NADCAP NEWSLETTER

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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 SIXTH ISSUE

This is the sixth issue of this quarterly Nadcap newsletter. PRI has been publishing and sharing this content for a year and a half now. I would like to thank everyone who has given us feedback to help improve this newsletter, and for the positive comments my staff and I have received on the content to date.

The intent of the newsletter continues to be to develop content for companies that are not normally able to send a representative to Nadcap meetings, to share 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 includes articles designed for the whole Nadcap Supplier community. In this issue, there is an article clarifying the role of the Staff Engineer, and one discussing the agreements between Task Groups. Also highlighted is the brief explanation on how to use the resource information in eAuditNet effectively, as well as the continuance of the article on Internal Audit in preparation for a Nadcap audit.

In addition to general Nadcap articles, each newsletter will have a particular technical focus. In this issue, there is detailed information regarding Nadcap composites audits. More than 200 Nadcap composites 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 continue to find the content valuable.

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

INTERNAL AUDITING
Overview of Internal Auditing (Part Two)

In the November 2016 issue of the Nadcap newsletter, Overview of Internal Auditing (Part 1) was published. That article provided an overview of the suggested preparatory steps to assist with the internal audit activity prior to a Nadcap audit taking place (Self-Audit), including confirming the scope, forming the audit team and schedule, and conducting the Self-Audit. Part 2 focuses on how to identify and resolve issues during a pre-Nadcap Self-Audit.

INTERNAL AUDITING

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Part 2 – Identifying and Resolving issues during a pre-Nadcap Self-Audit

Conducting the Self-Audit – *continued from the November 2016 issue*

As discussed in the November 2016 issue, conducting a successful Self-Audit is all about gathering appropriate evidence and data. One of the techniques mentioned was **Interviews**, which may benefit from deeper explanation. Indeed, this technique is probably the most frequently used to gather audit data during a Self-Audit.

When performing an interview to gather audit evidence, it is crucial to put the individual being interviewed at ease and motivate that person to share information which may be relevant to the audit. Although it may seem obvious and straightforward at first, you may wonder how this is done in an efficient way? The answer is by how you **frame** and **phrase** a question as well as choosing the **right type of question**.

Frame – when framing a question, it is advised to:

1. Cover a single point per question

2. Be clear and brief

3. Use words that are easy for the auditor to use and easy for the interviewee to understand

An example of a poorly framed question:

"I have been appraising the operator staffing process, and I see there are a lot of apparatuses to the process including recruiting, interviewing, training, etc. I assume you always follow procedures, correct?"

As you can see, this question covers more than one point, it is not clear nor brief and uses words that are not obviously easy to use or understand.

Phrase – phrasing an audit question could be done as below:

1. When using **open-ended questions**, try to use words like "how", "who", "what", "where", "show", etc. Indeed, this type of question will encourage the interviewee to discuss further and provide explanation.

2. When asking **closed questions**, which elicit yes/no responses, try to use words like "is," "do," "has," "can," "will," and "shall." Doing this will help you make sure you get a yes/no response and focus on one point only.

An example of an appropriate closed question could be:

"Are previous procedure revisions maintained?"

An example of an appropriate open-ended question could be:

"How are procedure revisions issued?"

Both types of phrasing have their place in an interview. It is recommended that you start the interview with open-ended questions to get the interviewee comfortable and motivated to discuss the topic without feeling they are being interrogated. You can use closed questions later in the interview when you need confirmation or wish to redirect the conversation.

Questions Type – there are many different types of questions which can be asked. You can find below the most common questions used in auditing situations:

1. **Factual** – this type of question is a good discussion starter.
"Are you responsible for the entire testing process from receipt of the sample to issuing the test report?"

2. **Leading** – this type of question will help you channel the discussion along certain lines.
"What about sample cleaning, are there any specific controls on the use of solvents to clean samples?"

3. **Justifying** – a question used when the auditor wishes the interviewee to explain their reasoning in more depth.

> *"Why can't the sample be cleaned with methanol?"*

4. **Hypothetical** – a type of question generally used later in the interview to confirm what you may have learned previously.

> *"So, I am preparing a titanium sample for testing. Can I use methanol to clean the sample?"*

5. **Direct** – this kind of question is generally used to confirm and check facts.

> *"Is the use of methanol to clean titanium prohibited?"*

In addition to the type(s) of question you choose and the way you frame and phrase them, there are interviewing techniques that you may find helpful when conducting a Self-Audit:

- Listen and observe more. Talk less

- Be alert, observe, and try not to constantly ask questions, as some answers are best obtained through observation

- Be friendly and do not forget to remind the auditee why you are conducting the Self-Audit

- Assure the auditee that issues you may identify are not a reflection of them or the job they do

- Let questions arise naturally and try to avoid interrogation

- Avoid any kind of abrupt interjections

- Do not hesitate to redirect when you believe the auditee has answered the question to your satisfaction but continues to elaborate

Identifying a Potential NCR

As described in the previous section, a key to conducting a successful Self-Audit is assuring the auditee at the beginning of every interview that issues you may identify are not a reflection of them or the job they do. This step is important and it can be repeated during the interview if necessary, as it will help gathering as much data as needed in an efficient and productive way.

During the interview, if you suspect the audit evidence that has been presented does not show compliance to the audit checklist, you can start by asking clarifying types of questions such as, *"I am not seeing how this evidence shows compliance. Can you please explain that point in more detail?"*. The main purpose here is to make sure the auditee realizes the audit evidence does not demonstrate compliance to the audit checklist, rather than you just declaring that you have identified an NCR. A good way to achieve this result is by not expressing joy or satisfaction in having identified an NCR and by not criticizing or expressing personal opinions. In other words, the auditor shall try to stay as neutral as possible when conducting the Self-Audit.

It might happen that the auditor believes the audit evidence does not show compliance to the audit checklist and the interviewee does not agree with this assessment. If this situation arises, one of the most efficient ways to resolve it is to discuss the issue with the relevant supervisor or Quality representative prior to writing an NCR.

Writing the NCR

After identifying an NCR, and once you have come to an agreement with the auditee that there is an NCR, record the non-conformance in your system. It is best practice to record the requirement and the condition found in the non-conformance.

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INTERNAL AUDITING

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There are two types of non-conformances :

- **Major** – There is an absence of, or a systemic breakdown of, the process control and/or Quality Management system; or the effect impacts or has the potential to impact the integrity of the product; or a Non-sustaining corrective action or a repeat NCR from the previous Nadcap audit is identified.

- **Minor** – Any single system failure or lapse in conformance with the applicable standard or audit criteria where the effect does not impact or have the potential to impact the integrity of the product.

Resolving the NCR

As a first step in the corrective action process, it is important that you follow your internal quality system if the non-conformance you have identified has the potential to impact product and or is a violation of a customer requirement. It is also crucial that you notify all the affected parties as soon as you find the non-conformance.

Then, various processes can be used to identify the underlying issue in the non-conformance such as 5 Whys or Ishikawa/fishbone analysis. The key is to take a systematic approach to resolving the non-conformance. Simply fixing the identified issue may not be sufficient. For example, if the audit identified a problem in a training record, fixing the training record may not be enough. Could a similar issue have occurred with other training records? Do they need to be corrected as well? What led to the problem in the first place? Is there potential that the same mistake can occur in future training records?

When a supplier conducts a Self-Audit in preparation for a Nadcap audit, it is important that all non-conformances are resolved prior to the Nadcap audit being conducted. To avoid the non-conformance being written in the Nadcap audit, it is not sufficient to have only identified the non-conformance in the internal audit. It is advised that the supplier confirm that the corrective action has been implemented and effective prior to the Nadcap audit.

Finally, conducting a Self-Audit prior to a Nadcap audit is a crucial step in achieving the Nadcap accreditation. Self-Audits require preparation, rigor and commitment. The process can be broken down into several main steps:

- Define a clear and precise Self-Audit scope
- Form a Self-Audit team by selecting your auditor(s) carefully according to critical criteria
- Create a Self-Audit schedule to get a better overview of what is required and dedicate enough time to perform the Self-Audit
- Design a Self-Audit plan that will save the auditor(s) and the auditee(s) time and ensure transparency
- Conduct the Self-Audit and gather appropriate evidence
- Identify and record non-conformances
- Resolve NCRs by implementing corrective actions before the Nadcap audit is conducted
- Maintain a copy of the completed Self-Audit checklist, with references to evidence supporting compliance documented in the checklist, and provide a copy to the Nadcap Auditor at least 30 days prior to your Nadcap audit

Additional relevant information on how to conduct a Self-Audit can be found on the PRI website at the following address: http://p-r-i.org/about-pri/media-center/pri-perspective/

We will be happy to help you if you have questions.

NADCAP COMPOSITES

The Nadcap Composites (COMP) Task Group was established in 1990 and is currently led by Chairperson Tara Campbell of Rolls-Royce, supported by Vice Chair, Richard Perrett of GKN. Within the Task Group, there are over 70 industry representatives – 48 Nadcap subscribers and 25 suppliers who actively participate in the technical discussions and decision-making.

Much of this activity takes place at the Nadcap meetings that are held three times per year. But the Task Group recognizes that not all industry stakeholders are able to participate and benefit from the opportunities that the meetings represent, such as learning, debating and networking.

Consequently, this article is intended to assist to some degree, by providing insights and sharing lessons learned regarding the Nadcap composites audit experience. The Nadcap Composites Task Group only conducts audits to the audit criteria AC7118, which regroups 5 different scopes:

- **PAR (Prepreg-Adhesive-Resin Infusion):**
  PAR involves the layup of parts either by hand or automated processes such as Automated Tape Laying (ATL), Automated Fiber Placement (AFP), Filament Winding, or Hot Drape Forming. Wet layup of structural parts is excluded from the scope of AC7118.

- **MB (Metal Bond):**
  MB is the joining together of metallic or non-metallic materials such as aluminum, titanium, stainless steel, fiberglass, in composites, metal sheets or honeycomb core; which has been chemically treated, painted or primed at the fay surface, with a thermoset film, liquid or paste type adhesive.

- **LRP (Liquid Resin Processing):**
  LRP is the process of introducing liquid resin into a preform, braid or fabric with or without pressure and the intent of subsequent curing in a vacuum bag or an open or closed cavity mold. Examples: Resin Transfer Molding (RTM), Vacuum Assisted Resin Transfer Molding(VARTM).

- **CMP (Compression Molding):**
  CMP utilizes the controlled application of thermal energy, pressure and time to effectively consolidate, form or cure reinforced and non-reinforced material within a matched die mold tool.

- **CP (Core Processing):**
  CP is the processing of raw core materials such as honey comb (metallic or non-metallic), foam, wood, etc. Processes include machining, potting, splicing, heat forming, and stabilization by application of adhesive film.

The checklist AC7118 is available on eAuditNet under Resources – Documents – Audit Checklists and, as with any Nadcap audit, we advise you to download and review this checklist in advance of the actual Nadcap audit as part of your Self-Audit preparation.

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Nadcap: 25 Years of Excellence

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Additional information on the checklist requirements, question intent, acceptable objective evidence, examples of NCRs and helpful hints are included in the audit handbook which is available in eAuditNet in the Public Documents section as shown below.

Top Nonconformance in Composites Audits

In common with many other Nadcap Task Groups, the Composites Task Group analyzes and publishes common nonconformances identified during Nadcap audits on a regular basis.

The intent is to help suppliers avoid some common pitfalls and strengthen their internal process control.

To that end, as well as the common nonconformances, the Task Group often also provided guidance and further information about each nonconformance. Articles in this newsletter are written with the goal in mind.

A number of additional useful documents are posted in eAuditNet under Public Documents on a regular basis. It is strongly recommended that you review the relevant files to gain insights that will assist in Nadcap audit preparation and success.
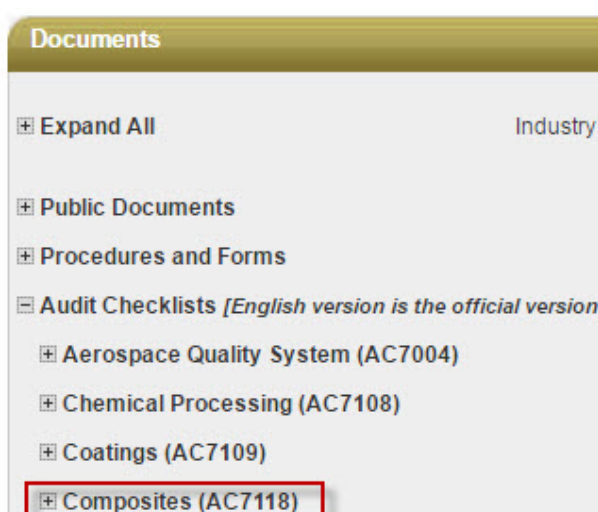
Nadcap Composites Audit Insights

The following checklists questions are the most common that NCRs are written against. Additional information on the checklist requirement including acceptable

objective evidence is included in the audit handbook that is available in eAuditNet under Public Documents as shown on the previous page.

1) "Does the manufacturing process accurately reflect the documented work instructions?"

This is a compliance question which is in paragraph 11.3.4 It had the most findings against during the calendar 2015.

Explanation: This question basically asks if the written planning is being followed by the shop operators.

2) "Are materials stored in a manner to prevent damage or contamination?"

This question had the second most observed findings against the checklist AC7118. It is a compliance question and is in paragraph 5.1.11.

Explanation: Generally, this is because the roll of material is not adequately supported by the core. This is frequently due to the weak cardboard core supports provided by the material manufacturer. Other nonconformances are caused by failing to re-seal the material bag properly before returning it to the freezer.

In the AC7118 checklist, below the the paragraph 5.1.11, you can find what is expected from your organisation concerning the storage. It states: *"Prepreg and adhesive rolls and kits must be stored in a manner which does not compromise the fabric, fibers or any precut kit materials, and prevents cold flow of material. It shall be stored in such a manner as to preserve the material uniformity and prevent fiber/material distortion. In the case of rolls, the rolls should be contained in sealed bags which are impervious to moisture.*

NADCAP COMPOSITES

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Acceptable methods for ensuring a moisture-proof seal include heat sealing or taping the folded ends of the bag, noting that a minimum of two folds shall be applied."

3) "Have housekeeping requirements been met as per applicable procedure?" and **"Are FOD area requirements, boundaries, and type, clearly identified or understood?"**

These two questions are respectively from paragraph 11.4.1 and from paragraph 11.4.6 Both are adequacy questions and had about the same number of findings against.

Explanation: These NCRs are due to the failure to adequately eliminate FOD (Foreign Objects, Debris), or perform required cleaning of the clean room or Environmentally Monitored Areas.

For the question 11.4.1, the Nadcap auditor will *"Verify cleaning procedures and records (inspected and stamped off) for facility and various areas meet the specific Customer requirements including equipment maintenance programs."*

The Composites checklist suggests the below action against the question 11.4.6:

This is a Major NCR. Management shall establish a program or process to assure a FOD-free production system. It should include elements to address the following:

- Employee awareness – Training in Composite Damage Prevention. Designation and marking of FOD prevention areas. Tooling/tool boxes control. Personnel control.
- Open culture – Participation in sharing ideas and best practices. Willingness to report occurrences of actual, potential, or near miss impacts.
- Prevention practices – Identification of all potential sources of FOD. Actions to eliminate potential causes and prevent occurrence. General housekeeping. Consumables accountability and control.
- Corrective action – QMS processes for reporting, investigating, root cause correction.
- Procedures, records, & metrics – Defined policies and visibility of FOD performance.

Nonsustaining Corrective Actions

- The same foreign object "damage" found on sequential audits is nonsustaining.
- NCRs for foreign object "debris" found on sequential audits is nonsustaining only if the condition is similar.
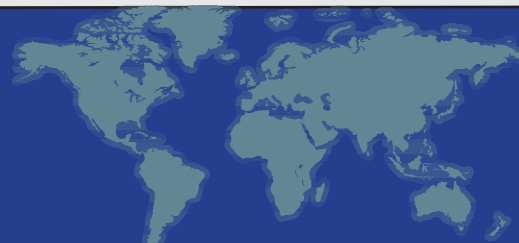
4) "Does the manufacturing and/or inspection record have sufficient detail to produce the part?"

This question is the fifth most common that NCRs are written against. It is a compliance question and sits in the paragraph 11.3.2.

Explanation: Generally, this is written when the operators are performing the work correctly, but on a tribal knowledge basis without the operations being adequately defined in the manufacturing planning.

The Composites checklist states the following about this matter *"Work Instructions/work orders/planning should provide adequate information for the technician to properly manufacture the part. All process steps should be listed in the order they are performed. All required information for automated processes should be listed on the work instructions (e.g. program numbers for automated lay-up, file names for laser projections, cure cycle numbers). [...] These requirements can be met by written instructions, pictures, diagrams or any other method that conveys the information to the operator."*

5) "Have all corrections to the recorded information been performed in accordance to established policies, procedures, and customer requirements?"

Being the sixth most common question that NCRs are written about, this is a compliance question which can be found in the paragraph 11.3.11.

Explanation: This question is used when corrections are made improperly, generally due to being illegible or lacking a date and initial.

The checklist states that *"Changes to recorded information follow same guidelines as changes to work orders."*

6) "Are curing parameters (e.g. heating and cooling ramp rates and holds, pressure, vacuum, time, etc) monitored, recorded and verified per customer requirements?"

As the seventh most common question that NCR are written against, this is an adequacy and compliance question which is part of the paragraph 21a.2.1

Explanation: This is a major nonconformance, and almost always leads to a Supplier Advisory being issued. It mostly depends on the Customer speciifications as the cheklist states *"Depending on the cure method - temperature, pressure, vacuum, and time for each cure cycle are monitored. These are typically monitored with a computer, strip recorder, or chart recorder. If not automatically recorded, values may be recorded by an operator. The customer's specification will define the cure profile. This may include heat up rates, dwell temperatures and times, cool down rates, pressures, and vacuum. Ensure the parts cure record complies with the customer's specification. In addition, ensure that intervals for recording are per Customer specifications."*

7) "Does the supplier have a verification method to ensure that all poly film/backing paper (or other support or protective material) has been removed prior to lay-up?"

Number eight in terms of NCR written against, this is a relatively new question which can be found in the paragraph 16a.2.10,

Explanation: The intent of this question is to ensure that the operators do not inadvertently introduce FOD into the lay-up. This has been a point of emphasis for the auditors in recent years at the annual Auditors Conference.

The checklist also says that *"If not addressed in manufacturing work instructions, a documented procedure and training are necessary to ensure that someone effectively verifies the removal of each polyfilm and confirms there are no pieces missing."*

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8) "For re-accreditation audits, was corrective action from previous audits implemented and sustained?"

This is a compliance question which stands in paragraph 3.4.1 of the checklist AC 7118.

Explanation: The checklist is clear about re-accreditation as it says *"An essential part of the reaccreditation/failed audit involves follow-up review of corrective action taken as a result of previous audit. Review NCR's from previous audit. Objective evidence to show they are closed out. Documentation shall be reviewed at the beginning of the audit and corrective actions verified throughout the audit."*

Past years had a much higher incidence of non-sustaining corrective actions and led to the standard Root Cause Corrective Action question, *"What is the plan to verify the effectiveness of the corrective actions?".*

9) "Do the work instructions identify in-process/ verification points when verification of conformance cannot be performed at later stages of realization per customer requirements?"

The tenth and final top NCR discussed in this article is written against paragraph 11.3.15. This is an adequacy question.

Explanation: Typically, this is the failure to verify ply placement of doublers or other plies that are completely covered by ensuing plies.

As for the majority of the AC7118 checklist questions, the paragraph 11.3.15 depends mostly on the Customer requirements. The paragraphs says that *"Design Authority/Prime/Customer Approved Work Instructions – The design authority / prime / customer may approve the work instruction or operations within the work instructions (sometimes referred to as controlled operations). Approved work instructions are considered in compliance with the requirement for in-process*

verification points. Documentation of approval of the work instructions is required. [...] Location – Work instruction shall have in-process verification for plies/ details where the edge of ply/detail is located within the net trim line, such as core blankets and doubler/filler plies."

Overall Best Practice Recommendation

The key takeaway here is to conduct a good and thorough self-audit prior to the Nadcap audit itself. It makes the auditors' job a lot easier when you list out where in your procedures or specifications that Nadcap questions are covered, plus it is a requirement to show evidence with the upcoming release of AC7118 Rev.E. Hopefully, this article reaches many of the suppliers thinking about getting accredited or about to go through a reaccreditation audit in Composites, and helps them avoid the most common nonconformances.

For more information, please do not hesitate to contact:

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AGREEMENTS BETWEEN TASK GROUPS

There are many agreements between Task Groups. They share common procedures that deal with the scheduling of audits, processing of audit reports and other activities; they have established a common methodology for addressing root cause; and in some cases, they agree to share audit checklists.

Commonly known as MoU's (Memoranda of Understanding), this agreement to share audit checklists occurs when there is a degree of overlap between the scope of accreditation available from different Task Groups. Instead of having audits across commodities covering duplicate topics, which would be costly, time-consuming and non-value added - exactly what Nadcap was established to avoid! - Task Groups may come to an agreement to accept each other's audit results in lieu of conducting their own.

One of the earliest MoU demonstrates this point. It dates back to June 2006 and was agreed between the Heat Treating and Welding Task Groups. It states:

1. *A supplier requiring approval for induction or torch brazing that has weld processes and no heat treatment capability will be assessed to AC7110 and AC7110/1 by the Weld Task Group. All NCRs will be reviewed by Weld Staff Engineers and closed by the Weld Task Group.*

2. *A supplier requiring approval for induction or torch brazing and has no other weld processes can be assessed by the Heat Treat Task Group to AC7102 and AC7110/1. All NCRs will be reviewed by Heat Treat Staff Engineer and closed by the Heat Treat Task Group.*

3. *A supplier who performs torch and/or induction brazing and is required to have heat treatment accreditation and has other welding processes for which accreditation is required can choose to be assessed at either a weld or heat treat audit. NCRs will be handled as described in items 1 and 2.*

The agreement goes on to describe how auditor training

will be handled, as well as accreditations listed on the QML on eAuditNet.

This MoU between two Task Groups, along with the one bewteen Heat Treating and Material Testing Laboratories Task Groups, set the stage for others to follow. There are now 12 such cross-Task Group agreements relating to shared audit criteria. For any company that operates in more than one commodity, it is well worth understanding what agreements exist and the potential impact on their audits and accreditations.

The current list of Task Group MoU's is below and an updated version, including details of each MoU, can be found on eAuditNet under *Resources - Documents - Public Documents - General Documents - MOU Matrix*.

| Task Groups	Checklist
Heat Treating & Welding	AC7110/1 Brazing
Materials Testing Laboratories & Welding	AC7110/13 & AC7110/13S Evaluation of Welds
Chemical Processing & Coatings	AC7108/1 Painting & Dry Film Coatings
Coatings & Materials Testing Laboratories	AC7109/5 Coating Evaluation Laboratory Practices
Heat Treating & Materials Testing Laboratories	AC7102/5 & AC7101/5 Hardness Testing; AC7101/4 Metallography & Microindentation Hardness; AC7101/3 Mechanical Testing; AC7102/8 Heat Treat Pyrometry
Chemical Processing & Fluid Distribution Systems	AC7108/1 Painting & Dry Film Lubricants
Composites/NMMT & Elastomer Seals	AC7122, AC7122-P, AC7122-1, AC7122/2, AC7122/3, AC7122/4 & AC7122/5 Non Metallic Material Testing Captive & Independent Laboratories
Coatings & Conventional Machining as a Special Process	AC7109/8 Grinding of Coatings as a Special Process
Chemical Processing & NDT	AC7108/2 & AC7108/15 Etch & Prepenetrant Etch

USING THE RESOURCE INFORMATION IN EAUDITNET

Everyone with an eAuditNet account has access to the numerous resources available on the site. The intent of this article is to explain what is provided online and where, so that you can more easily navigate the site and find the information you need quickly. It is not possible in this article to review every item in detail but an overview of the content is provided.

To access the resource information on eAuditNet, after logging in, choose *Documents* in the *Resources* menu.
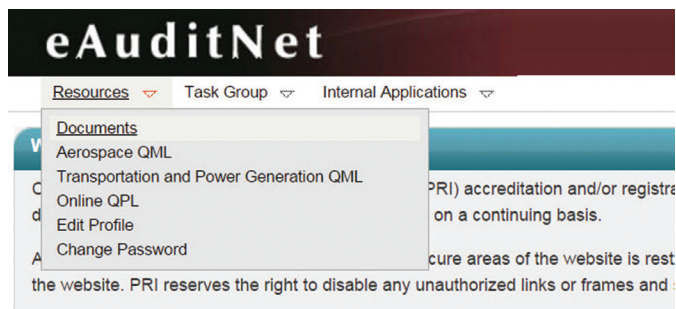
You will then see three options to choose from, shown below. They are:
• Public Documents
• Procedures and Forms
• Audit Checklists

You can click *Expand All* to view all documents in the Resource area but as there are so many, it is advisable to search in the category you want instead.


If you are unsure which category to choose, you can use the search function which is programmed to search within documents as well as document titles.
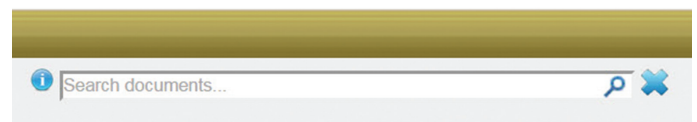

The two simplest categories to explain are the last two: *Procedures and Forms*; and *Audit Checklists*. The contents of those categories are as indicated by the section headers.

The *Procedures and Forms* section contains the various documents that govern how the Nadcap program operates.
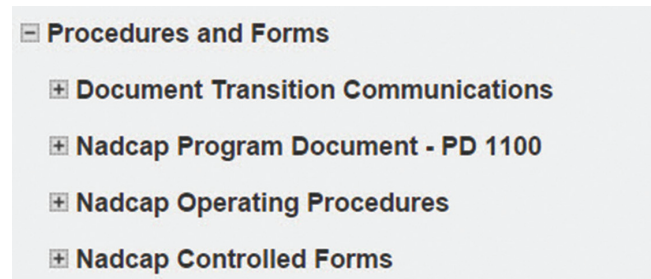
The *Audit Checklists* section contains all the Nadcap audit checklists, organized by commodity.
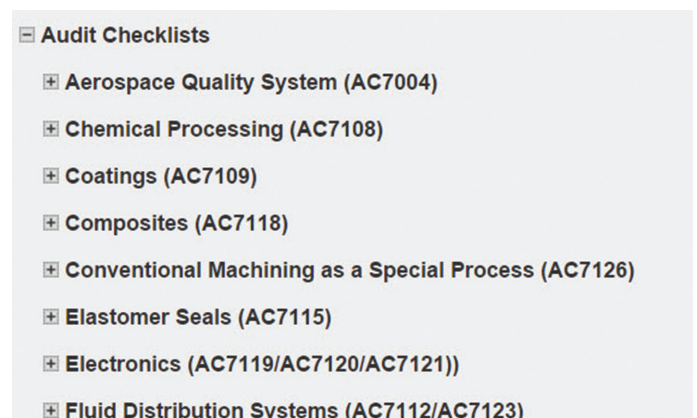
The *Public Documents* section is also organized by commodity, with a few additional categories at the beginning of the list.

Public Documents
- **General Documents**
- **eAuditNet**
- **Auditor Documents**
- **Aerospace Quality System**
- **Chemical Processing**
- **Coatings**
- **Composites**
- **Conventional Machining as a Special Process**
- **Elastomer Seals**

The *General Documents* section contains many useful items worth reviewing: audit pricing information and payment instructions, the Task Group MoU matrix referenced on page 11 of this newsletter, Nadcap quality system requirements, NCR response guidelines, the PRI aerospace dictionary and many more.

General Documents
- 2016 Nadcap Audit Pricing effective 1 December 2015
- How to Pay for an Industry Managed Audit
- How to request a Nadcap Quote / New Supplier Registration
- MOU Matrix
- Nadcap Quality System Requirements
- Nadcap Supplier eAuditNet Reading List
- PRI Aerospace Dictionary

In the *eAuditNet* section, you will find user guides and tutorials to help you navigate the site efficiently, while the *Auditor Documents* contains handbooks that clarify the checklist questions and may be useful as a first stop

if you need help interpreting any of the questions. This section also contains presentations from the annual Auditor Conference for your reference.

In each commodity area, WORD versions of the checklists are available. They can be used to type your responses when completing your Self-Audit. Task Groups also share information they consider useful to Suppliers, organized into consistent sub-categories to make them easy to access.

Welding
- WLD RAIL - 10-FEB-16
- **Audit Information**
- **Auditor Advisories**
- **Data Folder**
- **Meeting Presentations**
- **Supplier Information**
- **Word Copies of Checklist**

It is worth taking the time to explore these areas. For example, the Welding Task Group includes frequently asked questions (FAQs) and common nonconformances (Top 10 welding findings) under *Supplier Information*.

In addition, the *Supplier Support Committee (SSC)* section provides copies of presentations given at SSC sponsored events at Nadcap meetings for those who were unable to attend in person. The *Supplier Symposia - Nadcap* section likewise includes copies of the presentations given at the free regional technial symposia that took place in 2015 and 2016.

While this article was intended to provide an overview of the useful documents available in eAuditNet, it is no substitute for reviewing them yourself so when you have time, you are recommended to explore the *Resources* section on eAuditNet. If you have any feedback on the content or any questions, please do not hesitate to contact PRI staff - you will find contact details in the *Contact Us* section on eAuditNet.

UNDERSTANDING THE ROLE OF THE STAFF ENGINEER

In recent years, the Nadcap Supplier Support Committee has made time at each Nadcap meeting for a Staff Engineer to present their role and responsibilities to interested attendees. Aimed at Suppliers, the intent is to provide some insight into the Staff Engineer position in the Nadcap program to encourage mutual understanding and open discussion. The presentation is posted on eAuditNet www.eAuditNet.com under *Resources - Documents - Public Documents - Supplier Support Committee - Berlin March 2015 Presentations*. A summary of the presentation is provided below.

Staff Engineers are employed by PRI as the in-house technical experts. Many are previous employees of Nadcap Subscribers or Suppliers and have been in the aerospace industry or their technical field throughout their careers. While they are best known for reviewing audit reports, they have a number of other roles:
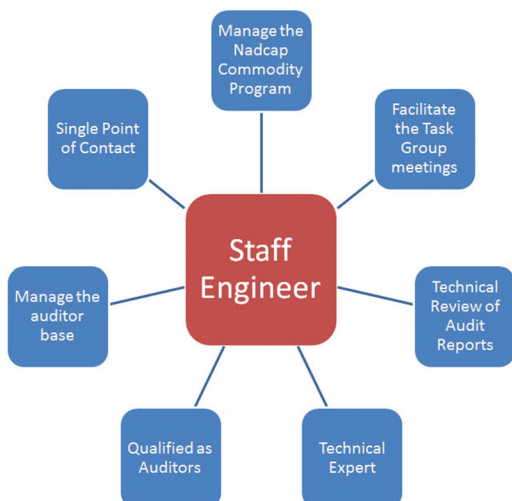
1. Manage the Nadcap Commodity Program

    It is the responsibility of the Staff Engineer to motivate and guide the Task Group and sub-team activities. These include activities such as checklist development and revision, and the monitoring and

management of accreditation results, while ensuring procedural compliance at all times.

The Staff Engineer is also responsible for developing and managing budgets for Auditor travel, for example, and ensuring that audit projections are accurate so that there is sufficient Auditor capacity to conduct the audits.

In this role, the Staff Engineer has two customers to satisfy: the Subscribers, who need to maintain control of their Suppliers; and Suppliers, who are working to achieve and maintain accreditation.

2. Facilitate the Nadcap Task Group Meeting

    Three times per year, the Nadcap Task Groups meet face-to-face. The Staff Engineer attends to support the Chair and Vice Chair (who are both industry representatives) and the attending Subscribers and Suppliers. The Staff Engineer is responsible for ensuring that all attendees adhere to meeting protocol, such as the code of ethics, the code of personal conduct and parliamentary procedure.

    During the meetings, the Staff Engineer provides guidance regarding procedural compliance and technical support. Where appropriate, he/she will also report to the Task Group on relevant PRI / Nadcap activities that may affect the Task Group.

3. Liaise between the Nadcap Task Group and the Supplier during Technical Review of Audit Reports

    During the audit review process, the Staff Engineer aids the communication flow between the Supplier and Task Group by conducting the initial review of responses from the Supplier addressing any nonconformances identified during the audit.

    Using their technical expertise and experience of working with the Task Group, the Staff Engineer reviews any subsequent responses until he/she is satisfied that the Task Group would accept the corrective actions presented by the Supplier.
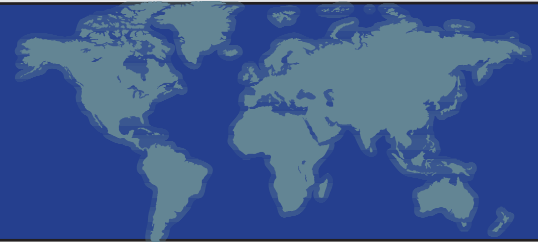
4. Act as Technical Experts

As above, Staff Engineers are highly qualified, experienced experts in their field. Many of them have been in the industry for over twenty years, including time spent working at Subscriber and Supplier companies.

Some Staff Engineers are former Task Group members, so they understand that Nadcap process from both sides.

5. Qualified as Nadcap Auditors

To further their understanding of Nadcap, many Staff Engineers are also qualified Nadcap Auditors, conducting a minimum number of audits per year.

This gives them the opportunity to see the program from another perspective, as well as to understand the challenges the audit poses for both Auditors and Auditees and meet customers face-to-face. It also ensures a contingency auditor capacity so that audits can take place in the appropriate timeframe.

6. Manage the Nadcap Auditor Base

With guidance from the Task Group, Staff Engineers source suitable Auditor candidates and conduct pre-screening checks before organizing an interview with the Task Group members. They also oversee the training of the candidates through to their approval as qualified Nadcap Auditors.

Staff Engineers are also responsible for organizing ongoing training for the Auditors as needed, including at the annual Auditor conference. Auditor consistency remains a focus, and Staff Engineers utilize OP 1117 – Auditor Consistency to keep this at the forefront.

7. Act as a Single Point of Contact

Staff Engineers act as a single point of contact for Subscribers, Suppliers and Auditors on anything related to their technical area. They assist with checklist clarifications and improvements, issues that may arise during an audit and much more.

They are available before, during and after a Nadcap audit to guide Subscribers, Suppliers and Auditors through the process as needed.

Supplier Interaction with Staff Engineers

While the Staff Engineer role is broad, there are some limitations on them. Staff Engineers may not enter into conversations that could be interpreted as technical consultation. They are not allowed to discuss the audit results or give advice on how Suppliers should respond to nonconformances, except where clarification is needed and the validity of the NCR is in question. Some examples of what may and may not be discussed are below.

Don't Ask...	Do Ask...
What will it take to close this nonconformance?	Would you help clarify what this nonconformance means?
What is the root cause you want?	If I change my procedure to read...., would it meet the requirement?
How should I change my process to run stainless steel?	How do I file an appeal?

One of the key things to remember is that the Staff Engineer is there to guide you through the accreditation process, so if you are unsure at any stage as to how you should proceed, please do not hesitate to contact the Staff Engineer. You may contact them before the audit, for example, if you are unsure how to interpret a checklist question during your pre-audit preparation, as well as after the audit.

They are contactable by telephone as well as email, and all their contact details are available on eAuditNet under Contact Us.

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