



PROCEDURE NO: BE-PUR-P7.4.3 Appendix Q
TITLE: Supplier Quality Requirements Appendix Q
REVISION: Rev. D
ISSUE DATE: November 2017

D	<p>4B: removed reference to MPS and include Supplier awareness requirements</p> <p>4G: removed requirement of completing FAIR in Net-Inspect</p> <p>4N: removed requirement of Supplier completing SIC</p> <p>4P: removed reference to MPS</p>		<ul style="list-style-type: none"> - Charles Alvarez - Sarah Hooshvar 	November 2017
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1. SCOPE:

These requirements apply to orders from the B/E Aerospace, Inc. Advanced Lavatories & Cabin Interiors TEKLAM (TEKLAM) family of sites or where specifically required by purchase order. These requirements supplement those already identified in BE-PUR-P7.4.3 and are intended to clarify and enhance those requirements. Any conflicts perceived between the documents should be brought to the immediate attention of TEKLAM Supply Chain and Quality representatives prior to the acceptance of work.

2. NORMATIVE REFERENCES:

ANSI/ASQC Z1.4	American National Standards Institute's Sampling Procedures and Tables for Inspection by Attributes
ATA-300	Industry standard for the packaging of supplies and equipment for air transport



3. TERMS AND DEFINITIONS:

Terms and Definitions:

TEKLAM	B/E Aerospace, Inc. Advanced Lavatories & Cabin Interiors- TEKLAM
TEKLAM Quality	B/E Aerospace, Inc. Advanced Lavatories & Cabin Interiors-TEKLAM Quality Assurance Department
TEKLAM Procurement	B/E Aerospace, Inc. Advanced Lavatories & Cabin Interiors-TEKLAM Procurement Department
CoC	Certificate of Conformance
Commercial off-the-shelf	Products built to industry specifications (e.g. NAS fasteners, AS hoses, etc.)
Counterfeit Parts	A fraudulent part that has been confirmed to be a copy, imitation, or substitute that has been represented, identified, or marked as genuine, and/or altered by a source without legal right with intent to mislead, deceive, or defraud.
EASA	European Aviation Safety Association
FAA	Federal Aviation Administration – USA
FAIR	First Article Inspection Report – sometimes referred to as FAI
NADCAP	National Aerospace and Defense Contractors Accreditation Program
NOE	Notice Of Escapement
PO	Purchase Order
POD	Proof Of Delivery
Repair	Work performed to a product that reduces but does not completely eliminate the nonconformity.
Rework	A process applied to a nonconformance that will completely eliminate it and result in characteristics that conform completely to the drawings, specifications or contractual document.
Supplier	Direct Supplier to TEKLAM
SI	Source Inspection
SRR	Supplier Rejection Report form BE0462
Use-As-Is	A disposition of material with one or more minor nonconformities determined to be usable for its intended purpose in its existing condition.
Commercial off-the-shelf	Products built to industry specifications (e.g. NAS fasteners, AS hoses, etc.)
SIC	Supplier Inspection Criteria – document showing the agreed upon inspection criteria and sampling plan status of product under TEKLAM design control.



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4. REQUIREMENTS

A. Supplier shall have an established quality system compliant or comparable to AS9100: Suppliers with comparable quality systems e.g. ISO/TS 16949 will be required to complete a gap analysis and provide action plans for compliance to any deficiencies as directed by TEKLAM, unless waived in writing by BE-TEKLAM Supplier Quality and Procurement.

B. Manufacturing Process Specifications: TEKLAM manufacturing process specifications, quality requirements, and forms are provided to the Supplier by TEKLAM Procurement.

Supplier shall contact TEKLAM Procurement to obtain other TEKLAM proprietary documents required for fulfillment of Purchase Order (PO) requirements when it is found that those documents are not available.

Supplier's system shall include appropriate controls and records demonstrating that reference document revision changes have been implemented at all affected levels.

All suppliers, sub-tier suppliers, and their employees shall ensure awareness of their contribution to product or service conformity, their contribution to product safety, and the importance of ethical behavior.

C. Planning of Product Realization: Any document revision levels specified on the PO apply to that order. If the revision level of a referenced document is not specified on the PO, the revision level in place at the time the Purchase Order was signed and approved is contractually binding.

If the Supplier is provided any B/E-ALCI or TEKLAM data files i.e., UG .PRT/ IGES/ STEP/ X_T, in order to manufacture or inspect the product, the Supplier is responsible for establishing and implementing a procedure for the control and use of datasets compliant to NADCAP for Measurement and Inspection (M&I) Industry Controlled Other Party (ICOP) approvals. This requirement shall be flowed down to sub-suppliers and is subject to compliance audits at the supplier's premises.

If the supplier does not comply to NADCAP (M&I), a request for exception must be sent in writing to TEKLAM Quality at CNQuality@teklam.com. Only TEKLAM Quality has the authority to approve this exception.

Supplier's system shall include appropriate controls and records demonstrating that reference document revision changes have been implemented at all affected levels.

D. Control of Work Transfers: When building product under TEKLAM purchase order, Supplier shall notify TEKLAM of the intent to transfer work from one facility to another, from your facility to a supplier, from one supplier to another supplier or adding an additional source. Said notification shall be sent to CNQuality@teklam.com and Purchasing@teklam.com using SC-310, Supplier Work Transfer Checklist, a minimum of 60 days before the work transfer takes place. As necessary, TEKLAM reserves the right to impose additional oversight on the sub-contracting process.

E. Control of Design: Supplier shall not make any substitutions to any product(s) or service required by the PO, without prior written approval from TEKLAM Quality.

F. Control of Design and Development Changes: When the PO is for TEKLAM approved product(s) under Supplier's engineering design control or components built to SCD; Supplier shall



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notify TEKLAM by emailing Purchasing@teklam.com, of design changes according to the conditions outlined below:

TEKLAM Quality and/or TEKLAM Procurement reserve the right of disapproval of any changes.

Type I Changes

TYPE I Major Change – A type I change appreciably affects weight, balance, structural strength, reliability, operational characteristics, flammability, or other characteristics affecting the parts airworthiness (Fit, Form, Function and Reliability). Type I changes affect certified end items, by part number change and require FAA engineering approval. These changes may require a Service Bulletin.

Any type I change shall be submitted to TEKLAM for written approval prior to enacting such change. A copy of all approved Waivers/Deviations shall be included with all shipments.

Type II Changes

TYPE IIA Minor Change – A type IIA change has no appreciable effect on weight, balance, structural strength, reliability, operational characteristics, or other characteristics affecting the parts airworthiness. Type IIA changes may be identified, either by part number change or revision and may require a Service Bulletin.

TYPE IIB Clerical Change – Type IIB changes do not require a part number change as they only affect documentation. Type IIB changes are implemented for the correction of errors, omissions, or other clerical changes that do not impact the actual part(s).

Supplier may incorporate Type IIB changes without prior approval. Supplier shall furnish a copy of the product description or waiver prior to delivery of the revised product. A copy of all approved Waivers/Deviations shall be included with all shipments.

G. First Article Inspection (FAI):

The supplier shall perform a full FAI or a partial FAI for affected characteristics, when any of the following occurs:

- A change in the design characteristics affecting fit, form, or function of the part.
- A change in a manufacturing source(s), process(es), inspection method(s), location of manufacture, tooling, or materials that can potentially affect fit, form, or function.
- A lapse in production for two years shall require an update for any characteristics that may be impacted by the inactivity. This lapse is from the completion of last production operation to the actual restart of production.
- At the request of B/E Aerospace.

An AS9102 FAIR is required for product under TEKLAM design approval and product designed by the supplier (excluding commercial off-the-shelf products - see section 2 Terms and Definitions for clarification).

The FAIR, including all supporting certificates, must be submitted a minimum of 5 business days prior to the required ship date. Product shall **not** be released for shipment until after TEKLAM Quality has provided the supplier with written approval and/or waiver of the FAIR.



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All FAIRs are to be delivered to TEKLAM Quality with the parts. Incomplete FAIR's (per the definition of AS9102) will not be accepted without pre-arrangement.

- H. Control of Production and Service Provision:** When manufacturing specifications, inspection plans or sequence of operations are specified by TEKLAM, Supplier's shall assure compliance to such plans, subject to verification by TEKLAM's representatives.
- I. Production Process Verification:** An AS9102 FAIR may be requested when:
- A change in numerical control program or translation to another media that can potentially affect fit, form, or function.
 - A natural or man-made event, which may adversely affect the manufacturing process.
 - An implementation of corrective action required to complete a previous FAI.
 - As deemed necessary by TEKLAM Quality.
- J. Validation of Processes for Production and Service Provision:** For B/E-ALCI published process specifications NADCAP accreditation is not required. If design requirements are Boeing Specifications, certification of special process shall be per D1-4426. If design requirements are not Boeing Specifications, NADCAP certification of process is required. Only TEKLAM Quality has the authority to approve the use of non- NADCAP or non-D1-4426 approved source for a specific process. Approvals must be received in writing through TEKLAM Quality at CNQuality@teklam.com. Products shall not be processed until approval is obtained.

NOTE: List of NADCAP certified sources are available at (www.pri-network.org) and must be adhered to, unless authorized in writing by B/E- ALCI Quality. The requirements of D1-4426 can be found at: <http://active.boeing.com/doingbiz/d14426/index.cfm>.

The supplier is responsible for maintaining records of the process control testing required by B/E Aerospace process specifications. Upon request, the supplier is required to e-mail copies of these records for review within 24 hrs. Process control testing records must be available no later than 24 hrs. after shipment of affected product unless pre-arranged via SRR (see clause P).

- K. Customer Property:** Supplier shall not modify, sell or transfer any TEKLAM furnished equipment, material, or excess inventory to a third party without prior written permission from TEKLAM Quality. Supplier is held responsible for strict control of TEKLAM inventory of furnished equipment.

NOTE: TEKLAM furnished equipment pertains to all tooling (Calibrated and Un-calibrated), and measuring and inspection equipment.

- L. Preservation of Product:** Supplier is responsible to ensure that all items are delivered without damage or deterioration including damage from electrostatic discharge. It is strongly recommended that ATA 300 standards be used. Age sensitive materials or products must be properly identified and labeled to ensure product conformity including necessary environmental conditions. Shipping documentation for age sensitive materials must include date of manufacture and expected product life or expiration date. Age sensitive materials must arrive at B/E with a minimum 75% shelf life remaining unless authorized by B/E in writing. Note: please see the applicable appendix for any additional requirements

NOTE: The use of newspaper and plastic or foam "peanuts" as packaging material is prohibited.



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- M. Control of Monitoring and Measuring Equipment:** All calibrated equipment shall be traceable to the National Institute of Standards Technology (NIST) or International equivalent. Where no such standard exists, the basis for calibration must be documented.

Calibration must at a minimum be re-accomplished annually unless otherwise specified in writing by the manufacturer or the calibration service provider.

- N. Monitoring and Measurement of Product:** Product shall only be conformed to Released Drawings.

If the Supplier converts or translates any TEKLAM drawing dataset (example UG IDGS/IGES files) in order to manufacture or inspect the product, the Supplier is responsible for establishing and implementing a plan for the validation of the conversion or translation. Suppliers who receive reduced content drawings with an associated 3D model, must be able to extract information from the 3D model sufficient for manufacturing and inspection in addition to the 2D drawing. Also, the supplier who utilizes the dataset needs to conform to Section C. Planning of Product Realization of this document. Compliance to this requirement is subject to surveillance audits upon the request of TEKLAM.

In cases of conflict between drawing and model, the drawing takes precedence.

- O. Statistical (reduced) Sampling:** Supplier shall obtain written TEKLAM Supplier Quality approval prior to implementing statistical sampling methods. Without an approved Sampling Plan, supplier is required to perform 100% inspection on all Characteristics designated by the TEKLAM engineering drawing.

Supplier's desiring to achieve an approved statistical sampling plan should submit their internal sampling plan to CNQuality@teklam.com. Upon agreement, said plan will be documented via Supplier Inspection Criteria (SIC) document. In general the supplier should target a Cpk of $\geq 1.33^*$ prior to submitting a request for approval. Data collected in support of a request for approval is subject to review by TEKLAM Supplier Quality and shall be submitted with the request.

*Smaller sample sizes will require the achievement of higher Cpk values before an approval will be granted.

- P. Control of Nonconforming Product:** Related to section 11.3 of the main document, when manufacturing to TEKLAM design authority and/or B/E ALCI approval, Supplier shall not issue Use-As-Is dispositions or perform any repairs or repair methods to nonconforming product, unless such repairs are specifically authorized by TEKLAM Quality through the Supplier Rejection Report (SRR) process outlined below:

- Quarantine nonconforming product (Given the supplier has determined that "rework" and/or "scrap and remake" dispositions are not possible)
- Obtain an SRR (form no FS0462.) from TEKLAM Quality or Procurement.
- Complete the SRR including all necessary detail, photographs, drawing mark-ups, etc. The form MUST indicate which site address the product is shipping to.
- Send the SRR and supporting documents to CNQuality@teklam.com and Purchasing@teklam.com.
- The SRR response will be e-mailed by TEKLAM Quality to the supplier in the form of a dispositioned nonconformance report (NCR)



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- Perform any operations required by the SRR response and retain the document as part of the build record
- Include a copy of the SRR with the affected product for shipment. SRR affected products shall be segregated from the remaining quantity of products delivered. Affected certificates of conformance shall prominently reference the TEKLAM NCR no. (provided by TEKLAM prior to shipment)

Prior to acceptance of work, the Supplier shall determine their ability to meet all PO requirements including the manufacture and inspection of all specified design characteristics. Any nonconformance identified during this review should be resolved by engineering updates, or controlled by use of the above SRR process.

TEKLAM may require a formal corrective action as a result of the SRR process. This includes:

- Failure of the supplier to prevent repetitive SRR submissions
- Shipment of nonconforming product prior to the receipt of the SRR response
- Impact to schedule due to SRR submittal (SRR's shall be submitted a minimum of 3 days prior to the required ship date)

Note: On a case-by-case basis, supplier may be directed to ship product once an NCR has been generated, to better evaluate the parts under review.

Q. Notification of Delivered Nonconforming Product: In accordance with section 11.3.2, NOE emails are to be sent to CNQuality@teklam.com and Purchasing@teklam.com.

R. Responsibility for Conformance: Neither audit, surveillance, inspection and/or tests made by TEKLAM or TEKLAM's representatives at either the Supplier's or TEKLAM's facility, shall relieve Supplier of their primary responsibility to furnish product(s) which conforms to all requirements of the PO.

S. Corrective Action Request (CAR): Upon request, the supplier is responsible for the completion of TEKLAM online corrective action form. Completion of the corrective action includes the submittal of objective evidence for each action taken in the corrective action process. Initial responses to CAR's are required within 48 hours of the issue date, with Containment, Root Cause and Corrective Actions due within the following 14 days unless otherwise agreed upon. TEKLAM reserves the right to withhold acceptance of shipments until the Seller corrective action is submitted to TEKLAM satisfaction.

T. Qualification and Test Component Requirements: Suppliers shall perform 100% dimensional inspection of all products shipped to TEKLAM. Supporting documentation shall include verification of traceability for all materials and special processes.

Any deviations from drawing requirements shall be documented on a Supplier Rejection Report- See section 16.

U. Documentation: Final Inspection records shall be maintained in accordance with the record retention requirements contained herein and shall be provided within 24 hours upon request.

Supplier is responsible for ensuring that all shipments are accompanied by the appropriate documentation as specified in Table 1 below unless otherwise approved in writing by TEKLAM Quality.



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V. Delivery, Direct Shipment and Drop shipment:

Delivery:

3 days prior promise to date and no later than promise date (+3/0).

Direct Shipment and Drop shipment:

Suppliers are not permitted to perform direct and/or drop shipments without prior written authorization. Please contact Procurement and CNQuality@teklam.com for process steps, documentation and inspection requirements, POD expectations prior to accepting the PO, etc.

W. Calibration Providers: when calibration service is required, calibration activities must be against measurement standards traceable to international or national measurement standards; when no such standards exist, the basis used for calibration or verification shall be documented.

X. Counterfeit Parts:

TEKLAM requires procurement from the OEM/OCM or their authorized distributors. If an occurrence arises where that is not possible, Teklam approval is required and a risk mitigation plan will be required which details the inspections and tests to be performed to authenticate the product, including acceptance criteria.

Supplier shall have a plan and control process in place to prevent, detect and control suspect counterfeit or counterfeit parts usage and inclusion in TEKLAM products.

Supplier shall provide written notification to Teklam if supplier becomes aware or suspects that it has furnished Counterfeit Goods within **24 hours**. Supplier shall provide to Teklam, upon request, the supply chain traceability to an Original Manufacturer or authorized distributor chain that identifies the name and location of all the supply chain intermediaries from the part manufacturer to the direct source of the product.

Supplier shall have a documented process in place to ensure Counterfeit goods are contained and **do not reenter the supplier chain**.

If counterfeit goods are discovered by Teklam counterfeit goods shall be contained and dispositioned in accordance with QA-208 Control of Nonconforming Product. Supplier is responsible for all the expenses of counterfeit parts.

The requirements above must be flowed down to all sub-tier suppliers.

Y. Suppliers need to validate if test report accuracy periodically when the acceptance of raw material based on data on test report .



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TABLE 1: SHIPMENT DOCUMENTATION REQUIREMENTS BY PRODUCT TYPE

REQUIREMENT	Built to TEKLAM Design	Built to Supplier Design	Commercial Off the Shelf	DETAIL
AS9102 FAIR (First shipment)	X	X		See Appendix Q Clause I
Certificate of Conformance	X*	X	X	Commercial Off the Shelf CoC's must trace back to and include CoC's from the original manufacturer, See Section 11.2 of BE-PUR-P7.4.3 Main Document.
Material Certifications	X			
Material Test Reports	X			As Applicable
Outside Processing Certifications	X			See Appendix Q Clause J
SRR, as applicable	X	X		As Applicable. See Appendix Q Clause P
Certified true copy of the Regulatory Airworthiness Approval Document	X	X	X	As Applicable
Acceptance Test reports	X	X	X	As Applicable
Approved Waivers	X	X	X	As Applicable

*When building assemblies to TEKLAM Design, the CoC must contain record of the revision level of detail components and a listing of processes performed internally applicable to the detail components. Material and outside processing certification are also required applicable to the detail components.