Flight Safety Part Program

1. PURPOSE & SCOPE

This document defines unique requirements for suppliers and their sub-tiers for the control of Flight Safety Parts (FSP). It supplements but does not replace other RTX Business Entity requirements.

Note: *Process Sheets / Supplier Documentation previously approved by RTX Business Entities need not be re-submitted, for new approval, until such time as the supplier's process / documentation is revised.*

* 2. APPLICATION

Supplier quality requirements defined in this document are agreed upon by and applicable to the following RTX Aerospace Business Entities (also known as Members):

Pratt & Whitney	PW
Pratt & Whitney Canada	PWC

Note: *These identifiers include all Original Equipment Manufacturing (OEM) and Aftermarket Operations (AO).*

The requirements of this document apply when the PW drawing includes the statement "Flight Safety Part" above the title block on sheet 1 of the drawing, and when the PWC drawing includes the statement "ENSIP Critical Part", or "Critical Rotating Part" or "Critical Part" or "Safety Significant Item" above the title block on sheet 1 of the drawing.

3. DEFINITIONS

* **3.1 Flight Safety Part (FSP):** For the purpose of this document the term Flight Safety Part (FSP) is synonymous with:

- PW Flight Safety Part (FSP)
- PWC Critical Rotating Part
- PWC Critical Part
- PWC Engine Structural Integrity Program (ENSIP) Critical Part
- PWC Safety Significant Item

3.2 Critical Characteristic (CC): Any dimension, finish, material, installation, assembly, manufacturing or inspection process or other mechanical feature or electrical attribute of a FSP which, if nonconforming, could result in an unsafe condition.

For the purpose of this document the term critical characteristic is synonymous with:

- PW Flight Safety Characteristics (FSC)
- PWC ENSIP Critical Location (ECL)

3.3 Unsafe Condition – A credible condition that could directly or indirectly cause loss of or damage to an aircraft or its major systems, or result in injury or death. These conditions are such as, but not limited to:

- Non-containment of high energy debris
- Uncontrolled fire
- Concentration of toxic products in the engine cabin bleed air
- Significant thrust in the opposite direction to that commanded by the pilot
- Failure of the engine mount system leading to engine separation
- Complete inability to shutdown the engine.
- Uncommanded engine shutdown for single engine applications (Where applicable)
- Non-recoverable stalls for single engine applications (Where applicable)
- Hot gas impingement on critical airframe structures (Where applicable)
- Release of the propeller by the engine, if applicable.

4. REQUIREMENTS

4.1 General FSP Identification

4.1.1 FSPs are identified on the drawing, drawing related documents or Purchase Order (PO).

Notes:

- *For PW FSPs, CC is designated by FSC in a racetrack (FSC)*
- *For PW FSPs, some FSCs may also be designated as KPC1 as defined in PWA 79345.*
- *For PWC ENSIP Critical Parts, all CCs are identified on the drawing as an ENSIP Critical Location (ECL) as defined by CPW138.*
- *For PWC some FSCs will also be designated KPC1 as defined per CPW153*

4.1.2 For “make to print” parts There are no additional requirements related to the FSC racetrack other than those for PW-QA-6100 and PWA 79345 and as defined in this document. For PW there may also be FSCs on the Quality Assurance Document (QAD).

The features designated as flight safety characteristics (FSCs) will also appear on the IDS with the other Key Characteristics and will have an Impact of Safety and/or a Severity of 9 or 10.

4.1.3 For supplier designed parts that are FSPs, the supplier and the applicable Member Engineering organization jointly identify the CCs.

4.1.3.1 Supplier shall identify CCs with a method approved by the Member on the detail part and assembly drawings and then submit to the applicable Member Engineering organization for approval.

Note: *The applicable Member Engineering organization identifies the FSP CC on their procurement control drawings.*

4.9 Inspection

4.9.1 For the purposes of sampling inspection or product acceptance per ASQR-20.1, characteristics with the FSC designation and no KPC designation, shall be treated as Critical characteristics. When PPAP Full Approval is obtained and maintained, these characteristics may be treated as Minor characteristics.

5. RECORDS/FORMS

5.1 Completed Quality records generated electronically or on paper and associated hardware used for quality system acceptance, shall be retained per the requirements of ASQR-01.

* 6. REFERENCES

6.1 Member specifications needed, shall be requested from the applicable Member's Procurement organization. Documents referenced in this specification include but may not be limited to:

Document	Title
ASQR-01	Aerospace Supplier Quality Requirements
ASQR-20.1	Supplier Sampling Requirements
PWA 79345	Management & Classification of Key Product Characteristics
CPW 138	ENSIP Critical Parts
CPW 153	Management & Classification of Key Product Characteristics
PW-QA 6100	Production Part Approval Process

7. NATURE OF CHANGE

This document has been revised. Major changes include the following:

- Removed para 4.1.3.2, 4.2 through 4.8, 4.9 except 4.9.2.3, 4.10, 4.11, 5.2, 5.3. 6.1
- Renumbered remaining paragraphs
- Editorially revised content in para 4.1.1, 4.1.2, 4.1.3, 4.9.2.3 (now 4.9.1). Removed uncited references in para 6.2 (now 6.1).
- Minor revision to definition of Unsafe Condition in para 3.3
- Updated logo, Copyright statement, added “Publicly released” statement to footer.

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