**CONFIRMED MINUTES**

**FEBRUARY 20- 23, 2017**

**NEW ORLEANS, LOUISIANA, USA**

**These minutes are not final until confirmed by the Task Group in writing or by vote at a subsequent meeting. Information herein does not constitute a communication or recommendation from the Task Group and shall not be considered as such by any agency.**

**MONDAY, 20-FEB-2017 TO THURSDAY, 23-FEB-2017**

# OPENING COMMENTS

## Call to Order / Quorum Check

The Metallic Materials Manufacturing (MMM) Task Group was called to order at 8:00 a.m., 20-FEB-2017

It was verified that only SUBSCRIBER MEMBERS were in attendance during the closed portion of the meeting.

A quorum was established with the following representatives in attendance:

***Subscriber Members/Participants Present (\* Indicates Voting Member)***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | NAME |  | COMPANY NAME |  |
|  |  |  |  |  |
| \* | Thomas | Ancich | Rolls-Royce |  |
|  | Mark | Antonellis | BAE Systems |  |
| \* | Elaine | Boswell | Rolls-Royce | Chairperson |
| \* | Werner | Buchmann | MTU Aero Engines AG |  |
| \* | David | Chang | Rolls-Royce |  |
|  | Craig | Clasper | Spirit AeroSystems |  |
|  | Chris | Davison | Spirit AeroSystems |  |
| \* | Jean-Francois | Dumont | Airbus |  |
| \* | Ben | Evans | UTC Aerospace (Goodrich) |  |
| \* | Greg | Goldhagen | UTC Aerospace (Hamilton Sundstrand) | Secretary |
| \* | Paul | Graham | Airbus |  |
|  | hongping | li | COMAC |  |
| \* | Raphael | Mentasti | SAFRAN Group |  |
|  | Joel | Mohnacky | UTC Aerospace (Hamilton Sundstrand) |  |
|  | Will | Otaluka | Honeywell Aerospace |  |
| \* | Brian | Streich | Honeywell Aerospace | Vice Chariperson |
|  | Kara | Warrensford | Honeywell Aerospace |  |

***Other Members/Participants Present (\* Indicates Voting Member)***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | NAME |  | COMPANY NAME |  |
|  |  |  |  |  |
| \* | Thomas | Betz | PCC Airfoils, LLC |  |
| \* | Ramachandra | Canumalla | Universal Stainless |  |
| \* | Jonathan | Gonzalez | Arconic (Rings) |  |
| \* | Rudolf | Graf | Böhler Schmiedetechnik GmbH & Co KG |  |
| \* | Hugo | Guajardo | FRISA |  |
|  | Kevin | Hineman | ATI Flat Rolled Products |  |
| \* | Bruce | Leckey | ATI Specialty Materials |  |
| \* | Beth | Lewis | PCC- Wyman Gordon |  |
|  | Stefan | Lukas | Böhler Schmiedetechnik GmbH & Co KG |  |
| \* | Brian | Reynolds | Arconic |  |
| \* | Bill | Rogers | Arconic |  |
|  | Yesenia | Romero | Aluminum Precision Products |  |
|  | Tammi | Schubert | Helicomb International |  |
| \* | Michael | Snyder | Special Metals Corp |  |
| \* | Fabio | Sturzen | Forgital Italy Spa |  |
|  | Brian | Yazumbek | Modern Forge Indiana |  |

***PRI Staff Present***

|  |  |
| --- | --- |
| Jerry | Aston |

## Safety Information– OPEN

Review fire exits in meeting room

Inform PRI Staff person of any emergencies

## Review Code of Ethics – OPEN

## Present the Anti-Trust Video – OPEN

## Review Agenda and RAIL – OPEN

The Rolling Action Item List (RAIL) was reviewed.

For specific details, please see the current MMM Rolling Action Item List posted at [www.eAuditNet.com](http://www.eAuditNet.com), under Public Documents.

## Review of Procedure Changes – OPEN

Review changes to General Operating Procedures

Changes made to General Operating Procedures since October 2016 were reviewed.

Review changes to OP 1114 and OP 1116 Appendices

No changes to the OP 1114 Appendix MMM and OP 1116 Appendix MMM were completed since the October 2016 meeting.

## Acceptance of Previous Meeting Minutes - OPEN

Motion made by Greg Goldhagen and seconded by Brian Streich to accept October 2016 Meeting minutes as written. Motion Passed.

# history status – Forgings and castings - OPEN

Elaine Boswell gave a brief presentation on the history and status of the MMM Task Group.

# VOTING MEMBER updates & COMPLIANCE WITH VOTING REQUIREMENTS - OPEN

The following requests for additions or changes to voting membership were received and confirmed by the Task Group Chairperson pending verification of PD 1100 requirements:

* Subscriber Voting Member: UVM
* Supplier Voting Member: SVM
* Alternate: ALT
* Task Group Chairperson: CHR
* Vice Chairperson: VCH
* Secretary: SEC

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **First Name** | **Surname** | **Company** | **Position:**  **(new / updated role)** | **Meetings Attended (Month/Year)** | |
| Jean-Francois | Dumont | Airbus | UVM (New) | Oct-2016 | Feb-2017 |
| Paul | Graham | Airbus | ALT UVM (Updated) | Jun-2016 | Feb-2017 |
| David | Chang | Roll-Royce | ALT UVM (New) | Oct-2016 | Feb-2017 |
| Jonathan | Gonzalez | Arconic (Rings) | SVM / SSC Rep (Updated) | Oct-2014 | Feb-2017 |
| Bill | Rogers | Arconic | SVM (updated) | Oct-2016 | Feb-2017 |
| Brian | Reynolds | Arconic | ALT SVM (Updated)  NMC Rep (New) | Oct-2016 | Feb-2017 |
| Tom | Betz | PCC Airfoils, LLC | SVM | Jun-2016 | Oct-2016 |

The compliance to voting requirements per PD 1100 were reviewed. Bombardier has not met requirements for maintaining voting rights. Compliance with membership requirements were waived by the MMM Task Group Chairperson for Bombardier at this time.

ACTION ITEM: Elaine Boswell to send members e-mails about about potential of losing status as voting member if membership requirements are not met. (Due Date: 31-MAR-2017).

Jean-Francois Dumont to be UVM, Paul Graham to be Alt UVM for Airbus.

Tom Betz PCC Airfoils to be UVM.

Brian Reynolds, Bill Rogers and Jonathan Gonzalez submitted voting member approvals reflecting company name change from Alcoa to Arconic.

Brian Reynolds (Arconic) to be supplier NMC representative.

# Checklist development – open

Eliane Boswell and Jerry Aston gave feedback to the Task Group on the AC7140 checklist when used during the Rolls-Royce Forging audits. The main point of concern was that the AC7140 checklist requires a job audit for Post Forging Operations. This was meant to be a single part seen through various finishing operations, but during the audits a number of different parts needed to be reviewed to see all finishing operations. The Task Group worked to modify the checklist to allow for multiple parts to be reviewed.

During the same review other checklist questions were highlighted as not being clear and the Task Group worked to rephrase them or put clarification in the AC7140 Audit Handbook. This will be continued at the June 2017 Task Group meeting before ballotting the revised AC7140 checklist.

Tom Ancich agreed to write questions for a checklist covering Induction Heating of Forgings and will present to the Task Group at the June 2017 meeting.

Honeywell and Rolls-Royce have requested the development of a AC7140/S Supplemental Audit Criteria to include subscriber specific questions.They are to send these to Jerry Aston prior to the June 2017 meeting. Other subscribers were asked to supply questions if they feel they are needed.

ACTION ITEM: Brian Streich and Tom Ancich to review subscriber supplemental questions. (Due Date: 01-JUN-2017).

ACTION ITEM: Tom Ancich to develop Induction Heating checklist questions. (Due Date: 01-JUN-2017).

ACTION ITEM: Brian Streich ( Honeywell) to add to handbook explanation of intermediate conditioning. (Due Date: 01-JUN-2017).

ACTION ITEM: Brian Streich to define intermediate dimensional inspection requirements in AC7140 Audit Handbook (Due Date: 01-JUN-2017)

ACTION ITEM: Brian Streich to add to AC7140 Audit Handbook “Additional inspection activities not required by customer not subject to audit”. (Due Date: 01-JUN-2017).

ACTION ITEM : Brian Streich add to AC7140 Audit Handbook what is meant by delivery condition. (Due Date: 01-JUN-2017).

# Auitor consistency – open

OP 1117 – Auditor Consistency compliance was reviewed. It was noted that limited data was presented due to no Nadcap audits being completed yet. OP 1117 compliance will be reviewed at future meetings when Nadcap audit data is available for MMM.

ACTION ITEM: Jerry Aston to send subscriber members e-mail addresses to auditors. (Due Date:31-MAR-2017).

ACTION ITEM : Brian Streich to add to AC7140 Audit Handbook direction about auditors giving adequate attention to live forging processes. (Due Date: 01-JUN-2017).

ACTION ITEM : Jerry Aston to create spreadsheet for tracking observation audits for MMM auditor(s). (Due Date: 01-JUN-2017).

# Supplier support committee Report out – open

Jonathan Gonzalez gave presentation on current Supplier Support Committee (SSC) activities

# auditor conference october 2017 – open

The agenda for the October 2017 Auditor Conference to be held in Pittsburgh, Pennsylvania, USA was discussed. It was agreed due to the number of potential auditors who attended the October 2016 Auditor Conference that the same training will be repeated. Subscribers agreed to review their presentations and update where necessary.

ACTION ITEM : Brian Streich to make AC7140 Audit handbook power point presentation. (Due Date: 01-JUN-2017).

ACTION ITEM : Elaine Boswell to create presentation of best practices and lessons learned presentation. (Due Date: 01-JUN-2017).

ACTION ITEM: MMM Auditors to send questions in before October 2017 Auditor Conference for auditor feedback session. (Due Date:01-SEP-2017).

ACTION ITEM: Subsriber Task Group Members to update subscriber presentations from October 2016 Auditor Conference for the October 2017 Auditor Conference. (Due Date: 01-SEP-2017).

# AC7140 Audit Handbook and definitions – open

Brian Streich went through the changes made to the AC7140 Audit Handbook since the October 2016 meeting.

# opening comments – forgings – closed

CALL to Order and Quorum Check.

Verified only Subscriber members are in attendance.

# Review delegation status – forgings – closed

No Nadcap audits completed. No delegation data to present.

# auditor performance/feedback – forgings – closed

No Nadcap audits completed. No performance or feedback data to present.

ACTION ITEM: MMM (Forgings) Task Group to create best practice guidelines for auditors. (Due Date: 30-JUN-2017).

The Task Group accepted Bernard Vanderwieile as an auditor for AC7140. This was based on the T1 and T2 audits carried out on Rolls-Royce Forging Program audits. The audits were observed by Elaine Boswell and Jerry Aston.

The Task Group accepted plan for Bernard Vanderwiele to conduct T1 audit training for new auditors. However, a Task Group subscriber will observe the T2 training audit.

# audit results – forgings – closed

No Nadcap audits completed.

# opening comments – forgings – open

## Call to Order / Quorum Check

# subscriber mandates – forgings – open

Honeywell mandate letter to be published after February 2017 meeting and plan to schedule all suppliers to be mandated by end of 2018.

Airbus mandate letter to be published after February 2017 meeting and plan to schedule all suppliers to be mandated by end of 2018.

MTU Aero Engines AG to mandate to main suppliers (8) first and then to smaller suppliers, goal of end of 2018. The mandate letter to be sent after February 2017 meeting.

SAFRAN Group mandating all suppliers by end of 2019 and creating Forging specification that will be controlled as special process.

Spirit AeroSystems will not mandate at this time but will accept Nadcap accreditation.

Rolls-Royce to discuss timeline of mandate possible 2 tier approach possible.

UTC Aerospace (Goodrich) to report in June 2017.

UTC Aerospace (Hamilton Sundstrand) to report in June 2017.

# planned audits – forgings – open

No Nadcap forging audits have been planned as yet.

# auditor recruitment – forgings – open

1 European based auditor approved.

1 US based auditor ready for training.

2-3 potential auditors waiting Task Group interview.

Recommended that the Forging Industry Association (FIA) is contacted to advertise for Auditors.

# tabled subjects – forgings – open

No tabled subjects.

# Agenda for next meeting – forgings – open

Outline of Forging portion of MMM June 2017 Agenda produced.

# new business – forgings – open

Brian Streich informed the Task Group that he had written a Forgings Specification. This will be taken to AMCE Committee for review and hopefully publication. The specification is based on AC7140 checklist.

# Review rail action items – forgings – open

RAIL items for Forgings part of the meeting reviewed.

# Opening comments – castings – open

## Call to Order / Quorum Check

# castings vice chairperson and secretary positions – open

Selection of Vice Chariperson and Secretary – for Castings was made.

Jean-Francois Dumont (Airbus) Vice Chair Castings.

Greg Goldhagen (UTAS/HS) Secretary for Castings.

Chairperson, Elaine Boswell confirmed that Jean-Francois Dumont as Vice Chairperson and Greg Goldhagen as Secretary for Castings.

# casting checklist development – open

Sand Casting

The Task Group completed the process flow for Sand Casting. Also, a Sand Casting checklist produced for TPG (TPG-AC7127) was reviewed and it was agreed that it could not be used by Nadcap in it’s present form. The Task Group agreed to a sub-team to review and modify the questions for Aerospace and the Nadcap program. The sub-team will work on this between the February and June 2017 meetings and bring recommendations to the June 2017 Nadcap meeting held in Berlin, Germany.

Investment Casting

The Task Group continued to work on creating an Investment Casting checklist . The process flow was completed at the October 2016 meeting and now checklist questions were created from the process flow. This was not completed and questions will continue to be developed at subsequent meetings.

It was agreed that Jean-Francois Dumont would create a Audit Handbook for the checklists as they are developed.

ACTION ITEM: Jerry Aston to move TPG audit criteria TPG-AC7127 to MMM Task Group Work Area in eAuditNet. (Due Date: 31-MAR-2017).

ACTION ITEM: Greg Goldhagen to clarify Specific Gravity Testing. (Due Date: 01-JUN-2017).

ACTION ITEM: Sand Casting Sub-Team to gather information on Sand Testing/Requirement questions to meet last week of April 2017. (Due Date: 01-JUN-2017)

ACTION ITEM: Jerry Aston to pull the general requirement section from the forging section and adjust terminology as applicable to fit into Investment Casting checklist. Pull out questions from Forging checklist AC7140 Section 1 & 2 for section 1-5 for generic type questions. (Due Date 01-JUN-2017).

# tabled subjects – castings – open

No tabled subjects were discussed.

# finalize agenda for next meeting – castings – open

Agenda approved for June 2017 Nadcap meeting to be held in Berlin, Germany.

# new business – castings – open

No new business was discussed.

# review rail action items – castings – open

RAIL updated

ADJOURNMENT – Thursday, 23-Feb-2017 – Meeting was adjourned a 3:10 p.m.

Minutes Prepared by:Greg Goldhagen ( [Gregory.Goldhgen@utas.utc.com](mailto:Gregory.Goldhgen@utas.utc.com)) and Jerry Aston (PRI)

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| --- | --- | --- |
| \*\*\*\*\* For PRI Staff use only: \*\*\*\*\*\*  Are procedural/form changes required based on changes/actions approved during this meeting? (select one)  YES\*  NO  \*If yes, the following information is required: | | |
| Documents requiring revision: | Who is responsible: | Due date: |
|  |  |  |
|  |  |  |