



UNCONFIRMED MINUTES
4-6 MARCH 2019
HYATT REGENCY MONTEREY HOTEL
MONTEREY, CA, 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, 4-MAR-2019 - FRIDAY, 6-MAR-2019

1.0 OPENING COMMENTS – OPEN/CLOSED

1.1 Call to Order / Verbal Quorum Check – OPEN/CLOSED

The Fluid Distribution Systems (FLU) Task Group was called to order at 9:00 a.m., 4-Mar-2019.

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 | |
|-------------|----------------|----------------------------------|
| * Joe Karim | Bebey Belatra | The Boeing Company Bombardier |
| Ke-winn | Chan | Airbus Commercial Aircraft |
| Stephane | De-Faveri | Airbus Commercial Aircraft |
| Issac | Garcia | The Boeing Company |
| * Benjamin | Hedges | Bell Helicopter Textron |
| Eric | Herbay | Airbus Commercial Aircraft |
| * Ulrich | Mueller | Airbus Commercial Aircraft |
| Aaron | Nash | The Boeing Company |
| * Pedro | Perez | GE Aviation |
| * Dan | Smith | GE Aviation |
| Andrew | Springer | The Boeing Company |
| Renatas | Stanislovaitis | GE Aviation |
| Jose | Torre | GE Aviation |
| Gregory | Waugh | The Boeing Company |

Chairperson

Other Members/Participants Present (* Indicates Voting Member)

| NAME | COMPANY NAME |
|---------|--|
| Gary | Jenski Eaton Corporation |
| John | Binford B&E Mfg |
| Kevin | Bires SAE |
| Ray | Bitting Wyman Gordon |
| Chuck | Brannon SAE |
| Clifton | Brevy Eaton |
| * John | Brittain Eaton Corporation |
| Owe | Carlsson Arconic |
| Ken | Chang Adelwiggins |
| * Mike | Clemente Smiths Tubular Systems - Laconia |
| * May | Danhash Aerofit |
| Cynthia | Eulitz Boeing Distribution & Services |
| Mike | Howlett B&E Mfg |

| | | |
|------------|-----------------|--------------------------------------|
| Connie | Jaloby | ORKAL IND |
| Benjamin | Johnson | The Boeing Company |
| Duncan | Jones | EASA |
| Jon | Kweder | Technetics Group |
| Daniel | Lavigne | Parker Hannifin |
| Emmanuel | Lenarduzzi | Specitubes Samer France |
| Luis | Lozano | Hydraflow |
| Steve | MacDonald | Permaswage |
| Nhat | Mai | Aerofit |
| * Andrew | Mau | Parker Hannifin, Stratoflex Products |
| Leigh | Molvane-Johnson | AFLEX HOSE (UK) |
| Dan | Munley | Eaton |
| Shadrach | Nanney | Parker Hannifin |
| Cristian | Nuit | B&E Mfg |
| Ky | Nyguyen | Adelwiggins |
| Erwin | Oman | SAE |
| Bill | Parea | Atlas Specialty Products |
| Nilesh | Patel | Shur-lok Co |
| Leo | Perez | Allan Aircraft |
| John | Polometer | Permaswage |
| Kevin | Proschold | Shur-lok Co |
| Doug | Pyle | Arconic |
| Tabassum | Qureshi | TA Aerospace Esterline |
| Paul | Randolf | Hydraflow |
| Fatemeh | Razavy | Western Pneumatic Tube Co. |
| Ricky | Sasmal | Eaton |
| * Mark | Scatoloni | Spencer Aerospace Manufacturing, LLC |
| * Chris | Schofield | Hydraflow |
| Adam | Senta | Permaswage |
| Dennis | Sinderlinge | SAFRAN |
| Ken | Slock | Titeflex |
| Tim | Soran | Sandvik |
| * Justin | Straley | Eaton Corporation |
| * Matt | Swabb | Voss Industries |
| L.T. | Taylor | Boeing Distribution & Services |
| Luis Jorge | Valenzuele | TA Aerospace |
| Stacy | Warsett | The Boeing Company |

PRI Staff Present

Keith Purnell

1.2 Safety Information – OPEN/CLOSED

Fire exits were reviewed. It was noted to inform PRI Staff of any emergencies.

1.3 Review Code of Ethics and Meeting Conduct – OPEN/CLOSED

The Nadcap Code of Ethics was reviewed.

1.4 Present the Antitrust Video – OPEN/CLOSED

The antitrust video was reviewed.

1.5 Review Agenda – OPEN/CLOSED

The agenda for the March 2019 meeting was reviewed and no additional topics were added.

1.6 Acceptance of September 2018 Meeting Minutes– OPEN

Motion made by U. Mueller and seconded by J. Bebey to approve the minutes from September 2018 as written. Motion Passed Unanimously.

2.0 AUDITS – CLOSED

Audits in Staff Engineer, Auditee, and Task Group Review were discussed, and no additional actions were required.

The list of currently scheduled audits was reviewed, and Subscriber Task Group members were encouraged to observe audits.

3.0 AUDITORS – CLOSED

Auditor performance and consistency data, including the standard data set, were reviewed. No Auditors stood out as requiring additional action.

Two Auditor candidates are ready to be interviewed. One interview will be conducted by WebEx on 26-Mar-2019 from 11:00 am to 12:00 PM. The second interview date will be determined later.

It was requested that the Staff Engineer review audit 172235 to see if any of its NCRs are different from what has been typically found.

ACTION ITEM: K. Purnell to arrange for a WebEx auditor interview on 26-Mar-2019. (Due Date: 20-Mar-2019)

ACTION ITEM: K. Purnell to review NCRs from audit 172235 and report back at next Closed FLU TG meeting if NCRs are different than typically found. (Due Date: 30-Sep-2019)

4.0 STAFF ENGINEER DELEGATION – CLOSED

Task Group oversight of Audit Report Reviewers was reviewed. Delegated reviewer K. Purnell met the requirements of having at least 10% of NCRs reviewed by the Task Group Subscriber Voting Members with over 90% concurrence.

Motion made by U. Mueller and seconded by D. Smith for K. Purnell to maintain delegated status. Motion Passed Unanimously.

Non-delegated reviewer A. Baer is having 100% of his NCRs reviewed by the FLU TG Subscriber Voting Members. A. Baer did not meet the minimum criteria to become delegated at this time.

5.0 SUPPLIER CHANGE NOTIFICATION – CLOSED

Change notifications since the last meeting were only name changes; no additional discussion was required.

6.0 CLOSED MEETING ISSUES – CLOSED

It was discussed if the G-3 committee should consider changing the AS4841 specification for anodize destructive analysis of small lots of fluid fittings that require six cut ups. This is a topic for discussion at G-3 meeting.

ACTION ITEM: D. Smith to discuss possible AS4841 anodize destructive analysis small lot changes with the SAE G3 Committee. (Due Date: 20-Sept-2019)

7.0 MEETING CLOSE OUT – CLOSED

All action items were reviewed, and due dates established. For specific details, please see the current FLU Rolling Action Item List posted at www.eAuditNet.com, under Public Documents.

8.0 REVIEW MEMBERSHIP STATUS – 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

New Voting Members:

| First Name | Surname | Company | Position: (new / updated role) | Meetings Attended (Month/Year) | |
|------------|---------|--------------|-----------------------------------|-----------------------------------|----------|
| | | | | Sept - 2017 | Mar-2018 |
| May | Danhash | Aerofit, LLC | New - SVM | Sept - 2017 | Mar-2018 |

Changes to Voting Memberships Since the Last Meeting:

| First Name | Surname | Company | Position: (new / updated role) |
|------------|----------|---|-----------------------------------|
| Joe | Bebey | The Boeing Co. | CHR |
| Samuel | Buri | The Boeing Co. | Removed as UVM and CHR |
| Phillip | Wade | Smiths Tubular Systems – Laconia dba Titeflex | Removed as SVM. |
| Mike | Clemente | Titeflex | SVM |
| Dale | Gordon | Aerofit, LLC | Removed SVM |

All additions and changes are pending completion of all required steps on the Nadcap Membership Form (m-frm-01).

The compliance to voting membership requirements per PD 1100 was reviewed. The following members were non-compliant with voting requirements. The voting requirement was waived for these members by the Task Group Chairperson and they are approved to remain voting members.

| First Name | Surname | Company | Balloting or Attendance |
|------------|---------|---------|--|
| Xin | Jin | COMAC | Balloting – Missed two consecutive ballots |

| | | | |
|------|------|-------------|--|
| Mark | Paul | Rolls-Royce | Balloting – Missed three consecutive ballots |
|------|------|-------------|--|

Motion Made by M. Scatoloni and seconded by U. Mueller to confirm J. Bebey as FLU TG Chairperson and reconfirm M. Paul as Vice Chairperson. Motion Passed Unanimously.

No one volunteered for the Secretary position at this time.

J. Bebey read the inscription on the appreciation plaque for S. Buri's years of services as FLU TG Chairperson.

ACTION ITEM: PRI Staff to send email to non-compliant voting members reminding them of the obligations to remain a voting member. (Due Date: 30-Apr-2019)

9.0 STAFF REPORT – OPEN



9.0 PRI Staff Report
Fluids March 2019.p

K. Purnell presented the PRI Staff Report that included Auditor Status, FLU TG Metrics, Most Common NCRs, Latest eAuditNet Changes, Future Nadcap Meeting Dates and Locations, and Staff Delegation Metrics. The Nadcap Management Council (NMC) is developing a checklist that will contain requirements applicable to all Task Groups. Auditees were reminded to upload their self-audits into eAuditNet at least 30 days prior to the audit start date. Auditees are also required to include procedure and paragraph numbers for compliance with each self-audit question. Auditees need to ensure Aerospace Standards they intend to work to are included in their audit scopes. Auditees also need to evaluate how they are determining their corrective action implementation is effective. Non-Sustaining / Repeat findings is the fourth most common NCR for the FLU TG in the last 12 months.

The FLU TG metrics of Average Audit Cycle Time, Most Common NCRs, Average Number of Major and Minor NCRs, and Number of Lapsed Accreditations and Audit Cycle times were reviewed.

The latest changes in eAuditNet were reviewed. These changes are posted in eAuditNet under Resources, Documents, Public Documents, eAuditNet, Rolling Release Notes.

The future Nadcap meeting schedule is as follows: 3-6 June 2019 Paris, France, 21-24 October Pittsburgh, PA, 24-27 February 2020 Beijing, China.

The next Fluid Distribution Systems Nadcap meeting will be 11-13 September 2019 in Arlington, VA, USA.

Delegated reviewer K. Purnell met the requirements of having at least 10% of NCRs reviewed by the Task Group Subscriber Voting Members with over 90% concurrence. Delegation is maintained.

Non-delegated reviewer A. Baer is having 100% of his NCRs reviewed by the Task Group Subscriber Voting Members.

10.0 REVIEW OF PROCEDURE CHANGES – OPEN

10.1 Review any changes to General Operating Procedures since the last meeting

A summary of changes to operating procedures OP 1101 Document Control, OP 1102 Records, OP 1103 Definitions, OP 1107 Post Accreditation Actions, OP 1112 NMC Oversight Activities, OP 1113 Appeals, OP 1116 Auditor Staffing, OP 1120 Audit Criteria Agreements, OP 1121

Subscriber Application and Agreement, OP 1122 Subscriber Accreditation, OP 1123 Supplier Support Committee, and OP 1124 Allegation Handling and Resolution since the October 2018 meeting was presented.

10.2 Review changes to OP 1114 and OP 1116 Appendices since the last meeting

OP 1114 Appendix FLU was revised to align with the updates in OP 1114 Task Group Operation. Changes included 4.5.1 Criteria for when no production work is available, 4.6.3.2 Criteria from when delegation concurrence is not achieved, 4.6.4.1 Satellite Facility Criteria revised and 4.6.4.2 Examples of other justifiable reasons for denial of merit.

The most recent revision of OP 1116 Appendix FLU posted in eAuditNet on 20-Sep-2018 was reviewed. Latest changes included updating the document to the new format in accordance with OP 1116 Auditor Staffing.

11.0 AUDIT FAILURE CRITERIA

11.1 Review Audit Failure Criteria, Single Year Data Compared to Multiple Years of Data

Audit failure criteria from one (1) year, 2018, and four (4) years, 2015 to 2018, were reviewed. The reason for reviewing multiple years of data is the limited number of audits performed by the FLU TG. OP 1110 Audit Failure states "Each data set shall include a minimum of 32 audits." FLU TG performed 33 audits in 2018.

11.2 Establish FLU Task Group Failure Criteria for 2019

FLU TG reviewed the above failure data. After reviewing the data, the FLU TG decided to keep the existing Mode B audit failure criteria.

Motion made by M. Scatoloni and seconded by J. Brittain to maintain the current failure criteria for 2019. Motion Passed Unanimously.

ACTION ITEM: K. Purnell to forward FLU TG 2019 Mode B Failure Criteria to M. Graham. (Due Date: 8-Mar-2019)

12.0 QPG STATUS UPDATE – OPEN

The new G-3 Qualified Product Group (QPG) Chairperson, Aaron Nash, presented an update from the G-3 QPG meeting. The presentation included discussion of periodic testing and the use of the periodic test form located in eAuditNet, specifications with Qualified Product List (QPL) requirements and no QPL listings, future changes to PD2101, and the need for additional members. The draft PD2101 will be sent to the FLU TG members for review and comment.

13.0 SUPPLIER MEETING REPORT – OPEN

M. Scatoloni presented an update on the G-3 Supplier Group meeting. The Supplier / OCM change notification process to PRI for QPL products was discussed. Suppliers would like a simpler process for equipment changes that impact thousands of QPL listings. There was also discussion of future changes to PD2101.

ACTION ITEM: M. Scatoloni to provide K. Purnell a summary of the Supplier Meeting Report. (Due Date: 21-Mar-2019)

14.0 2019 AUDITOR CONFERENCE – OPEN

The proposed agenda for the FLU TG October 2019 Auditor Conference was reviewed. The conference will be held on Friday, 18-Oct-2019, and will include the following topics:

- Most Common NCRs and Auditor Consistency
- Periodic Testing

- Dry Film Lube AC7108/1 (Brief Overview)
- eAuditNet
- Review Checklists and Suggestions for Auditor Handbook Clarifications for AC7112, AC7112/1, AC7112/2, AC7112/3, AC7112/4, AC7112/6, AC7112/7 and AC7123
- Question / Answer / Discussion Session

15.0 CHECKLIST REVISION – OPEN

The Nadcap Subscriber Matrix has been updated indicating that Airbus is mandating Nadcap Fluid Distribution Systems accreditation.

The Sub-Team drafted the AC7112/7 checklist for Tube Fabricated Assemblies. Cleaning is addressed in the checklist in separate appendices that address aqueous, vapor degrease, and oxygen component cleaning. There are also appendices for assembly processes which include externally swaged, elastomeric swaged, roller swage fitting attachment, axially or external ring swage tube couplings, and externally axially or radially swaged tube couplings. Additional appendices include bench pressure testing and autofrettage of hydraulic parts and memory metal fittings, couplings, and components.

The draft AC7112/7 was reviewed line by line during the meeting and several changes were suggested. J. Brittain requested to join the Sub-Team. Members asked how the audit requirement for this checklist would be flowed down. Subscribers requiring accreditation to AC7112/7 will either flow it down in purchase orders or issue a mandate letter.

Proposed changes to AC7112/7 will be reviewed at the next Sub-Team WebEx meeting.

ACTION ITEM: K. Purnell to set up the next AC7112/7 WebEx meeting in April 2019. (Due Date: 30-Apr-2019)

E. Oman created a spreadsheet that tracks SAE G-3 aerospace standards with QML / QPL requirements. Over 900 standards were reviewed to create the spreadsheet. Some standards address Nadcap QML and PRI QPL and others referenced User QML / QPL requirements. The SAE Style Guide contains four or five approved wordings for QML / QPL callouts, but the spreadsheet lists more than 20 different wordings used in the standards. The QML / QPL wording in the aerospace standards will need to be reviewed and updated as necessary as part of the five-year review cycle. The Style Guide approved wording should also be reviewed and modified if necessary, as this document is up for revision.

ACTION ITEM: Nadcap FLU TG to review the Style Guide wording and propose any changes if necessary. (Due Date: 30-Jul-2019)

The scope of accreditation for Fluid Distribution Systems needs to be updated to include additional standards which have QML or QPL requirements. The spreadsheet created by E. Oman will be used as an aid in determining which standards need to be added. The s frm-14 Preliminary Questionnaire for Fluid Distribution Systems will be updated to include these additional scopes. K. Purnell will propose changes to the s frm-14 and then send to FLU TG members for review and comment.

ACTION ITEM: K. Purnell to update the s frm-14 and send to the FLU TG members for review and comment. (Due Date: 30-Aug-2019)

16.0 MEETING CLOSE OUT – OPEN

All action items were reviewed, and due dates established. For specific details, please see the current FLU Rolling Action Item List posted at www.eAuditNet.com, under Public Documents.

Agenda topics for the next meeting will be the same as this meeting.

ADJOURNMENT – 6-Mar-2019 – Meeting was adjourned at 9:30 a.m.



Minutes Prepared by: Keith Purnell, kpurnell@p-r-i.org

***** 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: |
|-------------------------------|---------------------|-------------|
| s-fm-14 | Keith Purnell | 30-Aug-2019 |
| | | |

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