

**1.0 Purpose:**

This document provides the quality system requirements for suppliers.

**2.0 Scope:**

This document applies to suppliers and subcontractors that provide Insitu with non-commercially available off-the-shelf (non-COTS) products and/or services. These requirements are in addition to the standard Insitu Purchase Order Terms & Conditions.

**3.0 References:****3.1 Standards**

- 1) ISO 9001 Quality Management Systems - Requirements
- 2) AS9100 Quality Management Systems – Requirements for Aviation, Space and Defense Organizations
- 3) AS9102 Aerospace First Article Inspection Requirement
- 4) ISO 9000 Quality Management Systems — Fundamentals and vocabulary
- 5) Federal Acquisition Regulation (FAR) 2.101 Definitions “Commercially available off-the-shelf (COTS)”
- 6) ANSI/ESD S20.20 Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices)
- 7) IPC-A-610 Acceptability of Electronic Assemblies
- 8) IPC-WHMA-A-620 CABLE AND WIRE HARNESS
- 9) Nadcap Certification - (National Aerospace and Defense Contractors Accreditation Program) Special Processes Certification

**3.2 Insitu documents**

- 1) QAF-82-005 First Article Inspection Report Forms
- 2) PUP-73-001 Supplier Requests for Engineering Approval (SREA)
- 3) ENI-73-007 Part Marking and Serialization
- 4) ENI-73-003 Product Finish Specification

***NOTE: Forms referenced in this document may be used by the supplier. Any Insitu document referenced in this document will be made available electronically to our suppliers through the supplier portal. Standards documents may be purchased from the standards organizations directly.***

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#### 4.0 General Supplier Requirements:

##### 4.1 Precedence:

Insitu requirements take precedence in the following order:

- 4.1.1 Insitu Purchase order or Contract
- 4.1.2 Referenced Insitu provided product definition, e.g. drawings and specifications
- 4.1.3 Industry Specifications not listed
- 4.1.4 Supplier Specifications e.g. a spec sheet

##### 4.2 Quality Management System:

- 4.2.1 Supplier shall establish and maintain a documented quality management system that is compliant with ISO 9001 Quality Management Systems - Requirements.
- 4.2.2 Fundamentals and vocabulary of the quality management system shall be interpreted in accordance with:

***ISO 9000 Quality management systems — Fundamentals and vocabulary***

***FAR 2.101 Definitions “Commercially available off-the-shelf (COTS)”***

- 4.2.3 Suppliers shall be responsible for controlling the quality of their sub-tier suppliers.
- 4.2.4 Suppliers shall support requests to audit their quality management systems.

##### 4.3 Communication:

***Insitu is committed to building strong supplier partnerships. This section provides instructions for suppliers to be able to communicate effectively with Insitu.***

***Official communications shall be conducted with Insitu’s Authorized Procurement Representative.***

- 4.3.1 Supplier shall notify Insitu of any change to their quality management system and/or their Quality Management representative, and the effective date of the change.
- 4.3.2 Supplier shall notify Insitu of any change requiring first article inspection and the effective date of the change (e.g. move of equipment, move of manufacturing facility, and change in manufacturing process). Reference AS9102 Aerospace First Article Inspection Requirement paragraph 5.3
- 4.3.3 Supplier shall notify Insitu of any non-conformance prior to delivery and obtain approval for its disposition.
- 4.3.4 Supplier shall respond to Supplier Corrective Action Request (SCARs) in accordance with the documented request.
- 4.3.5 Supplier may recommend design/process changes to Insitu using the PUP-73-001 Supplier Requests for Engineering Approval (SREA)

##### 4.4 Records:

- 4.4.1 Supplier shall provide a Certificate of Conformance (CoC)—stating that the item provided meets or exceeds all of the requirements of the Product Definition (Drawings,

Specifications, testing, Special Process validation, etc.); certificate shall be provided upon delivery.

- 4.4.2 Supplier shall maintain records for a minimum of 3 years after final payment.
- 4.4.3 Supplier shall ensure that records are identifiable to the product, service, person, event to which they pertain.
- 4.4.4 Supplier shall ensure that records are legible and readily available for review by Insitu.
- 4.4.5 Supplier shall provide Process Control in accordance with AS 9100 section 7.5.
- 4.4.6 Supplier shall have a control plan to meet the requirements of Insitu Quality Acceptance Standards included in the purchase order or contract.
- 4.4.7 Supplier shall have a control plan for critical characteristics listed in the product definition. [e.g.: Critical Product Characteristics (CPC), Significant Product Characteristics (SPC), Critical to Quality (CTQ) and Key Characteristics].
- 4.4.8 Supplier shall ensure that Inspection and Testing are in accordance with AS 9100 section 7.5.
- 4.4.9 Supplier shall ensure that traceability is maintained in accordance with AS9100 7.5.3.

#### 4.5 First Article Inspection

- 4.5.1 Supplier shall perform and submit first article inspections in accordance with AS9102. Acceptable forms are AS9102 compliant forms or QAF-82-005 First Article Inspection Report Forms.
- 4.5.2 Supplier shall notify Insitu of any change requiring first article inspection and the effective date of the change. Reference AS9102 Aerospace First Article Inspection Requirement paragraph 5.3
- 4.5.3 Supplier shall be responsible for managing their sub-tier first article inspections.

#### 4.6 Workmanship

***Workmanship shall be interpreted in accordance with the following:***

- 4.6.1 ESD: Supplier shall protect all electrostatic discharge (ESD) sensitive products/services in accordance with ANSI/ESD S20.20.
- 4.6.2 Special Processes: Supplier shall perform special processes in accordance with Nadcap or Industry Standards.
- 4.6.3 Electrical/Electronic assemblies: Supplier shall ensure that electrical/electronic assemblies are compliant with IPC-A-610 Acceptability of Electronic Assemblies.
- 4.6.4 Cables/Wire Harnesses: Supplier shall ensure that cables/wire harnesses are compliant with IPC-WHMA-A-620 CABLE AND WIRE HARNESS.
- 4.6.5 Part Marking and Serialization: Supplier shall identify parts in accordance with ENI-73-007 Part Marking and Serialization.
- 4.6.6 Product Finish: Supplier shall ensure that parts are compliant with ENI-73-003 Product Finish Specification.
- 4.6.7 Preservation of Product: Supplier shall preserve the product in accordance with AS 9100 section 7.5.5.

4.7 **Packaging**

4.7.1 Supplier shall be responsible for the packaging of product to assure its proper condition and quality upon delivery to an Insitu-specified destination. Packaging shall not be a source of contamination.

5.0 **Revision History**

Document Revision History			
Rev	Date	Description	Author
8	4/15/2011	1.0 expanded purpose and refined scope; 2.0 For revised definitions from conformance/compliance to conformity; 2.1 Removed "number" added "Boxed Character"; 2.8 revised definition of Control Plan; 2.19 Added definition of "Part Number"; 3.0 deleted references QAP-56-001, QAF-75-002 ; QAP-82-001, QAP-83-005 QAF-82-007, QAF-82-016, and QAF-82-012; Added QAF-82-005 4.2, 4.2&4.5 deleted references; 2.7 re-written copying QAP-82-001 requirements. 5.0, 6.0, 7.0 simplified text; 5.2 added CoCs are required for all Insitu purchased non-commodity material used for sale or service. Revised the term Compliance to Conformity for ISO9000:2005 alignment; 8.2 Changed to QAF-82-005 First Article Forms; 8.5 revised to production process control; 10.0 provided specificity on what is required from suppliers for FAIRs; 10.2 changed for to from; 10.3 Added "and the first article part or assembly; 10.7 Added "Forms"; 10.8 Changed "Form" to "Forms"; 10.9.115 Changed to QAF-82-005; 10.10 specified flow down requirements; 10.10.5 Changed to QAF-82-005; 11.0 added specificity for supplier in process actions; 11.1 Changed to QAF-82-005; 12.0 added drawing number with revision level; 13.0 Added "(suggested form is in QAF-82-005 First Article Forms – Cover Sheet)"; added 5) to 8); 14.1 Changed to Insitu's Non-Conforming Product Procedure 16.0 added specificity for supplier requirements; 17.2 Change to PUP-73-001; 18 added workmanship requirements; 20 revised part marking requirements; 20.1.2 Delete "released after this revision"; 20.4 added package marking limitations; <b>Document control change:</b> corrected referenced document title QAF-82-008 from Failure Mode and Effects Analysis to Design and Process FMEA Template and corrected numbering under 5.3. Corrected rev number in header of revision history pages.	David Ooms, Peter Leon, Mike Magnuson Danielle Gilderhus
8.1	2/13/12	Deleted reference to document number QAF-82-007 which was missed during revision 8 edits. Deleted from section 2.8	Jesse Maddux
9	8/27/12	Complete rewrite of requirements to streamline document. Include references to industry standards.	Dan Gardner, Ellen Shimada, Susan Baker, David Ooms, Patti Sherwin