

Amphenol Borisch Technologies

Supplier Quality Manual

SUPPLIER QUALITY MANUAL

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Supplier Quality Manual Purpose & Commitment Statement:

This manual, and the electronic version posted at the ABT Supplier website, have been developed to communicate Amphenol Borisch Technologies (ABT) quality requirements to all external suppliers of production goods and services.

ABT recognizes the value of our supply chain partners and will strive for consistency and continuous improvement through effective communications, documented quality expectations, and initiatives that support long-term customer loyalty and satisfaction. Our continued reputation as a flexible, responsive, creative leader is dependent on continued supply chain development and strength.

We look forward to working with you and welcome any questions or comments regarding this document and the flow-down methodology. Thank you.



Trisha Hammer
Director of Supply Chain



Brad Twesten
Director of Quality

ABT Mission:

To ensure the success of our customers and provide our employees a secure, challenging, growth-oriented experience while maintaining the highest ethical standards. We will bless investors with an excellent return on investment through strategic product development and innovative solutions.

ABT Quality Policy:

PURPOSE: Each team member recognizes how they support our team, our system and our customers.

SUPPORT: Each team member is provided a safe environment, proper tools, adequate resources and effective training.

EMPOWERMENT: Each team member is expected to rely on critical thinking and creative problem solving to meet our customers' requirements; while being inspired agents of positive change.

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1. GENERAL REQUIREMENTS

- 1.1 This document establishes the minimum quality system requirements for suppliers to ensure that purchased products, materials and services meet the required quality level for Amphenol Borisch Technologies. This business unit is comprised of businesses within the Grand Rapids, MI campus as well as Mesa, AZ, London, Ontario, Canada and Nogales, Sonora, MX. Amphenol Borisch Technologies will be referred to as "ABT" throughout the remainder of this document.
- 1.2 When ABT purchase order requirements differ from those defined herein, the purchase order requirements shall prevail. The order of precedence shall be:
- ABT Purchase order, ABT Terms & Conditions (PRF-002), & ABT Quality Clauses (PRF-001)
 - Applicable purchaser's drawing;
 - Specifications referenced on drawings;
 - This document;
 - Specifications referenced in this document.

The requirements of this document are generic and are intended to be applicable to all organizations doing business with ABT operations, regardless of the type, size, processes, services, or product provided

- 1.3 **Exclusions/Exceptions.** Exclusions or exceptions to these requirements shall be submitted in writing and accepted in writing by the ABT Supply Chain and Supplier Quality organizations. Verbal authorizations are not permitted. Requirements that cannot be applied due to the nature of an organization and its products or services may be considered for exclusion, providing they do not affect the organization's ability to provide product that meets ABT and regulatory requirements.
- 1.4 **Timely Notification of Changes** - The Supplier shall notify the ABT Buyer of changes that significantly impact operations of their facility. Including but not limited to:
- Changes in ownership (including mergers & acquisitions), upper management, & organization restructuring.
 - Changes in the business name, location (including billing/payment addresses), or processing capabilities affecting ABT products.
 - Other pertinent changes that could hinder the ability to conduct business as usual such as financial status (bankruptcy), revocation/suspension of quality system certification, labor strike, power outages, & natural disasters, etc.

The Supplier will advise ABT within a reasonable timeframe of these changes so as to assure that products and services are unaffected.

- 1.5 **Confidentiality** - The supplier shall treat all product(s), material(s) and specification(s) received from ABT as confidential in nature. Depending on the type of product or process, suppliers may be required to sign a Nondisclosure Agreement prior to doing business with ABT. Additionally, these products, commodities/technical data, including e-mail and attachments, are controlled under the United States Export Administration Regulations (EAR) and the International Traffic in Arms Regulations (ITAR). This information may not be exported to a foreign person, either in the U.S. or abroad, without the proper authorization of the U.S. Department of State or the U.S. Department of Commerce. Prior to distributing, please contact Amphenol Borisch Technologies to obtain related information for commodity classification and jurisdiction as well as end users
- 1.6 **Right of Entry** (Ref. ABT Quality Clauses, PRF-001, CLAUSE 3 & 10) - ABT, our customers, and regulatory authorities reserve the right to perform audits &/or inspections at the Supplier &/or supplier's subcontractor's facility, when necessary, to determine and verify the quality of contracted work, records, and product. All supplier material, records, routers, inspection and test facilities shall

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be subject to review. Suppliers shall provide equipment, facility, and necessary personnel for all on-site verifications of contract/purchase order compliance.

2 COUNTERFEIT ELECTRONIC PARTS RISK MITIGATION.

2.1 **Material Origin.** The seller shall ensure that only new and authentic materials are used in products delivered to ABT. The Seller may only purchase parts directly from Original Component Manufacturers (OCMs), OCM franchised distributors, or authorized aftermarket manufacturers. Use of product that was not provided by these sources is not authorized unless first approved, in writing by the ABT Buyer. The Seller must present compelling support for its request (e.g., OCM documentation that authenticates traceability of the parts to the OCM) and include in its request all actions to ensure the parts thus procured are authentic/conforming parts.

2.2 **Independent Distributors/Brokers (ID/B).** The Seller shall establish and implement test and inspection activities necessary to assure the authenticity of purchased product, including: Traceability, documentation verification, and Visual examination [ref AS5553 Appendix E for examples and descriptions of test and inspection activities see [www.borisch.com/supplier, SQA-002,SQA-003](http://www.borisch.com/supplier_SQA-002,SQA-003)].

2.2.1 Tests and inspections shall be performed in accordance with clearly delineated accept/reject criteria provided or approved by ABT. The Seller shall prepare and provide to the ABT records evidencing tests and inspections performed and conformance of the product to specified acceptance criteria.

2.2.2 Tests and inspections shall be performed by persons that have been trained and qualified concerning types and means of electronic parts counterfeiting and how to conduct effective product authentication.

2.2.3 ABT may require additional testing per internal &/or customer request. This may include 3rd party testing

2.3 **Counterfeit product replacement, impound, & reporting.** If counterfeit parts are furnished by the Seller, such items shall be impounded. The Seller shall promptly replace such items with items acceptable to ABT and the Seller may be liable for all costs relating to impoundment, removal, and replacement. ABT may turn such items over to US Governmental authorities (Office of Inspector General, Defense Criminal Investigative Service, Federal Bureau of investigation, etc.) for investigation and reserves the right to withhold payment for the items pending the results of the investigation. Results of the investigation may be reported to GIDEP and ERAI as required by AS5553. [see [www.borisch.com/supplier, SQA-002,SQA-003](http://www.borisch.com/supplier_SQA-002,SQA-003)].

3 SPECIFICATIONS

3.1 Supplier shall reference the ABT Supplier Website: www.borisch.com/supplier for a listing of applicable internal and external specifications, applicable Quality Clauses, Terms & Conditions, forms, and pertinent documents.

3.2 Drawings and other engineering documents may be provided by the Purchasing contact (Buyer) when the supplier is asked to bid, quote, & provide product to ABT.

4 SUPPLIER APPROVAL REQUIREMENTS (Ref. ABT Quality Clauses (PRF-001), Clause 1)

4.1 **Supplier Quality Management System** - All suppliers providing product, materials, and services are responsible for maintaining compliance to the quality system requirements defined below in Table A. Suppliers shall be certified/registered and receive routine system evaluations by an independent certification body.

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TABLE A

Supplier Type	Certification Required
Component supplier or outside processor	AS/EN/JISQ 9100C or ISO9001
Special process supplier (i.e. coatings, castings, heat treat, machining, welding, & boards)	AS/EN/JISQ 9100 or ISO9001 or NADCAP AC7004. NOTE: May also require on-site audit and qualification.
Raw material & process material supplier	ISO 9001 or an industry equivalent standard
Distributor	AS/EN/JISQ 9120, ISO 9001, or an industry equivalent standard
Calibration/Laboratory / Test Facility	ISO/IEC 17025, A2LA Accreditation, AC7101 (NADCAP)
Tooling Suppliers	AS9003 - Inspection and Test Quality System, ISO 9001, or an industry equivalent standard
Non-Product Related Services	ISO 9001 or an industry equivalent standard
Brokers / Independent Distributors	AS6081, ISO 9001, or an industry equivalent standard. Membership in ERAI and IDEA is preferred.

Suppliers are required to provide a certificate of registration from an ANAB, IAF, or similarly accredited Certification Registration Body. Suppliers are required to notify ABT Purchasing of any changes regarding quality system certification(s). This includes additional certifications awarded and suspension or de-certification. To submit Quality Certifications or provide notification of changes, e-mail all documentation to your Purchasing contact (Buyer)

- 4.2 **Exceptions** - In certain instances the requirement for supplier certification may be waived dependent on performance history, product or process complexity, organizational make-up, financial status, etc... In these instances, ABT Supply Chain and Supplier Quality must approve the supplier. Note: These suppliers may be subject to periodic compliance audits by ABT.
- 4.3 **Conflict Minerals** – ABT is committed to DRC conflict-free sourcing (Ref. ABT Conflict Minerals Policy Statement (SQA-005) posted at www.borisch.com/supplier). Suppliers are required to comply with SEC Dodd-Frank Wall Street Reform and Consumer Protection Act, Section 1502. Minerals covered include tin, tantalum, tungsten, and gold used in products &/or production processes. ABT has developed the Supplier Survey for Conflict Minerals Form (PRF-024) as a baseline for supplier approval and will perform periodic audits to assure supply chain compliance to this requirement.
- 4.4 **Supplier Performance Reviews** – Active/Approved suppliers of critical product, materials, and services that directly influence the quality of ABT manufactured products are subject to periodic performance reviews. Supplier Report Cards will be sent detailing the following:
- **Quality**. Product Acceptance Rating (PAR) = Total Parts Accepted/Total Parts Received. Lot Acceptance Rating (LAR) = Total Lots received without rejects/Total Lots received). Total Quality Rating (TQR) = PAR + LAR/2
 - **Delivery**. Supplier Delivery Rating (SDR = Total shipments "on time"/# of receipts). See Table B for details on delivery point system.

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TABLE B:

0-7 calendar days early	Acceptable delivery window
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- Total Supplier Rating (TSR) = TQR (60%) + SDR (40%). See Table C for performance expectations.

TABLE C:

Supplier Performance	Supplier Rating Levels
Green	90-100%
Yellow	80-89.9%
Unsatisfactory	<79.9%

Organizations with less than marginal performance will be required to take corrective and preventive action.

4.5 Probation/Disqualification - Suppliers may be placed on probation or disqualified at any time. Typical reasons include:

- 4.5.1 Less than marginal performance (delivery or quality)
- 4.5.2 Failure to adequately address performance issues in a timely manner
- 4.5.3 Suspect Counterfeit products supplied to ABT or reported to GIDEP, ERAI, or other agencies.
- 4.5.4 Suspect Conflict Minerals supplied to ABT.
- 4.5.5 Business/Financial stability.

4.6 Additional Documentation Requirements - Suppliers are also required to submit all the following (as requested): ABT Supplier Self-Survey (QAF-002), ITAR Acknowledgment Form (ITC-003), Non-Disclosure Agreement (ITC-004), Business Classification Form (PRF-023), and Supplier Survey for Conflict Minerals Form (PRF-024), Conflict Minerals Policy Statement (SQA-005) and Counterfeit Electronics Statement (SQA-002) and EICC Conflict Minerals Declaration dependent on products/services provided. Links to these documents are located at the ABT supplier website: www.borisch.com/supplier

5 DRAWING AND SPECIFICATION CONTROL

- 5.1 It is the supplier's responsibility to incorporate the latest engineering specifications and drawings, as detailed in the ABT purchase order. Unless otherwise indicated, the supplier shall work to the latest revision of all specifications referenced, including end customer specifications.
- 5.2 The appropriate revision level of the ABT technical specification(s) stipulated in the ABT purchase order shall be incorporated within 10 business days, or as otherwise specified, from the "Issued" date. All product and material arriving at ABT immediately following incorporation of the specification and the supplier/ ABT agreed upon effective date shall be configured to the appropriate revision level. Unique, temporary, packaging, labeling, &/or documentation may be specified to facilitate

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identification.

5.3 Contact the Buyer listed on the ABT purchase order to obtain a copy of a specification/drawing.

6 ETHICS

6.1 ABT is committed to dealing fairly with its suppliers. ABT will emphasize competition, without discrimination or deception, in a manner consistent with long-lasting relationships. ABT will purchase all equipment, supplies, and services based on merit, quality, service, and value. ABT suppliers and subcontractors will be treated with fairness and integrity.

6.2 Suppliers and subcontractors shall adhere to the same standards of behavior and excellence required of every ABT employee. They shall not act on behalf of the Company in any manner that is inconsistent with the ABT statement above or any applicable laws or regulations.

7 CONTROL OF PURCHASES

7.1 **Customer-Specific Flow-down** – When applicable ABT will flow-down customer specific requirements to affected suppliers. These requirements may also be detailed in the purchase order.

7.2 **Sub-Supplier Flow-down of Requirements** – The supplier shall have a process in place to flow-down ABT and end-user requirements to sub-tier suppliers. When applicable, the supplier shall ensure that any ABT requirements that are associated with items that are purchased or outside processed in order to meet an ABT purchase order are flowed down to the applicable sub-tier suppliers.

7.3 **Special Processes** - When special processes are outsourced, the supplier may be required to utilize ABT &/or end customer-designated Approved Suppliers. If the purchase order does not specify the sub-tier supplier to be used, ABT Purchasing shall be contacted to obtain a list of Approved sources, including end customer-Approved sources.

Note: Special Processes are those processes and services that have the potential to directly influence the quality of products manufactured by ABT and whose conformance to contract requirements cannot be fully determined by receiving inspection. These processes may require a demonstration of operator or equipment capability or proficiency, and require special controls for monitoring, per specifications.

7.4 **Control of Confidential Information** – The supplier shall establish nondisclosure agreements with subcontractors that receive or process ABT product, blueprints or specifications, confidential proprietary technical data, or other ABT intellectual property prior to doing business with them

8 QUALITY ASSURANCE PLANNING/RISK MITIGATION

8.1 **Quality Planning** – For new projects &/or programs with ABT, the supplier shall engage in effective quality planning that includes defect prevention and continuous improvement, i.e. contract review, feasibility review, resource planning, DFMEA/PFMEA, change management, cost reduction, etc. Project/program management timelines shall be used to track critical project/program events, key dates, and assigned responsibilities.

8.2 **Key Product and Process Characteristics** – A key characteristic is an attribute or output of a product or manufacturing process that has a significant influence on product fit, performance, service life, or manufacturability. At a minimum, the supplier shall identify the key characteristics for those products / processes they supply &/or perform. These key characteristics shall be flowed down to sub-tier supplier(s) and identified in the control plan.

8.3 **Control Plans** – A detailed control plan (or equivalent method) shall be documented to record:

- The inspection plan for a part to ensure that all engineering drawing characteristics and notes are subject to inspection or control

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- Controls used within a process to ensure process parameters and characteristics are maintained within appropriate limits.
- The ongoing inspection frequency (independent of the FAI) for each characteristic, for example 100% inspection, sampling plan, product of the die, etc.
- Once approved by ABT, revisions or variations to Control Plans shall not occur unless ABT has approved the revisions in writing. Refer to 8.10.

8.4 **Sampling** – Ongoing product acceptance inspection shall be performed on specified characteristics per an agreed upon inspection plan with ABT. This plan shall be defined in the detailed control plan. When using sampling plans:

- Inspection personnel shall be trained in the application of sampling methods,
- All plans shall have a “zero acceptance” number. Must be an industry Approved C=0 plan (i.e. ANSI Z1.4) or an alternate ABT-approved plan
- The lot shall be rejected if a nonconformance is discovered in the sample. If a nonconformance is found in the sample, inspect all pieces in the lot for the noted defect and remove all from the lot (inspect back to last “good” result if applicable).
- Sampling inspection is not permitted for characteristics that have been repaired or reworked. 100% inspection required unless otherwise agreed in writing.

8.5 **First Article Inspection Requirements (Ref. ABT Quality Clauses (PRF-001), Clause 5)** – If specified on the ABT purchase order, the supplier shall submit a first article sample(s) with report for first build, revisions (including variance from the “no change clause”), and after a two (2) year lapse in production. Reference SQA-006 for guidance located at www.borisch.com/suppliers.

- 8.5.1 AS9102 First Article Inspection (FAI) is the required format unless agreed to in writing by the purchasing facility.
- 8.5.2 The supplier shall furnish a first article sample(s) produced using the material, tooling, processes, and planning to be used for subsequent deliveries. First article samples(s) shall be identified and submitted with a FAI report.
- 8.5.3 The FAI report shall include the ABT provided drawing with numbered characteristics corresponding to an itemized layout reflecting actual readings, and shall show compliance with all drawing characteristics, blueprint notes, and specifications.
- 8.5.4 A photograph of the required part/item marking shall be included in the package.
- 8.5.5 The method of measurement for dimensional characteristics shall be included with gauge identity.
- 8.5.6 The method for electrical, material, performance, or mechanical testing shall be included with test methodology and equipment identity. A photograph of the gauge(s), fixtures, and testing equipment used may be requested.
- 8.5.7 For subsequent revisions to the drawing, only those characteristics, notes, or specifications affected by the revision are required to be reported. A copy of the Certificate of Compliance (CofC) is required for an initial build first article, and a first article submitted after a two-year lapse in production.

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9 PROCESS CONTROL, INSPECTION, & TEST

- 9.1 **Product or Service Acceptance** - Product shall be inspected per the Control Plan &/or specification. Records that the product meets the defined requirements shall be maintained including the identity of the equipment or gage that was used to inspect each characteristic, operator/inspector, day/time, etc...as necessary to evidence compliance with the Control Plan.
- 9.2 **Tool, Gage, & Measuring Equipment (Ref. ABT Quality Clauses (PRF-001), Clause 8)** – Supplier shall maintain a system ensuring that tools, gages, measuring, & test equipment used for product acceptance are maintained in accordance with **ISO 17025** or equivalent.
- 9.3 **Electro Static Discharge (ESD) Controls & Monitoring** – The supplier must maintain a policy in accordance with International Electromechanical Commission (IEC) TR61340-5-1 & TR 61340-5-2 standards for ESD. This requirement applies only to those suppliers providing electrostatic discharge sensitive devices or testing/processing services of same for ABT.
- 9.4 **Control of ABT Owned / Supplied Equipment and Tooling** – ABT owned/supplied equipment and tooling includes gages, test equipment and tooling supplied by ABT for use in production or maintenance or made by the Supplier and paid for by ABT.

Supplier shall:

- Use ABT Supplied Gages, Special Test Equipment, and Special Tooling on ABT purchase orders only and for only those purchase orders for which the items were supplied.
 - Identify all tools and test equipment, unless size/use prohibits, with tag(s) ensuring legibility and permanency, stating "Property of Amphenol Borisch Technologies" upon receipt or completion.
 - Obtain written approval from ABT prior to making modifications or changes to gages, test equipment or tooling.
 - Maintain, protect and preserve tooling, test equipment, and gages.
 - Equipment and Tooling shall be maintained for 3 years after the ABT purchase order is complete unless ABT directs otherwise.
 - Contact the ABT Buyer before the transfer of Equipment and Tooling within supplier facilities (address location) or to other suppliers.
 - Report supplied Equipment or Tooling that become excess to the needs of the purchase order.
 - Obtain written approval from ABT before the disposal or destruction of supplied equipment or tooling.
 - Report all cases of loss, damage or destruction of ABT's property in supplier possession or control or property located at Supplier's second-tier suppliers to the ABT Buyer within 24 hours as such facts become known.
 - Maintain a record of all ABT supplied equipment or tooling. The list shall be traceable to the ABT tooling purchase order and job number.
- 9.5 **Control of Software** – The supplier shall have a process in place to control software that is used in design, manufacture, inspection, test, or calibration and has a direct effect on delivered product.
- 9.6 The software control process shall include, at a minimum:
- A method to verify and validate the software with documented test procedures;
 - Objective evidence that the software performs the required function;
 - A method to maintain version control;
 - A change control process that includes re-verification and re-validation to ensure the modified software still meets requirements.

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- Limited access to software masters and edit functions;
- A method to archive, backup and recover software programs.

9.7 **Serialization** – If required by the product drawing, specification, or Purchase Order, product shall be serialized with unique numbers/series and referenced on the (Certificate of Conformance) C of C form.

9.8 **Product Traceability/Lot Control (Ref. ABT Quality Clauses (PRF-001), Clause 14)** - Traceability shall be maintained from receipt of raw material through finished product. Records and material shall be identified by lot number, material type, specification and applicable revision identifier or date of issue, heat number, serial number, etc., as required to maintain traceability. Records shall be maintained at the supplier's facility or a storage facility. Records shall be available to ABT upon request within two business days.

9.9 **Marking Requirements** –All marking materials and methods shall be approved by ABT. Once Approved, changes to marking material source &/or method require written approval of ABT.

9.10 **Change Management (Ref. ABT Quality Clauses (PRF-001), Clause 11)** - Applicable to the product being supplied, the supplier shall notify ABT Purchasing, in writing, prior to making a change in:

- Process materials critical to the electrical and physical characteristics of the product;
- Design. Including internal components affecting performance;
- Manufacturing process that may affect the electrical or physical characteristics of the product;
- Manufacturing location (internal/external), subcontractors, or significant process flow of the product;
- Approved Control Plan, product verification sampling plan, &/or test methods.

10 CERTIFICATES (Ref. ABT Quality Clauses (PRF-001), Clause 2 & 13)

10.1 All product, material, services and processes supplied or provided to ABT shall be accompanied by a Certificate of Conformance (C of C), Certificate of Analysis (C of A), Certificate of Test, or Certificate of Calibration as specified on the Purchase Order. The supplier shall be responsible for maintaining and supplying this certification as objective evidence of meeting purchase order and drawing/specification requirements. The supplier shall provide a certificate for each lot (shipment) of product supplied. Failure to provide proper certification may result in product rejection or payment being withheld until certification has been received.

10.2 **Shelf Life (Ref. ABT Quality Clauses (PRF-001), Clause 12)** - For limited shelf life (age or environmentally sensitive materials) items, the certificate shall contain the specification number, if applicable, lot or batch number of the material, date of manufacture &/or cure date (month/year or quarter/year), the shelf life expiration date, and any environmental storage conditions that apply. Materials shipped with less than 80% of the required remaining shelf life to ABT facilities must be approved in writing or stipulated as acceptable in the Purchase Order.

10.3 **Safety Data Sheets** – SDS are required for raw materials.

10.4 **Calibration** – For suppliers of calibration services, the supplier shall provide a certificate that states the accuracy of the subject item(s), the source performing the calibration, traceability of calibration to NIST, date of last calibration, test or report number(s), calibration method (ANSI, federal standard, etc.) and the environmental conditions during the calibration actions. In addition, documentation must show the "as received" "as returned" condition of subject devices prior to adjustment

10.5 **Distributors** – All material/product supplied by a distributor requires a copy of the sources certification to be supplied with each lot/shipment. If additional verification testing is performed by

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the distributor, copies of both certifications are required and shall accompany each lot/shipment.

- 10.6 **Catalog Items** - For standard "off-the-shelf" (catalog) items, a packing list is acceptable provided a signed statement is included. A reference to the ABT purchase order number, manufacturer name and product number (no revision level required) is required for each item listed.
- 10.7 **Qualified Products List** - For Qualified Products List (QPL) items, the supplier shall state the manufacturer of items ordered and certify that the manufacturer is on the U.S. Government Qualified Products List.

***Note: NAFTA Certs required.**

11 PREPARATION FOR SHIPMENT

- 11.1 **Source Inspection and Surveillance (Ref. ABT Quality Clauses (PRF-001), Clause 4)** - When specified on the ABT purchase order, ABT source inspection and system surveillance of procedures, facilities, and products covered by the purchase order are mandatory prior to shipment of purchased items. Use of supplier's equipment, gages and measuring and testing devices shall be made available at the supplier's facility for the ABT designated Source Inspectors, when required, to determine conformance to contractual requirements. The supplier's personnel shall be made available for operation of such devices and for verification of their accuracy and condition. Product acceptance does not imply supplier's product will not be rejected upon receipt at ABT, should a deviation be found.
- 11.2 **Government Source Quality Assurance Inspection (Ref. ABT Quality Clauses (PRF-001), Clause 9)** - When specified on the ABT purchase order, Government Source Quality Assurance Inspection is required prior to shipment from the supplier's plant. Upon receipt of the purchase order or a letter of delegation, the supplier shall promptly furnish a copy to the Government Inspector who services the supplier's plant. In the event that delivery of the items will be delayed due to inspection requirements, the supplier shall contact the ABT buyer immediately. Evidence of the inspection shall be indicated on all shipping documents.
- 11.3 **Packaging & Crating** - Material packaging shall be properly identified to include the name of the manufacturer; product nomenclature, commercial &/or ABT specification/product designation identification; lot or batch designation number; gross and tare or net weight, and shelf life expiration date. In situations where returnable packaging, trays, or carts are in place, the supplier shall label containers as defined by the procuring ABT facility. When stipulated in the ABT purchase order, all wood products used in packaging, crating and pallets shall be in compliance with the International Standard for Phytosanitary Measure (ISPM15) guide for regulatory wood and wood packaging in international trade. All products shall be labeled with the Applicable Country of Origin.
- 11.4 **Delivery** - The supplier shall ensure that the accompanying shipping documents are protected from damage, i.e. enclosed in a weather-protected envelope and marked "Shipping Documents" or similarly.
- 11.5 **Contractually Provided Technical Data** - Suppliers to ABT shall be responsible for obtaining all necessary International Traffic in Arms Regulations (ITAR) or Export Administration Regulations (EAR) export approvals and for maintaining compliance with all export control requirements. If it is not clear whether this provision applies, contact the ABT Purchasing representative. All ABT documents and/or technical data, electronic or otherwise, furnished by ABT as a provision of the purchase order shall be returned to the appropriate ABT facility upon completion or termination of the purchase order, or at the purchaser's discretion.

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12 RECORDS AND RETENTION (Ref. ABT Quality Clauses (PRF-001), Clause 15)

- 12.1 Part, material, product and service related tooling records, purchase orders and amendments are to be maintained for the length of time that the contract is active plus one calendar year. Product related manufacturing and inspection records are required to be maintained for 10 years unless otherwise specified in the contract. Records shall be maintained in an appropriate environment and shall be available upon request within two business days.
- 12.2 Quality system administrative records, such as internal audits, corrective actions, and nonconformances, shall be retained for seven years unless otherwise stated in the contract

13 NONCONFORMING MATERIAL

- 13.1 **Material Controls** - Material that departs from drawing, specification or maintenance requirements shall be properly identified, segregated and controlled to prevent unauthorized use or delivery to ABT or other designated destinations.
- 13.2 **Material Review Authority** - The Supplier shall not use dispositions of 'use as is' or 'repair' without written approval by ABT's Product Quality organization. Action shall not be taken on any nonconformance which could affect safety of personnel; adversely affect performance, durability, interchangeability or reliability, materially affect weight; or otherwise result in failure of the end article to perform its intended function. All doubtful cases shall be submitted to ABT for review. ABT reserves the right to reject the decision of the Supplier's Material Review Board.
- 13.3 **Concessions** - The Supplier may request concession consideration for nonconforming material that cannot be reworked to fully conform to drawing or purchase order requirements. Suppliers shall obtain disposition from the applicable ABT location Product Quality representative. If unsure who the applicable quality representative is, the supplier should submit the request to Purchasing. The request shall be complete and concise and accompanied with supporting information such as: dimension(s) affected, drawing location(s), quantity affected, photographs, sketches, chemistry or physical analysis for material deviations, **PDV as documented approval** etc.
- 13.4 **Escapes to ABT** - The supplier shall provide prompt notification to both the ABT Buyer and the Supplier Quality Supervisor if nonconforming product or process escapes are identified after shipment to ABT has taken place regardless of product location (i.e., the supplier's facility, at ABT, in transit, at ABT customer, etc...) to ensure nonconforming product is contained. The notification shall include part numbers, traceability (lot, serial, and manufacturer numbers), ship dates, quantities, and a description of the nonconformance. This applies to any nonconformance that departs from the drawing, specifications, purchase order requirements, etc. Once the initial notification is complete, the supplier shall initiate the corrective action process per Section 13- Root Cause Analysis/Corrective Action.
- 13.5 **Containment of Nonconforming Material** - When a nonconformance is discovered or the Supplier is notified of a discrepancy, the Supplier shall take immediate action to determine if the condition exists on any other work in process, in stock at the Supplier's facility, or in prior shipments. The supplier shall place their operations on immediate containment to protect ABT from receiving additional defective material. Product identified passed through source inspection shall be re-inspected prior to shipment. Incidents of defective material may also require supplier containment at the ABT facility. In such cases, the supplier shall be responsible for performing the sort inspection on-site (if possible). Some supplier related problems may require the use of a 3rd party source inspection at the cost of the supplier to ensure containment of the problem.
- 13.6 The Supplier shall not wait for the discrepant product to be returned to begin an investigation.

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13.7 **Return Purchase Orders for Replacement, Reworked or Repaired Product** - Product that is supplied to ABT on a return purchase order shall either fully comply with all drawing requirements or have ABT MRB approval through a signed Return Material Authorization for any repairs. Product that cannot be reworked to full drawing compliance, or where repair authorization will not be granted, shall be dispositioned as defined by ABT. Product that is scrapped at the supplier's facility shall be rendered unusable/mutilated prior to disposal.

13.8 **Return of ABT Consigned Material** - ABT may supply material or component product for inclusion in product manufacturing. If the material or component product that were supplied by ABT are discrepant, or in excess quantity, they shall be returned by the Supplier. The Supplier shall not return component product without authorization from the ABT Buyer. The Supplier shall clearly identify the reason for the return on the packing slip.

13.9 **Cost Recovery** – ABT reserves the right to recover all incurred costs related to nonconforming product produced from the responsible supplier(s).

14 ROOT CAUSE ANALYSIS/CORRECTIVE ACTION

14.1 **Formal Corrective Action required** - In instances where corrective actions are not readily apparent, complicated, of a critical nature, or customer-requested, ABT may require that a **Supplier Corrective Action Request (SCAR/CAPA)** be completed by the supplier. The completed SCAR should include the following at minimum:

- **Step 1. (D1) Identify/Assemble your team.**
- **Step 2 (D2) Problem Description.**
- **Step 3. (D3) Immediate Correction & Containment.** Contain/Quarantine all suspect material, including raw material and establish a clear break point for the nonconforming material. Review all suspect product to determine status and disposition/Identify root cause of the nonconformance.
- **Step 4. (D4). Root Cause Summary.** Develop root cause correction and implement appropriate corrective actions. Are other areas/products affected?
- **Step 5. (D5) CAPA Activities** Develop and implement verification and effectiveness plan
- **Step 6. (D6) Document Updates.** Update all appropriate documents to include the new controls implemented. Train all affected personnel in changes implemented.
- **Step 7. (D7) Verification.** Verify corrective action is effective and implemented. Provide documented evidence of all previous steps
- **Step 8. (D8). Submit corrective action to Purchasing for approval. Once approved congratulate your team.**

The SCAR is the ABT preferred reporting format for corrective actions. A supplier-approved format that includes the 8 steps detailed above may be used with prior approval.

14.2 **Timeliness for response** – Unless specified otherwise on the SCAR the initial supplier response, including containment, shall be submitted in writing within 72 hours of problem notification. The corrective action plan shall be submitted to ABT within 20 business days, including responsibilities and planned completion dates. ABT will track completion of the action plan with the supplier

14.3 **SCAR review and approval** – Completed SCAR's will be reviewed by ABT SQA and Product Quality for completeness and effectiveness.

14.4 **Root Cause Analysis** – ABT does not mandate a specific root cause analysis methodology. However, we encourage our suppliers to utilize proven methods including cross-functional teams, "5

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Why”, “Is/Is Not Diagram”, Brainstorming, Ishikawa/Fishbone diagrams, etc... Note: The SCAR is the reporting format; not the root cause analysis method.

- 14.5 **SCAR closure** - If required, containment, increased inspections, certification, etc... shall remain in place until the root cause of the problem has been identified and ABT SQA is satisfied that the corrective action has been implemented and verified that it eliminates the problem

15 CONTAMINATION CONTROL

- 15.1 **Foreign Object Debris Detection (FOD, Electronics)** - Processors performing primary or secondary manufacturing or testing operations on ABT product shall ensure that proper work areas are maintained (including regular housekeeping, packaging/handling practices, food/drink restrictions, etc...) and employees are properly trained in FOD detection and corrective actions.
- 15.2 **Foreign Object Contamination Control and Detection (Castings)** - Processors performing primary or secondary manufacturing or non-destructive testing (NDT) operations on ABT product shall ensure all open cavities subject to inclusion of foreign objects and debris are free of any foreign matter (e.g. Machining chips and dust particles, blasting materials, shot, weld and braze splatter, coatings, process solutions, etc.). Prior to the return of all cast components to ABT, the processor shall confirm the absence of foreign matter, objects, debris, and process solutions.
- 15.3 **Cross Contamination** – All products (including raw materials) must be kept safe from any potential cross-contamination that may occur when processing similar or dissimilar products on the same manufacturing equipment. When switching from one manufacturing process or product to another, the entire relevant manufacturing system must be purged as necessary to prevent material(s) from the previous production run to enter into the next production run.

Revision History:

Revision	Date	Originator	Description of Changes
1	12/12/2013		Original Release
2			Updated signatures on Page 3
3	03/05/2020	D Morin	Page3: Updated signatures, updated Quality Policy, added revision history. Page 6: Removed revision from standards listed, Page 7: updated supplier score criteria. Updated references and CAPA requirements.