

## Summary of Changes

# 095870 Supplier Quality Assurance Manual (SQAM)

## Rev 13

This serves as notification that our BAE Systems Supplier Quality Assurance Manual (SQAM) has been updated. Please note that the changes below are listed with the older version first, then the new revision is below it, unless otherwise noted. Please see the following changes/additions/deletions:

Legend:

- Addition
- Change
- Deletion

### 1.0 Acronyms

ADCN:	Advance Drawing Change Notification
ANSI:	American National Standards Institute
APQP	Advanced Product Quality Planning
APR:	Authorized Purchasing Representative
AQL:	Acceptance Quality Level
CARC:	Chemical Agent Resistant Coating
CDR:	Contract Deliverable Requirement
C-PLAN	Control Plan
DCMA:	Defense Contracts Management Agency
DFAR:	Defense Federal Acquisition Regulations
DOT:	Department of Transportation
FAI:	First Article inspection
FAR:	Federal Acquisition Regulations
FAT:	First Article Test
FPI:	First Piece Inspection
ISO:	International Organization for Standardization
ISIR:	Initial Sample Inspection Report
ITAR:	International Traffic in Arms Regulations
IWO:	Interdivisional Work Order
NDE:	Non-destructive Examination

NOR:	Notification of Revision
OSHA:	Occupational Safety and Health Administration
PFMEA	Process Failure Mode Effects Analysis
PO:	Purchase Order
PPAP:	Production Part Approval Process
QAP:	Quality Assurance Provisions
QAR:	Quality Assurance Requirements
SAE:	Society of Automotive Engineers
SPS:	Standard Process Specification
SQAM	Supplier Quality Assurance Manual
SQAP:	Supplier Quality Assurance Provisions
TDP:	Technical Data Package
UN:	United Nations
VIR:	Vendor Information Request

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### 3.3 Notification Responsibilities

The Supplier shall notify their APR in writing using VIR 089725, as set forth in Section 5.2 below, in the event that any one of the following occurs:

- Change to/relocation of Supplier's facility
- Change in quality systems or operations management
- Any change to the manufacturing process (Note: Applicable to all Tiers of Suppliers)
- Change to Quality Management System registration, including issuance of a new registration certificate
- Break in production of 24 months or more
- All Drawing changes whether received from BAE Systems or any Supplier

Failure to notify BAE Systems in a timely manner prior to shipping product may result in the following:

- On-site inspection by BAE Systems or their representative at the Supplier's expense
- Audit of the Supplier's facility at the Supplier's expense
- Withholding of new business opportunities

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- Supplier Name change

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## 7.1 Special Processes

All special processes identified below and utilized on a BAE Systems' Purchase Agreement require certification by NADCAP or approval by BAE Systems. Special process requirements identified below shall be flowed down to all sub-tier Suppliers. The Supplier shall provide a current Certificate of Conformance (C of C) certifying compliance for all special processes identified below and performed as required by the TDP. All special process Suppliers or their sub-tier Suppliers utilized on the Purchasing Agreement shall have a current accreditation by NADCAP or approved by BAE Systems. The Certificate of Compliance shall define and document all processes used in satisfying the TDP/Purchasing Agreement requirements and the date of the last audit. Special processes will be as defined below in our SQAM, AS9100 and by NADCAP. All costs associated with NADCAP accreditation shall be borne by the special process Supplier.

Special processes include, but may not be limited to, any of the following:

- The following special processes are required to be approved by BAE Systems
  - Bonding
  - Casting
  - Chemical Agent Reactive Coating (CARC) Painting does not require NADCAP, but requires BAE Process Audit Approval
  - Soldering
  - Welding/Brazing requires BAE Systems Weld Process Audit Approval and Weld Procedure Approval **prior** to welding
- The following special processes are required to be approved by NADCAP when the specific CDR is applied to the contract
  - Heat Treating
  - Painting (Non CARC Painting)/Coating
  - Plating
- The following special processes are required to be certified to the identified standards.
  - Destructive/Non-destructive Testing (shall comply to ASNT TC1A or NAS410) Note personnel shall have a Level 2 or better certification.

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### 7.1.2 Chemical Agent Resistant Coating (CARC)

Processing of CARC-finished parts/assemblies shall be performed only by a BAE Systems approved Supplier. Parts received which are not finished by an approved Supplier will be rejected and may be subject to rework by an approved Supplier at the Supplier's expense.

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## 7.2 Part Identification Marking

Identify all parts using the criteria listed below:

- All commercial parts will be identified as defined on the commercial TDP.
- Outside Special Processes, (OSP) will be marked per the Statement of Work, (SOW).
- All other parts are to be marked with the following criteria:
  - Part Number as defined on the purchase order line item for the part.
  - Cage Code as defined on the drawing as applicable.
  - Cage Code of the producing Supplier/vendor.
- The method will be as defined on the drawing:
  - If no method is defined use MIL-STD-130 as a guide for determining the marking/identification method.
  - The marking method cannot affect form, fit, or function of the part.
- The location will be as defined on the drawing:
  - If no location is defined, the Supplier is to determine the best marking location.
  - The marking location cannot affect form, fit, or function of the part.

If there are any questions, please submit a VIR for clarification.

The Supplier shall ensure that parts are legibly marked in accordance with these requirements. (If this identification is no longer visible, after all finishing processes have been completed the info must be reapplied with the identification method to be determined by the Supplier, the

identification process cannot affect form, fit or function of the part). Objective evidence must be made available upon request to support the original marking methods used.

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Suppliers are responsible for maintaining objective evidence for all part marking compliance for each shipment, coordinating and documenting the traceability to the specific shipment.

## 8.1 Supplier Monitoring and Rating

BAE Systems, Combat Mission Systems rates and monitors the performance of its Suppliers. A Supplier's rating is based upon:

- Quality Rating
  - % Acceptance (P1 + P2)
    - P1 - Receiving 50% (1 - Total Rec Defectives / Total Receipts\* .5)
    - P2 - WIP 50% (1 - Total WIP Defectives / Total Receipts\* .5)
- Quality Risk Assessment Rating (P1 + P2 + P3)
  - % Acceptance (P1 + P2)
    - P1 - 40% Receiving Inspection (1 - Total Defectives / Total Receipts\* .4)
    - P2 - 40% WIP (1 - Total Defectives / Total Receipts\* .4)
    - P3 - 20% Corrective Actions issued and responsiveness (1- corrective actions issued + late responses / 10 \* .2)

Suppliers who fall below a determined level (98% Quality Risk Assessment Rating) of performance may be subject to various activities including, but not limited to, audit by BAE Systems, request for a corrective action

improvement plan, prohibiting the Supplier from receiving new business and/or placed on Containment Level I or II.

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Suppliers who fall below a determined **quality** level (98% Quality Rating) of performance may be subject to various activities including, but not limited to, audit by BAE Systems, request for a corrective action improvement plan, prohibiting the Supplier from receiving new business and/or placed on Containment Level I or II.

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## 8.3 Inspection

The Supplier will inspect the first piece manufactured for this Purchasing Agreement to all drawing characteristics, drawing notes and Purchasing Agreement requirements and will maintain on file a report which includes the following elements:

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## 8.4 Measuring and Test Equipment

The Supplier shall establish and maintain a documented calibration system to verify conformity of all measuring and test equipment (M&TE) such as gages, tools, jigs, fixtures and dies used to verify conformity to requirements. This system shall be compliant with ISO 9001:2015 (or latest version), AS 9100, TS 16949, or shall be approved by BAE Systems.

Outside calibration and inspection/test, services used shall maintain a system in accordance with a recognized standard such as ISO 10012, ANSI/NCSL Z540, or ISO 17025 and shall address the criteria described in the selected standard.

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## 8.9 Corrective Action

The Supplier is responsible for implementing systems capable of resolving problems adversely affecting quality. The Supplier shall:

- Contain all discrepant parts whether they are completed, in process, in inventory, in-transit, previously shipped or in the field.
- Determine root cause of the issue, why it wasn't detected in their system and what systemically failed to allow the deficiency.
- Identify impacts to similar items that use the same process/material/equipment and which may be affected by this discrepancy).
- Implement corrective action to correct the deficiencies.
- Implement preventative actions to preclude future occurrences of the issue(s).
- Verify and validate all corrective/preventative actions for effectiveness.

Records, which document the above actions, shall be maintained and made available to BAE Systems upon request; these records may be in the Supplier's format as long as they address all requirements specified in this document.

In the event that a non-conformance is discovered by BAE Systems, there may cause to issue **either** a Notification of Nonconformance (NN, Level I Corrective Action) or a Supplier Corrective Action Request (SCAR, Level II Corrective Action).

A notification of nonconformance, Level I Corrective Action informs the Supplier that a non-conformance was identified but does not require a formal response from the Supplier. The Supplier is still responsible and shall correct the identified non-conformance in their process and document the actions taken in accordance with their internal corrective action procedures.

A SCAR requires that the Supplier provide formal written analysis of the root cause and documented corrective and preventative actions. The formal response from the Supplier must be received on or before the response due date or the Supplier's performance and/or risk rating may be impacted.

BAE Systems will, based on the supplied SCAR response, determine what follow up actions are required, if any, and completion of all follow up actions will be required before the SCAR can be closed.

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## 8.12 Data Submission Instructions

All data submissions, unless otherwise specified, shall be submitted electronically. The email subject line should include the relevant Purchasing Agreement number and part number. Paperwork should not be shipped with the product. The Supplier is required to use either an encrypted email system (setup between BAE Systems and the Supplier) or Secure File Transfer System (SFTS) for any and all technical data being submitted, drawings, performance and test data, etc. are considered technical data and need to be protected at all times. All documentation submittals shall include a (092245) source inspection / CDR paperwork submission form.

**Note:** If the submissions are for Anniston Forge, Anniston Spares, Phoenix, Aberdeen, Louisville, or Minneapolis and the parts are not certified or source inspected, the data packages and form 092245 are not required to be submitted in advance for an acceptance signature. For these locations, the data packages are to be sent with the parts. If you are unsure of the parts your company is certified for, contact your purchasing representative.

All data submissions for the following ship-to addresses are to be submitted to

**sqasterlinghts.pands@baesystems.com:**

**1805 Coleman Road, Anniston, Alabama 36207**

**6331 San Ignacio Ave, San Jose, California 95119**

**200 Industrial Drive, Elgin, Oklahoma 73538**

**1100 Bairs Road, York, Pennsylvania 17405**

**15 Windham Blvd, Aiken, South Carolina, 29805**

**34201 Van Dyke Ave, Sterling Heights, Michigan 48312**

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