



Doc # QA3102
Revision K

Page 1 of 13

SUBJECT: Product Assurance Requirements

Author: Albert Tenny Date: 03/15/2018 Approved by: _____ Date: _____

***Signatures on File**

Doc # QA3102
Revision K

Page 2 of 13

SUBJECT: Product Assurance Requirements

REVISION / CHANGE LOG

| DCO# | Revision | Change | Page(s) Affected | Date |
|-----------|----------|--|---------------------|------------|
| 201803602 | A | Document replaces QA2028 - Appendix | - | 3/15/2018 |
| 201901640 | B | Update Paragraph 17 | 7 | 1/29/2019 |
| 202011802 | C | Document title change | 1 | 11/03/2020 |
| 202101018 | D | All sections replaced "vendor" with supplier. | All | 1/27/2021 |
| 202109104 | E | Add requirement under 2. Records & 10. Nonconformance relating to notification of nonconformances per DFARS 252.246-7003,(b)(1) and apply to Critical Characteristics for all CSIs for which Critical Characteristics have been identified. | 4, 6 | 09/07/2021 |
| 202203006 | F | Remove "Proprietary" from the footer | All | 03/16/2022 |
| 202204010 | G | Add exception to PAR 19 requirement and update PAR 24 | 7, 8 | 06/27/2022 |
| 202211157 | H | Clarify PAR 8 requirement | 6 | 12/14/2022 |
| 202412267 | J | Realign with DFARS, define criteria for indirect materials, add PARs for FOD, ESD, LAIR and meet OSHA requirements to verify that we have a safety data sheet (SDS) for all applicable received materials. Moved certified supplier requirement to PUR2006. Incorporated previous revision statements at the end of the document into their respective PAR sections. | All | 12/19/2024 |
| 202503265 | K | Added PAR 31 | 13 | 03/25/2025 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

SUBJECT: Product Assurance Requirements
1. PURPOSE:

GENTEX is committed to meeting our customers' expectations by delivering products and services of superior quality, which perform to, or exceed the technical specifications and meet safety requirements. GENTEX relies on our partnerships with our External Providers and their sub-tier suppliers to achieve this. Our Quality Management System (QMS), including our supplier evaluation and qualification process is compliant to the latest AS9100 standard(s). To maintain compliance, we have developed Product Assurance Requirements (PAR's) which are applicable to all Purchase Orders (PO) for products and services which go into a delivered product. All material furnished must be as specified on the drawing, PO, and / or any technical documentation submitted as an addendum to the PO. Any deliverable against the PO will be subject to these PAR's and GENTEX inspection and approval after delivery. GENTEX reserves the right to reject and return at the risk and expense of the External Provider such portion of any shipment which may be defective or fail to comply with specifications, without invalidating the remainder of the order. If goods delivered under this PO are rejected, they will be held for disposition at the external provider's risk and expense.

All External Providers must be committed to the highest standards of ethics and business conduct. They must comply with applicable statutory regulations, honor commitments and act in good faith. External providers must not offer, promise, or provide, directly or indirectly, anything of value (including business gifts or courtesies) with the intent or effect of inducing anyone to engage in unfair business practices. Suppliers will avoid involvement in activities that may be perceived as a conflict-of-interest.

External providers support product safety by ensuring robust management of special requirements, critical items and key characteristics. If there are concerns with respect to product safety, external providers will communicate them to GENTEX.

Acceptance of a GENTEX PO implies that the External Provider will ensure that its employees and sub-tier suppliers are aware of:

- Their contribution to product or service conformity
- Their contribution to product safety
- The importance of ethical behavior

2. DEFINITIONS:

| | |
|--------------|---|
| COC | Certificate of Conformance |
| CSI | Critical Safety Item |
| DFARS | Defense Federal Acquisition Regulation Supplement |
| ERP | Enterprise Resource Planning |

SUBJECT: Product Assurance Requirements

| | |
|------------------|---|
| ESD | Electro-Static Discharge |
| FAI | First Article Inspection |
| FAR | Federal Acquisition Regulation |
| FO | Foreign Object |
| FOD | Foreign Object Damage |
| GSI | Government source Inspection |
| LAIR | Last Article Inspection Report |
| OEM / OCM | Original Equipment Manufacturer / Original Component Manufacturer |
| PAR | Product Assurance Requirement |
| PO | Purchase Order |
| SDS | Safety Data Sheet |

3. APPLICABLE DOCS:

| | |
|----------------|-----------------------------------|
| QA2028 | PAR Guidelines for Purchase Order |
| PUR2006 | Purchasing |

4. SAFETY:

Not Applicable.

5. TRAINING:

All applicable employees and suppliers.

6. EQUIPMENT:

Automatic inclusion of PAR's on a PO are managed by the ERP system.

7. PROCEDURE: The following product assurance requirement (PAR) clauses shall be used to define requirements on a PO:

1. Quality System

All external providers of materials shall document and maintain a Quality Management System meeting the requirements of an established and recognized standard, such as ISO9001 or AS9100.

All external providers of calibration and testing services shall document and maintain a Quality Management System meeting the requirements of an established and recognized standard, such as ISO17025.

2. Records

The supplier shall maintain records of all inspections and tests performed on representative lots / material delivered to GENTEX, and records of all incoming materials acceptance documentation. GENTEX reserves the right to request or

SUBJECT: Product Assurance Requirements

review on site any inspection or test records used to form the basis of acceptance. All inspection records and / or certifications, including those with sub-tiers, must be retained for a period of seven (7) years and available for review, unless otherwise specified in the PO.

Gentex Critical Safety Item (CSI) records shall be made available to the Buyer for inspection within two business days of request. The Supplier and Supplier sub-tiers shall ensure CSI technical quality requirements and / or quality data are traceable to the date and location that the CSI were produced / repaired.

3. Government Source Inspection

When GENTEX informs the Supplier that government source inspection (GSI) is required prior to shipment from the Supplier, promptly furnish a copy of the PO with relative information to the government representative who normally services your facility. It is the supplier's responsibility to ensure on site GSI is performed in alignment with the PO due date(s).

4. Certificate of Conformance

A certificate of conformance (COC), signed by a supplier quality assurance representative, must accompany each lot of material and / or parts submitted to GENTEX. The certificate shall state that the parts or materials supplied against the PO meet all drawing and / or PO requirements. The COC must state that all inspection records and / or certifications are on file and available for GENTEX examination. GENTEX can provide a compliant COC form FRMQA4071 (current revision) upon request. The COC shall include:

1. Date
2. GENTEX PO number
3. GENTEX part number and revision level
4. Specification number
5. Quantity of the shipment (a certification is required with each shipment).
6. Applicable lot number; serial number; or batch number.
7. A statement that the supplier certifies that the products, processes, or procedures are in compliance with all applicable specifications and / or drawings, and that, records of inspection and testing are on file and available for review.
8. An authorized signature, Quality Manager or their designee
9. Name and Title of the authorized individual (printed or typed)
10. Certificate should be on your company letterhead with address.

5. Inspection Report

SUBJECT: Product Assurance Requirements

The Supplier shall furnish a copy of the final inspection report, signed by their Quality Manager or authorized representative. The report shall be identifiable to each Supplier lot item and must represent the lot being shipped. It shall include the GENTEX part number and revision as part of the report heading or information. The report must include all critical dimensional characteristics required by the drawing, unless otherwise agreed to in writing by GENTEX, including tolerance bands and drawing notes information. Sampling inspection to ANSI / ASQ Z1.4 or Z1.9 is acceptable.

6. Identification and Traceability

The seller shall maintain a system to identify sources of all raw materials, components, parts, and maintain records:

1. The organization shall identify the product status with respect to monitoring and measurement requirements throughout product realization.
2. When acceptance authority media are used (e.g., stamps, electronic signatures, passwords), the organization shall establish appropriate controls for the media.
3. Where Traceability is a requirement, the seller shall include:
4. Identification maintained throughout product life.
5. The ability to trace all products manufactured from the same batch of raw material or from the same manufacturing batch to the destination (i. e., delivery, scrap).
6. For an assembly, the ability to trace its components to the assembly and then to the next higher assembly.
7. For a product, a sequential record of its production (manufacture, assembly, inspection / verification) to be retrievable.

7. Physical Marking

All parts on this order shall be marked with a lot, batch number, contract number, or other markings per the PO notes.

8. First Article Inspection Report

SAE AS9102 compliant first article inspection (FAI) is required prior to the first delivery of the product baseline configuration. FAI shall be performed on the first unit / assembly produced utilizing the manufacturing processes that will be used for all future shipments of the item to GENTEX. The FAI shall be performed in accordance with all the requirements defined in SAE AS9102 (latest revision). It shall be the responsibility of the supplier to ensure that they have completed an FAI to the most current revision of the drawing.

An updated FAI shall be provided to GENTEX for any of the following reasons:

| |
|--|
| SUBJECT: Product Assurance Requirements |
|--|

1. New part introduction
2. New supplier or, new location of manufacture facility
3. When part has not been manufactured for more than two (2) years
4. When the customer is requesting a FAI

A partial FAI / delta FAI shall be required if there are changes as defined in SAE AS9102. GENTEX reserves the right to perform some or all aspects of FAI activities at the supplier's or GENTEX facilities. GENTEX disclaims responsibility for material delivered prior to FAI approval by GENTEX.

The FAI report shall have data representing results of Seller's first article test / inspection, including actual dimensions or values for each specified characteristic and acceptance to all drawing notes. Copies of all material and or special processing certifications and bubbled drawing(s) shall be provided with the FAI report. The FAI requirement applies to all items on the bill of material or parts list used to create the item being submitted for approval in the top-level drawing, including each cavity or tool serial number whose dimensions are controlled by the cavity / tool.

Optional Fields 11, 12 and 21-24 on SAE AS9102 Form 1 are mandatory fields for all GENTEX procured parts. It is the Sellers responsibility to obtain GENTEX approval of the FAI report prior to shipping production parts, or as required in writing by GENTEX.

Completion of an approved FAI does not relieve a supplier of the responsibility and / or liability for full compliance with the contract or PO requirements. GENTEX reserves the right to exercise the requirement of additional FIA's or delta-FAI's to ensue ongoing product conformity. GENTEX reserves the right to validate multiple production lots using a FAI / Delta-FAI to determine process capability.

9. Counterfeit Electronic Parts

The supplier shall certify that no counterfeit electronic parts or components make up any portion or content of the shipment to GENTEX. A counterfeit electronic parts statement shall accompany the shipment and does not replace other documents required by other PAR's or the PO.

The documentation shall attest to the validity of sub-tier components as being traceable to OEM / OCM sources, including authorized franchised dealers that, in no way are associated with counterfeit work. In lieu of a sentence or statement, submission of the organizations policy, can be accepted annually on a case-by-case basis. Refer to DFARS 252.264-7007.

SUBJECT: Product Assurance Requirements**10. Nonconformance**

The seller is not authorized to deliver any material, which deviates from the requirements specified on this PO. Such nonconformance must be identified, in writing by the Quality Manager or their designee, for GENTEX written disposition prior to shipment.

The supplier shall cooperate with the corrective action process of GENTEX, which includes root-cause investigation and corrective action implementation and associated documentation, when it is determined that the supplier is responsible for the non-conformity. Conflicts between product conformance / compliance and any PO statements shall be resolved in writing before shipment to GENTEX.

Notification of nonconformance to be provided to the customer (when applicable) per DFARS 252.246-7003, subparagraph (b)(1), and shall apply to critical characteristics for all CSIs for which critical characteristics have been identified. For CSIs for which critical characteristics have not been identified, the Supplier shall use their own or sub-tier's existing material review processes in providing notification if any nonconformance results in a safety impact.

11. Right of Access

GENTEX reserves the right of access to applicable areas of the seller's facility where product acceptance activities take place (e.g., inspection and testing) not to include Supplier deemed proprietary areas. This includes right of access by GENTEX, GENTEX's customer and regulatory authorities to the applicable areas of all facilities, at any level of the supply chain, involved in the order and to all applicable documentation and records with prior written consent between GENTEX and the supplier(s).

12. Process Control Plan

The Seller shall provide a process control plan to serve as a basis for inspection and acceptance of the deliverable material when required by the customer, contract, or PO. The plan shall describe the quality requirements, including identification of inspection points and resources, to be applied to a specific product, project, or contract from materials receipt to shipping. The plan shall be submitted to GENTEX Quality Assurance for review and approval prior to supplier execution of the PO.

13. Special Requirements

SUBJECT: Product Assurance Requirements

(Reference _____) Fill in the blank with a reference (e.g., Statement of Work, GENTEX Customer requirements, requirements for test specimens (production method, number, storage conditions for design approval, inspection / verification, and investigating or auditing). Applicable requirements, including customer requirements shall be flowed down to the supplier including customer-approved special process sources and / or qualification of personnel, as required.

14. Source Inspection

When source inspection is required, GENTEX items covered by this purchase agreement require GENTEX source inspection prior to assembly and / or shipment. The GENTEX Purchasing department must be notified a minimum of three (3) working days prior to shipment to schedule source inspection. All applicable documents and inspection equipment must be made available by the supplier. Only parts which have been accepted by the Supplier may be submitted. Source inspection does not relieve the Supplier of any of the requirements of the purchase agreement, and GENTEX reserves the right to accomplish final acceptance at destination.

15. Country of Origin Certifications, Domestic Commodities and / or Hand or Measuring Tools

The supplier and their sub-tier suppliers shall provide certification of the qualified country of origin for all materials used to produce or supply product under this PO. The supplier and all their sub-tier suppliers shall certify to the qualified country of origin per DFARS 252.225- 7012 (Preference for Certain Domestic Commodities) and / or DFARS 252.225-7015 (Restriction on Acquisition of Hand or Measuring Tools). DFARS 225.872-1 provides a listing of those countries outside of the United States of America that are qualified to supply materials to this PO. The certification may be a separate document, or the supplier may incorporate the information into an existing COC.

16. Restriction on the Acquisition of Certain Articles Containing Specialty Metals

In accordance with DFARS 252-225-7009, it is the responsibility of the supplier and all their sub tier suppliers to provide certification of qualified country of origin for any material used in the production or supply of product in support of a government contract except as provided in paragraph (c) of this clause. Any specialty metals as defined in paragraph (a) incorporated in items delivered under this contract, not exempted, shall be melted, or produced in the United States, its outlying areas, or a qualifying country. DFARS 252.225-7002 provides a listing of qualified countries to supply materials. This certification may be a separate document, or the supplier may incorporate the information into an existing COC.

| |
|--|
| SUBJECT: Product Assurance Requirements |
|--|

17. Change Approval

GENTEX products are typically qualified products, therefore, approval must be obtained from GENTEX in writing prior to making any changes to drawings, specifications, or other documents pertaining to this PO. Supplier shall notify GENTEX of changes in product and / or process, changes of manufacturing facility location, product obsolescence, changes of suppliers, damaged tooling, or tools requiring repair or modification, and obtain GENTEX approval. If there is doubt as to whether a change will affect GENTEX qualified products, GENTEX shall be contacted in writing to communicate the nature of the change, and to request approval for said change. Approval is to be provided through written communication.

Change notification or approval is required for Gentex CSI (Critical Safety Item) under the following conditions.

1. CSI Change in Business Status. Notification only.
2. CSI Change in Supplier Manufacturing, Repair, or Overhaul Location (at least 90 days before any sale, relocation, or transfer of Seller' manufacturing operations impacting a CSI part Notification only.
3. CSI New Source of Supply. Customer approval is required.
4. CSI Sub-Tier Supplier Candidate (New Design Authority or BTP CSI Sub-Tier Supplier Candidates). Customer approval is required.

Notification regarding above items shall be in Word format and include:

- a) Prime contract number
- b) P.O. number
- c) Part number(s) & name(s) of the part(s) affected
- d) CAGE code
- e) Name and location of the current supplier
- f) Reason for new sub-tier supplier candidate
- g) Name & location of the new sub-tier candidate
- h) Scope and impact of new sub-tier supplier effort
- i) Qualification plan
- j) Approximate delivery date of the first part from the new supplier
- k) Any other pertinent data.

18. Material Certification and Chemical / Physical Analysis of Raw Materials

One copy of each material certification as furnished by the raw material Supplier must be submitted for each lot of raw material used in performing to this PO, or, at GENTEX prerogative, a statement substantiating that physical and chemical test data are on file at the facility of the material supplier. The report shall be as provided by the mill or equivalent source, or as obtained by the Supplier from an

SUBJECT: Product Assurance Requirements

accredited laboratory. A copy of the material certificate must be submitted with each shipment.

19. Controlled Environment Requirements

Product with 25% or less of remaining shelf-life, requires written approval from the Supply Chain Manager or their designee prior to shipment. For each item requiring controlled environment and / or storage, a shelf-life certification is required on the supplier's letterhead with the following information:

1. Date
2. PO number
3. GENTEX Part Number and Revision Level
4. Specification Number
5. Quantity of the shipment (a certification is required with each shipment).
6. Applicable lot number; serial number; or batch number
7. A statement that the supplier certifies that the products, processes, or procedures are in compliance with all applicable specifications and / or drawings, and that, records of inspection and testing are on file and available for review.
8. An authorized signature
9. Title of the authorized individual
10. Shelf life of the product
11. Storage temperature requirements
12. Other applicable environmental requirements
13. Date of manufacturing or shipment, applicable to the shelf-life date provided.

20. Proofread

The Supplier shall submit one copy of the artwork produced or processed on this PO to GENTEX. The Supplier shall obtain a written acceptance from GENTEX Quality Assurance before proceeding with production.

21. Calibration System

The Supplier shall provide and maintain a calibration system in accordance with ISO / IEC 17025, latest revision. If a Supplier sub-tier is used for testing or calibration, the Supplier shall flow down this requirement to their sub-tier.

22. Special Process Certificate

The seller shall provide a copy of a certificate for each special process used in the production of parts under the terms of the agreement. Certificate shall have GENTEX part number and revision.



Doc # QA3102
Revision K

Page 12 of 13

SUBJECT: Product Assurance Requirements

23. Approval of Process Sources

GENTEX approval of Supplier 's special process procedures and / or special processors pertinent to this order is required.

24. Material Furnished by GENTEX

Items manufactured under this purchase agreement shall be fabricated from materials furnished by GENTEX. The seller shall not substitute for, or dispose of, GENTEX-furnished material except as instructed in writing by the GENTEX Purchasing representative. Unused material, properly identified, shall be returned with the last shipment of fabricated parts unless otherwise specified in writing by the Supply Chain Manager or their designee. If required by contract or upon request, the seller shall submit a certificate with each shipment of parts that reads substantially as follows: "(Seller Company Name) certifies that all materials used in the completion of GENTEX PO number _____ were supplied by GENTEX, and no unauthorized substitution or disposal was accomplished." The seller shall provide a copy of the GENTEX shipping memo provided with the material, and a copy of the certificate.

25. Certified Supplier Program Requirements

For each item being shipped to GENTEX the Seller shall certify that the parts or materials supplied meets all drawings, specifications, and / or PO requirements. Supplier shall supply inspection records, test reports, and statistical process control data as agreed with GENTEX Quality representative and as called out on the PO. The Supplier shall be responsible for the conformity of all products purchased from sub-tier suppliers, including product from sources defined by GENTEX. Where GENTEX delegates verification activities to the supplier, the requirements for delegation shall be defined by GENTEX and a register of delegations shall be maintained by GENTEX. Supplier agrees to abide by all aspects of the certified supplier program. Supplier is to stamp the shipper, COC, and other related documents with the certified supplier stamp.

26. Serialization

Each item furnished on this PO or contract will be identified with a nonrecurring serial number. Serial numbers will be furnished by GENTEX – unless otherwise agreed by GENTEX. Serial number series shall not start with a number less than one; serial number zero or variation thereof (i.e 00, 000, 0000, etc.) is prohibited.

27. Hazardous Material

SUBJECT: Product Assurance Requirements

An OSHA compliant Safety Data Sheet (SDS) is required for each chemical item or toxic substance provided to GENTEX. A separate SDS is required for each master packaging container delivered.

28. Last Article Inspection Report

GENTEX may require a Last Article Inspection Report LAIR, when a product is to be discontinued by a supplier. The report is the same as a FAI, per SAE AS9102 (latest revision), and is provided by the supplier on the last production run of product(s) provided to GENTEX. GENTEX reserves the right to verify LAIR information at the supplier's site.

29. Electro-Static Discharge (ESD) Requirement

The supplier shall maintain a written ESD control program for items that require ESD protection during fabrication, handling and packaging, of ESD sensitive components, assemblies and equipment. The program should meet the requirements of ANSI / ESD S20.20 (or equivalent), JESD625, or MIL-STD-1686.

30. Foreign Object Damage (FOD) Control

The Supplier shall ensure that Foreign Objects (FO) and Foreign Object Damage (FOD) are eliminated from items prior to shipment. Potential FO can include, and is not limited to dirt, chips burrs, residual abrasive materials, corrosion, and contamination. Suppliers must ensure that all passageways in cast, machined or additive manufacturing parts are free of FO / FOD. Any features enclosed in the manufacturing process at the Supplier are free of FO / FOD. Suppliers are responsible to flow their requirements to their sub-tiers. Refer to SAE AS9146.

31. Inter / Intra Company Orders

Shipments from other Gentex sites are required to include a standard COC from the ERP system signed by the quality manager or their designee. All other production and compliance documentation shall be made available upon request but is not required with the shipment. Production site documentation retention requirements are per the sending site's document retention policy. If the shipment includes hazardous material, the applicable SDS(s) are required in each master container.