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**1. Introduction****1.1 Scope**

This manual stipulates the minimum requirements for “approved” Suppliers and Subcontractors to Tamworth Heat Treatment herein known as THT.

**1.2 Purpose**

The purpose of this document is to communicate THT Customers requirements to those companies that supply goods and product/process related services to THT.

THT requires that its suppliers:

- a) Fully support THT quality policy statements and objectives.
- b) Acknowledge that the achievement of “ZERO DEFECTS” is a fundamental objective for quality objectives.
- c) Strive to achieve an “On Time in Full” delivery performance.
- d) Advise on purchase order problems (delivery and/or quality) within 24 hours of receipt of a purchase order.
- e) Respond appropriately to quality concerns within 3 days and complete root cause analysis with the implementation of effective corrective action (non-conformance documentation) within 14 days.
- f) Manage facilities, processes, quality, environmental and health & safety systems and personnel to consistently and cost effectively produce products that meet the needs of THT and its customers.
- g) Develop and implement advanced quality planning (AQP) practices and procedures this ensuring that the requirements of THT are fully understood and met/exceeded.
- h) Provide process capability data for all identified Key characteristics in accordance with AS9103 Variation Management of Key Characteristics, when required.
- i) Utilise appropriate statistical tools or appropriate techniques for ongoing process control and continual improvements.
- j) Be committed to the reduction of product variation and elimination of all waste through continual improvement.
- k) Recycle packaging and/or control the use of returnable packaging where practical.

**1.3 Confidentiality Agreements**

The supplier shall ensure that all customer design and development projects remain confidential to THT and within the supplier’s own organisation and at its sub-suppliers/sub-contractors.

Confidentiality Agreements shall be signed/agreed between THT and its customers and between THT and its suppliers/sub-contractors as appropriate.

Disclosure of any technical information to a competitor shall not take place unless written authorisation is obtained from THT and/or its contracted customer.

**2. Supplier Approval & Manufacturing Planning****2.1 New Supplier Introduction & Approval**

Present and potential product related suppliers to THT must provide written confirmation and objective evidence of third party certification (by a UKAS registered certification body), ideally to ISO 9001:2000 as a minimum.

Where appropriate, suppliers and sub-contractors are required to undertake appropriate development towards AS9100 core elements.

Non-ISO 9001 approved companies' quality systems must conform to the requirements specified by THT Supplier Quality Questionnaire.

Where appropriate, suppliers will be subjected to an on-site audit by THT. No work will be committed to, or a purchase order raised, until vendor approval has been granted.

Documents needed to complete the new vendor approval process are:

- a) Vendor quality questionnaire (supplier to complete)
- b) 3rd party approval certification (ISO 9000/AS9100) – where applicable (supplier to issue)
- c) Supplier audit report if required (THT to complete)
- d) Confidentiality agreement, if required (THT to supply / supplier to sign)

#### **Initial Vendor Rating Approval Ranking**

- A ISO 9001:2000 or AS 9100
- B No Certification – Proven Supplier/Historical Performance
- C No Certification – Provisional Supplier (to be monitored)

### **2.2 Process Control Documents**

It is the responsibility of suppliers/sub-contractors to maintain an appropriate configuration management process, whilst ensuring that Process Control Documents (Quality Control Plan) remain live. Process Control Documents should be reviewed regularly at least following a process change and/or the implementation of a corrective action.

Where practical the supplier shall utilise mistake/error proofing methodologies to eliminate or reduce the opportunity of manufacturing defective product. The supplier shall verify the effectiveness of these systems on new and current products / family group of products manufacturing process audits.

### **2.3 Specifications and Standards**

The goal of product inspection and test is to confirm that the product design intent is met. It is the suppliers responsibility to ensure that the correct ISO standards, product drawings and specifications are obtained and maintained on file and available at the point of use.

Inspection and test failure is cause for the supplier to quarantine products and suspend shipments immediately, pending corrective action. The supplier shall immediately notify THT of a test failure, suspend future shipments and identify any suspect lots/batches already shipped.

Following root cause(s) identification, correction and verification (closure) the supplier may resume shipments.

Suspect product shall not be shipped without sorting or reworking to eliminate the existence of non-conforming product.

When the root cause of test failure cannot be determined, the supplier immediately notifies THT Quality Department that the product has failed an inspection and test requirements, any work in progress shall be suspended pending further instructions.

### **2.4 Verification Reviews of Purchase Product**

Suppliers/sub-contractors shall allow THT and its customers the right of entry to the suppliers premises, to verify that the product and sub-contracted product(s) confirm to specified requirements.

Prior to conducting such verification reviews, the applicable THT contact will specify the arrangements for, and method of, performing such reviews.

**2.5 Process Changes (Query Communications)**

Changes to approved product and/or processes shall be approved, prior to implementation by the THT Quality Department who shall be notified in writing of any intentions to make a change.

Written approval (where necessary) from THT Quality Department must be received prior to change implementation.

Written requests for changes shall be made and submitted to THT Quality Department to seek approval to proceed. Changes will not be considered unless adequate supporting process data is provided to support the intended process change.

**2.6 Design Changes**

THT may at times request changes to design, drawing specifications and/or performance requirements. THT will formally communicate any changes in writing.

**2.7 Supplier's Documentation and Records (Archiving)**

Suppliers/sub-contractors quality documentation shall be available by all relevant personnel within the company, reviewed annually for adequacy and be made available to THT and/or their customers/regulatory authorities upon request.

Documentation changes where applicable should be coordinated with THT and/or their customers/regulatory authorities.

THT shall formally identify and agree with suppliers any specific inspection and test records in accordance with end customer traceability requirements i.e. (5 years minimum default).

Default records to be supplied and /or retained for THT contracts:

- C of C, test certifications/release notes
- FAIR submissions
- Manufacturing records (route cards)
- Procurement records (purchase orders and goods inwards)
- Record retention in accordance with the requirements of the end customer (primes)
- Record secure storage following contract completion.
- Record disposal requirements for records which have reached their retention period.

Note: Supplier held documentation should be made available to THT within 48 hours upon request.

Electronically stored records shall have a proven secure back-up facility which is preferably held off site.

The use of liquid paper correction fluid (Tipp-ex) shall not be used on THT related Quality documentation. Amendments shall be made by crossing the error with a single line and authorising the amendment.

**2.8 Traceability**

Supplier quality documents shall clearly demonstrate the following:

- 1) Demonstrate that all process operations have been completed and be traceable to an individual person.
- 2) Contain appropriate and accurate cross references to other documents i.e. drawings, specifications, certification, purchase order numbers etc.
- 3) If applicable contain current component serial numbers (avoiding duplication).

- 4) Strict control over the traceability of serial numbered components shall be maintained at all times (component marking, purchase orders, delivery notes, inspection reports and certification etc).

Note: When a component is dispositioned as scrap the serial number shall under no circumstances be transferred to another substitute component.

### **3. Manufacturing Control**

#### **3.1 Non-conformance Control**

A supplier non-conformance report No. 045 will be issued/emailed when THT receives materials or services that fail to conform to the applicable product drawing/specification.

Within 48 hours of the receipt of a non-conformance report, the supplier is required to submit a formal, interim corrective action response to THT Quality Department. As a minimum, this shall identify the problem, the immediate containment actions and the potential root cause(s) of the problem.

Within 10 days of the receipt of a non-conformance report, the supplier is required to submit the completed non-conformance report listing root cause, corrective actions, verification of corrective action and actions to prevent recurrence.

Suppliers/sub-contractors response to the receipt of a non-conformance report is considered essential the THT Quality Management System and therefore response, quality and timing is monitored.

Where appropriate as part of the concerns resolution process a supplier is expected to:

- a) Provide on-site support, in conjunction with THT personnel, to THT customers, as required, as part of the containment action.
- b) Utilise the services of a third party inspection body to reinforce containment action plans if the supplier is unable to expedite timely containments actions. THT may also choose to utilise their own personnel and invoice the supplier accordingly.
- c) Accept applicable cost associated with shipping, handling, processing, re-working, inspecting and replacing defective materials including costs of value added operations made by THT prior to the discovery of the non-conformance.
- d) Apply corrective actions to similar products and processes as a proactive preventative action (corrective action impact).

#### **3.2 Supplier Quality Meetings**

Suppliers that do not meet THT performance standards may be required to attend a supplier quality meeting. The purpose of such meetings is to assist suppliers in identifying the systematic/management issues that need to be addressed in order to improve performance or close issues effectively. Reasons for which a supplier may be invited to the supplier quality meeting include, but are not limited to:

- a) unsatisfactory quality performance
- b) unsatisfactory delivery performance
- c) unsatisfactory number of non-conformance reports issued
- d) unsatisfactory root cause analysis
- e) unsatisfactory corrective action response
- f) Recurring issues
- g) complaint/rejection by a THT customer

The aim of the supplier quality meeting is to agree an action plan realistic targets for effective closure of the issues against which the supplier is deemed as "failing".

Action plans that exceed 90 days duration will need to be specifically justified and may be subject to interim supplier quality meeting reviews.

If the suppliers performance at, or subsequent to, the quality review meeting is deemed “unacceptable” by the THT Quality Team, the supplier may be requested to attend a final quality review meeting.

The “final review meeting” is led by Senior Management and Directors of both THT and the supplier.

### **3.3 Product Concessions**

It is the policy of THT **NOT** to accept product that fails to meet the requirements of the applicable drawings and specifications. Requests for concessions on non-conforming product shall be submitted to the THT quality department for review **prior** to shipment.

The date that conforming product is planned to be available with confirmation of the product traceability details, including the method of product identification, should be included within the Concession application.

### **3.4 Certificates of Conformance / Capability Data Summary**

A signed certificate of conformance, release note, certificate of analysis and/or capability data summary may be required to accompany each shipment of specified components or materials.

The certificate of analysis must contain the actual results of physical testing/analysis and/or measurements required by the specification/product drawing reference on the purchase order.

### **3.5 Product Identification and Packaging**

Packaging

Generally it is considered the suppliers responsibility to ensure only adequately packed product (able to withstand transit damage) is despatched to THT.

However, THT, during contract review/AQP stages, may specify particular packaging requirements.

Product identification shall reflect current product i.e. part number, issue level and batch/lot traceability only.

The supplier must ensure that the Quality Control Plans and Final Product Audits etc. incorporate any contractually agreed THT specified packaging and labelling requirements.