

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.

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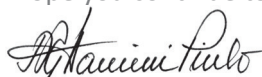
WELCOME TO THE FIFTH ISSUE

This is the fifth issue of the Nadcap newsletter, and the final one of the year. Your ongoing feedback and positive response to this activity has encouraged me that this is providing you with valuable content and assisting with your Nadcap audit experience. As a result, PRI will continue this activity into 2017. Thank you to 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. Please continue to let us know what you need from this newsletter and we will do our best to achieve that.

The intent of the newsletter remains 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 about internal auditing, from the perspective of Nadcap audit preparation. There are also articles about how - and why - to identify your customers in eAuditNet, a review of the recent Risk Mitigation Process changes, an update on the Nadcap Supplier Survey and further details about the opportunities to get involved with the Supplier Support Committee. In addition to general Nadcap articles, each newsletter will have a particular technical focus. In this issue, there is detailed information regarding Nadcap NMSE audits, including a review of common non-conformances identified during those audits.

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 One)

In anticipation of a Nadcap audit, or any other audit for that matter, thorough internal preparation is key. There are many elements to consider. In this two-part article, a number of suggested preparatory steps will be discussed to assist with the internal audit activity prior to a Nadcap audit taking place.

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Nadcap audits are often perceived as very challenging and are certainly not easy. Nadcap audits focus on a very specific area of a company's special process manufacturing activity and they go deep into how the special process is performed and controlled. PRI advises the following to companies who are preparing for a Nadcap audit:

- Conduct a thorough internal audit, referred to as a "self-audit" in Nadcap Procedures, using the Nadcap checklists
- Start to prepare for your audit as early as possible – 6 months is the advisable preparation time
- Get your management committed into the process as it will require time and resources
- Select the audit team carefully as it needs to be independent

Part 1 – Structuring and Conducting a pre-Nadcap Self Audit

Self Audit Scope

The scope of the self audit defines the content of the activity. The purpose of the self audit will have the biggest impact on the definition of the audit scope. Thorough preparation for a Nadcap audit means meeting the requirements listed below:

- Align with the Nadcap checklist requirements that are in the scope of the audit you are preparing for
- Conduct comprehensive job audits in the same manner as the Nadcap auditor
- Include work which is done for all customers and sub-processes within the self audit scope

Depending on how much there is to be audited, it may not be possible to cover all the required areas in one audit. There are different ways to approach this: some organizations look to address areas already known to need improvement first, to maximize the time available to implement and validate process changes; others will focus on critical processes. The observations of the internal auditor may increase or decrease the self audit scope.

Form a Self Audit Team

The auditor is the most important element in any audit. Therefore, every organization conducting a self audit prior to a Nadcap audit should select its auditor(s) carefully. The first question to answer is how many auditor(s) are required to perform the self audit, depending on:

- The audit scope: how much is there to audit? How many customers, processes, sub-processes, operators, facilities, etc.?
- The resources available
- The self audit timeline

Defining the right criteria for the selection of the internal auditors is critical. It is advisable to clearly document auditor selection criteria in internal audit procedure documentation. Integrity is probably the most important criterion when it comes to selecting an internal auditor.

In addition, sticking to the facts, being fair and communicating effectively, will help them achieve the most valuable audit results. Furthermore, the internal auditor should have several of the following personal attributes:

- Ethical and diplomatic
- Detail-oriented and perceptive



- Open-minded – willing to consider alternate ideas
- Knowledgeable in the area of the audit
- Fair-minded but not afraid or reluctant to write up nonconformances observed
- Open to improvement – willing to learn from situations
- Culturally sensitive and collaborative

Self Audit Schedule

Creating an audit schedule is a key step as it will help all the parties involved to get a better overview of what is required. The aim here is to map out the entire self audit scope as well as the auditor(s) involved and the timings for each activity.

It is also important to get your management commitment and approval as a pre-Nadcap self audit will require significant resources. Some of the aspects to bear in mind and consider when designing the audit schedule include conflicts such as other external audits, vacation and holidays which may impact the availability of auditors, staff and processes.

As mentioned earlier, time plays a significant role in conducting a successful pre-Nadcap self audit. It is advisable to hold the self audit sufficiently in advance of the Nadcap audit to ensure there is enough time available afterwards to fully resolve any nonconformances identified on the audit. Nadcap requires compliance to all checklist requirements at the time of the Nadcap audit. Hence, it is not sufficient to state that an issue was identified during the self audit and corrective actions have been designed but not implemented. This will result in a nonconformance during the Nadcap audit.

It is strongly advised to implement all corrective actions, document them and keep the records easily available for the Nadcap audit.

Key Activities Prior to Conducting the Self Audit

Once the self audit scope is defined, the audit team is formed and the self audit schedule is created, there are several additional steps to go through before starting to conduct the self audit itself.

During this preparatory phase, the internal auditor(s) must ensure they have sufficient knowledge of the internal audit procedure and the top level quality documentation. All relevant materials such as manuals, procedure checklists and instructions, process sheets and shop layouts should be fully read and reviewed by the auditor(s) before the self audit. Indeed, it is important to get familiar with all the details so that it does not take up the actual audit time.

Choosing and collecting these materials helps the organization and the internal auditor(s) design a self audit plan, which consists of creating a sequence of actions that will ensure the self audit flows smoothly and logically. It will also reduce the likelihood of backtracking and repeat visits. Having a self audit plan will save the auditor(s) and the auditee(s) time and ensure transparency. The self audit plan shall include the following elements:

- **Sampling** – the number of samples required, what to sample and how to choose samples. A sample should always be representative of each process, type of operation, shift or location and customer.
- **Communication** – hold discussions with the relevant departments to agree the timing of the self audit and discuss the availability of the required resources such as customer parts, processes, operators and equipment.

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Furthermore, it is advised that the internal auditor(s) introduce themselves to the staff they will interview.

- **Data** – arrange quick and easy access to the data, including reports, historical records, previous audit data or reports if applicable. It is also important to make sure that this information is readily available – if not, do you need to submit a request to eAuditNet or other Staff?

In addition, it is essential to make sure that you have the procedure checklists available for both your self audit and the Nadcap audit and that your PDF and eAuditNet versions match each other as the procedure may have been revised within the time frame of the planned audit.

Conducting the Self Audit

Conducting a successful self audit is all about gathering appropriate evidence. Well established techniques to gather data include:

- **Interviews** – a powerful data collection technique which is often used to support other techniques, such as observation. The most important thing to remember when interviewing is to always talk to the right person and to have a list of open-ended questions ready in advance.
- **Inspections** – it is good practice to start with general observations and proceed to more specific elements. If a problem is found, it needs to be scrutinized to explore the extent of the finding.
- **Review Documents** – when reviewing company records, the internal auditor(s) can use several techniques. Random sampling is one of them. Checking the records based on a common characteristic is an alternative technique.
- **Observations** – it gives the internal auditor(s) the opportunity to see how something is done under normal circumstances. He or she should ask

questions about what they see, making sure at all times not to interfere with the process they are observing.

- **Vertical Tracking** – this method is also referred to as “Vertical Auditing”. It consists of following a specific development from the beginning until the end, simultaneously checking all the records that are produced in the process
- **Exercises** – the aim of this technique is to test a routine activity at the facility. It is at the internal auditor’s discretion to pick the time and the circumstances of the test.
- **Taking Notes** – a good internal auditor will have their own way of taking notes. This is an extremely important part of the job that cannot be neglected. Notes should be reviewed and refined throughout the day and then fully written up at the end of each day.

A general rule which can be applied to evidence gathering is to look at fewer records when reviewing data reports and dig deeper into the selected records. It is also important to review any existing records, observe the special process in action and take notes.

All the evidence gathered should be reviewed and compared against the audit criteria. Deviations from the criteria should be written up as nonconformances and any opportunities for improvement should be identified.

The next issue of the Nadcap Newsletter will present Part Two of this article which will provide more detail on how to identify and resolve issues during a pre-Nadcap self audit.

NADCAP NONCONVENTIONAL MACHINING AND SURFACE ENHANCEMENT (NMSE) AUDIT INSIGHTS

The Nadcap Nonconventional Machining and Surface Enhancement (NMSE) Task Group can be considered one Task Group for two separate commodities.

Nonconventional Machining covers machining techniques that are outside the scope of conventional machining. Typically, in Nonconventional Machining there is no bit or wheel which contacts the surface of the workpiece (excluding Electro-Chemical Grinding and Spark Erosion Grinding). Surface Enhancement includes the different processes for shot peening. Currently the Task Group is led by Chairperson Paul Woolley of Rolls-Royce and Vice Chair, Mike Schmidt of GE Aviation.

NMSE can be broken into two separate sets of checklists. The AC7116 series for Nonconventional Machining and AC7117 series for Surface Enhancement. AC7116 is the baseline checklist for Nonconventional Machining. AC7116 covers general quality system requirements, general requirements, and quality planning. AC7117 is the base line checklist for Surface Enhancement. It covers general equipment questions, Almen strips, Almen gauges, Almen fixtures, media, personnel qualifications, and general requirements.

In addition to the baseline checklists there are separate checklists for each of the individual processes:

1. AC7116/1 – ElectroChemical Machining (ECM)
2. AC7116/2 – ElectroChemical Grinding (ECG)
3. AC7116/3 – Electrical Discharge Machining (EDM)
 - a. Sinker
 - b. Wire
 - c. Fast Hole
4. AC7116/4 – Laser Beam Machining (LBM)
 - a. Drilling
 - b. Cutting
5. AC7116/5 – Laser Part Marking (LPM)
6. AC7116/6 – Spark Erosion Grinding (SEG)

For Surface Enhancement, there are also separate checklists for each of the different shot peening processes:

1. AC7117/1 – Computer Controlled Peening
2. AC7117/2 – Automated Peening
3. AC7117/3 – Peen Forming
4. AC7117/4 – Flapper Peening
5. AC7117/5 – Manual Peening

The Most Audited Checklists

As every initial and reaccreditation Nadcap audit requires the use of the baseline checklist for the commodity being audited, AC7116 and AC7117 are by far the most audited checklists within NMSE.

In Nonconventional Machining, the most audited process is Electrical Discharge Machining. Therefore, checklist AC7116/3 is among the top four most audited checklists in this commodity. For Surface Enhancement, of the shot peening processes audited by Nadcap, the most common process is automated peening. Therefore, checklist AC7117/2 is also included in the top four.

To write this article, nonconformances written against every Nadcap checklist paragraph for every NMSE audit throughout 2015 were sorted by checklist. The nonconformances from the most audited checklists above were then sorted from the most findings per paragraph to the fewest findings per paragraph.

The top three findings from each of the four checklists were then selected for mention in this article. If the third finding shared the same number of NCRs with the fourth or fifth finding, then those were also included. At the end of the article the top NCRs for the remaining checklists not described in the top four are discussed.

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AC7116 Audit Criteria for Nonconventional Machining

Paragraph 4.2 had by far the most findings against it during 2015. The question asks:

“During the course of the audit, was compliance with the existing approved quality system demonstrated?”

This question generated almost double the number of nonconformances as the second most identified NCR. This question is a general catch-all question against the supplier’s quality system. Typical findings against this paragraph include repeat findings or failure of previous corrective actions. To avoid a finding in this area, ensure that all previous findings have had proper corrective actions and that the corrective actions are effective.

The second most commonly recorded finding against this checklist originates with paragraph 2.2.7, which asks:

“Is there objective evidence that the supplier completed a self-audit to AC7116 and has identified the page number or paragraph of all applicable internal procedures and work instructions that support compliance to each checklist questions?”

There is additional guidance under the question to aid interpretation:

“Note: The supplier should use the NM Audit Handbook during the self audit and should contact the Nadcap Staff Engineer or Customer respectively, for clarification of any Nadcap or Customer requirements that are not fully understood. Ready availability of all documentation required by the Nadcap auditor will speed up the audit process significantly.”

The findings written relate to the inadequacy of the supplier-conducted self-audit. It appears that by far the most observed defect was that a self-audit was completed but the supplier did not record the page number and/or paragraph of all applicable internal

procedures and work instructions that support compliance to each checklist question.

In fact, nearly 90% of the findings written against this paragraph involved the pre-audit not including the page number and/or paragraph for each checklist question.

The next two most common NCRs involved paragraphs 4.1.1 and 5.2.2 of AC7116.

Paragraph 4.1.1 relates to the verification of the previous audit’s corrective actions. NCRs are written against repeat findings. To avoid this finding, ensure that corrective actions are in place for each NCR from the last audit and that these corrective actions are effective.

Paragraph 5.2.2 determines whether workstation audits have been performed. If the work instructions call for audits to procedures, conduct these audits on a regular basis or the frequency called out in your procedure.

AC7116/3 – Electrical Discharge Machining

For this checklist the greatest number of NCRs written against a single paragraph was against paragraphs 10.4.13 and 4.7.1.

Paragraph 10.4.13 states:

“Is the dielectric flushing method on the machine the same as it is described in the workstation instructions?”

The recurring theme in the nonconformances is that some part of the process is not described in the workstation instructions. Over 80% of the NCRs were due to this fact. In addition, some of the NCRs were raised because the operator was not following the work instructions, or because the dielectric flushing pressure was not in tolerance.

For paragraph 4.7.1, the most common finding was that the work instructions did not adequately describe the flushing method. This led to 81% of the findings found

against this checklist question. The others were raised because the verification method was not adequately described in the work instructions.

The third most prevalent nonconformance raised in audits conducted against AC 7116/3 was paragraph 10.4.20. The question stated in the checklist asks whether the operator is following the workstation instructions. Approximately half of the findings on this section were because the operator was not performing the process according to the work instruction. The other half were due to the fact that a part of the process that is performed by the operator is not described in the work instruction.

AC7117 – Audit Criteria for Surface Enhancement Peening

The most frequently occurring finding in this checklist was from paragraph 5.1.4. This question requires that the supplier's calibration procedure contain calibration of the indicator and required checks for wear of the locating balls and indicator tip. The most common reason for not meeting this requirement was that the Almen gauges were not calibrated. The second most common finding was that the indicator tip and locating balls were not checked for wear or this check was not required in their procedure.

Paragraph 4.1.7 asks whether the process monitoring equipment and/or gauges are identified as to their calibration status and are current. Over 80% of the findings written to this checklist question were due to gauges having missing or incorrect calibration stickers.

In AC7117 section 5.1.1, the question seeks to verify that the Almen gauges meet the requirements of SAE J442. Failure to meet this requirement occurred many times, but for a multitude of reasons. Some of the nonconformances were caused by the Almen gauge not having been verified or because the gauge was not certified for accuracy or geometry. Another reason was that the gauge had incorrect

calibration intervals or that it was not calibrated within its range of operation. To avoid this nonconformance, ensure that you have access to - and implement - the industry or customer specification that details the calibration requirements. If in doubt, adhere to the more stringent requirement. Where you are unsure about the interpretation of those expectations, check with your customer in the first instance. Alternatively, PRI Staff Engineers will be able to guide you with regard to understanding the checklist question.

AC7117/2 – Automated Peening

The top two NCRs were written against paragraphs 9.4.3.7 and 10.4.3.7. This is the same question in two different job audits. These questions are intended to validate the operators' understanding of saturation curves. The findings against these paragraphs span across multiple reasons. The most common was that the procedure which describes the creation of saturation curves and intensity determination was not correct. Other reasons included ineffective training, incorrect analysis, incorrect intensity measurement, or the operator being unaware of requirements. To avoid a finding against these checklist questions, it is imperative that the operators are able to demonstrate a thorough and accurate understanding of the subject matter; initial and refresher training may be of value here.

The next two most common findings (from paragraphs 9.5.10 and 10.5.10) require that the technique sheet or traveler document all relevant operations performed by the operator. All of these findings in this area were because the tech plan/technique sheets did not adequately describe the process. So to avoid this finding, it is important to ensure that the entire process is described in the tech plan/technique sheet.

Paragraphs 10.7.5.2 and 9.7.5.2 require that the practices described in SAE J443 be followed.

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SAE J443 is the industry specification on the procedure for using the standard shot peening Almen Strip. The most common reason for not meeting this requirement was because the supplier was not calculating intensity correctly. It was seen in most cases that, instead of performing an iterative analysis of the saturation curve, the initial value of saturation time was assumed and its associated arc height was declared the intensity. It is important to note that the intensity is determined by the first point on the curve for which doubling exposure time produces a 10% increase in arc-height.

Remaining Checklists - Top Nonconformances

Excluding the top four most audited checklists and the common nonconformances identified in those audits, as described above, the remaining checklists paragraphs were sorted according to their most common findings. A brief overview of these can be found below.

AC7116/1 - ElectroChemical Machining

The most common NCR written against the AC7116/1 checklist related to whether the supplier was using the same electrolyte control plan as that in the workstation instruction. There were very few findings against this question.

However, of those written, the causes were typically because the electrolyte control procedure for correcting the pH, when it is found to be going out of process limits, was not the same as that which was in use.

The second most common reason for a nonconformance against this checklist was because the work instruction in another language was not the same as it was in English. In one instance, for example, there was a discrepancy between the English and the other language work instruction regarding the volume of electrolyte required.

AC7116/2 - ElectroChemical Grinding

Findings written against this checklist generally occurred in one or more of three particular paragraphs: 10.5.4, 6.2, and 9.5.4. Paragraphs 10.5.4 and 9.5.4 concern the use of the temperature conversion information in the electrolyte control plan to calculate concentration. Findings against this paragraph were typically written because the supplier was recording specific gravity but not using the temperature conversion chart to convert the reading to concentration. In paragraph 6.2, the question is very similar to that in 10.5.4 and the findings were similar.

As in the previous paragraph, both findings against this paragraph were recorded because the supplier was recording specific gravity but not using the temperature conversion chart to convert the reading to concentration.

AC7116/4 – Laser Beam Machining

In this checklist, paragraph 9.4.12 generated the most nonconformances. The question reads:

“Was the operator following the workstation instructions?”

For this finding, it was shown that the operator typically failed to meet the parameters called out in the workstation, whether this was for gas line pressure, traverse speed, or cutting pressure. Another of the findings typically occurred because the operator did not use the abrasives called for in the work instruction to deburr the workpiece.

AC7116/5 – Laser Part Marking

There were few nonconformances written against this checklist in 2015. However, the top paragraphs were 9.3.2 and 10.3.2. Both generated findings when the supplier did not have a laser maintenance plan that included a filter replacement schedule and

maintenance of the machine ways and bearings. To avoid this finding, the advice is to always keep a laser machine preventative maintenance plan that includes maintenance of the machine ways and bearings and a filter replacement schedule.

AC7116/6 – Spark Erosion Grinding

There were two findings commonly written against this checklist. The first paragraph was 9.3.4, which is the same wording as in paragraph 10.3.4 (both sections of the checklist relate to SEG equipment):

“Are conductivity measuring devices for water based dielectric calibrated?”

It was found that the refractometer was found not to be calibrated.

The second paragraph was 9.3.5 (10.3.5) which asks:

“Are gages that are used for reference only labeled accordingly?”

During the audit the pressure gauges were not labeled reference only.

AC7117/1 – Computer Controlled Peening

There were a similar number of findings written against each of the following paragraphs in this checklist.

The first paragraph which generated a number of nonconformances was 4.1.7. This question looks for information about whether the equipment has the capability to shut down when parameter limits are exceeded. Where findings were written against this paragraph, it was because the shutdown capability parameters did not meet the specification requirements.

9.5.10 was the second paragraph that resulted in findings written up by Nadcap auditors. In this case, the intent of the question is to identify whether the

technique sheet or traveler documents all operations performed by the operator.

Findings were written were this requirement was not met; for example, where the peen scan removal inspection step, masking the part, and details of the operation were not included in the technique sheet used by the facility.

The last paragraph in AC7117/1 that generated a number of nonconformances during Nadcap audits conducted in 2015 was paragraph 9.6.5 which is a question that asks:

“Are part specific tooling and fixtures identified on the technique sheet and correctly followed in production?”

Not adhering to this requirement, the part holding fixture was not identified in the tech plan in one instance. The incorrect masking boot number was called out on the tech plan in another finding. The last example of a nonconformance written against this paragraph was because details of the operation were not called out in the technique sheet. To avoid these types of issues, it is important to ensure that the information captured in the tech plan is mirrored by actual operational activity and vice versa.

AC7117/3 – Peen Forming

This checklist had the least number of findings written against it of all the checklists in the AC7117 series. The following paragraphs were those that most commonly generated nonconformances: 3.4.2, 9.5.2 and 9.4.1.

The NCR against paragraph 3.4.2 entailed an air pressure control not having a current calibration sticker. As previously stated, it is vital that equipment is appropriately calibrated in a timely manner, according to the requirements. Failure to calibrate one piece of equipment may lead the auditor to examine other equipment, procedures, calibration records

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Nadcap: 25 Years of Excellence

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and so on to ensure that this is an isolated, non-systemic issue. If further examples of noncompliance are identified, this can be identified as a systemic problem and can lead to a major nonconformance in the Nadcap audit.

Paragraph 9.5.2 requires that the technique sheet documents all relevant operations performed by the operator. An NCR has been written when the technique sheets did not adequately describe the Almen fixture, in contravention to this requirement.

The requirement in paragraph 9.4.1 is to visually inspect the area to be peened for absence of sharp edges, corrosion, contamination or damage prior to peening. However, where there is no documented evidence during the audit that this operation was performed, the auditor is obliged to write up a nonconformance. If there is no objective evidence, the auditor is required to write it up, so to avoid this type of finding, ensure there are up-to-date records that provide the necessary detail to demonstrate compliance to the requirement.

AC7117/4 – Flapper Peening

The top NCR against the flapper peening checklist involved paragraph 9.6.9 which questions whether the part peening time was listed on the technique sheet and followed in production. Findings against this paragraph typically involved incorrectly calculating the part peening time. This must be avoided because it may result in an over/under-coverage condition.

AC7117/5 – Manual Peening

The most findings in the AC7117/5 checklist were against paragraph 9.8.2, which falls within the post peening inspection section of the checklist. The question reads:

“Did the operator and/or appropriate personnel demonstrate proficiency during part inspection for coverage using magnification and other inspection

aids?”

Although this question generated the most nonconformances in AC7117/5, they were for a variety of different reasons.

One nonconformance related to the coverage not being verified at T1 for 100% coverage; another finding was written up because defects were missed during visual inspection. One defect was a sharp edge and the other was a crack. The last reason for a nonconformance against 9.8.2 was because the part was not adequately masked.

Overall Best Practice Recommendation

Regardless of the audit scope of the Nadcap NMSE audit - or any other commodity for that matter - the key to success is to conduct a thorough self-audit prior to the Nadcap audit, and use the information to make improvements where necessary. It also makes your job a lot easier if you list out where in your procedures or specifications that Nadcap questions are covered, apart from which it is actually a requirement to show this.

For more information, please do not hesitate to contact:



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RISK MITIGATION PROCESS CHANGES

The Risk Mitigation Process is triggered by an audit failure and involves several important steps for both the auditee and the Subscribers involved. Nadcap is currently working on improving the process as explained below.

Nadcap implemented the “Risk Mitigation” process in May 2014. The primary objective of this program was to ensure corrective action responses were documented in eAuditNet and that the responses were subject to a formal review process. It also ensured the corrective action responses were appropriate and that they met Task Group expectations.

The Risk Mitigation process benefits both the Subscribers and auditees by documenting the actions taken to address each nonconformance in eAuditNet for future reference. In addition, the auditees benefit from the formal review process which educates them on the Task Group expectations and provides response guidance.

Completing the Current Risk Mitigation Process

When an audit failed, it was moved into the Risk Mitigation Process where the auditee developed and posted responses for each open nonconformance in eAuditNet. The auditee then submitted the responses for review by the Risk Mitigation Team (the team was comprised of Subscribers who had volunteered to support the Risk Mitigation Team for that particular audit). The Subscribers reviewed the responses in eAuditNet, closed any nonconformances they accepted and requested additional information for each of the nonconformances that remained open. The Risk Mitigation Team then submitted the audit back to auditee. The auditee would address the requests for the nonconformances that remained open and then post those responses for review by the Risk Mitigation Team. The process would continue until either:

- All nonconformance responses were accepted by the Risk Mitigation Team for closure or
- The Risk Mitigation Team decided to “suspend” the process for “cause” (e.g. significant delinquency, too

many rounds of response or non-responsiveness)

Opportunities to Improve the Current Process:

- **Obtaining Volunteers:** the current process requires Task Group Members to volunteer to support the Risk Mitigation Team. If the auditee is not on the Subscriber’s Approved Processor List, it is very difficult to obtain volunteers.
- **Timeliness of Risk Mitigation Review:** failed audits often have a significant number of nonconformances. It can be difficult to get the Risk Mitigation Team to review nonconformance responses within the defined timeframe. Some audits have accumulated significant delinquency as a result.

Revised Risk Mitigation Process

The current Audit Failure procedure (OP-1110) is being revised to require that Risk Mitigation reviews are performed by the assigned PRI Reviewer (typically a PRI Staff Engineer). This resolves both issues of obtaining volunteers and timeliness of review. The Subscribers will continue to have visibility of all stages of the review and are able to provide input to the PRI Reviewer as necessary.

PRI is currently developing the eAuditNet enhancements required to support the new process flow and anticipates that this will apply to audits starting on or after January 1, 2017. A formal 90-day notice will be issued to announce the release of the latest revision of OP-1110. This 90-day notice will define the specific effectivity date.

To support the additional resources required to perform this review, an additional fee will be charged for audits undergoing the Risk Mitigation Process.

For more information, please contact your Staff Engineer or Michael Graham, Senior Program Manager, at mgraham@p-r-i.org or +1 724 722 8646.

NADCAP NEWSLETTER

Nadcap: 25 Years of Excellence

IDENTIFYING YOUR CUSTOMER(S) IN EAUDITNET

eAuditNet is a tool that is used by all Nadcap constituents, from Nadcap subscribers to Suppliers, and from auditors to PRI staff. Any Nadcap participant can - and is, in fact, encouraged to - submit suggestions to improve the software for the benefit of the thousands of eAuditNet users. All suggestions are reviewed and prioritized based on a number of factors such as impact, reach, time required to complete etc.

One of the more recent software enhancements to affect all Suppliers relates to the ability for them to indicate the identity of their customer(s) from among the list of over 50 Nadcap subscribers.

This is an important update to the software for three main reasons:

1. Having this information available means that Nadcap subscribers can run a report via eAuditNet using this data to show a list of suppliers who declared their company as a customer and compare that report to their approved processor list.
2. Having a clear understanding of customer(s) helps the Nadcap auditor to know who the Supplier works for before they arrive on site to conduct the audit. This means that the auditor can be better prepared because he/she knows which jobs to select and whether a supplemental checklist may be needed.
3. Through the ongoing audit effectiveness initiative sponsored by Nadcap Management Council, proper sampling of customers, specifications and processes has been identified as essential to an effective audit. There is, therefore, a reasonable expectation that the Nadcap Management Council may look to require this information from Suppliers via eAuditNet in the future for every Nadcap audit and having this software enhancement in place would be very helpful if a requirement is written in the future.

For now, though, although helpful to both the customer and the auditor, there is currently no official requirement for Suppliers to provide this information in eAuditNet.

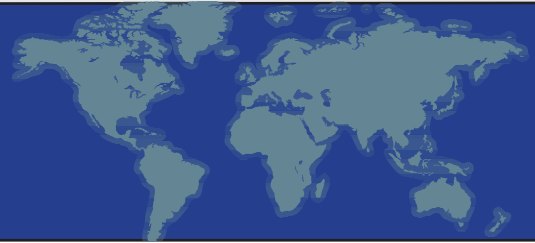
Consequently, it is not currently referenced in any Nadcap procedural document.

However, the intent of this article is to provide actionable information so that the Suppliers reading this can be prepared to respond, should this become a requirement, or if they simply prefer to preempt the requirement and input the information into eAuditNet now.

There are three opportunities for Suppliers to identify customer(s) via eAuditNet:

1. The first opportunity that companies have to identify their customer(s) in eAuditNet is during the audit quotation process, which has now been integrated into eAuditNet. By completing an online form, similar to the one required when scheduling a Nadcap audit (see next page), companies can now obtain an estimate of the duration and cost of the audit in which they have expressed interest. Providing details of their customer(s) is part of that automated process.
2. For companies that, for whatever reason, do not require an audit quote, the next opportunity to identify their customer(s) in eAuditNet is during the audit scheduling process. As shown on the opposite page, there is the option during the audit scheduling process to indicate the customer(s) for whom work is being carried out that will be part of the Nadcap audit.
3. When the audit is in "Scheduled" status but has not yet reached review status (such as "Supplier Review"), the customers can be identified by going to *Supplier Audits* and clicking on *Update* (to edit) as shown on the opposite page, or *Identify* if it hasn't been answered at all. Once the audit status has changed to a review status, there is no longer the option to *Update* or *Identify* - that link is removed from view.

If you have any questions or suggestions regarding eAuditNet, please contact eAuditNetSupport@p-r-i.org



Audit Creation

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

Audit Program: **Nadcap**

Select Company: **Test Supplier Co. tSuite1, PRI 161 Thorn Hill Rd, Warrendale, PA, 15086, United States [Supplier Company]**

The existing contract for Test Supplier Co. was signed on 26-April-14 and is still in effect.

Select Company Contact: **- Select Contact -**

Requested Quarter for Audit: **- Select Quarter -**

Select Audit Type: **- Select Audit Type -**

Auditor Language Preference: **English**

This Audit is being requested for work in following area: **[Empty Dropdown]**

Choose Commodity

- Chemical Processing
- Measurement and Inspection
- Coatings
- NUCAP - HQ
- Composites
- Non Metallic Materials Manufacturing
- Conventional Machining as a Special Process
- Non Metallic Materials Testing
- Distributors
- NonDestructive Testing
- Elastomer Seals
- Nonconventional Machining
- Electronics
- Sealants
- Fluid Distribution Systems
- Surface Enhancement
- Heat Treating
- Welding
- Materials Testing

Identify your Subscriber customer(s) for whom you are processing or testing hardware or are on their approved processor list for processes or tests within the scope of this audit.

309th Maintenance Wing-Hill AFB (Subscriber), 5760 Southgate Ave, Hill AFB, UT, 84056, United States
 Aerolia (Subscriber), 13 rue Marie-Louise DISSART, Toulouse, 31027, France
 AgustaWestland (Subscriber), Via G. Agusta, 520, C. Costa Di Samarate , 21017, Italy
 Airbus (Subscriber), 1 Rond-Point Maurice Bellonte, Blagnac Cedex, 31707, France

If your customer for the selected commodity does not appear in the list, you can type company names in the text box separating each company name with a comma.
 The Subscriber Matrix can be found by clicking [here](#).

Enter comma-separated list of company names here

Supplier Audits

Audits for: All Commodity: All Audit Program: All Include Cancelled Audits?

Search

Displaying 14 of 14 records

Audit No.	Audit Program	Supplier	Commodity	Subscriber Identification	Start Date	End Date	Target Quarter Start	Target Quarter End	Status
1	Nadcap		NonDestructive Testing	Update	11-Jul-16	12-Jul-16	01-Jun-16	31-Aug-16	Scheduled



NADCAP NEWSLETTER

Nadcap: 25 Years of Excellence

NADCAP SUPPLIER SURVEY UPDATE

As a follow-up to the article in the July 2016 newsletter, which shared the preliminary results of the biennial, global Nadcap Supplier Survey, further details are provided below, together with some anticipated actions. A record over 3,000 responses were received and a team of Supplier volunteers is diligently reviewing them to identify common themes and trends and also to determine whether there are any conclusions to be drawn from comparisons from previous surveys' data (this activity has taken place every two years since 2003).

While the analysis team is still reviewing the results, which will be fully presented at the October 2016 Nadcap meeting in Pittsburgh, U.S.A., the following trends have already been identified:

- The 2015 Supplier Survey received responses from 50 countries around the world. Significantly, the Survey received the greatest number of non-US responses in its history, 1,387 which represents a 30% increase over the last Survey in 2013 and reflects the increasingly global nature of the industry.
- Redundant audits are a key issue for Nadcap accredited suppliers. The Survey results indicated that recent extra efforts in this area have had a positive outcome, as more than one-third (35%) have experienced a reduction in redundant audits.

Moving forward, the key action from the Survey will be to focus on continuing to enhance communication with the supplier base, as this was identified by the respondents as the number one area of improvement for the SSC.

Thank you to the volunteers who helped implement and analyze the survey results. They are two different teams as shown below:

Implementation Team

- Lei Bao (Lead), NCS Testing
- Eric Jacklin, F.M. Callahan & Son
- Eva Klein, Blades Technology Ltd
- Leonid Molchanovsky, Product Management Principal Consultant
- Frank Mariot, Triumph Group (NMC Representative)
- Lisa Jensen-Donahoe, Alcoa
- Dale Harmon, Cincinnati Thermal Spray Inc.
- Jonathan Hebben, Avcorp Composite Fabrication, Inc.
- Connie Hess, PRI Staff
- Shannon McMeans, PRI Staff

Analysis Team

- Arno Toelkes (Lead), Euro-Composites SA
- Lisa Jensen-Donahoe, Alcoa
- Dale Harmon, Cincinnati Thermal Spray Inc.
- Jonathan Hebben, Avcorp Composite Fabrication, Inc.
- Connie Hess, PRI Staff
- Carol Martin, PRI Staff
- Shannon McMeans, PRI Staff

HOW TO GET INVOLVED WITH THE SSC

The Nadcap Supplier Support Committee (SSC) is a body of volunteers from companies with Nadcap accreditation whose 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. More information about the SSC mission, vision, core values and guiding principles is available on the PRI website <http://p-r-i.org/nadcap/Supplier-support-committee/>

SSC in the PRI / Nadcap Organization Chart



The SSC Leadership Team has established sub-teams to work on issues raised by the Supplier community to ensure that they are addressed and the voice of the Supplier is heard in the Nadcap program. The time commitment is minimal and the potential exposure for your company, and impact of your efforts on the Nadcap program, may be significant.

SSC Leadership Team



Supplier Mentoring

If you consider yourself knowledgeable about the Nadcap procedures and expectations, this is an opportunity to share your insights with your peers. The mentoring program partners Suppliers in need of assistance with experienced Suppliers who can help. Note that this is not a technical assistance program – mentors do not advise on NCR responses, for example – but act instead as a guide to finding available information for those less familiar with eAuditNet, Nadcap procedures etc.

Supplier Survey

Every two years since 2003, the SSC has released a survey to all Suppliers registered in eAuditNet. The most recent (2015) survey received over 3,000 responses globally. The survey questions are written by supplier volunteers, and the results are analysed by them as well. A lot of work goes on behind the scenes to prepare and analyse the Supplier Survey and more volunteers are always welcome!

Supplier Metrics

Just as the Nadcap Management Council monitors the program through metrics, the SSC also tracks program data such as supplier voting on Task Group ballots and Supplier attendance at Nadcap meetings. The goal is to determine the effectiveness and value of these activities.

Communications

The results of the 2013 Supplier Survey indicated that Suppliers wanted to be kept up-to-date about changes to the Nadcap program, especially as many are unable to attend Nadcap meetings. The Communications sub-team works to ensure that relevant information is communicated in a timely manner.

If any of the areas above are of interest to you, or if you have any questions, please contact the Nadcap Supplier Support Committee Leadership Team via email at NadcapSSC@p-r-i.org for more information.

NADCAP NEWS

Nadcap: 25 Years of Excellence

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If you would like additional copies of this newsletter, please contact prinadcap@p-r-i.org