements.

### Elastomer Seals

The conference focused on the revisions to AC7115: Nadcap Audit Criteria for the Manufacture of Elastomer Seals. Other topics included analysis of the most common NCRs and training on the fabric / textile reinforced seals process.

### Welding

AWS and ISO updates were presented to the auditors, who also participated in an interactive best practice sharing session and NCR writing refresher. Auditor consistency was a key topic and there was a presentation on weld / welder qualification.

If you have any questions, or to learn more, view the associated documents online or contact a Nadcap Staff Engineer if you have any questions.

## NADCAP NEWSLETTER

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# NADCAP NDT COMMON NON-CONFORMANCES OVERVIEW

The Nadcap NDT Task Group is currently led by Chairperson David Royce of Pratt & Whitney. The Task Group is responsible for the operation of the NDT accreditation program and are currently utilizing the following Nadcap NDT baseline checklists:

AC7114: this is the core checklist that includes all the general questions associated with nondestructive testing. It focuses on Level III responsibilities, inspector performance reviews, NDT internal audits, personnel certification, calibration control etc. It is included in every Nadcap NDT audit.

In addition, depending on the requirement of the customer(s) and the capabilities of the supplier, any combination of the following may also be included in the Nadcap NDT audit scope:

- AC7114/1: Liquid Penetrant
- AC7114/2: Magnetic Particle
- AC7114/3: Ultrasonic
- AC7114/4: Radiography
- AC7114/5: Eddy Current
- AC7114/6: Digital Radiography, Digital Detector Array
- AC7114/7: Ultrasonic Survey - Rotating Components
- AC7114/8: Computed Radiology, utilizing (PSL)

All checklist questions are based on industry standards and/or customer requirements.

For example, section 5 in the AC7114 checklist is about NDT Qualification / Certification and specifically refers to NAS410 / EN 4179 as the source of the requirements. Nadcap is not a standards body and does not create new requirements.

In addition, there may be supplemental checklists which contain Nadcap subscriber-specific requirements that are not included in the core audit criteria. They are not new requirements, but existing requirements contained within the Nadcap subscriber specifications and are not considered a lesser requirement but more stringent. It is not an opportunity for a Subscriber to list all their requirements. One proviso is that the supplemental checklist must be associated with the main checklist question. So the supplemental checklist AC7114/1S paragraph 5.9.1 must be about the same issue as the baseline checklist AC7114/1 paragraph 5.9.1, but a higher or more stringent requirement.

### Common Non-Conformances

It is recommended that you review the top 5 NCR's identified in Nadcap NDT audits as they can highlight to you some common mistakes that you can then work to avoid. These are provided on the eAuditNet website under *Resources - Documents - Public Documents - NDT - Data Folder - Top 5*. Below is an overview of the most common non-conformances written against the AC7114 checklist. Given that this is a required part of every Nadcap NDT audit, it is time well spent accessing and reviewing this for guidance as to how to avoid common pitfalls.

### Personnel Training and Examination

The most common nonconformance written against AC7114, paragraph 5.1.7 refers to the Supplier's obligation to provide a formal plan showing objectives for obtaining certification for trainees. According to the Compliance Assessment Guidance detailed in the checklist, an individual shall be documented as a trainee and be actively participating in a training program for a stated NDT method for a limited and specified period of time.

An NCR is typically written when the supplier did not address the "limited and specified" period of time in the procedure, stating instead that they "have no trainees".



This is not an acceptable response because, although a company may not have trainees at the time of the audit, or even anticipate any in the near future, the auditor is looking for an established system that is robust enough to handle a situation where there are trainees.

To avoid this nonconformance, start by capturing in writing what your actual process for handling trainees is, or would be, if you do not already have a process. Then compare what you have written down with whatever you already have documented in procedure. Are they the same? Repeat with the applicable industry standards and customer requirements; is there a good match? If not, where is the delta? In particular, as regards this common non-conformance, make sure that you are specifying a limited time period for training.

The second paragraph that most commonly results in a nonconformance for AC7114 is 5.3.12 and is also related to personnel development, focusing on examinations. It talks about the minimum number and content of questions that examinations must include. The Nadcap auditor will be looking for the auditee to confirm that those questions reflect the specifications, codes, equipment, operating procedures and test techniques used within the facility.

### Calibration

Paragraph 8.1.3 is the third that most often leads to NCRs being written for AC7114. It states that purchase orders or procedures for calibration services must either identify or provide traceability to requirements for the standard to be used, the accuracy, the range of use and the number of points to be checked within that range. At least three points must be checked unless otherwise stated in the applicable method standard.

Where NCR's are written, it is typically because the supplier failed to provide the information to the calibration agency or could not show how that information was provided originally. This is a question of traceability and effective document control. To address

this, make sure to keep a written record to demonstrate that you did provide the appropriate information to the calibration service provider, and the details of what you gave them.

The next most common NCR written against AC7114 comes from paragraph 8.2.2, also about calibration. It requires the supplier to provide evidence that the calibration certificates are reviewed to verify that the equipment is within tolerance.

NCR's are typically written when the supplier did not have a requirement stated in their procedure to review the incoming certificates. Certificates either did not get reviewed or the reviewer did not pick up the out of tolerance conditions noted by the calibrator, or did not act upon the out of tolerance as required by their procedures.

To avoid this non-conformance, ensure that your procedure includes reference to this requirement, and that you have evidence you can show the auditor that the requirement was met in practice. In addition, you must provide evidence that the calibration reports were reviewed and any issues such as out of tolerance conditions were resolved in a timely manner.

### Customer Requirements

The fifth most common non-conformance arising from AC7114 relates to customer requirements. Paragraph 4.1.1 lists a number of areas for which Level III's are responsible, as they form part of customer NDT requirements. Level III's must identify and ensure the implementation of these requirements which include:

- Review of NDT requirements
- Sequence of NDT operations
- NDT procedure development and approval
- NDT technique development/review & approval
- Training of NDT personnel
- Examination of NDT personnel

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## NADCAP NDT COMMON NON-CONFORMANCES OVERVIEW

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When this results in a non-conformance, it is due to the lack of information in the supplier's procedure covering the Level III responsibilities and their sequencing of NDT within the manufacturing sequence.

Typically the procedure is incomplete the way it is written. It will state that Level III's oversee the implementation of the requirements, but it does not state how this is done, how it is recorded or where it is recorded. To avoid this being written up as a finding, make sure your procedure includes those details, and is a true reflection of your actual working practice.

For each of the other checklists listed on page 4, details of the most common non-conformances are also published on eAuditNet under *Resources - Documents - Public Documents - NDT - Data Folder - Top 5*. For the sake of space, only the most common NCRs for those checklists are discussed below. However, you are strongly encouraged to review the full details on eAuditNet for any checklist that will feature in your audit scope.

### AC7114/1 - Penetrant Survey

The most common non-conformance identified is in section 5.9, relating to penetrant system performance. This picks up on three paragraphs so they are all included below. Paragraph 5.9.4 of the Penetrant System Performance section requires the supplier to provide evidence to show that the facility properly checked the performance of the penetrant system. Under paragraph 5.9.1 the supplier is required to demonstrate whether they performed an initial check to establish a baseline for each known defect standard and material in use. Paragraph 5.9.3 requires the supplier to verify whether the records of this test are on file and whether they indicate acceptable results.

This group of questions typically results in NCR's written to address the use of the TAM panel or other device used to verify the penetrant system. Examples of typical nonconformances include the absence of the definition

of the baseline check within the company procedures, poor quality photographs, failure of the operators to follow procedure and compare the panel to photographs by operators, the operator not checking the cleanliness of the panel prior to immersion in penetrant and failure to run the check as per the procedure.

### AC7114/2 - Magnetic Particle

In the AC7114/2 checklist, the most common NCR's are found under paragraphs relating to Procedure/Technique (4.3.11, 4.3.21, 4.3.10). 4.3.11 verifies the magnetic field strength and location of Gauss/Tesla measurements, if QQI's are not used. Where NCR's are written, it is largely to address a procedural error. The requirement states that the technique/procedure has to define where on the part the field strength is to be measured, if QQI's are not used. It is often seen that the measurement point is not specified.

Paragraph 4.3.21 addresses the required process controls and calibration checks called out in Sections 5 and 6 of this checklist. NCR's are commonly written to address the lack of procedural coverage of any of the process control checks called out in the checklist.

Paragraph 4.3.10 relates to the magnitude of current, direction of all magnetic fields, the magnetic field strengths, the types of magnetic field strength indicators, ampere turns, etc. This NCR is also typically written to address a procedural error. The requirement is that the technique/procedure has to define the items listed above. It is frequently observed that the requirements are not specified.

### AC7114/3 - Ultrasonic

In the AC7114/3 checklist, the NCR's most commonly found are under paragraphs relating to equipment calibration and address the calibration of the ultrasonic set and manipulation system. For the ultrasonic sets, some Nadcap subscribers request a two-year calibration period, which the supplier follows, yet the Nadcap audit



checklist requires an annual calibration. Where this discrepancy exists, make sure to adhere to the most stringent requirement: if you have calibration performed annually, you meet the biennial requirement anyway, and avoid a non-conformance in the Nadcap audit.

It is also sometimes noted that the ultrasonic sets are not calibrated to customer requirements as defined in their specification. Meanwhile, for the manipulation system, audit reports show that NCR's are commonly written because suppliers are not following customer unique requirements or not calibrating the movements at all.

To relate this to the AC7114/3 audit checklist and its common non-conformances, for example, according to paragraph 5.1.2, records must provide evidence that all instrument/system channels in use are calibrated in accordance with ASTM-E-317, MIL-STD-2154 - Table II, EN 12668, AMS-STD-2154, customer requirements or manufacturer recommendations as applicable. Ensure you know which requirements apply to your site, that you have a robust alert system so that you know when the requirements change and a process for reviewing and updating your internal procedures accordingly. Then, ensure that your activity matches your procedures and that the instrument/system channels in use have been appropriately calibrated.

#### **AC7114/4 - Radiography**

The most common NCR in this area relates to the storage of radiographic materials. Paragraph 5.4.1 asks:

Is the storage of film and chemicals adequate to ensure no adverse effects on radiograph quality?

Where this generates a non-conformance, it is typically to address either the lack of information in the procedure covering storage temperatures or humidity, or the fact that they are not being controlled. In some cases, suppliers explain that the ASTM is a guide, but it is actually the baseline requirement that shall be met.

#### **AC7114/5 - Eddy Current**

As a newer checklist only more recently available to include in Nadcap NDT audits, there is less data in this area. However, two issues have been identified as equally likely to result in non-conformances: materials, equipment listing and information; and approval. Paragraph 3.1.2 asks whether all probes are identified, or provide traceability to, part number, frequency, coil diameter, and if the probe coil is shielded or unshielded.

Where this has resulted in a non-conformance, it is due to lack of traceability to the probe and the probe details. This typically occurs when there is more than one probe and the supplier cannot satisfactorily demonstrate the information relating to any one specific probe. To address this, each probe must be individually identified and its data (including part number, frequency, coil diameter and whether the coil is shielded or unshielded) tracked to ensure traceability.

Equally likely to result in a nonconformance is the question of approval. Paragraph 4.2.1 asks whether the procedure(s) indicate approval by the applicable Level III. NCR's are typically written where there is a lack of Level III approval of the procedure and/or technique. To address this, ensure that the approval of the Level III is documented.

#### **AC7114/6 - Digital Radiography, Digital Detector Array**

Another newer addition to the Nadcap NDT audit scope, the most common nonconformance written against AC7114/6 relates to file format and storage.

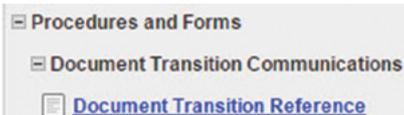
Paragraph 3.2.2 determines whether the system is capable of backing up data to some form of archiving system. This results in nonconformances where there is a lack of image archiving or back up system, or where the system is considered inadequate.

## NADCAP NEWSLETTER

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# PROCEDURAL REVIEW - AUDIT SCHEDULING OP 1104

In the last issue of the Nadcap Newsletter, an overview of the recent procedural changes was provided. This continues to be available on eAuditNet under Resources - Documents - Procedures and Forms - Document Transition Communications.



Moving forward, in each issue of the Nadcap Newsletter, a different procedure will be reviewed to aid transparency and comprehension. In this issue, OP 1104 Audit Scheduling will be discussed. This article is not a replacement for your own thorough review of OP 1104.

OP 1104 Audit Scheduling replaced the old Nadcap Internal Procedure (NIP) 7-01 Pre-Audit Processing, and also incorporated parts of the NIP 7-07 Export Controlled Materials and Information as well as PD 3000. It exists to coordinate PRI and Supplier activities in scheduling a Nadcap audit and addresses the function of audit scheduling activities.

Paragraphs 4.0 - 4.2.11 refer to Subscribers' Nadcap audits; from paragraph 4.3, the procedure relates to Supplier Nadcap audits. Some of the key guidance from OP 1104 is highlighted below.

### Audit Preparation

As described by Nadcap auditor John Tattersall (see page 14), preparation is vital to audit success. Paragraph 4.5 of OP 1104 specifically addresses this, noting that Suppliers shall have access (in eAuditNet) to a copy of all pertinent documentation, including a copy of the audit checklist for the applicable commodity and any supplementary audit preparation guidance.

When you log in to eAuditNet, if you find that you do not have access to those documents, please contact the eAuditNet Helpdesk at [eAuditNetSupport@p-r-i.org](mailto:eAuditNetSupport@p-r-i.org) or a member of the Scheduling team (see next page) and they will be able to assist you.

### Export Control

Paragraph 4.5.2 requires that, both prior to and at the beginning of the audit, the Supplier identifies any product, hardware, specifications, processes and drawings that are restricted by export control laws or regulations, including ITAR and EAR.

This is very important because auditors are scheduled to conduct audits based on a number of criteria including their qualifications relative to the audit scope and audit location but also on export control status. Not all Nadcap auditors are authorized to audit product, hardware, specifications, processes and drawings that are restricted by export control laws or regulations.

During the initial audit scheduling process, you will be asked to confirm the export control status as it relates to the audit. If in doubt, please contact your customer, or, if different, the owner of any information, for clarification.

Audit Creation - Test Supplier Co., tSuite1, PRI 161 Thorn Hill Rd, Warrendale, PA, 15006, United States

1 Select Basic Info 2 Linked Audits 3 Quality System 4 Set ITAR/EAR Info 5 Specify Scope

Please indicate if this audit is for processes that would include ITAR/EAR work.

International Traffic in Arms Regulations (ITAR)  
Export Administration Regulations (EAR)

1. What is ITAR/EAR?

The United States Federal export control laws prohibit unlicensed export of information re technologies for reasons of national security and protection of trade. The U.S. Department the transfer and export of technologies relating to military applications listed on the Mu the International Traffic in Arms Regulations (ITAR). The Department of Commerce regulates export of technologies relating to civilian applications listed on the Commerce Control Li Administration Regulations (EAR).

Export controlled information or material is any information or material that cannot be re representatives of a foreign entity, without first obtaining approval or a license from th (Department of State for ITAR, or the Department of Commerce for EAR). Export controlled

For this commodity, is work done under the guidelines of the ITAR/EAR?

Yes  No

Please understand that your ITAR selection will impact auditor assignment and audit cost. Click here for [more details](#).

### Quality Systems

Paragraph 4.7.1 refers to the requirements relating to quality system certification. These are different for initial and reaccreditation Nadcap audits. In addition, some commodities have different requirements as well. For initial audits, where the Supplier holds no other Nadcap accreditation, evidence of a recognized quality system certification must be provided in advance of



the Nadcap audit, or an AC7004 assessment audit scheduled. For reaccreditation audits, or in the following cases:

- initial audits where the Supplier already holds a Nadcap accreditation in another commodity;
- when previously documented quality system approvals in eAuditNet have expired at the time of the Nadcap audit; or
- initial satellite audits linked to reaccreditation audits where the satellite does not have a previously documented quality system approval in eAuditNet;

there are two options available to Suppliers:

1. at a minimum of 90 days prior to the audit start date, schedule an AC7004 assessment or equivalent as detailed below; or
2. provide a valid quality system accreditation certificate to PRI not later than 60 days after the end of the Nadcap audit.

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## PROCEDURAL REVIEW - AUDIT SCHEDULING OP 1104

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### WHAT QUALITY SYSTEMS ARE RECOGNIZED BY NADCAP?

Per PD1100, which is also on eAuditNet, Nadcap recognizes AS/EN/JISQ 9100 and AS/EN 9110 quality system approvals, and other equivalent translations as recognized by IAQG, performed and certified by registrars that are approved and listed in the IAQG Oasis database ([www.iaqg.org/oasis](http://www.iaqg.org/oasis)). The scope of AS/EN/JISQ 9100 and AS/EN 9110 accreditations should not contain the exception to 7.5.2 Validation of Processes for Production and Service Provision.

In addition, Nadcap recognizes ISO/IEC 17025 and AC7006 for testing laboratories, including nondestructive testing laboratories and etch audits performed in support of nondestructive testing laboratories. The ISO/IEC 17025 scope of accreditation must include testing and be from an approved ILAC accreditation body. AC7006 accreditation must be through the Nadcap Materials Testing Laboratories Task Group. Quality system requirements for some Task Groups (e.g., Materials Testing Laboratories, Fluids, Elastomer Seals, Sealants, etc.) may be more stringent than AC7004 and, in such cases, quality system requirements shall be addressed in both the Nadcap Requirements and in the Task Group Operating Procedures.

### Satellite Facilities

Section 4.8 of OP 1104 addresses the scheduling of satellite facilities. An audit of a Supplier may entail the scheduling of more than one facility as a satellite.

For audit purposes, a main facility is a building or group of buildings co-located within a single unbroken property line owned or leased by the Company. It may also include one or more buildings across a street or alley so long as no other private property intersects the line between the properties owned by the Company.

As described in OP 1104 paragraph 4.8.5, the criteria for satellite sites are as follows:

- The satellite(s) must be within 25 miles / 40 kilometers radius of the main facility
- The satellite(s) must have the same Quality Manual and Procedures as the main facility
- The satellite(s) must have the same Quality Manager for day-to-day operational control as the main facility (NDT facilities may have the same Level III instead and Materials Testing Laboratories can substitute the same Laboratory Manager/Supervisor instead)
- The satellite(s) must have an individual on site at the satellite site who is part of the Quality function and reports directly to the Quality Manager
- The main and satellite(s) must be owned by the company

### Auditor Change Requests

Occasionally, PRI receives requests from Suppliers to change the auditor assigned to their Nadcap audit. Per OP 1104 paragraph 4.9.7, this must be done in writing, including an explanation of the reason for the request.

The Scheduling staff will then review that submission with the appropriate Staff Engineer to determine the best course of action. It is not guaranteed that the auditor will be changed, but all requests will be given due consideration.

### Pre-Audit Documentation Submissions

Where there is a requirement to submit information to the auditor in advance of the Nadcap audit, this is documented in eAuditNet and in the applicable audit criteria for that commodity. If you are in any doubt, please contact a member of the Scheduling team, a Staff Engineer or the assigned auditor directly, and they will be able to advise you as to the appropriate documents to send. These must be provided at least thirty days prior to the audit start date.

## TOP TIPS FROM THE NADCAP AUDIT SCHEDULING TEAM

-  If you have not already done so, access eAuditNet as soon as you can and download the audit checklists that will be used during your Nadcap audit.
-  Review the many documents provided in the eAuditNet Resources area - they may be invaluable in your audit preparation.
-  The audit is a comprehensive assessment for compliance to customer requirements. Make sure you understand your customers' expectations - ask questions if you are unsure.
-  Conduct a self-audit using the Nadcap audit checklists before scheduling the audit - this will help you work out how much you need to do before the auditor arrives.
-  A great resource if you have questions about export control is the US Commercial Service. This is the government office to whom suppliers can reach out for support on all things related to Export Control. They welcome enquiries from all over the world. To find the contact information for your local office, please visit <http://export.gov/usoffices>
-  When you conduct your self-audit, be thorough in your responses. Record where in your quality manual, procedures, work instructions etc. you document the requirement and your evidence of compliance.
-  As you review Nadcap documents, you may find acronyms or terms that you are not familiar with. OP 1103 has been created as a listing of definitions so please utilize this if you are unsure what something means. If you still do not understand, or if the term you need help with is not in OP 1103, please contact a member of the Scheduling team.
-  Be aware that the audit checklists are reviewed and updated regularly by the industry members of the Nadcap Task Groups. Check, prior to each audit, that the version you are using is the one that will be in effect at the time of your audit. If you are unsure, please ask.
-  It is important to keep your contact information up-to-date in eAuditNet. If the details for your company contact are incorrect, you may be missing out on important information.
-  If you realize that you need to make a change to your scheduled Nadcap audit, whether it is the dates that need to change, the scope or anything else, please contact the Scheduling team as soon as possible so that changes can be effected in a timely manner with minimal impact for all involved.
-  The Nadcap Supplier Support Committee offers a Supplier Mentoring program, dedicated to assisting those Suppliers who are new to the process and/or those needing assistance navigating the Nadcap system by providing names and contact information of experienced Nadcap Suppliers. If you would like to work with a Mentor, please send an email to [NadcapSSC@p-r-i.org](mailto:NadcapSSC@p-r-i.org)
-  Don't be afraid to contact a Staff Engineer as you prepare for a Nadcap audit if you have doubts about the intent of any checklist question or if you need clarification. Staff Engineers will also answer questions related to Task Group operations and any questions related to Nadcap. Find their details at [www.eAuditNet.com](http://www.eAuditNet.com) under Contact Us.

# NADCAP NEWSLETTER

Nadcap: 25 Years of Excellence

## AUDIT SCHEDULING IN EAUDITNET



All activity related to Nadcap audit scheduling, processing and accreditation takes place in eAuditNet. In each issue of the Nadcap Newsletter there will be a feature on a different aspect of the software to assist you in navigating the process. The focus in this edition is on audit scheduling. Governed by OP 1104, eAuditNet programming is updated as needed to ensure compliance to the procedure.

### Supplier Applications

- Audit Scheduling
- New User Queue
- Supplier Advisory
- Supplier Audits
- Supplier Quality System
- User Manager

To schedule a Nadcap audit, log in to eAuditNet and in the Supplier Applications menu, choose Audit Scheduling. This will bring you to the Audit Creation Wizard (shown above) which guides you through the scheduling process. Only one audit can be scheduled at a time.

Step one requires you to input some basic information such as your company name, company contact person, your preferred audit date and type and auditor language capability, as well as the commodity to be audited.

Where possible, PRI will schedule your audit according to the information you entered, but this may not always be possible. For example, Nadcap audits are typically scheduled six to nine months in advance so if you request audit dates six weeks out, we may not be able to conduct the audit on your requested dates.

Similarly, multilingual auditors are in demand around the world so, while we will always try to match your audit to an auditor who speaks the language preference you have expressed, it may not always be possible.

Requesting an audit well in advance can help to address these two issues.

In addition, you will be asked to select which Nadcap Subscriber(s) are your customer(s). There is a space for you to input other company names, if your customer(s) are not included in the list provided.

Step two asks whether this is a satellite audit that should be linked with a main facility audit (see page 10). If you choose “yes”, you will be asked to identify the main audit using the drop down menu. The main audit must be scheduled first to obtain the audit number to input.

Satellite audits are scheduled as separate audits in eAuditNet and granted a separate accreditation from the main facility; however, main and satellite facility audits are conducted consecutively and with the same Nadcap auditor.



5 Specify Scope

6 Dates and Quotation

7 View Confirmation

Step three relates to quality systems. As detailed in OP 1104, initial Nadcap audits must have a quality system in order to complete the scheduling process. eAuditNet will search for information previously entered.

Quality System Type	Issuing Company	Expiration Date
AC7004	Performance Review Institute (Warrendale, PA)	31-Oct-14

Would you like to update your Quality System (From a Registrar or an ISO/IEC 17025)?

Yes  No

Registrar Company Name: -- Select Company --

System Type: -- Select System Type --

Expiration Date: (mm/dd/yyyy)

Where quality system certification information is found, it will be displayed on the screen and you will be given the option to update it by selecting the Registrar, system type and expiry date.

If no information is found, you will be prompted to enter it or schedule an AC7004 audit. The AC7004 audit can be canceled 46 or more days in advance of the audit start date when proof of valid quality system certification can be presented. While AC7004 satisfies the minimum requirements of the Nadcap Task Groups relating to quality systems, your customer may have different expectations so please ensure that you are meeting their quality system requirements.

Step four requires you to identify whether there is any ITAR (International Traffic in Arms Regulations) or EAR (Export Administration Regulations) work at the facility. The importance of accurately answering this question has been highlighted already (see page 8).

eAuditNet will require that you read the ITAR/EAR document (scroll to the bottom) and indicate whether, for this commodity audit, work is done under the guidelines of the ITAR/EAR. A link to "more details" is provided, or you can contact PRI if you are unsure. In step five, you select the exact audit scope.

AC7117 Rev A - Nadcap Audit Criteria for Shot Peening, Peen Forming, Glass Bead Peening

AC7117S - Nadcap Supplemental Audit Criteria for Shot Peening, Peen Forming, Glass Bead Peening

S-U0 Unknown

S-U10 GE Aviation

S-U11 The Boeing Company

S-U8 Airbus

S-U00 None

AC7117/1 - Nadcap Audit Criteria for Computer Controlled Peening

AC7117/1S - Nadcap Supplemental Audit Criteria for Computer Controlled

S-U0 Unknown

S-U10 GE Aviation

If the audit can be scheduled automatically, in step six, you will be shown a selection of dates to choose from, along with the audit duration and cost. Audits are typically scheduled six - nine months in advance.

Step seven then asks you to confirm all the audit details to complete the scheduling process.

Start Date: 04-Aug-14      Status: INITIATED

End Date: 05-Aug-14      Audit Type: INITIAL

Compressed: No      Quote: \$4,500.00

Supplier to be audited:  
Test Supplier Co., 15011, PRI 161 Thorn Hill Rd, Warrendale, PA, 15086, United States

Contact:  
Test User

Commodity:  
Surface Enhancement

ITAR/EAR work related to audit:  
No ITAR/EAR work is performed in relation to this audit

Scopes:

- AC7117 Rev A - Nadcap Audit Criteria for Shot Peening, Peen Forming, Glass Bead Peening
- AC7117S - Nadcap Supplemental Audit Criteria for Shot Peening, Peen Forming, Glass Bead Peening
- S-U0 Unknown
- AC7117/1 - Nadcap Audit Criteria for Computer Controlled Peening
- AC7117/1S - Nadcap Supplemental Audit Criteria for Computer Controlled
- S-U8 Airbus

If the audit cannot be scheduled automatically, the details you entered will be stored and the audit will be manually scheduled by PRI, who will receive an email from eAuditNet about your request. If you have any questions about the Nadcap audit scheduling process, please contact a member of the Scheduling team (see page nine).

## NADCAP NEWSLETTER

*Nadcap: 25 Years of Excellence*

### NADCAP AUDITOR VIEW

John Tattersall has been a Nadcap auditor since 2002 conducting audits in a number of areas. For NDT, he audits AC7114/1 Penetrant Survey, AC7114/2 Magnetic Particle Survey and AC7114/4 Film Radiography Survey. Here, he shares some insight to aid suppliers preparing for a Nadcap audit.

#### **What would be the key piece of advice you'd give to companies preparing for a Nadcap audit?**

Whoever is responsible for Nadcap at your company needs to spend an equal amount of hours preparing for the audit as the auditor will spend conducting the audit.

So, if it's a two-day audit, you need to spend at least 16 hours getting ready. That means 16 hours focusing on the audit – no emails, no phone calls. That's what the Nadcap auditor does. If you take less time than the auditor, then it only stands to reason that the auditor will observe more than you do and potentially find more issues than you did.

Still using the auditor as a model, you should go through the checklist and answer every question thoroughly. It is not enough to say "yes" to a question – you must be able to support that with evidence. For every checklist question, I'd suggest adding a column for procedure, page number and paragraph reference so that the evidence is easy for you to find during the audit itself – plus it forms a key part of your preparation. Ultimately, Nadcap audit success centers on being well organized.

#### **It is said that first impressions count. Are there any simple things that a company could do to give a good first impression?**

I would have to say "no". I've been involved with hundreds of audits since I became a Nadcap auditor and I've been to some beautiful facilities where the people were not organized, and some older sites where the staff were well prepared for the audit. Appearances are not the driver.

#### **What is your definition of "quality"?**

I would rely on the Oxford English Dictionary definition: "a degree or standard of excellence". Basically, for me, quality is anything that meets the customer or specification requirements. I always have that at the back of my mind.



#### **What has surprised you about being a Nadcap auditor?**

There have been many pleasant surprises; for example, I have seen some very innovative ways of achieving results.

Another surprise, I suppose, is that there is a psychological element to the audit. Some suppliers seem frightened to complain or disagree with an auditor or Staff Engineer. As a Nadcap auditor for many years now, I can reassure anyone reading this that the auditors and Staff Engineers certainly don't think they're perfect and are open to hearing different perspectives. So anyone who wants to query a decision or NCR should really feel able to do that. There's no comeback or bad feeling and NCRs are sometimes voided.

#### **In your experience, describe the impact of Nadcap on the companies you have audited?**

Oh, I have definitely seen an impact. Nadcap has raised the profile of special processes in the aerospace industry. Anything that has to be paid for gets attention so even the accountants are aware of special process quality now.

Within NDT, Nadcap has also raised the status of inspectors from the dark corners of the factory to NDT technicians. Also, Nadcap has helped internal quality and communications because the different departments have to meet to discuss documentation, issues etc.

## TAKE THE NADCAP SUPPLIER SURVEY

In an effort to drive continual improvement, the Nadcap Supplier Support Committee (SSC) launched the 2015 Nadcap Supplier Survey at the October Nadcap meeting in Pittsburgh, PA, USA.

First launched in 2003, and released every two years since then, the purpose of this initiative is to gather feedback from Suppliers on their experiences of the Nadcap program. A portion of the Survey specifically focuses on the value of Nadcap to Suppliers.

The value of Nadcap for the industry is an important topic that is always high on the agenda for both Suppliers and Subscribers. With 2015 marking the 25th anniversary of the Nadcap program, a number of Nadcap stakeholders have shared their thoughts on the value of the program, in their experience.

SSC Chair Dale Harmon explains: "Nadcap has broken new ground for customer-supplier cooperation by establishing a program in which the supplier has a voice in establishing requirements and in managing the program.



"Subscribers, suppliers, auditors and PRI staff all work together for the continual improvement of the program."

Responding to the 2015 Nadcap Supplier Survey will enable the SSC to represent the Supplier community and promote positive changes. These Surveys provide a great opportunity for Suppliers to have their voices heard.

The survey should take about 15 minutes to complete. The survey is also available to answer in French, Spanish, Chinese and Japanese.

The Survey will close during February 2016, and results will be analyzed and presented at the June 2016 Nadcap meeting in London, UK.

If you have not yet completed the survey, please do as your contribution will be invaluable in helping the SSC represent the supplier voice to the Nadcap Management Council and effect the changes you want.

The Survey is available online in English, French, Spanish and Japanese at:  
<https://www.surveymonkey.com/r/HW3G9JW>

An alternate link is provided for those taking the Survey in China:  
<http://v2.qqsurvey.net/Display/Default.aspx?sn=49770900817399&secid=49770901025259>

If you have any questions about the 2015 Nadcap Supplier Survey, please contact [NadcapSSC@p-r-i.org](mailto: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/>

## NADCAP NEWS

*Nadcap: 25 Years of Excellence*

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