

	<b>Pratt &amp; Whitney US/Canada DQR Qualifications and Requirements, OP-84-04 rev NC</b>
<b>Pratt &amp; Whitney US/Canada DQR Qualifications and Requirements</b>	<p>Effective Date: 7-28-20  Owner Approval by Raymond Greco, QA Manager, on 7-28-20  Management Approval by Craig O. Garneau, President on 7-28-20</p> <p><i>Printed copies of this document are for information purposes only and are uncontrolled.  Printed copies are not valid after the date of printing.</i></p>

## 1. PURPOSE

To define those responsibilities for DQR/DRPV personnel at QNP performing duties on behalf of Pratt & Whitney US and Canada.

## 2. SCOPE

This procedure applies to all Quality Name Plate, Inc (QNP Inc.) orders made for Pratt & Whitney US and Canada that invoke DQR requirements.

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## 3. APPLICABLE FORMS OR REFERENCES

The table below identifies the code number and title of documents and references applicable to this procedure;

<b>Form/Reference Number</b>	<b>Title</b>	<b>Owner - Publisher</b>
AS9100	Quality Management Systems - Requirements for Aviation, Space and Defense Organizations	SAE International
ASQR-01	Supplier Quality System Requirements	UTC
ASQR-20.1	Supplier Sampling Requirements	UTC
SQOP-01-01	P&WC Supplementary Supplier Quality Requirements	UTC
SQOP-01-02	P&WC Supplementary Supplier Quality Requirements	Pratt & Whitney Canada
SQOP-01-03	Certificate of Conformity	Pratt & Whitney Canada
SCOP DQR	Supply Chain Operating Procedure DQR Program	Pratt & Whitney Canada
CPW 10	Identification Marking - Items, Castings and Forgings	Pratt & Whitney Canada

CPW 920	Identification Format	Pratt & Whitney Canada
PWA 310	Identification Marking Materials and Items	Pratt & Whitney US
POP 1614	Supplier Requirements for Preservation and Specialized Packaging	Pratt & Whitney US
OP-85-05	Control and Issuance of Stamps	Quality Name Plate, Inc.
ASQR-01 Form 3	Supplier Request for Information	UTC
ASQR-01 Form 8	Letter of Agreement Authorized to Release Program	UTC
UTCQR Form 6	Notification of Potential Quality Escape	UTC
AS9102 Forms 1, 2, 3	First Article Inspection Report	SAE International
DQR Activity Logbook	DQR Activity Logbook	Pratt & Whitney Canada

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#### 4 - Pratt & Whitney U.S/Canada DQR Qualifications and Requirements

**4.1** - All DQR activities are to be performed over and above QNP's inspection processes, including shipment paperwork input and/or creation. These activities cannot be combined or performed by the same person performing the DQR shipment release.

For example, DQRs are not permitted to over-inspect product they themselves have previously inspected.

#### 4.2 - Contractual Prerequisites:

- QNP must have a purchase order or scheduling agreement directly from P&W or be otherwise approved by P&W SQA management to participate in the DQR program.

#### 4.3 - Managerial Expectations

- QNP's management ensures that sufficient (minimum two) DQRs are maintained in accordance with QNP's location, shift coverage, and/or volume of shipments. P&W reserves the right to implement third party source inspection at QNP's expense should there be insufficient DQR resources to support product release.
- QNP's management ensures that DQRs have the organizational freedom to report to P&W and QNP's management regarding any issues affecting quality and/or compliance with purchase order requirements.

- QNP's management ensures that DQRs are proactive in their duties within this program and have time to complete their associated tasks. QNP's QMS ensures the effectiveness of the DQR program.
- QNP's management must complete and submit ASQR-01 Form 8 (Letter of Agreement-Delegated Quality Representative Program) every three years to its respective P&W Supplier Quality Assurance organization(s).
- QNP's management shall notify the P&W SQAR within one work day when an approved individual is either transferred from the quality department activities or has left the organization.

## **5 - Pratt DQR Requirements**

### **5.1 -To qualify as a DQR, Each Candidate must:**

- Have one year's experience in quality inspection, and six months' experience working with applicable P&W products.
- Meet eye examination requirements defined in ASQR-01 for P&W -US, And SQOP 01-01 for PW&C.
- Have only one unique individual QNP email address.
- Report up through the quality organization.
- Not have management or supervisory responsibilities or perform functions that would conflict with their DQR responsibilities.
- Must be AS13001-accredited and maintain such accreditation during their DQR tenure.
- Maintain their certification by attending any required additional training as defined by the P&W supplier quality organization.

### **5.2 - DQR Designation**

- One DQR will be designated as the Prime DQR, and act as the main point of contact for P&W. All other DQRs will be designated as Alternates.

### **5.3 - C of C Stamping (P&WC)**

- The Individual who performs the DQR release of a Certificate of Compliance (C of C) cannot be the same person who prepares, edits, and approves the same C of C on behalf of QNP

### **5.4 - Supplier Portal Access**

- All DQRs require access to the P&W Supplier Portals, and must use their unique login information to access it.

### **5.5 - DQR Documentation and Related Specifications**

- QNP ensures that DQRs have direct access to copies of applicable P&W purchase orders, drawings, RCC, QAD, SPD, SMD and other UTC/P&W specifications for the completion of DQR tasks. Document revisions are reviewed at appropriate periods to ensure they are being maintained at the most current/appropriate level.

### **5.6 - Exception to DQR program requirements:**

- Exceptions to DQR program requirements shall be requested by QNP using ASQR-01 Form 3 with a documented justification for the request, and subsequently approved by P&W SQA Management.

## 6 - Publication Logs

### 6.1 - The Prime DQR shall:

- Ensure Eagle Eyes Alerts, bulletins, and new or revised specifications/procedures are maintained by QNP, and are available to and reviewed/understood by DQRs. Such review and understanding shall be documented on a reading log signed and dated by the DQR, and shall be accessible to the SQAR.
- Ensure aforementioned P&W communications are shared with all applicable organization personnel.
- Provide new/revised email addresses of any individuals which may need to receive aforementioned P&W communications to the SQAR.

## 7 - Pratt Product Release

### 7.1 Visual Inspection Activities

The DQR randomly selects pieces by applying an AQL of 2.5 per ASQR 20.1 Figure 1 to the lot to be inspected. The DQR shall then inspect the sampled lot using the Tin Soldier method. This method requires the DQR to:

1. Randomly select a part from the lot.
2. Verify the part meets its drawing requirements (e.g., visual specification, correct identification, marking location, geometry, configuration, surface treatment, etc.).
3. Line up sample product(parts) from the inspection lot on an inspection surface in the same orientation
4. Visually compare the remaining parts against the selected part to identify any differences.

**Note:** P&WC/P&W-US reserve the right to increase the visual AQL requirements based on QNP's performance levels.

Where the Tin-Soldier method is not practical (due to safety, product size, or potential damage to the product), the DQR inspects one piece from the lot per 7.1.1 and 7.1.2 above. The remaining pieces are inspected for general damage, correct identification, marking location, geometry, configuration, surface treatment, etc.

The DQR ensures that the physical product identification, and SER or UI, if applicable, is legible, accurate (ref CPW10/920 or PWA 310), and in the correct location per the drawing requirements.

If applicable:

- P&WC: for 2D-serialized product (parts), The DQR verifies that the 2D-serial numbers marked on the parts are the same as the human readable serial numbers by performing a sample scan.
- P&W-U.S: DQR verifies that the 2D-marking complies with PWA 310 requirements by reviewing the 2D-marking scan printout.

## 7.2 - Over-Inspection Activities

1. The DQR shall select a minimum of four drawing characteristics per production lot. Emphasis shall be placed on KPCs and/or P&W-defined interfaces. The DQR performs or witnesses the physical dimensional audit over-inspection of those selected four characteristics. For features that cannot be measured at the DQR's working location (such as those requiring CMM) they may use approved quality records from inspection methods/processes that were validated by a DQR.
2. Unless otherwise agreed upon by P&W SQAR, different characteristics shall be selected for over-inspection each time a production lot is to be released. Evidence of this activity shall be maintained in the DQR logbook.
3. The sample size selected shall be SCOP DQR 7.3 Table 1, and is applicable to all part numbers. Dimensions shall be recorded in the DQR activity logbook or electronic release system (NI/Solumina) where accessible.

## 7.3 - Preservation and packaging activities (related to product procurement purchase orders only.)

- For the first production shipment, the DQR shall verify that parts are preserved and packaged per P&W specified packaging requirements as defined on P&WC Supplier Portal or P&W-U.S. POP1614 and RCC. They must also verify that shipping and protective closures, if required by the drawing, meet P&W specified requirements.
- P&WC: The DQR repeats these verifications annually and records these verifications in the logbook.

## 7.4 - Shipment Release Activities

When the product is ready to be packaged for shipping, the DQR uses the logbook and/or electronic source inspection systems (NI/Solumina or E-C of C when applicable) to verify at a minimum that:

1. The product is for delivery to P&W or to a P&W-approved destination.
2. Any additional Requirements on the P&W purchase order, such as a Requirement Change Authorization (RCA)/Ship-Prior-To, Red Flag Notice (RFN)/Internal Re-inspection Orders (IRO) and dispensation were met.
3. All planned operations, inspections, and testing, as applicable, including those performed at sub-tiers, were completed, accepted, dated, stamped and/or signed off. (i.e. shop traveler, router, acceptance test procedures (ATP), hidden dimensions inspection, etc.)
4. All QNP detected non-conformances have received an acceptance disposition from the appropriate P&W entity.

If parts are allocated from QNP's stock for shipment after the packaging and DQR visual inspection processes have already been completed, the DQR, in addition to tasks specified in 7.4, opens one package, randomly selects a single part, and perform the following:

1. Verify the packaging and labeling meet P&W purchase order requirements.
2. Verify that part marking, including part number and change letter, matches the P&W purchase order being shipped against.
3. Ensures the absence of product corrosion

#### 7.5 - Red Flag Notice (RFN) and Internal Re-inspection Orders (IRO)

The DQR ensures that:

1. The applicable inspections, per the RFN or IRO, has been performed.
2. Parts have been correctly marked per the RN or MRB QN disposition
  - P&WC: The C of C Contains the RE Number. (Ref SQOP 01-02/SQOP 01-03)
  - P&W-US: All labels and packing slips contain IRO stamp.(ref. POP-1614)

#### 7.6 - Escape Activities

Escapes detected by a DQR:

1. For P&WC, shall be processed in accordance with SQOP 01-02: Control of Non-Conforming Product.

The DQR shall also ensure:

- Immediate corrective action is taken within 24 hours to contain the problem.
- The NOQPE, includes the root cause/corrective action plan, is completed and submitted to the SQAR within 30 working days, if confirmed.
- The effectiveness of the corrective action by verifying that supplier documentation and inspection results demonstrate conforming product within 60 days, unless otherwise stated in the corrective action.

Escapes Detected by P&W:

1. DQR ensures that all features affected by a non-conformances reported on an earlier escape are re-inspected and conforming. Records of this re-inspection are documented and maintained.
2. For P&WC, ensure all escape non-conformances are over-inspected 100% on the next three consecutive shipments following the escape, the C of C is annotated per SQOP 01-03 requirements, and the escape QN number(s) is entered into DQR logbook to ensure over inspection is performed before delivery

**Note:** The DQR Checks for escape QNs new since last shipment by accessing the supplier portal for P&WC and UTCQR Form 6/QN for P&W-US.

## 8 - Application of Acceptance Stamps

8.1 - The DQR ensures the appropriate P&W acceptance stamps are applied to documents and product as applicable.

- The SNC/SDS/packing slip (P&W-US) or C of C (P&WC) shall be stamped with the appropriate DQR acceptance stamp (Per SCOP appendix I) upon completion of all requirements of the purchase order.

### 8.2 - Stamp Application

1. When required, the P&WC acceptance stamp is applied after DQR inspection and acceptance of the product.
2. Parts ordered with a development (advanced procurement) purchase order require a detail acceptance stamp on the document, but no acceptance stamp on the part.
3. The final acceptance stamp;
  - Is applied to indicate that the finished parts have been accepted and will not require further processing.
  - Shall not be applied to a part when the P&WC trademark symbol is present.
  - Is applied to parts in a permanent manner. The application method and location shall be the same as part marking requirements per the drawing.

**Note:** For synthetic or rubber type parts, ink is considered permanent. In such cases, the ink shall be approved by P&WC's Chemical Technology and Test department. A DQR shall contact a P&WC account specialist or quality representative for approval.

- When applied to part, Model A shall be used in conjunction with P&WC manufacturer approval number 4-58
- When applied to part, can be considered as meeting the intent of P&WC trademark symbol requirement upon P&WC approval.
- In-line marking: Applicable only to ENSIP (CPW138) parts, when the part marking surface size or shape does not allow for P&WC Final Acceptance stamp to be marked on the part, in-line marking shall be performed by identifying on the marking surface:
- CPWA followed by the assigned stamp number. A dash or space is permitted after CPWA and after the letter "Z". Spaces shall not exceed 1 Character

**Note:** It is permitted to place the stamp number in parenthesis. A space is permitted between the parenthesis and the stamp number; however, the space shall not exceed one (1) character. Example (CPWA Z-000)

- P&WC Manufacturer's Approval Number: 4-58

### 8.3 - Detail acceptance stamp:

- Indicates the acceptance of semi-finished product, raw material, and MD part
- Indicates the product requires further processing
- Refers to a Requirement Change Authorization (RCA)
- Indicates Engineering source Approval (ESA) designated status for production deliveries

## **8.4 - Ship Prior to Completion**

A Requirement Change Authorization (RCA) or Ship-Prior-To are granted to QNP to allow delivery of product to P&W or an approved destination when the requirements on a purchase order cannot be met.

For parts shipped to P&W per form P&WC # 5034 (Requirement Change Authorization) or PW form# 4832 (Authorization to Ship Prior to Completion of Requirements), the DQR shall ensure that the QNPs' applicable P&WC P.O has been dispositioned to authorize the shipment "Ship Prior To". Refer to appendix II of SCOP DQR for specific instructions.

## **9 - First Article Inspection Activities (Production Shipments)**

**9.1** - The DQR ensures that QNP has created a valid FAI package for the revision/change level being shipped, per the requirements of AS9102

- For P&WC, for the first shipment of a part number, ensure the FAIR has been completed, validate its content, and sign, date and stamp below box 23 (Customer Approval) on AS9102 Form 1. For subsequent shipments, ensure a DQR reviewed or customer-approved FAIR exists. Ensure the C of C is correctly annotated as per SQOP 01-03 requirements.

## **10 - Addressing Correct or Incomplete C of Cs (P&WC)**

The DQR shall ensure the C of C is correctly annotated as per the requirements of SQOP 01-03.

**10.1** - Create the C of C using the information below, in sequence:

- C of C header on the top of each C of C page.
- Certification information.
- C of C certification statement and signature on the last page of the C of C.
- C of C footer on each page of the C of C.

**10.2** - The C of C header shall contain the following:

- Title "Certificate of Conformity or certificate of compliance
- Company Name and address (see note) of the PO owner
- P&WC supplier code.
- Manufacturing address, if it is different than the P.O. (see note).
- Purchase order and Line Item
- Quantity (Batch/Lot quantity certified by the supplier. A shipment/delivery can be a portion of certified quantity except for critical material: C of C quantity must be the same as quantity received).
- P&WC part no (same as the P&WC purchase order).
- Part description.
- Material revision letter (if there is no rev letter, specify it by rev.none ,no rev.,n /a, none or -). For industry standard materials (i.e, AS,AN,MS,NAS,M,MA), C of C may reflect the latest industry standard drawing revision independently of the P.O requirement
- Supplier production number.

The address must include a (2) two-digit alphabet code to indicate the country of origin (international abbreviation), e.g., Canada=CA, United States = US, England = GB.



### 10.3 - Addressing incorrect C of Cs

When QNP is notified that a corrected C of C is required by P&WC, the DQR shall:

- Review the corrections and over-stamp the document using applicable DQR ink stamp, next to the corrected entry.
- Add an entry to the DQR activity logbook for over-inspection of the next three shipments.
- Investigate the reason for the error(s) to support QNP's corrective and preventative actions.

### 11- DQR Activity Logbook

11.1 - A unique DQR activity logbook shall be maintained by part number to retain evidence of task completion and to document any additional tasks required for the next shipment. The DQR activity logbook shall:

- Be maintained in bound paper or electronically. When maintained electronically, files shall be protected by a password and allow access only to certified P&W DQRs
- Be available for P&W review.

**Note:** The DQR activity logbook is considered a quality record by QNP for Quality records retention period please see OP-82-02 section 13.2

### 12. Records/Objective Evidence

The retention duration for records referenced in this procedure are available on-line in the FM-75-01 Master Document List with Revision History.

Records are maintained in accordance with OP-75-01 Control of Documented Information.

### 13. Revision History

Revision, approved date, effective date, and a document change summary for this document is located on-line in the FM-75-01 Master Document List with Revision History.