

GSE Holdings Inc d/b/a Hobart Ground Systems, ITW Military, Trilectron, Hobart Ground Power and J&B Aviation Services	PROCESS SPECIFICATION- COUNTERFEIT PARTS PREVENTION	PS-00400 Revision: 3 Date: 2/5/2014
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1.0 Purpose

The purpose of this document is to describe the process and due diligence performed to prevent the purchase and / or use of Counterfeit Parts and meet the requirements of the SAE AS5553 Fraudulent/Counterfeit Electronic Parts Avoidance, Detection, Mitigation and Disposition and SAE AS6174, Counterfeit Material, Assuring Acquisition of Authentic and Conforming Material.

- a. Maximize availability of authentic parts.
- b. Procure parts from reliable sources.
- c. Assure authenticity and conformance of procured parts.
- d. Control parts identified as counterfeit.
- e. Report counterfeit parts to other potential users and Government investigative authorities.

2.0 Scope

This document applies to the procurement activities at GSE Holdings Inc d/b/a Hobart Ground Systems and J&B Aviation Services to the extent specified herein.

3.0 Applicable Documents

The following publications shall be applicable to the extent specified herein, or as defined on the contract or purchase order. These publications shall be in effect as of the issues listed. Compliance with any other issues of these publications requires prior written approval from GSE Holdings Inc d/b/a Hobart Ground Systems and J&B Aviation Services. Insofar as any of the publications referred to herein conflict with the requirements of the specification, this specification shall govern.

AS5553, Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition
 ISO9001, Quality Management System Requirements
 QP-830, Control of Non-Conforming Product
 AS6081, Fraudulent/Counterfeit Electronics Part: Avoidance Detection, Mitigation, and Disposition Distributors
 AS6174, Assuring Acquisition of Authentic Conforming Material.

4.0 Definitions

- 4.1 **Suspect Part** – A part in which there is an indication by visual inspection, testing, or other information indicating the item may have been misrepresented by the Supplier or Manufacturer and may in turn meet the definition of a Counterfeit Part.
- 4.2 **Counterfeit Part** – A suspect part identified as a copy or substitute without the legal right or authority to do so or a part whose material, performance, or characteristics are knowingly misrepresented by a Supplier in the Supply Chain. The Counterfeit Parts include but are not limited to:
 - 4.2.1 Parts not containing the proper internal construction (die, manufacturer, wire bonding, etc.) consistent with the ordered part.
 - 4.2.2 Used, refurbished, or reclaimed parts represented as new product.
 - 4.2.3 Parts with a different package style, type, or surface plating/finish than the required or order product.
 - 4.2.4 Parts not successfully completing the full production and/or test flow of the Original Component Manufacturer (OCM) that are represented as completed product.
 - 4.2.5 Parts sold or delivered as upscreened product that have not successfully completed the upscreening process.
 - 4.2.6 Parts sold or delivered with modified labeling or markings intended to misrepresent the form, fit, function, or grade of the intended product.

Note: Refinished, upscreened, or updated parts identified accordingly are not considered counterfeit product.

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4.3 Aftermarket Manufacturer – A manufacturer meeting one or more of these criteria:

4.3.1 A manufacturer authorized by the OCM to produce or provide replacement parts. The parts supplied originate from the OCM to the aftermarket manufacturer or an aftermarket manufacturer using the OCM tooling or intellectual property produces the parts.

4.3.2 The manufacturer produces parts using tooling or equipment manufactured by and traceable to an OCM that was properly stored until use. The parts are subsequently assembled, tested, and qualified using processes meeting the technical specifications without violating the intellectual property rights, patents, or copyrights of the OCM.

4.3.3 The manufacturer produces parts by emulation, reverse engineering, or redesign using processes matching the OCM specification. The parts must meet the Customer needs without violating the OCM intellectual property rights, patents, or copyrights.

Note 1: The Aftermarket Manufacturer must label or otherwise identify a part to ensure the “as shipped” product is not mistaken for the product manufactured by the OCM.

4.4 Approved Supplier – Suppliers who are formally assessed and determined to have a low risk of providing counterfeit product.

4.5 Authorized Supplier – Aftermarket manufacturers (reference Section 4.3) and OCM authorized sources of supply for a specific part.

4.6 Broker – In the independent distribution market, brokers are professionally referred to as an Independent Distributor.

4.7 Franchised Distributor – A distributor with which the OCM has a contractual agreement to buy, stock, re-package, sell and distribute its product lines. When a distributor does not provide products in this manner, then for the purpose of AS5553, the distributor is considered an independent distributor for those products. Franchised distributors normally offer the product for sale with fully manufacturer flow-through warranty. Franchised contracts may include clauses that provide for the OCM’s marketing and technical support inclusive of, but not limited to, failure analysis and corrective action, exclusivity of inventory, and competitive limiters.

4.8 Independent Distributors – A distributor the purchases new parts with the intention to sell and redistribute them back into the market. Purchased parts may be obtained from original equipment manufacturers (OEM’s) or contract manufacturers (typically from excess inventories), or from other independent distributors. Re-sale of the purchased parts (re-distribution) may be to OEM’s, contract manufactures, or other independent distributors. Independent distributors do not have contractual agreements or obligations with OCMs.

4.9 Certificate of Conformance (C of C) – A document provided by the supplier formally declaring the purchase order requirements are met. The document may include information relative to the manufacturer, distributor, Quantity, date code, inspection date that is signed by a responsible associate for the supplier.

4.10 Certificate of Conformance and Traceability (C of CT) – A certificate of conformance applicable to some military specifications requiring documented traceability of the product from the Qualified Parts List / Qualified Materials manufacturer through the product delivery to the Government.

4.11 ERA – A privately held global trade associates who monitors, investigates, reports, and mediates issues affecting the global supply chain of electronics including the supply of counterfeit and substandard parts.

4.12 Packaging – Component packaging refers to the manner the electronic parts are packaged in preparation for use. There are four basic types of packaging: (A) Bulk, (B) Tray, (C) Tube, and (D) Reel.

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- 4.13 Refinishing – Using a plating process method after manufacture to alter the original plating composition on a parts lead or lead wire.
- 4.14 Refurbished – Subjecting parts to a process to brighten, polish, or renovate the item in an effort to restore the item to a “like new” condition. Refurbished parts may have the leads realigned and tinned.
- 4.15 Upscreened – Additional part testing performed to produce parts verified beyond the specification parameters of the manufacturer.
- 4.16 Used – Electrically charged parts removed from a prior application. Parts should be examined for nonstandard packaging, mixed lots / dates, parts from various sites, scratches, bends, test dots, faded marking, chemical residue, or other signs of use. Used parts may be sold with a limited warranty. Programmable product may still contain partial or complete programming capability that may affect part functionality. Used parts marketed as such should be declared accordingly.

Note 1: Other definitions are available for review in Section 3.3 of the AS5553, Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition Standard.

5.0 Responsibility

Purchasing, engineering, materials, and other associates as appropriate or required are responsible to comply with the requirements and processes identified in this document.

- 5.1 Purchasing is responsible to procure the correct electronic part using the applicable drawing, specification, description, or other information to meet the intended use.
- 5.2 Engineering is responsible to ensure the drawing, specification, process, or other description identifies the applicable type, class, style, part number, manufacturer, or other related information so the correct part or product is identified.
- 5.3 Materials associates / Receiving Inspection may be responsible to examine, inspect, and/or maintain the parts to identify or mitigate the receipt and/or use of counterfeit parts.
- 5.4 Purchasing is responsible for referencing the PS-00400 Counterfeit Parts Prevention procedure. This will be done by referencing the ITWMilitarygse.com WEB site on the Purchase Order.

6.0 Procedure

- 6.1 Part Availability: The processes shall maximize availability of authentic, originally designed and/or qualified parts throughout the product’s life cycle, including management of parts obsolescence. Information and guidance for ensuring parts availability is provided in Appendix A, Parts Availability of AS5553, Counterfeit Electronic Parts, Avoidance, Detection, Mitigation, and Disposition Standard.
- 6.2 Purchasing must examine a potential source of supply to assess the risk of receiving counterfeit parts. Assessment may be a survey, audit, product alert review, and a review of the supplier quality data to determine performance.
- 6.3 Purchasing must maintain a list of suppliers to minimize the risk associated with the supply and / or receipt of counterfeit parts.
- 6.4 Purchasing should focus buying efforts to obtain parts directly from an OCM, approved distributor, authorized resell organization, or franchised aftermarket supplier. These companies are reviewed and approved by the original component manufacturer.

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6.5 Assure that approved/ongoing sources of supply are maintaining effective processes for mitigating the risks of supplying counterfeit parts. Assurance actions may include surveys, audits, review of product alerts, and review of supplier quality data to determine past performance.

Note 1: Purchasing may reference Appendix C of the AS5553 Standard for guidelines and information related to Supply Chain Traceability. At a minimum, the OCM, distributor or the aftermarket manufacturer should be required to provide certificates of conformance and acquisition traceability. These certification requirements must be clearly identified on the purchase document as deliverable data.

In general, product with electronic components destined for Government or military use requires a manufacturer certification. In general, product with electronic components destined for commercial use may not require the certification or traceability documents.

The electronic component requirements for the product may be identified from a review of the Customer purchase order, specification, or flowdown requirements. It is always prudent for purchasing to request certification and traceability data as a deliverable item.

6.6. Purchasing must specify the flowdown requirements from the Counterfeit Parts Procedure applicable to the supplier or subcontractor. Purchasing must perform some level of risk assessment if the supplier or subcontractor does not maintain a documented counterfeit part control plan compliant to the AS5553 Standard.

6.7 The purchase document must specify the applicable requirements of the Counterfeit Part Procedure to the supplier to minimize the risk of receiving counterfeit parts. In order to minimize the risk of procuring counterfeit parts the purchasing document should include requirements to ensure conforming, original, and authentic parts are provided. The purchasing document may list certification or traceability requirements, test and / or inspection results and Quality System requirement for the supplier. The purchasing document may also reference the ITW WEB Site and this Process – PS-00400- Counterfeit Parts Prevention.

6.8 Persons receiving, inspecting, or processing parts must examine the product to ensure the drawing, specification, type, class, style, part number, manufacturer, Certificate of conformance or other related information is present to detect or identify suspect or counterfeit parts. Suspect or counterfeit parts are placed on a nonconforming material document so the items may be identified and segregated to a nonconforming part location, reference QP-830 – Control of Nonconforming Material.

6.9. This procedure shall assure that all occurrences of counterfeit parts are reported, as appropriate, to internal organizations, customers, government reporting organizations (e.g., GIDEP), industry supported reporting programs (e.g., ERAI), and criminal investigative authorities. Information and guidelines for reporting counterfeit parts are provided in Appendix G, Reporting of AS5553, Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition Standard.

7.0 Verification

GSE Holdings Inc d/b/a Hobart Ground Systems and J&B Aviation Services considers the due diligence applied to the material purchase successful when this procedure is followed and when finished product meets the test or inspection requirements identified for the product or the standard work established for the product. A failed Electrical Component or Product, Motor, or Motor Part does not mean the instance was caused by a counterfeit part. GSE Holdings Inc d/b/a Hobart Ground Systems and J&B Aviation Services must verify the cause of the nonconformance and disposition the defect per the QP-830 - Control of Nonconforming Product. This procedure will apply if the deficiency is suspected or attributed to a counterfeit part.

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Revisions

Revision No.	Date	Paragraph Number	Description
1	8/3/2011	New Process	Initial release
2	10/4/2013	3.0, Approvals	Updated to remove AS9100 and add AS6081. Removed Approvals
3	11/12/2013		Include references to Aerospace Standard AS6174