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#### Editors

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### *From the Chair...*

As we conclude another Nadcap quarterly meeting, the main focus surrounds the advent of the “baseline requirements”. An article further on in this newsletter will explain the basic premise of this initiative, but the advent of this program is another reason why suppliers should be attending the quarterly meetings. There was much discussion at the Task Group level and the Management Council meeting on the drivers behind the baseline requirements, as well as the basic principles governing its implementation.

The October meeting in Pittsburgh will feature the annual Auditor Training sessions. This is an opportunity for the supplier world, as well as the Task Group, to interface with the auditors, to understand any issues that they may be finding in the course of their audits, to talk about any issues the Task Group or the supplier base has identified, and to address any perceived deficiencies in the program. It is critical that we establish a stable, consistent audit process that gives Primes a viable picture of their supplier base, and gives a fair assessment of those sites being audited. For all of these reasons it is important that we have

representation and input from our suppliers. If it is not possible for you to attend the quarterly meetings, please take a few minutes to provide your comments to the PRI Staff Engineer, your Prime representative on the Nadcap Task Group, or simply send me an e-mail. Your honest and open feedback is not only requested, it is necessary for our process improvement.

See you in Pittsburgh,  
Phil Keown, NDT Task Group Chair  
[philip.keown@ae.ge.com](mailto:philip.keown@ae.ge.com)

### *Nadcap into Asia*

The Nadcap is taking another step in the advancement of consistency throughout the NDT arena. New initiatives in Asia are starting, bringing coverage of the Nadcap program around the world. A few primes have already issued mandates to their Asian suppliers, and others are contemplating similar moves. Some primes are already accepting Nadcap audits in Europe and Asia, even if mandates have not been issued.

To facilitate this growth, we are interviewing auditor candidates in China, Japan and Korea. Training, testing and oversight are keys to maintaining the highest level of performance for all of our audit staff. The Task Group encourages all to contribute their comments and concerns to be addressed during these training sessions. The success of this program is the responsibility of all factions: the Primes; the Suppliers; the Auditors; the PRI Staff Engineers.

For more information on the advancement of the Nadcap Program into Asia, please contact Mark Aubele, NDT Senior Staff Engineer.  
[maubele@sae.org](mailto:maubele@sae.org)

## Failure Policy

Another initiative begun by the Nadcap Management Council, with input from each of the Task Groups, is a standard "Failure Policy". This program is an attempt to standardize the guidelines by which each Task Group establishes the parameters for their program. Items to be assessed are, number of total findings, number of major findings, number of response cycles and timeliness of corrective action responses. There is a great majority of suppliers who make an honest effort to prepare for the audit, address findings in a spirit of improvement and work with the PRI staff to answer any concerns. However, the small minority of suppliers who take an inordinate amount of time, or the Staff Engineer resources, in an attempt to "beat the process" need to be identified and weeded out.

There will be a lot of discussion on this topic at the October meeting, so here is another reason for suppliers to attend the meeting in Pittsburgh. Your input is needed to ensure that the policy adopted is fair and effective.

For more information, contact Chet Date, Honeywell, or Arshad Hafeez.

## Baseline Requirements

Over the years the Nadcap program has been a dynamic process, with evolving standards and checklists. Although it is necessary for the program to grow to have this evolution of the program as new Primes join our ranks, it is also important that we have consistent application of these standards. This has not, necessarily, been a prominent feature of the Nadcap program. With the main focus on "meeting customer requirements", the enforcement of the Nadcap standard has been sporadic, at best. If a supplier did not have customer requirements for a question in the Nadcap checklist, it was acceptable to answer "N/A".

This imbalance of this practice became very clear as we began to grow into Europe and Asia, and as we grew from an Engine Manufacturer focus to an Aerospace focus. It became increasingly difficult to

determine what Nadcap Accreditation meant from supplier to supplier. There was no standard conformance to the checklist or the AS standard. And the QML did not differentiate the various levels of compliance exhibited by a supplier. This is going to change.

Each Task Group has been charged to determine the set of requirements that each and every supplier must meet. The guidelines for this initiative are fairly simple:

- \* Establish a baseline standard that the Supplier base will meet, without exception. This may require some "raising of the bar" in the eyes of some, but we look at it as establishing a realistic bar. If there is a large population of the supplier base that cannot meet the standard, then the bar is too high. If the standard does not meet the majority of the prime requirements, then the bar is too low. There are going to be those unique Prime Requirements that are not going to fit into the baseline standard. Those requirements that are above and beyond what the industry considers to be "the norm" will be addressed through supplements. If the number of supplements is too high or too varied, the baseline standard needs to be re-evaluated.
- \* The "bar" has to be established at a level that is reasonable. Primes have to agree that a requirement is reasonable and accepted. These requirements have to lead to a standard that the majority of suppliers will meet, or can meet.
- \* When the standard is established, there should be NO EXCEPTIONS. Everyone has to agree that the standard is the requirement. Supplemental requirements would go above and beyond, but there would be NO BELOW.
- \* Each prime would have to identify the baseline and package of supplemental requirements needed for acceptance. Suppliers would identify those primes for whom they do work, or for whom they would like to be accredited. This would define the scope of the audit. This would allow the suppliers to tailor their audit to their customer base. The auditor would then identify compliance to the baseline standard and the applicable supplements.
- \* This does not mean that if a supplier identifies that he wants to be considered for acceptance by a prime for whom he is not currently approved,

that successful completion of the audit approves him for that prime. Every prime still has the responsibility for identifying those suppliers who are approved within their system. This audit would enable primes to identify those suppliers who meet the primes stated requirements (through the baseline and supplements identified in the scope of the audit).

- \* Final accreditation would identify compliance to the baseline standard and applicable supplements. This needs to be readily apparent in the QML and on the accreditation.
- \* When the standards have been established, we will be accrediting to a Nadcap standard, not to an industry standard or Prime standard (unless, as in the case of Chemical Processes, the Industry Standards are identified as supplements).

Supplier input is welcomed, encouraged and, if we are to do this right, required.

For more information, contact Phil Keown.  
[philip.keown@ae.ge.com](mailto:philip.keown@ae.ge.com).

## ***Compliance Jobs***

### **Compliance Inspections**

The following article is a direct result of an NDT Task Group Directive defined during the July 2003 NDT Task Group Meeting.

Arguably the most important aspect of the NDT Nadcap Audit is the compliance portion because that is where, as they say, "The tread meets the road". This is the point where most other issues that are of significance will be defined and will rear their heads. Lack of flow down, document control issues, poorly functioning equipment, inadequate techniques, insufficient or improper training, and a host of other issues. It is of utmost importance that the Compliance Audit be performed to the highest possible standards that we as a group can set. One of the key aspects that we will always maintain is the actual witnessing of parts processing. There are several aspects of that witnessing function, including the actual watching of parts being

processed, inspected and evaluated by the technician. A key component of this is the actual documentation that you, the auditor, collect while on site verifying compliance. The NDT Task Group considers the collection of this data so important that they have expanded this function.

The following will be collected by the auditor and submitted to PRI for review during every audit:

- \* For all three (3) witnessed Compliance "Job Audits"
  - 1) A copy of the Technique (or Procedure) with evidence of approval  
(If applicable, and an explanation if it does not require approval)
  - 2) A copy of the Traveler page, Router page or Work Order
  - 3) A copy of the NDT Report or Certificate of Compliance

NOTE: The Auditor shall record the process specifications with revision and the acceptance standards with revision (a copy of the specifications cover page is no longer required). These jobs are the ones that you actually witness being performed. Significant effort must be made to have parts processed involving the subscribing Primes.

- \* For an additional three (3) Compliance "Paper Audits"
  - 1) A copy of the Technique (or Procedure) with evidence of approval  
(If applicable, and an explanation if it does not require approval)
  - 2) A copy of the Traveler page, Router page or Work Order
  - 3) A copy of the NDT Report or Certificate of Compliance

NOTE: The Auditor shall record the process specifications with revision and the acceptance standards with revision (a copy of the specifications cover page is no longer required). These "Paper Audits" shall include those primes that were not processed during the witnessed compliances (if applicable) and once again, significant effort needs to be made to include documentation for parts involving subscribing primes. These "paper

audits" may be pulled from "historical files" but should be representative of the type and kinds of jobs being processed.

The implementation of this process will allow the auditor, staff and the Task Group members a much better opportunity to observe and evaluate the supplier's system of documentation control, flow down of customer and industry requirements and technical control of their NDT process.

Implementation of this policy is immediate.

## ***The Prime's Perspective...***

### **ROLLS ROYCE POLICY CHANGE**

#### **CHANGE IN ROLLS-ROYCE CORPORATION POLICY PER BUSINESS REQUIREMENTS SECTION OF SABRe :**

By the end of September 2004, every supplier and NDT Lab who is approved by Rolls-Royce Corporation to perform NDT must employ, directly or indirectly, a Level III qualified individual, certified in each NDT method for which Rolls-Royce Corporation NDT approval is held. This individual will be responsible for control of NDT within the supplier's facility:

- a) Ensuring that all NDT personnel are correctly qualified and certified in accordance with the Suppliers written practice conforming to NAS 410 or EN 4179.
- b) Ensuring that Rolls-Royce Corporation NDT procedural requirements are being adhered to.
- c) Approving NDT techniques for all components within the scope of the approval granted by Rolls-Royce Corporation NDT Engineering Department.

To be eligible, the individual must hold a current recognised Level III external qualification that satisfies the requirements of NAS 410 or EN 4179.

All Level III candidates proposed by the suppliers and NDT labs will be required to undertake an examination administered by Rolls-Royce Corporation, to verify knowledge and understanding of RPS 906 and Method specific Rolls-Royce Corporation NDT requirements.

Successful candidates will receive, via the supplier, Rolls-Royce Corporation approval to control NDT in accordance with the requirements of RPS 906 and the specific NDT Methods. Maintenance of this approval will require individuals to retain the necessary external qualifications and satisfy any Rolls-Royce Corporation audits.

Rolls-Royce plc approved NDT Level III's will not be tested for RPS 906 requirements; however they will be required to test for specific NDT Methods per Rolls-Royce Corporation specifications.

Each supplier and NDT Lab currently approved by Rolls-Royce Corporation to perform NDT must nominate, in writing his or her proposed Level III candidate for each site and discipline. Enclose evidence of current Level III qualification and a detailed resume of experience to date.

After review and approval of the candidate's qualification, a package of study material will be sent to each candidate for them to study and prepare for the NDT workshop and examinations. The workshop and examinations will be scheduled for different dates and locations. Each candidate will be required to participate in the NDT workshops and examinations.

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# ***A SUPPLIER'S PERSPECTIVE***

## **OBTAINING (AND MAINTAINING) YOUR Nadcap ACCREDITATION**

In order to provide special processing services (NDT, Chemical Processing, etc.), to the majority of the Aerospace primes, i.e., Boeing, Cessna, GEAE, Hamilton Sundstrand, Honeywell, Lockheed Martin, MTU, Northrup Grumman, Pratt-Whitney, Raytheon, Rolls-Royce, Sikorsky, Vought, etc., you are required to obtain and maintain Nadcap accreditation. So now, you have to undergo a Nadcap audit. Whether this is your initial audit or a re-accreditation audit, this can be quite intimidating! Somebody there for days on end looking over every piece of paper, watching every process. We know we all do our very best, but is it good enough? Are our procedures adequate? Do our technicians really understand the specification requirements? Are all of our unique customer's requirements accounted for? What can you, and your company, do to assure your upcoming audit goes successfully?

### **UNDERSTAND THE Nadcap PROCESS**

- Nadcap sponsors quarterly meetings at various locations. **GET INVOLVED!** You are not required to have a Nadcap accreditation in order to attend these meetings. Much information is available to suppliers at these meetings. These meetings also provide suppliers an opportunity to meet face-to-face with the Aerospace Primes and the PRI staff. Each quarter, all special task groups allot time for open meetings, in which the supplier can attend. These open meetings provide a forum for both the suppliers and the primes to discuss specific issues and solutions.
  - Recent problems are presented and addressed.
  - Specification requirements are clarified.
  - Auditing checklists are reviewed and revised at these meetings. (YOU can voice your opinion as to what you are being audited against).
  - You can become a supplier-voting member, which affords your company a voice in all matters requiring a vote.

- You may attend the Supplier committee meetings allowing your company to join other suppliers to discuss ways of improving the PRI/ Nadcap program.

- **GET ON THE WEBSITE.** Valuable information is available to assist you. All the task group's agendas and minutes are available for download.
  - All the audit criteria checklists are available for you on the website. You will know exactly what items are included in the audit and what criteria you will be audited against.
  - Public forums and workshops are available where valuable information can be found.

### **PLAN AHEAD**

It is suggested here that you plan on many months preparation before your Nadcap audit.

- Understand the requirements. Attend the meetings if possible. At the very least, get on the website to gather as much information as possible. Download the checklists.
- Do your own internal audit using the Nadcap checklists, not once, but several times. Be honest! Find your own deficiencies and start the process of root cause and corrective action. Make sure your procedures state exactly what you do, **SAY WHAT YOU DO AND DO WHAT YOU SAY!** This seems to be one of the biggest problems during the auditing process. There is a conflict between the procedure and the actual practice performed.
- Once everything is in place, then schedule your audit. Being unprepared for your Nadcap audit not only wastes time and money, but bottle-necks the entire Nadcap process by causing long cycle times thereby delaying accreditations.

### **LIVE THE PROGRAM**

- Once you have successfully achieved your Nadcap accreditation, your work is not over. The idea behind Nadcap is to improve the supplier base. Not just for the week of the audit, but all the time. You, as an accredited

supplier, must continue to abide by the procedural requirements you set up in order to achieve your accreditation. Live each day following the program and pretty soon, it becomes a GOOD habit. Concentrate on continuous improvement! Strive to be the best at what you do.

- Nadcap offers a merit program for those suppliers who consistently show improvement during subsequent audits. Your audit schedule can be increased from 12 months, to 18 months, and even 24 months. Therefore, your company can reduce the major costs incurred for retaining the Nadcap accreditation.

If you become involved and live the Nadcap program on a day to day basis, not only will you obtain, and maintain, your Nadcap accreditation, you will gain the reputation and respect from all in the Nadcap arena; from other suppliers, as well as the major Aerospace Primes. This, in turn will increase the sales (and profit) of your company by opening the doors to future contacts, etc., that can only be awarded to you, a Nadcap accredited supplier.

If you have any questions, or need more information, please contact Cindy Roth, Quality Assurance/Quality Control, Cooperheat-MQS, Inc., Cincinnati, OH

## ***Auditor Training***

It is that time of year again where the Task group, Auditors and staff get together for another installment of Auditor Training. This is truly a major activity for us in the NDT Task Group, especially now since we are tipping the scales at some 31 auditors, U.S. and U.K. In the next month or two, individual Task Group members will put together parts and pieces of the training to create the overall two day NDT specific training agenda.

A variety of issues will be addressed and discussed including but not limited to; baseline checklists revisions, procedural review, technical issues, specification revisions and more. All supplier's should be encouraged to contact PRI staff if you have suggestions or concerns in regards to what

should be covered in the October training session.

For suggestions, concerns or comments please contact Mark Aubele, Senior NDT Staff Engineer, [maubele@sae.org](mailto:maubele@sae.org)

For additional information please contact Mark Aubele [maubele@sae.org](mailto:maubele@sae.org), Keith Purnell [kpurnell@sae.org](mailto:kpurnell@sae.org), or Phil Ford [phil.ford@pri-europe.org.uk](mailto:phil.ford@pri-europe.org.uk), the NDE Staff Engineers.



