

**Quality System Requirements
 for Suppliers and Sub-
 Contractors**

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Approved by:-	Title	Signature	Date
I Cooper	BU Leader Aerospace Sensors		03/12/10
B Dolman	BU Leader Industrial Sensors	 P. Dolman	09/12/10 02/12/10
P Weston	BU Leader EID's & EIDIS	 P. Weston	23/11/10
I White	BU Leader Controllers		13/12/10
Authorised by:-	Title	Signature	Date
A Harris	Company Quality Manager		23/11/10

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1 Scope

This procedure details the minimum Quality Requirements that Suppliers and Sub-Contractors to Penny and Giles must maintain, should they wish to supply parts which may be fitted into P&G deliverable products.

2 Definitions

- 2.1 Suppliers are providers of product and services, which are either proprietary to them or are certified to National or internationally recognised standards.
- 2.2 Sub-Contractors are providers of product or services in accordance with Penny and Giles documentation.
- 2.3 Aerospace Products are those items produced by Penny and Giles where there is at least one identified use in an Aerospace or Military application. The description for these items shall be prefixed "S", "A" or "F", "V" or "T". The definition of each prefix is as detailed in appendix 1.
- 2.4 All items shall be assumed to be used for an aerospace application unless the description is prefixed with either an "I" or "P", thus indicating components are used for Commercial and Industrial products. The definition of each prefix is as detailed in appendix 1.
- 2.5 For Aerospace Products the supplier's system shall provide a process, as appropriate, to provide evidence that engineering design and specification requirements are fully understood, accounted for, verified and documented for first production part and for any subsequent changes to product or process. This process is known as First Article Inspection. (FAI)
- 2.6 Initial Sample Inspection Report (ISIR). The supplier's system shall provide a process, as appropriate, to provide evidence that engineering design and specification requirements are fully understood accounted for verified and documented for first production part
- 2.7 Foreign Objects are defined, as items not highlighted on drawings e.g.: burrs and debris left from the manufacturing process.
- 2.8 Essential Items are defined as, those parts, features or characteristics having significant affect on the product realisation and use of the product; including safety, performance, form, fit, function, manufacturability, service life etc; that require particular attention to assure they are adequately managed. Examples of essential items include critical safely items, fracture critical items, mission critical items etc.
- Key Characteristics  are features of a material, process, or part whose variation has a significant influence on product fit, performance, service life, or manufacturability and identified accordingly, and is an example of an Essential Item
- 2.9 Essential Requirements are defined as, those requirements identified by the customer or by the organisation as having significant effect on the safe or proper use of the product.
- 2.10 Risk is defined as, an undesirable situation or circumstance that has both a likelihood of occurring and a potentially negative consequence.
- Note: Risks arise from uncertainty due to lack of predictability or control of events. Risks are inherent to any project and can arise at any time during the project life cycle; reducing these uncertainties reduces the risk.

3 General

- 3.1 This document defines the minimum Quality System requirements to be met by sub-contractors and suppliers.
- 3.2 Penny and Giles' aim is to procure items and services from sources where Quality is assured.
- 3.3 Suppliers/Sub-Contractors with Third Party Certification of their QMS, from a UKAS approved Certification Body, will be preferred.
- 3.4 Penny and Giles Controls will carry out a regular 3 yearly postal assessment of all approved suppliers and sub-contractors with optional physical audits as deemed appropriate.
- 3.5 Penny and Giles shall be allowed reasonable access to a supplier's/sub-contractor's premises.
- 3.6 In some instances, and only by prior arrangement, the Customer or Certification Body may accompany Penny and Giles.
- 3.7 Any significant changes to the management structure/company shall be notified to Penny & Giles.

4 Penny and Giles Code of Conduct for Suppliers

- 4.1 Conducting business in accordance with all applicable laws and regulations
- Penny and Giles Controls suppliers /Sub-contractors must comply with all national and other applicable laws and regulations relating to the respective country of operation. This includes ensuring that business transactions with Penny and Giles Controls are fully reported and recorded and ensuring their employees are aware and properly trained.
- 4.2 Health, safety and environmental management
- Penny and Giles Controls expect its suppliers/ sub-contractors to make proper provision for the health, safety and welfare of visitors, contractors, customers.
- Suppliers / subcontractors are encouraged to implement a health and safety management system for the welfare of its people and those in the community who may be affected by their activities.
- Penny and Giles Controls suppliers / sub-contractors should appreciate the impact their business has on the environment and adopt appropriate practises and procedures
- Business activities shall be conducted in accordance with all relevant HS&E laws and regulations of the applicable country.
- 4.3 Conflict of interest
- Employees within the supply base must deal with Penny and Giles Controls in a manner that avoids conflict between personal interests and those of the employer and Penny and Giles Controls. This requirement applies equally to business relationships and personal activities.

4.4 Protect proprietary information

- Any information received through business dealings with Penny and Giles Controls must be kept confidential and never used for personal or business gain. This includes both commercial and technical information. Information may not be disclosed to other parties unless agreed with Penny and Giles Controls

4.5 Gifts and hospitality

- Suppliers to Penny and Giles Controls should not offer gifts and favours to Penny and Giles Controls employees that may be seen as an attempt to influence business decisions.

4.6 Sub Contractors of Penny and Giles Controls will not employ forced labour.

5 Quality Assurance

5.1 Quality Management System (QMS) Requirements

5.2 All companies shall have a demonstrable Quality Assurance system, or be able to show that actions have been put in place to achieve such requirements.

- The system shall be based around the QMS defined in BS EN ISO 9000, (or equivalent) as applicable to the product or service provided and this document.
- The company shall appoint a person with sufficient authority to make the final decisions on all Quality related matters.

6 Contract Review

- 6.1 The supplier/sub-contractor shall ensure that all Penny and Giles purchase orders are subjected to review upon receipt and that all of the requirements of the purchase order, including the requirements of QC1 e.g. KC dimensions, change control of FAI items, ISIR's are flowed out to all relevant departments of the company and to all lower level suppliers of the sub-contractors.
- 6.2 It is the responsibility of the Supplier/Sub-contractor to establish if the product or service provided is intended for use on Aerospace or Industrial/Commercial Products.
- 6.3 For Aerospace parts the work undertaken must be within the scope of the 'Penny and Giles Delegated Verification Authority' specified on the Purchase Order, as defined below:

PURCHASE / VERIFICATION OF MATERIALS / PARTS

- Parts purchased by the supplier are to be checked against the drawing, specification, standard to ensure conformity.

PROCESS / MANUFACTURE, TEST AND INSPECTION

- Parts manufactured or processed, tested and inspected by the supplier are to be checked to ensure conformity.

CONTROL OF 'OUT-SOURCED' PROCESSES

- Control of outsourced processes e.g., heat treatment. The supplier shall ensure that outsourced vendors shall meet the requirements of the process specification and this document.

CONTROL OF SUB-CONTRACT MANUFACTURE

- All of the above at outsourced manufacturing sites.

- 6.4 The supplier will have systems and procedures in place for the assessment, control and mitigation of "Risks" to the achievement of all of their customers / P&G requirements.

7 Training

- 7.1 The supplier shall maintain training records for all employees and identify any on-going training requirements.
- 7.2 The supplier shall only use suitably trained personnel for the manufacture, test, and inspection of P&G products

8 Documentation Control

- 8.1 The supplier shall operate an effective documentation control system to ensure that the correct issue of controlling drawings and specifications are used.

9 Configuration Control

- 9.1 For “F”, “V”, “S”, “T” or “P” prefixed parts, Penny and Giles must be notified of any changes that have an affect on the ‘Form’, ‘Fit’ or ‘Function’ of product to permit evaluation of the change on P&Gs’ product. This must include changes to materials, method or manufacturer.
- 9.2 Suppliers of proprietary items shall maintain Design and Configuration records for as long as P&G require. No records shall be destroyed without approval from P&G.

10 Quality Records

- 10.1 Commercial Products
Quality records associated with manufacturing and all aspects of Traceability shall be maintained for a period not less than 3 years.
- 10.2 Aerospace Products
All Sub-contractors shall maintain records associated with establishing the airworthiness of the end product for the operational life of that product i.e. indefinitely. These shall include but not be limited to Traceability records, inspection, Statistical, KC, FAI, ISIR and test records; certificates of conformity and analysis and manufacturing history.
- 10.3 Records shall be stored in a manner that makes them readily available at the request of Penny and Giles or Regulatory Bodies.
Archived records to be stored in a manner to prevent damage or loss,
- 10.4 Archiving of records, which are consigned from hard (paper) copies to microfilm/microfiche or electronic media (scanned images etc.), must be carried out in accordance with appropriate National Standards e.g. BS 6498. (A system for reviewing these must be maintained by the supplier or their agent).
- 10.5 Penny and Giles must be notified prior to disposition of any Quality Records.

11 Material Control

- 11.1 Where suppliers and sub-contractors use other suppliers and sub contractors in fulfilment of Penny and Giles Controls orders, then purchase orders on these second tier suppliers and sub-contractors must flow down the applicable Penny and Giles purchase order requirements.
- 11.2 Suppliers and Sub contractors shall have a process for the approval, and on going evaluation, of their own sub-tier suppliers and sub-contractors and the status of such suppliers shall be communicated to relevant personnel.
- 11.3 Sub-tier Vendors may be subject to Quality Audit by the Supplier/Sub-Contractors to ensure compliance with Penny and Giles requirements.
- 11.4 All raw materials must be obtained with appropriate material certification to allow traceability back to source. The information detailed on this certification is to be verified against the definitive standard.
- 11.5 Where the supplier procures metals for use on Penny & Giles Aerospace parts the supplier shall have a process to check that the material certification and chemical analysis complies with the definitive standard.
- 11.6 Suppliers to P&G should maintain vendor audit records for all of their suppliers.
- 11.7 For New / Un-Approved and Problematic sub-tier vendors the supplier will have systems in place to demonstrate mitigation of risk in the use of these vendors

12 Handling, Storage and Preservation

- 12.1 The Supplier shall operate a stock rotation system; all stock issued on a "First In-First Out" basis.
- 12.2 On receipt of parts from a vendor, the supplier should have a receiving goods procedure. All parts should be checked in accordance with this procedure prior to parts being confirmed as acceptable for use.
- 12.3 All Penny & Giles free issue material must be clearly identified and segregated and in the case of Aerospace items stored in a secure (bonded) area. This bonded store area must be restricted to authorised personnel.
- 12.4 Penny and Giles shall instruct the supplier on the use of any free issue material.
- 12.5 The Supplier/Sub-Contractor shall include within any planning documentation, provision for the prevention, detection and removal of any foreign objects.
- 12.6 A process for the identification and disposition of perishable items with shelf life limitations shall be in place

13 First Article Inspection (AEROSPACE Products)

- 13.1 A System shall exist to carry out and control First Article Inspection (FAI).
- 13.2 [Items subject to FAI control will be identified with an "F", "V", "S", "T" prefixing the item's description e.g. F-SHAFT MAIN.](#)
- 13.3 The Purchase order shall define the information to be provided.
Unless otherwise agreed one unit of the batch supplied shall be nominated by the supplier as the FAI item.
This unit shall be clearly identified as such and supplied with the batch for verification by Penny and Giles.
- 13.4 Sub Contractors shall supply a new FAI Report when any of the following occur (unless otherwise agreed in writing).
- Relocation to another manufacturing site
 - Use of alternative methods of manufacture e.g. changes from milling to turning
 - Use of new equipment, tools and fixtures
 - Modifications and repairs to tools and equipment
 - Use of alternative lower tier suppliers.
 - The FAI information provided can be limited to the affected parameters

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- 13.5 Suppliers of proprietary parts shall supply a new FAI Report when changes occur that affect fit, form, function or as a result of any material changes. The FAI information provided can be limited to the affected parameters.
- 13.6 Unless otherwise agreed with Penny and Giles Controls reports for Aerospace parts shall be prepared using AS 9102 format. Penny and Giles may provide these forms on request.
- 13.7 Reports for non- aerospace parts may be prepared using either Penny and Giles Controls form QF 27, or on the suppliers own format provided that all information detailed on the drawing is addressed including notes and further processes.
- 13.8 All related FAI documents to be retained indefinitely, ref QC1 sec. 10.

14 Parts subject to Production Part Approval Process (PPAP)

- 14.1 Items subject to PPAP control will be identified with a "P" prefixing the item's description e.g. P-SHAFT MAIN.

Penny and Giles Controls ltd shall be notified in the event of any changes to any of the following

- Relocation to another manufacturing site
- Use of alternative methods of manufacture e.g. changes from milling to turning
- Use of new equipment, tools and fixtures
- Modifications and repairs to tools and equipment
- Use of alternative lower tier suppliers.
- The PPAP information provided can be limited to the affected parameters

15 Vital Parts

- 15.1 Items subject to Vital Part Control will be identified with a "V" prefixing the item's description e.g. V-SHAFT MAIN.
- 15.2 All vital parts shall be controlled in accordance with Penny and Giles Quality Procedure QP00-18.

16 ITAR Controlled

- 16.1 Items subject to ITAR control will be identified with a "T" prefixing the item's description e.g. T-SHAFT MAIN.
- 16.2 The supplier shall contact Penny & Giles for additional instructions for any parts designated as ITAR controlled.

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
17 Initial Sample Inspection Reports (ISIR's)

- 17.1 For items other than those identified as FAI controlled parts, Sub-contractors shall submit an ISIR with the first delivery of any item and, subsequently, when changes or repairs to tools, fixtures used in the manufacturing process occur, to permit Penny and Giles to evaluate any influence of the change on their own products. The report should provide information on the reason for change and the detail of the change.
- 17.2 The reports may be prepared using either Penny or Giles s form QF 27 or on the suppliers own format if all information detailed on the drawing is addressed, including notes and further processes.
- 17.3 For Aerospace parts, all related ISIR documents are to be retained indefinitely, ref QC1 sec. 10.

18 Suppliers, Manufacturing Controls & Traceability

- 18.1 Manufacturing, assembly and inspection/test records shall be generated (if applicable) to allow the configuration history to be known at any point in time particularly at the point of release.
- 18.2 Where the supplier utilises jigs, fixtures and tooling for the manufacture, test or inspection of P&G items a register of these tools is to be maintained, ensuring correct use and that they are maintained and calibrated. If these tools are the property of P&G, the register to ensure that these tools are maintained and calibrated in accordance with the requirements set down by P&G.
- 18.3 Manufacturing Controls / Traceability will allow for the following:
- Identification to be maintained throughout the products life.
 - Batch Traceability, back to the parent raw material, and forward to delivery to P&G of the product.
 - The identity of Sub-assemblies shall be traceable, to and from, its parent assembly.
 - Parts shall only be procured from Quality Assured sources where Traceability is maintained. Original manufacturer certification shall be provided when requested.
 - Traceability is maintained if sub-tier vendors / outsourced processes are used.

19 Inspection Control & Calibration

- 19.1 Where a Key characteristics  (Essential Item and Requirement) are identified on the controlling document, it shall either be subjected to 100% inspection or statistical process control (SPC). Each measurement taken shall be recorded and submitted for each manufacturing batch, unless otherwise agreed by P&G Quality department.
- 19.2 All Test and Measurement equipment used for verification of parts must be encompassed within the suppliers / sub-contractors Calibration system. The system and records for internally calibrated items must demonstrate that the calibration is traceable back to UKAS or equivalent.
- 19.3 Penny and Giles operate a Concession free policy for goods and services. Only in exceptional circumstances and by prior agreement will Concession Applications be considered using P&G form QF 004. Details of root cause and proposed preventative actions must be included. P&G shall be notified of other potentially affected product
- 19.4 Penny and Giles shall be notified immediately of any instances that come to light where non-conforming product may have been inadvertently supplied without notification.
- 19.5 Inspection stamps/signatories shall be used to indicate that all Quality and design requirements have been met. The inspection and test status of items shall be maintained throughout production and installation to ensure that only items, which have passed inspection and/or test at previous stages of operation, proceed for further work operations. Procedures shall exist to identify and authorise stamp holders and the scope of their authority. This shall define the means by which stamps are issued and withdrawn.

20 Non- Conforming Items

- 20.1 Within 3 working days of notification of non-conforming material, the supplier /subcontractor shall take those steps necessary to determine if other batches or related parts or processes already delivered may have been affected and advise Penny and Giles accordingly.
- 20.2 The Supplier/Sub-Contractor shall supply a written response to any Reject, advising P&G of containment actions within 5 working days from receipt of reject note with closure of the reject, within 20 working days of the reject note being received. The response should be completed on the Penny and Giles Reject Note defining: -
- Remedial action on the product
 - Root cause
 - Corrective and preventative measures stating date of implementation, supplying evidence of these measures i.e. training, procedure changes, WI's, ITP's Quality Alerts, etc.
 - Other parts affected

- 20.3 The supplier shall have a system for identifying, controlling and disposing of all non-conforming product/material. Approval from Penny & Giles must be sort, prior to the disposal of Aerospace items.
- 20.4 This system must ensure that Scrap parts originally destined for any Aerospace application are made physically unusable in line with mandatory industry requirements. For non-Aerospace scrap, Penny and Giles suggest that this approach be adopted as best practice where viable.

21 Handling of Static Sensitive Devices

- 21.1 Suppliers and sub contractors of components, which are at risk of damage from Electrostatic Discharge (ESD), must have a system to in place such that they are suitably identified, handled stored in a manner which will protect them from electrostatic damage .The system should be formally documented and approved to a recognised code of practice e.g. BS IEC 61340-5-1(or equivalent).
- 21.2 All deliveries of components which are at risk of damage due to electrostatic discharge must be suitable packaged and identified.

22 Despatch

- 22.1 Any special handling instructions shall be highlighted on the Penny and Giles drawing or purchase order
- 22.2 Should no special requirements be called up, goods should be packed in such a way as to avoid damage during transit.
- 22.3 All deliveries must be accompanied by the appropriate paperwork (quoting the Penny and Giles purchase order, part number and issue).
- 22.4 A recognised vendor representative with the appropriate authority must sign C of C's.

23 Design Control

- 23.1 Where the supplier has been requested to develop a specific component for Penny & Giles, they must ensure that all product development records are maintained. Records shall not be disposed of other than on the written authority of Penny and Giles
- 23.2 Any request for change to the defining documents/drawings must be supported by sufficient evidence as appropriate, such as Capability studies, to support the proposal.
- 23.3 The supplier shall have processes in place for managing "Risks" to the achievement of customer requirement.

24 Change Record

Iss N°	Section(s) Changed	Reason & Details of Change	Change Originated by:	Date
01	All	New Document	A. Harris	3 rd Jan 02
02	4.2.17	Added ESD handling/packing requirements	D.Alexander	23 rd Jan 02
03	2 4.2.10	KC dimensions identification marks. Paragraph numbers altered to clarify additional requirements for aerospace suppliers.	D.Alexander	24 th Apr 02
04	4.3.8	Clarification of record retention periods	A.Harris	24 th Mar 03
05	All	Review of complete procedure	S.Donaldson D.Alexander	1 st May 03
06	All	Review of complete procedure	A Harris	25/05/05
07	All	Review of complete procedure: Amendments to sections: 2.5, 9.1, 10.2, 10.4, 11.4, 13, 15.2, 16.1, 17.2, 17.3, 18.1 & 19.4 Additional sections at: 2.8, 2.9, 2.10, 2.11, 6.3, 7.2, 11.5, 11.6, 13.8 & 14.3	Alan Harris Neil Blake	23/07/09
08	6.2,10.4,11.51 6.1	6.2 Ref to delegated Verification Authority added 10.4 Need to specifically box and label records removed 11.5 Requirement to send material away removed (no longer required under ISO 9001 :2008 or AS91000 rev C 16.1 Clarification of the need to record each measurement on KC dimensions added	A Harris Neil Blake	June 2010
09	Para 2, 14 -21	Para 2 refers to new definition in appendix 1 New requirements for PPAP, Vital Parts & ITAR Para 15 -20 renumbering New appendix 1 added	A Harris	Oct 2010

All changes to this document will result in a complete update and full authorisation and approval by the relevant personnel. Changes can be initiated by passing a marked up copy of this procedure to the Quality Assurance Department. It is the responsibility of the Quality Assurance function to ensure that the revised procedure is promptly updated with any superseded copies being destroyed.

25 Related Documents

Form QF052 Sub-Contractor Vendor Assessment

QP00-18 Vital Part Planning

26 Appendix 1 - Definition of Prefixes for Description of Items

F	Aerospace FAI Controlled Item
A	Aerospace – non FAI Controlled
V	Vital Parts
S	Source Controlled FAI Part
I	Industrial item
T	ITAR Controlled item
P	PPAP Controlled item