<table>
<thead>
<tr>
<th>Quality Procedure QP-843 Information for External Providers</th>
</tr>
</thead>
</table>

QP-843 Approval

On File

Steve Driscoll
CEO

PROPRIETARY RIGHTS
Thermal-Vac Technology, Inc. proprietary rights are retained for the information contained herein. The recipient, by acceptance of this document, agrees that neither this document nor the information contained herein, nor any part thereof shall be reproduced or transferred to any other document, used or disclosed to others for any purpose, except as specifically authorized in writing by Thermal-Vac Technology, Inc. Employees of Thermal-Vac Technology, Inc. may reproduce information contained in this document for internal purposes as necessary.
Table of Contents

1. PURPOSE .................................................................................................................................................. 3
   1.1 GENERAL .............................................................................................................................................. 3
   1.2 APPLICATION ..................................................................................................................................... 3
   1.3 RESPONSIBILITY FOR IMPLEMENTATION ......................................................................................... 3
   1.4 DEFINITIONS ...................................................................................................................................... 3

2. PROVISIONS ............................................................................................................................................... 3
   2.1 GENERAL ............................................................................................................................................ 3
       P1 Flow Down of Requirements .................................................................................................................. 3
       P2 Quality Managements Systems (QMS) ................................................................................................. 3
       P3 Changes Notification ............................................................................................................................. 3
       P4 Quality Planning .................................................................................................................................. 4
       P5 Qualification of Personnel ...................................................................................................................... 4
       P6 Sampling Plans ...................................................................................................................................... 4
       P7 Identification and Traceability ................................................................................................................. 4
       P8 Control of Monitoring and Measuring Resources .................................................................................. 4
       P9 Preservation of Product .......................................................................................................................... 4
       P10 External Provider Performance ........................................................................................................... 5
       P11 Nonconforming Product ....................................................................................................................... 5
       P12 Nonconforming Product Disposition .................................................................................................... 5
       P13 Corrective Action .................................................................................................................................. 5
       P14 Certificate of Conformance .................................................................................................................. 6
       P15 Retention of Documented Information .................................................................................................. 6
       P16 Right of Access ..................................................................................................................................... 6
       P17 Source Inspection .................................................................................................................................. 6
       P18 DFARS Compliance ............................................................................................................................... 6
       P19 First Article Inspection .......................................................................................................................... 7
       P20 Conflict Minerals “The Dodd-Frank Wall Street and Consumer Act” ................................................. 7
       P21 Counterfeit Materiel Prevention .......................................................................................................... 7
       P22 Access to FOUO/CUI ............................................................................................................................. 8

3. REVISION HISTORY .................................................................................................................................. 8
INFORMATION FOR EXTERNAL PROVIDERS – REQUIREMENTS

1. PURPOSE

1.1 General

Thermal-Vac Technology, Inc. (TVT) established this Quality Procedure (QP) in order to document the flow down of additional requirements listed in the purchase order to external providers for products and/or services to be procured.

1.2 Application

This QP applies to all TVT’s procurement documents issued to external providers that provide products and/or services that are either modified to achieve compliance to, or manufactured in accordance with drawings and specifications to be used in, or for the processing of products eventually sold by TVT.

1.3 Responsibility for Implementation

a) TVT Management Team
b) Procurement Process
c) Inspection Process
d) Applicable External Providers

1.4 Definitions

External Provider: Provider that is not part of the organization and provides a product and/or service to TVT. External providers were previously referred to as suppliers.

2. PROVISIONS

2.1 General

As applicable, the following numbered purchase order provisions (letter ‘P’ plus ‘number’) are a requirement of the procurement document.

In the event that a provision cannot be met, TVT shall be notified immediately prior to processing of the purchase order.

P1 Flow Down of Requirements

External provider shall flow down all applicable purchase order provisions to the supply chain, including its direct and sub-tier external providers, to ensure requirements are met.

P2 Quality Management Systems (QMS)

External provider shall maintain a QMS in compliance with an International Organization for Standardization (ISO), Aerospace Standard (AS) or Military Standard-equivalent QMS acceptable to TVT for the items covered herein. Widely recognized government or industry quality management system standards should be used as guidelines.

P3 Changes Notification

External provider shall notify TVT of changes to processes, products, or services, including changes of their external providers or location of manufacture, and where required, obtain TVT approval.
P4  Quality Planning
External provider shall plan and develop the processes needed for product realization. As appropriate, the external provider shall determine, at a minimum, the requirements for approval of product, procedures and equipment.

P5  Qualification of Personnel
Personnel performing work affecting conformity to product requirements shall be competent on the basis of appropriate education, training, skills and experience, including awareness of the following:
- Their contribution to product or service conformity
- Their contribution to product safety
- The importance of ethical behavior

When applicable, external provider shall only use certified personnel. External provider shall maintain the expected level of competence, training and awareness for all work performed for TVT.

P6  Sampling Plans
When utilizing sampling inspection as a means of product acceptance, the sampling plan shall be justified on the basis of recognized statistical principles and appropriate for use (e.g.: matching the sampling plan to the criticality of the product and to the process capability).
Acceptable Quality Levels (AQL) shall be Ac = 0; Re = 1

P7  Identification and Traceability
Where traceability is a requirement, the external provider shall control the unique identification of the product. Where appropriate, the external provider shall identify the product by suitable means throughout product realization maintain the identification of the configuration in order to identify any differences between the actual configuration and the procured configuration.

All items manufactured under the applicable purchase order shall be traceable to raw materials used. Traceability and inspection records shall be available upon request. Identification of raw materials used, shall include, as applicable, but not limited to, lot numbers, material types, specifications number, etc. In any case, external provider shall record sufficient identification information to adequately identify all material in such a manner that full traceability of raw materials used is included.

P8  Control of Monitoring and Measuring Resources
The external provider shall maintain a calibration system in compliance with ANSI/NCSL Z540, ISO 10012 or the equivalent.

TVT shall be notified when the equipment is found not to conform to requirements. The external provider shall assess and record the validity of the previous measuring results and shall take appropriate action on the equipment and any product affected.

P9  Preservation of Product
The external provider shall preserve the product during internal processing and when delivery to TVT in order to maintain conformity to requirements.
As applicable, preservation shall include identification, handling, packaging, storage and protection. Preservation of product shall also include, where applicable in accordance with product specifications and applicable statutory and regulatory requirements, provisions for:

- Cleaning
- Prevention, detection and removal of foreign objects
- Special handling for sensitive products
- Marking and labeling including safety warnings
- Shelf life control and stock rotation
- Special handling for hazardous materials

**P10 External Provider Performance**

External providers are reviewed periodically for both conformity (of product, process, and/or service) and on-time delivery. When applicable, external providers not meeting external provider performance will be issued a corrective action and may be relegated to “Disapproved” status.

**P11 Nonconforming Product**

External provider shall ensure that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery. A documented procedure shall be established to define the controls and related responsibilities and authorities for dealing with nonconforming product.

**P12 Nonconforming Product Disposition**

External provider shall make certain that reworked product which does not conform to product requirements has no adverse effect on safety, performance, interchangeability or reliability, and within applicable requirements.

Product dispositioned for scrap shall be conspicuously and permanently marked, or positively controlled, until physically rendered unusable.

External provider shall not use dispositions of use-as-is or repair, unless specifically authorized by TVT’s Director of Quality/Designee, if the nonconformity results in a departure from the contract requirements. The disposition received from TVT Director of Quality/Designee shall include approval by an authorized representative of the organization responsible for design or by persons having delegated authority from the design organization, and authorization by TVT’s customer.

When applicable, upon disposition of nonconforming product, involved parties shall be notified within 72 hours. Involved parties can include TVT, supply chain and regulatory authorities.

**P13 Corrective Action**

When applicable, the external provider shall eliminate the causes of nonconformities in order to prevent recurrence. External provider shall determine and implement actions needed, and reviewing the effectiveness of the corrective action taken.
P14 Certificate of Conformance

Supplier shall provide a Certificate of Conformance with each shipment including, when applicable, certifications issued by sub-tier external providers. The certifications and test reports supplied as evidence of purchase order fulfillment must be in English.

P15 Retention of Documented Information

Unless otherwise stated, external provider shall control the established documented information to provide evidence of conformity to requirements and retain them for a minimum period of ten (10) years. The external provider shall address the following activities, as applicable, for the control of documented information:

- Distribution, access, retrieval, and use
- Storage and preservation, including preservation of legibility
- Control of changes (e.g., version control)
- Disposition
  - TVT shall be notified prior to destruction of any documented information and offered the option to transfer to TVT if disposition will occur before the required retention period
- Prevention of the unintended use of obsolete documented information by removal or by application of suitable identification or controls if kept for any purpose.

Documented information retained as evidence of conformity shall be protected from unintended alterations.

When documented information is managed electronically, data protection processes shall be defined (e.g., protection from loss, unauthorized changes, unintended alteration, corruption, physical damage).

P16 Right of Access

External provider's system shall include right of access by TVT, their customer and regulatory authorities to all applicable areas of all facilities and to applicable documented information, at any level of the supply chain, involved in the order.

P17 Source Inspection

When required, TVT and/or its customers or government agencies representatives will inspect the products submitted on the applicable purchase order at the external provider's facility.

Source inspection acceptance by TVT and/or its customers or government representatives shall not constitute final acceptance of the items procured, nor shall it relieve the external provider of their responsibility to furnish acceptable product.

As applicable, external provider shall notify TVT 48 hours in advance when order is ready for source inspection.

P18 DFARS Compliance

When applicable, external provider is subject to the requirements of DFARS 252.225-7003, 252.225-7008, 252.225-7009 and 252.225-7010.
A statement certifying compliance to, as applicable, DFARS 252.225-7003, 252.225-7008, 252.225-7009 and 252.225-7010 shall be included for each shipment of item delivered. This statement may be included as a part of the Certificate of Conformance. The statement shall identify the material or item by lot, date of manufacture, and/or serial number, revision date and/or grade, as applicable.

DFARS requirements may be found at: http://www.acq.osd.mil/dpap/dars/dfars/html/current/252225.htm

**P19  First Article Inspection**

The external provider shall use a representative item from the first production run of a new part or assembly to verify that the production processes, production documentation and tooling are capable of producing parts and assemblies that meet requirements. This process shall be repeated when changes occur that invalidate the original results (e.g., engineering changes, manufacturing process changes, tooling changes). First article inspection may be accomplished in accordance with the requirements of AS9102 or equivalent.

**P20  Conflict Minerals “The Dodd-Frank Wall Street and Consumer Act”**

The Security and Exchange Commission (SEC) has imposed that publicly traded companies report of any product containing Tantalum (and all its derivatives), Tin, Tungsten or Gold from the Democratic Republic of Congo, Angola, Burundi, Central African Republic, Rwanda, Tanzania, South Sudan, Uganda and Zambia. TVT is expecting you as an external provider to perform a due diligence effort to make these determinations. It will be required that you do not knowingly supply any product that contains these minerals from the above listed countries based on the concerns that the revenues obtained from the mining and transport of conflict minerals aid in financing the ongoing conflict in the Democratic Republic of Congo (DRC) and the surrounding countries.

**P21  Counterfeit Materiel Prevention**

Supplier shall establish and maintain a Counterfeit Materiel Prevention and Control Plan per AS6174 (Section 3) to ensure counterfeit materiel is not delivered to TVT.

a) Supplier agrees and shall ensure that counterfeit materiel has not been delivered and shall ensure that only new and authentic materials are used in materiel delivered to TVT.

b) Supplier shall only purchase materiel directly from original manufacturers, manufacturer franchised distributors, or authorized aftermarket manufacturers.

c) Supplier shall maintain a method of commodity and item level traceability that ensures tracking of the supply chain back to the manufacturer of all materiel being delivered per this order, including the manufacturer's commodity or item level identification for the item(s) such as date codes, lot codes, heat codes, serializations, unique item identifiers, or batch identifications.

d) Supplier shall immediately notify TVT with the pertinent facts if external provider becomes aware or suspects that it has furnished counterfeit materiel. When requested, the external provider shall provide documentation that authenticates traceability of the affected items to an Original Manufacturer or authorized distributor chain that identifies the name and location of all the supply chain intermediaries from the part manufacturer to the direct source of the product.
e) Supplier shall include this clause or equivalent provisions in lower tier subcontracts for the delivery of items that will be included in or furnished to TVT.

P22 Access to FOUO/CUI

Access to For Official Use Only (FOUO) and/or Controlled Unclassified Information (CUI) must be limited to U.S Persons that have (1) a current U.S security clearance (minimum interim SECRET clearance), or (2) have been the subject of a favorably completed National Agency Check with Inquiries (NACI), or (3) have been the subject of a favorably completed background check pursuant to a background check program submitted to Aerojet Rocketdyne and approved by the Government.

- Personnel with dual citizenship that have an active U.S. security clearance (interim Secret or higher) may be permitted access to FOUO/CUI. Personnel with dual citizenship that do not have an active U.S. security clearance (interim Secret or higher) are not authorized access to FOUO/CUI unless a request is submitted to Aerojet Rocketdyne and approved by the Government.

3. REVISION HISTORY

<table>
<thead>
<tr>
<th>Revision</th>
<th>Date</th>
<th>Revision Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/C</td>
<td>12/22/1995</td>
<td>Initial Issue.</td>
</tr>
<tr>
<td>A</td>
<td>07/08/2009</td>
<td>Fully revised to incorporate all necessary changes noted during full document review process.</td>
</tr>
<tr>
<td>C</td>
<td>11/15/2013</td>
<td>QAPC No 16-17; 26-27 added.</td>
</tr>
<tr>
<td>D</td>
<td>03/11/2014</td>
<td>Was: SOP-041 Rev. C, Is: QP-742 Rev. D Fully revised to incorporate all necessary changes noted during full document review process in compliance with AS 9100 and ISO 9001</td>
</tr>
</tbody>
</table>