Effective Date: 3/23/2021

Q252: Supplier Manufacturing Readiness Review (SMRR)

You have received this Quality Clause as a result of the risk ranking of the product you are quoting or under contract for. The requirements of this Quality Clause must be planned for and complied with unless this is waived by either PO direction or other written approval provided by AR Quality and the responsible buyer for this hardware. **If you have not had any performance issues or a break in production in the previous two years, contact your AR buyer prior to quoting or production to determine if some or all of the requirements of this clause can be waived for this PO. Any waiver requires written approval from the AR buyer**.

Seller shall prepare and submit documentation required to perform a Supplier Manufacturing Readiness Review (SMRR) for Buyer's approval. The SMRR shall be conducted prior to producing the First Article. The First Article Inspection (FAI) report for this procurement requires an enhanced FAI with additional Compliance Matrix (CM) features as explained in the CM/FAI section of this document.

Supplier Manufacturing Readiness Review (SMRR): Determines the readiness of the manufacturer to proceed with manufacturing of the product.

The SMRR should represent a complete and comprehensive presentation of the entire planned production and/or assembly activity. The information prepared for the SMRR should represent the following (as applicable): Product description, business review, Quality and Engineering Notes review, released production drawings, design risk assessment, manufacturing readiness (planning, technique sheets, tooling, etc.), process capability validation, technical review, production verification testing, material certification, parts marking methods, packaging, preservation and labeling approvals, special process approvals, and nondestructive test, inspection, nonconforming product process, and documentation requirements.

The SMRR documentation will be submitted to Buyer's authorized purchasing representative and the review will be scheduled at the appropriate location. Approval by Buyer is required prior to production of the procured item(s). Buyer's approval of manufacturing plans shall not relieve Seller of Seller's requirement to comply with the terms of this contract.

Forms QMA-F-7.08.06.024 and QMA-F-7.08.06.025 will be used by Aerojet Rocketdyne (as applicable) to conduct and document the SMRR.

All changes to the approved SMRR plan shall be submitted to Buyer for review and/or approval prior to implementation, unless otherwise defined by Buyer engineering requirements.

Compliance Matrix / First Article Inspection (CM/FAI): The seller is expected to complete the CM/FAI in full compliance to AS9102 with the additional detail noted in this clause utilizing the Aerojet Rocketdyne provided FAI template: QMA-F-5.04.03.00.0007.

The template when used properly per the accompanying forms instructions ensures that the CM/FAI includes the following detail and all the required approvals:

1) An extracted list of all drawing and specification requirements
2) Materials/part numbers required to make the evaluated part number
3) Detailed specific traceability to the documents that make and verify the extracted features including the methods used to verify compliance to the requirement.
4) Specific tooling required to create or validate the features
5) Training required to create or validate the features

Q252: Supplier Manufacturing Readiness Review (SMRR) Cont'd

FAI details shall cover all design characteristics including all AR and customer acceptance criteria listed in performance and test specifications. When multiple quality requirements are included in (or embedded within) a single note or specification, then the note or specification shall be expanded to multiple entries to cover each of the verifiable quality requirements.

The seller shall submit the completed CM/FAI plan (minus results) to the AR buyer prior to or concurrent with the SMRR for review/ approval during the SMRR.

The SMRR team shall review the CM/FAIFAI Plan to ensure that it captures all requirements and works with the supplier to resolve any concerns. Upon verification of capturing all requirements, AR will approve the plan and authorize the supplier to populate the CM/FAI with results to complete the CM/FAI report and submit to AR for review/approval. The CM/FAI report is used in lieu of and satisfies the FAI requirements of AR1.

The following changes will require an update to the previously approved CM/FAI plan and/or report unless otherwise directed in writing by AR:

1) A change in the design characteristics affecting fit, form, or function of the part.
2) A change in manufacturing source(s), process(es), inspection method(s), location of manufacture, tooling, or materials that can potentially affect fit, form, or function.
3) A change in numerical control program or translation to another media that can potentially affect fit, form, or function.
4) A natural or man-made event, which may adversely affect the manufacturing process.
5) A lapse in production for two years. This lapse is from the completion of last production operation to the actual restart of production.