Nexteer Supplier Requirements

For Use with the Current Versions of ISO/TS 16949 and ISO 9001

December 15, 2011

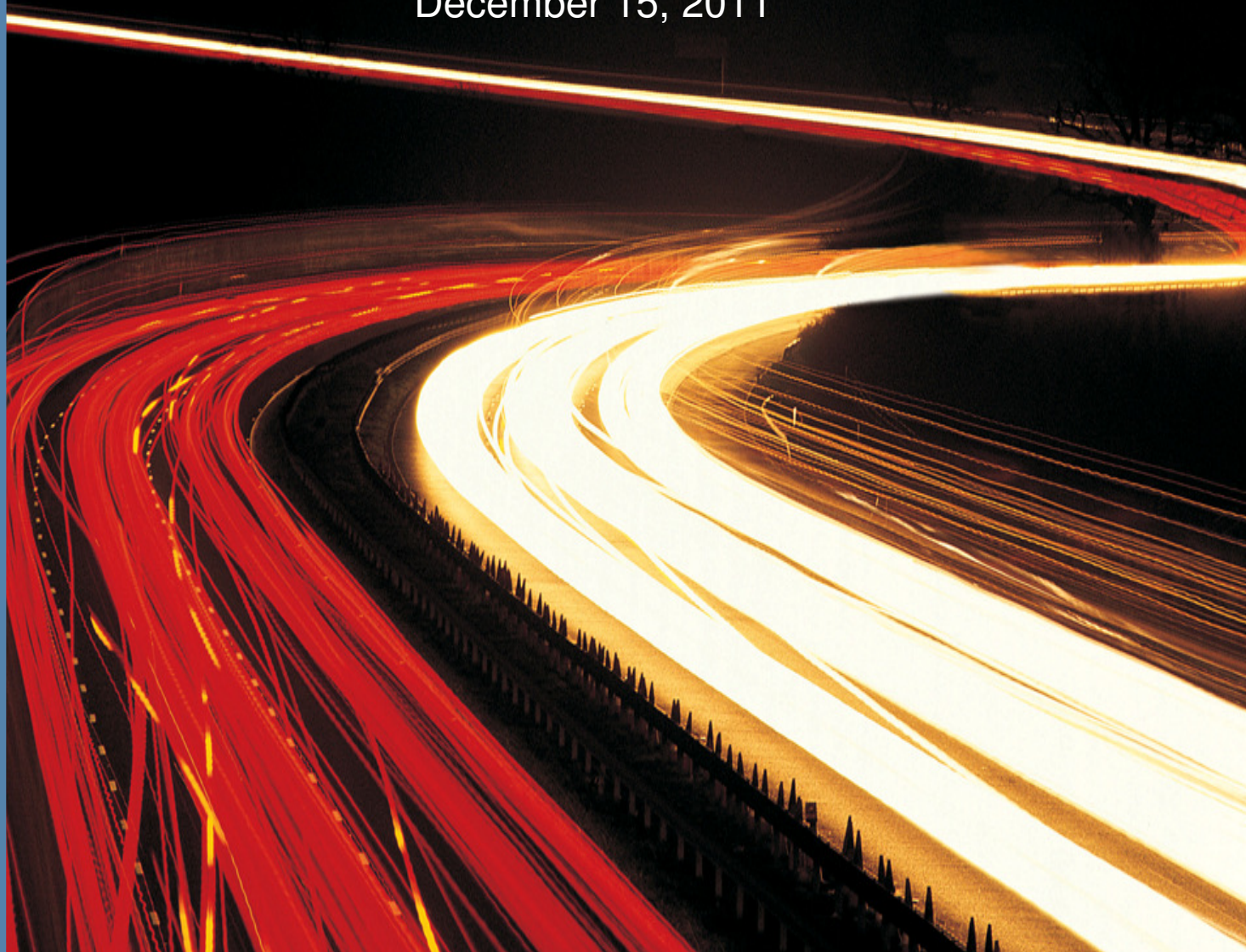


Table of Contents

Business Philosophy

Welcome Nexteer Automotive Direct Material Suppliers:

Nexteer Automotive is dedicated to providing best-in-class technology, quality and value to every customer, every day. To achieve that goal we must provide a clear, consistent message to our supplier partners regarding requirements and expectations. The intent of the ***Nexteer Supplier Requirements Manual*** is to do just that.

For all of us to be successful, we need to build perfect quality. As Nexteer's Quality Policy states, "Take Action for Quality; it's EVERYONE'S job," suppliers shall have a commitment to total quality, with subsequent planning and actions that drive for perfection. This commitment starts with your top leadership and is driven through all levels and aspects of your operations.

In addition, Nexteer fosters a High Performance Culture; one that stresses a Sense of Urgency, Strong Relationships, Robust Dialogue and Clarity of Purpose. Using these four values, the Nexteer global team is committed to living the High Performance Culture in everything it does.

In direct support of Nexteer's commitment to High Performance and desire to "Take Action for Quality," it is expected that suppliers work toward meeting the ***Nexteer Supplier Requirements Manual***. This is demonstrated through consistent delivery of quality products (including service products) to Nexteer and our customers. In addition, suppliers are expected to be globally competitive and provide the best delivered cost and value to Nexteer Automotive. Your performance will be a key factor in your growth with Nexteer.

The ***Nexteer Supplier Requirements Manual*** is structured as a companion requirements document to the current version of ISO/TS 16949. The paragraphs of this document include reference clauses to ISO/TS 16949. The requirements of all stated documents are applicable.

Exceptions to any part of these requirements must be approved in writing by the appropriate functional area contact. Interpretations of this requirements document are to be handled by:

Jim Corbeil
Vice President
Global Supply Management
989-757-4030

Lois Alverson
Director Global Supplier Quality& Development
Global Supply Management
989-757-3594

1. General Requirements

1.1 Scope

<u>This document applies only to external automotive direct material suppliers.</u>

The current version of ISO/TS 16949, Nexteer General Terms and Conditions and this document define the fundamental quality system and commercial requirements for Nexteer. The requirements apply throughout the entire Supplier's productive value-stream. This document contains the Nexteer specific requirements supplemental to the current version of Technical Specification ISO/TS 16949, and may also apply to the current version of ISO9001 and other similar registrations as applicable and developed within this document.

Indirect and service providers are not included in this requirement, e.g. distributors adding no manufacturing value (Ref. Section 1.3h), logistics, sequencers, parts packagers, tooling & equipment.

The US English language version of this document shall be the official version for purposes of third party registration. Any translations of this document will be for reference only. (Reference TS Clause 7.2.3)

1.2 Supplier Communication

The Nexteer Supplier Portal is an Internet supplier portal that provides easy access for real-time information. The Nexteer Supplier Portal acts as an integration point to enable common systems and processes.

Registration to the Nexteer Automotive Portal through Covisint is a requirement for all supplier manufacturing locations. Suppliers shall access the Supplier Portal at a minimum weekly to review any updated content. Suppliers are responsible to have the appropriate hardware and software needed to access and use the applications within the Supplier Portal. It is the supplier's responsibility to obtain and maintain a Dun and Bradstreet DUNS number(s) to support the Supplier Portal system applications. Suppliers are responsible to contact the Nexteer Help Desk for any Supplier Portal registration or setup issues.

Subscription to the Problem Solver application is a requirement for direct material manufacturing locations conducting business with Nexteer. Suppliers are responsible to have on-line access to Problem Solver for viewing and responding to Nexteer Problem Cases. Suppliers are responsible to access the Problem Solver system when notified of a Problem Case within 24 hours of issuance. Suppliers shall monitor their Problem Cases and respond as required. Suppliers shall have at least one registered person for their company, and one back-up (preferred) for each of their locations.

Subscription to Supplier Profile Administration is a requirement for manufacturing locations conducting business with Nexteer. Suppliers are responsible to have on-line access to Supplier Profile for viewing and maintaining:

- Quality Certification (refer to Section 1.3) – The latest valid and complete quality management system certificate shall be posted in the Supplier Profile application on the Nexteer Automotive Portal.
- Supplier Information
- Supplier Contact Information
- CTPAT Certification

Suppliers Shipping into the United States, Customs-Trade Partnership Against Terrorism (C-TPAT) – Suppliers shipping goods into the United States shall provide and verify all information required in the C-TPAT tab portion of the Nexteer Supplier Profile for their applicable DUNS number locations.

Additional Supplier Communication Requirements:

- **Ownership Change** – The supplier shall notify the Nexteer Buyer immediately in writing of any change in ownership.

- **Manufacturing Site Change** – The supplier shall notify the Nexteer AQE/SQE of any planned change in manufacturing site location using the Supplier Change Request Form.

- **Customer Representative Change** – When the customer representative changes, the supplier is responsible to update contact information in the Nexteer Supplier Profile application on the Nexteer Supplier Portal.

Supporting Documentation, Forms or Reference:

- **Supplier Portal Covisint Registration: https://sss.portal.covisint.com/web/portal/registration**
- **Supplier Portal Applications Help Desk Information: Located on the Nexteer Supplier Portal, in Frequently Used Documents**
- **Supplier Portal Applications e-mail: nexteer.sup.app.saginaw@nexteer.com**
- **Supplier Suggestion Change Request Form (SCR): Located on the Nexteer Supplier Portal**
- **Reference TS-16949 Clause 7.2.3**

1.3 Quality Management System

Quality System Certification

The entire facility shall be registered to the applicable standard. Nexteer satisfies the goal of supplier conformity to the current version of ISO/TS16949 as follows:

a. Registration to the current versions of ISO9001 (minimum) or TS16949 (preferred) applies to suppliers that manufacture direct product or materials.
b. Suppliers are responsible to comply with the Nexteer Supplier Requirements.
c. Nexteer shall be added to the scope at initial certification or recertification to the current version of TS16949.
d. Only accredited certification bodies shall be used for registration to the current versions of ISO9001 or TS16949. See attached links for official lists.
e. Every manufacturing site of a supplier to Nexteer shall be individually registered either by single site or by corporate scheme. (See IATF Certification Reference or consult the certification body)
f. A clear summary definition of what product value added process shall be included in the registration scope (Example: manufacturing, assembly, etc.) along with the address for each manufacturing site.
g. Suppliers of non-automotive product should contact their Buyer for specific requirements.
h. It is the responsibility of distributors or non-manufacturing suppliers to Nexteer to ensure their suppliers are certified to the current versions of either ISO9001or ISO/TS 16949.
i. Supplier quality certificates shall be in English or include an accurate English translation on them.
j. Suppliers are responsible to ensure their certificate name and address information matches the DUNS location that is in Supplier Profile.
k. Certification Body/Registrar Notification - Suppliers registered to ISO 9001 or ISO/TS 16949 are responsible to notify Nexteer of certificates being revoked or being placed on suspension.

Supporting Documentation, Forms or Reference:

- **ISO/TS 16949 Certification Body Official List**
- **ISO9001:2000 Certification Body Official List**
- **Reference TS Clause 4.1**

NOTE: Third party certification does not relieve the supplier of the full responsibility of the quality and delivery of the product supplied.

NOTE: When a supplier either provides less than $100,000 APV, and may not have adequate resources to develop a system according to the current version of ISO/TS16949 or ISO9001, or has automotive business that is less than 10% of their total business, Nexteer may waive the ISO/TS16949 or ISO9001 requirements. Nexteer may also consider the type of product supplied, quality system, manufacturing and delivery systems capability, and any risk prior to granting any waiver.

Quality Certification Waiver/Exemption

Supplier Development of Specially Designated Small Sub-Suppliers of Direct Automotive Product and Materials – When a sub-supplier to Nexteer is so small as to not have adequate resources to develop a system according to the current version of ISO/TS16949 or ISO9001, or supplies non-engineered products, certain specified elements may be waived by the Nexteer supplier. "Small" here above may refer to the volume supplied to the automotive industry or to the supplier. The Nexteer direct supplier shall have assessment criteria applied consistently to determine the specially designated sub-suppliers for which this provision may apply. Suppliers to Nexteer that are certified to the current version of ISO/TS16949 or ISO9001 may use the Nexteer Manufacturing Capability Assessment as a tool to assess the risk.

At a minimum, the direct supplier should assess the sub-supplier's size, dollar value of the business, type of product supplied, quality system, manufacturing and delivery systems capability, and any risk to Nexteer. Suppliers are responsible for ensuring that sub-suppliers develop a quality management system that facilitates defect prevention, monitoring, and improvement. The supplier is responsible to manage production risk through sourcing to financially stable sub-suppliers and monitoring sub-supplier financial stability. (Reference TS Clause 7.4.1.2)

1.4 Substances of Concern and Recycled Content

Materials disclosure is required as follows: Global legal requirements and customer specifications necessitate the need for material content and substance disclosure. The reporting requirements are detailed in the 23000000 Substances of Concern and Recycled Content specification. This requirement applies to all parts and raw materials that become part of the Nexteer saleable product or end item. The specification is part of the standard engineering drawing template and is posted in the Nexteer Supplier Portal.

Supporting Documentation, Forms or Reference:

- **23000000 Substances of Concern and Recycled Content specification – located on the Nexteer Supplier Portal, Frequently Used Documents, Material Specifications/Substances of Concern**

1.5 Regulatory Conformity Material Expectations

Suppliers shall provide samples, testing, environmental and MSDS (Material Safety Data Sheet) information in the timeframe requested. MSDS is required for bulk or raw materials. MSDS is also required for any rust preventative, grease, lubricating oil, or other chemical material that is on a part or assembly provided to Nexteer. (Reference TS Clause 7.4.1.1)

Suppliers should be able to provide same material on a global basis, if requested.

1.6 Sub-Supplier Selection

The supplier shall be responsible for the quality of the parts it produces, their sub-supplier's quality and delivery performance, and subcontracted services, including sub-suppliers directed by Nexteer. When the supplier determines incoming inspection of sub-supplier material is necessary, this activity shall be consistent with the risk and quality impact of the supplier. These inspections shall include variable data where appropriate and be used as a key indicator for sub-supplier quality management. Where high risk has been identified in the sub-contracted process, the supplier shall ensure containment is in place to protect the customer. For attribute data sampling, the acceptance level shall be zero defects.

Suppliers are responsible to select sub-suppliers (i.e. Heat Treat, Plating) based on the expectation of Zero Defects, and on the sub-supplier's capability to continually maintain robust processes throughout the life of the product that meet all of Nexteer's product requirements.

The Manufacturing Capability Assessment is available as a tool to assist in the selection and evaluation of sub-suppliers.

CQI-9, CQI-11, CQI-12, CQI-15 and CQI-17 apply to any sub-tier suppliers in the value stream.

Suppliers should seek any additional expertise that is necessary, based on the particular sub-processing technology to ensure they are able to select a capable supplier and ensure on-going performance. (Reference TS Clause 7.4.3.1)

Supporting Documentation, Forms or Reference:

- **Manufacturing Capability Assessment (Appendix 58-1 – MCA), APQP and Current Production Cycle – Located on the Nexteer Supplier Portal, Frequently Used Documents, Supplier Standards**
- **Published by AIAG (Required when part of the supplier's value stream):**
  - **CQI-9 Special Process: Heat Treat System Assessment**
  - **CQI-11 Special Process: Plating System Assessment**
  - **CQI-12 Special Process: Coating System Assessment**
  - **CQI-15 Special Process: Welding System Assessment**
  - **CQI-17 Special Process: Soldering System Assessment**

1.7 Record Retention

Production inspection and test records (e.g., control charts, inspection and test results) shall be retained for the current year, plus one calendar year after the year in which they were created. Records of inspection shall be maintained for each inspection or test performed. The actual test result (variable or attribute) should be recorded. (Ref. Section 4.15)

Records related to components that identify Safety/Critical characteristic features, shall be retained for the length of the program, plus 5 years, unless otherwise specified by Nexteer Global Supply Management (GSM).

Records related to product traceability shall be retained for 5 years, unless otherwise specified by Nexteer GSM.

Some programs may require longer retention periods than specified above and shall not supersede any regulatory requirements. (Reference TS Clause 4.2.4)

2. Commercial Expectations

2.1 Sourcing

In order to work with suppliers via the Supplier Performance Development Process (SPDP), Nexteer will need access to suppliers' facilities and appropriate documents. In some cases, this may require access to sub-tiers' facilities and documents.

Supplier's Involvement Prior to Sourcing – The following requirements are a supplement to Nexteer's General Terms and Conditions, which are located on the Nexteer Supplier Portal.

- As part of the Request for Quote provided by the Buyer, suppliers shall submit their quotation on the Nexteer provided common quote template form. Included with the Quote Template, the supplier shall submit the Manufacturability & Process Plan (MAPP) template when requested by the Buyer. Suppliers shall submit their quotation to the Nexteer Global Mailbox at: nexteer.rfq@nexteer.com, with a copy to the Buyer.
- Nexteer utilizes the **Manufacturing Capability Assessment** (MCA) prior to contracting a business relationship with a new supplier or a new supplier facility. A supplier assessment shall also be used if a technology or part family is new to an existing supplier's manufacturing location.
- Suppliers may be requested to participate in an MCA with Nexteer personnel or conduct a pre-assessment prior to an on-site meeting.
- Other commercial and technology assessments may be performed prior or in conjunction with the MCA**.**

During the Request for Quote response, the supplier will verify the data exchange formats with the Nexteer Buyer. The Nexteer Buyer will assist in the coordination of the definition of these requirements. All communications/documents shall be in English, unless there is prior agreement. Suppliers should utilize electronic print file formats. For molded parts, all product definition will be communicated in 3D Solid model Unigraphics native language file format. Suppliers will work with Nexteer GSM to continue to develop appropriate C4 capability (CAE, CAD, CAM, and CAT).

Supporting Documentation, Forms or Reference:

- Manufacturability & Process Plan (MAPP) Template

2.2 Pricing

Suppliers are expected to be globally competitive, and benchmarked by the Nexteer Buyers.

Suppliers will complete the Piece Price and Tooling Breakdown Form and submit with the supplier's response to the Request for Quote. These forms and instructions are available within the Request for Quote provided by the Buyer. All quotations shall include a separate itemized price for: 1.) Expendable packaging and 2.) Returnable packaging; when specified. All quotes shall be prepared using the Nexteer forms as provided. When requested by the Buyer, Supplier will complete the Manufacturability Assessment & Process Plan (MAPP), SPI, etc.

Suppliers are expected to have a continual cost reduction improvement process in order to manage their costs and improve the value of the product to Nexteer. All cost reduction improvements are to be submitted through the Nexteer Supplier Suggestion/Change Request process. With this in place, it is expected that increased costs are not passed on to Nexteer.

Suppliers are expected to provide Nexteer annual cost reductions. When appropriate, Nexteer GSM can provide assistance in cost reduction issues, through various workshops. The target for these value improvements is 5% year-over-year, using the Supplier Suggestion/Change Request Application located on the Supplier Portal. For further information, contact your Nexteer Buyer.

Suppliers who provide prototype/pre-production part requirements are expected to provide them at production pricing.

Nexteer will not accept quotations, issue contracts or purchase orders with minimum order quantities or guaranteed volumes.

Supporting Documentation, Forms or Reference:

- **See the Nexteer Supplier Portal, Frequently Used Documents, Supplier Standards, Attachments, Forms, and Additional Information for Nexteer Supplier Requirements**
- **Supplier Suggestion Change Request Form (SCR) – Located on the Supplier Portal, and visible once logged in**

2.3 Currency

Supplier is to quote in the currency specified by the Nexteer Buyer, which is the currency that Nexteer sells the final product to our customer. Exceptions to this requirement will result in a risk factor being added to the quoted price from the supplier, thus impacting the competitiveness of the supplier's quote.

2.4 Tool Inventory/Disposal

The supplier is to permanently mark Nexteer owned tools as "Property of Nexteer Automotive." The supplier shall furnish a tool inventory of all Nexteer owned tools (active and inactive) in the supplier's possession. The tool inventory shall be submitted to the Nexteer Buyer annually by January 31. The inventory shall contain the following information for each Nexteer owned tool:

- Tool part number(s) (typed in numerical order)
- Current tool revision
- Description
- Date parts last ordered
- Total cost of tool
- Quantity of parts produced from tool
- Remaining tool life
- Indicate previous part number if tool has been changed to produce a new part number
- Design Engineer name

If tooling is to be paid by Nexteer, suppliers will be paid for tooling contingent on receipt and approval of requested tooling documentation and full PPAP approval.

Maintenance and refurbishment of Nexteer owned tooling are the responsibility of the supplier.
If the supplier is tool design responsible, then reproducible tooling prints shall be completed by supplier within 6 weeks after PPAP approval (or at start of regular production, whichever comes first) on all new program tools, tools undergoing an engineering change, and current tools that are revised. Supplier, upon request, shall provide reproducible tooling prints for existing tools. (Reference TS Clause 7.5.4.1)

2.5 Payment

To affect electronic funds transfer, new suppliers will complete an EFT Payment Authorization Form.

This is required only prior to issuing first payment or if remit name, address or "Ship From" DUNS number changes. Payments cannot be issued until the following documented remittance information is provided to Disbursement Services as indicated on the form.

A Foreign Receiving Report or FRR should be used by supplier receiving locations to document that material has been received under a Nexteer Legal Entity Purchase Order at their respective locations. The FRR should be completed by the receiving location and returned to Nexteer to input receipts, which will generate payment to the supplier.

Supporting Documentation, Forms or Reference:

- **EFT Payment Authorization Form - Located on the Nexteer Supplier Portal, Frequently Used Documents, Supplier Standards, Attachments Forms and Additional Information for Nexteer Supplier Requirements**

2.6 Contingency Plans (Disaster Recovery, Fast Response)

The supplier shall prepare contingency plans to satisfy Nexteer requirements in the event of any production interruption. When the supplier becomes aware of an impending production interruption, the supplier shall make every attempt to notify the Nexteer receiving plants (Production Control), the Buyer and the AQE/SQE within 24 hours. The nature of the problem shall be communicated with the immediate actions taken to assure supply of product. Production interruptions may include (but are not limited to) natural disasters, political unrest, war, capacity issues, quality issues, labor strikes, planned down-time or other events that prevent the supplier from meeting the specified capacity volumes or from performing/submitting any APQP event or task that would impact program launch or timing (i.e., R@R or PPAP). The supplier is required to advise Nexteer of the plan for recovery and work toward minimizing its effect on the Nexteer plants. Supplier shall provide their contingency plans to Nexteer if requested. (Reference TS Clause 6.3.2)

3. Prototypes

3.1 Prototype Program

Prototype Program – Prototype requirements shall be documented through the Buyer for that specific program.

It shall be the supplier's responsibility to request confirmation of the need for prototype control plans, FMEA's, etc. from engineering. NOTE: Prototype control plans do not apply to bulk materials.

NOTE: Prototype control plans may be required on High Impact parts as defined by Nexteer during program development.

Prototype Parts Provision – Delivery date(s) for samples of prototype components shall be established by Nexteer and noted on the purchase order. The delivery date(s) reflect the date(s) parts are to be received at the Nexteer docks.

All prototype components and shipments shall be identified as prescribed in any relevant documents provided by the Nexteer receiving unit regarding its Prototype Procedure.

The supplier shall submit inspection reports with sample delivery as required by the receiving unit's Prototype Procedure.

If review of the inspection report indicates that the parts do not agree with the prints or examination of the parts discloses an unsatisfactory condition not covered by the report, it shall be the supplier's responsibility to resolve all discrepancies with the Nexteer Product Design Engineer. This needs to be communicated in writing to the Nexteer Buyer.

If resolution of the discrepancy results in a tooling, material or processing change, the supplier will correct the situation (at the supplier's expense), resubmit an inspection report on the revised parts, and communicate the resolution in writing to the Nexteer Buyer as soon as possible. (Reference TS Clause 7.3.6.2)

4. Product/Process Development & Part Approval

4.1 Design and Development Verification

If the Supplier is design responsible, design verification and testing is required. At component levels, the supplier shall develop a qualification plan with Nexteer engineering. Verification methods shall be recorded with the test results. (Reference TS Clause 7.3.5)

4.2 Planning of Product Realization

APQP – The Advanced Product Quality Planning (APQP) and Control Plan reference manuals shall be used to develop and report progress on new programs. For reporting of APQP status, suppliers shall utilize the associated forms and process flows unless otherwise identified or approved by the responsible AQE/SQE.

The Nexteer AQE/SQE may request that the supplier's APQP documents be written in the supplier's local language and English.

Suppliers shall participate in and meet APQP requirements for all new parts. Suppliers will receive specific instructions from the Supplier Quality Engineer. These requirements are further detailed in SPDP and the AIAG APQP manual.

The following are some of the key requirements:

- Participate in **Design Reviews**
- Participate in **Program Reviews and Lessons Learned.**
- Provide and maintain **Timing Charts and Open Issues tracking lists**
- Provide and maintain **DFMEA (if design responsible)**
- Provide and maintain **Process Flow, PFMEA and Process Control Plan(s)**
- Perform and provide **Measurement System Analysis/Gage Reviews**
- Provide an **Early Production Containment** and **Pre Launch Control Plan**
- Complete Part Certification **(PPAP)** requirements, prior to shipment of initial production. Follow the current edition of AIAG PPAP
- Perform and pass **Run-at-Rate**
- Provide up-to-date and accurate Supplier Packaging Information **(SPI)** forms.

For APQP, suppliers are expected to meet program timing, keep commitment dates, and support early builds and pre-launch requirements.

Supporting Documentation, Forms or Reference:

- **See the Nexteer Supplier Portal, Frequently Used Documents, Supplier Standards, APQP and Current Production Cycle Forms**

Supplier Performance Development Process (SPDP) – The Nexteer process for developing and managing suppliers' quality is the SPDP process. SPDP contains the major standards for Advanced Quality planning and current production cycle. The supplier documents will be posted on the Supplier Portal. (Refer to Section 1.2) The Nexteer AQE/SQE will communicate any waivers from these processes.

Supporting Documentation, Forms or Reference:

- **APQP and Current Production Cycle Forms – located on the Nexteer Supplier Portal, in Frequently Used Documents, Supplier Standards**
- **Reference TS Clause 7.1**

4.3 Product Approval Process

The supplier shall comply with the current edition of the AIAG Production Part Approval Process (PPAP) manual unless otherwise specified. The AIAG PPAP forms shall be utilized to prepare submissions.

Copies of supplier PPAP's will immediately be made available upon request. The required method of submission is electronically. Each section of the PPAP submission should be a separate PDF file. Reference the Nexteer Electronic Submission of PPAP guidelines located in the Nexteer Supplier Portal for additional submission requirements. Any exception must be approved by the Nexteer AQE/SQE.

The supplier should be prepared to submit a PPAP annually. An annual PPAP package would include requirements listed in Section 4.15. Additionally, gage studies and capability studies may also be required by the Nexteer AQE/SQE.

On new or revised materials, notification of PPAP approval by Nexteer does not authorize shipment. Shipping authorization for the initial shipment will be issued by the Nexteer Production Control Department and will contain the delivery due date and quantity to be shipped. (Reference TS Clause 7.3.6.3)

Supporting Documentation, Forms or Reference:

- **APQP and Current Production Cycle Forms – located on the Nexteer Supplier Portal, in Frequently Used Documents, Supplier Standards, APQP and Current Production Cycle Forms, F1020 PPAP Checksheet and F-1021 PPAP Checksheet Instructions**

4.4 Statistical Tools

Identification of Statistical Tools – The supplier should use the latest edition of AIAG SPC for manufacturing process controls and AIAG MSA for measurement system equipment management.

Minitab is the required statistical software package for preparation of Measurement System Analysis, and Process Capability studies.

Supporting Documentation, Forms or Reference:

- **www.aiag.org**
- **Reference TS Clause 8.1.1**

4.5 Nexteer Designated Special Characteristics

Nexteer may utilize specific symbols on drawings and specifications to designate special characteristics. These symbols must be used on the supplier's documents, including PFMEA, PFD, PCP and operator instructions. Supplier management must assure that all operators are knowledgeable of special characteristics existing on the parts being produced at their work station. If Nexteer provides no symbols, then the supplier shall define a symbol set consistent with critical and significant characteristics.

Nexteer uses QCI's (Quality/Customer Interface Characteristics) to designate special characteristics on product drawings and specifications. The QCI designation will define design features or tolerances that have a particular significance to safety, compliance with government regulations, interface to vehicle mating parts, and/or product functionality with consideration of process capability.

The following are the QCI & KPC designations and the process/inspection requirements related to each:

PRODUCT CHARACTERISTICS CHART				
Drawing and Control Plan Information	**Inputs to Selection**	**Process Requirements**	**Documentation Requirements**	**Response to Nonconforming Material**
Standard (STD) No symbol Variable or Attribute Gages	▪ Design & process knowledge (BOD/BOP) ▪ Customer returns, recalls, lessons learned ▪ Control plans from similar parts ▪ Process capability ▪ Design & Process FMEA	Reasonable explanation of the control strategy is required at a review of manufacturing sequence chart, gage plan, PFMEA, & control plan. At this review decisions will be made on a dimension by dimension basis regarding which dimensions, if any, require capability studies during periodic data collection such as during prototype and part approval activities. Process Indices Acceptance Criteria: ▪ Initial (PPAP) process study o Capability Index Target Cpk ≥ 1.67 & demonstrated statistical control o Target Index Cpm ≥ 1.33 (targeted dimensions only) o Ppk must be ≥ 1.0 ▪ Extended production run (>6 months) Performance Index Ppk ≥ 1.0	Control plan is based on process capability. If plant floor control charts are required to maintain the process then this requirement should be documented on the control plan.	▪ Sorting and/or engineering permit required when specification not met. ▪ Reduction in variability required when Ppk capability is not met.
Fit/Function QCI  **CI-100V** Attribute or Variable Gages	Select function-critical product dimensions requiring 100% functional or go/no go checks ▪ Vehicle interface dimensions ▪ Possible pass-through defects ▪ Design & process knowledge (BOD/BOP) ▪ Customer returns, recalls, lessons learned ▪ Control plans from similar parts ▪ Design & Process FMEA ▪ Process capability ▪ Customer required	100% verification using attribute check (Pass/fail gage or test) Note: A variable gage may be used to perform 100% verification	▪ Plant floor documentation is required. Specific documentation requirements are a function of process capability and must be defined on the control plan. ▪ Customer specific requirements must be shown on the drawing and included in the control plan.	Sorting and/or engineering permit required with customer notification when specification not met.

Drawing and Control Plan Information	Inputs to Selection	Process Requirements	Documentation Requirements	Response to Nonconforming Material
Fit/Function QCI  **CI-DR** Variable or Attribute Gages	Select function-critical product dimensions where ongoing charting is required on the plant floor ▪ Vehicle interface dimensions ▪ Possible pass-through defects ▪ Design & process knowledge (BOD/BOP) ▪ Customer returns, recalls, lessons learned ▪ Control plans from similar parts ▪ Design & Process FMEA ▪ Process capability ▪ Customer required	▪ Same as for standard dimensions and, ▪ Capability study with a sampling plan per Section 4.11. ▪ If the control strategy is to inspect with an attribute gauge on less than all of the parts, the gage must be built to 75% of the specified tolerance. Process Indices Acceptance Criteria: ▪ Initial (PPAP) process study o Capability Index Target Cpk ≥ 1.67, & demonstrated statistical control o Target Index Cpm ≥ 1.33 (targeted dimensions only) o Ppk must be ≥ 1.33, or 100% inspection and/or error prevention ▪ Extended production run (>6 months) Performance Index Ppk ≥ 1.33 or 100% inspection and/or error prevention	Same as Fit/Function QCI CI-100V.	▪ Engineering permit required with customer notification for usage of parts not accepted with a full tolerance gage. ▪ When using a reduced tolerance attribute gage, a full tolerance gage must be used to check 100% of the parts produced since the last acceptable check. ▪ Reduction in variability required when Ppk is not met or when process is not in statistical control.
Safety QCI  **QS-100V** Attribute or Variable Gages	Select safety-critical product dimensions requiring 100% functional or go/no go checks ▪ Vehicle interface dimensions ▪ Possible pass-through defects ▪ Design & process knowledge (BOD/BOP) ▪ Customer returns, recalls, lessons learned ▪ Control plans from similar parts ▪ Design & Process FMEA ▪ Process capability ▪ Customer required Compliance with government regulation	100% verification using attribute check (Pass/fail gage or test) Note: A variable gage may be used to perform 100% verification	Same as Fit/Function QCI CI-100V.	▪ Sorting and/or engineering permit required with customer notification when specification not met. ▪ Document containment plan for all non-conforming parts.
Safety QCI  **QS-DR** Variable or Attribute Gages	Select safety-critical product dimensions where ongoing charting is required on the plant floor ▪ Vehicle interface dimensions ▪ Possible pass-through defects ▪ Design & process knowledge (BOD/BOP) ▪ Customer returns, recalls, lessons learned ▪ Control plans from similar parts ▪ Design & Process FMEA ▪ Process capability ▪ Customer required ▪ Compliance with government regulation	Same as Fit/Function QCI CI-DR.	Same as Fit/Function QCI CI-100V.	▪ Same as Fit/Function QCI CI-DR and, ▪ Document containment plan for all non-conforming parts.

Drawing and Control Plan Information	Inputs to Selection	Process Requirements	Documentation Requirements	Response to Nonconforming Material
Safety and/or Compliance KPC  **S/C** Variable or Attribute Gages	Product drawings with this symbol should be updated to the correct type of Safety QCI, as needed, during the next drawing revision.	Same as Fit/Function QCI CI-DR.	Same as Fit/Function QCI CI-100V.	Same as Safety QCI Fit/Function QCI CS-DR.
Fit/Function KPC  **F/F** Variable or Attribute Gages	Product drawings with this symbol should be updated to the correct type of Fit/Function QCI, as needed, during the next drawing revision.	Same as Fit/Function QCI CI-DR.	Same as Fit/Function QCI CI-100V.	Same as Fit/Function QCI CI-DR.

NOTE: Any expected non-normal distributions should be communicated at the Supplier Capability & Assessment Review (Technical Review) so that the capability analysis method and acceptance criteria can be discussed and agreed upon prior to PPAP submission. (Reference TS Clause 7.2.1.1 & 7.3.2.3)

4.6 Product Traceability

The Nexteer product traceability requirements apply to critical components for all 2013 model year programs and beyond.

Critical components are defined as those components that have features designated with QS-100V and QS-DR QCI's or S/C KPC's (Reference Section 4.5). Nexteer Product Engineering is responsible to designate critical components/features.

The ultimate goal of a good traceability system is to minimize exposure if defects are found. The two types of traceability are:

- Singular/Serialization – used to reduce the risk to a single part or component. In the event of parts being moved from the normal process flow, the parts shall be marked for singular traceability.

- Lot Control – used to reduce the risk to a specific number as determined by the size of the lot. A lot is the maximum quantity of parts that share consistent dimensional, material and process characteristics. Lot sizes shall be a maximum of one (1) shift, 8 hours of supplier's production. NOTE: One batch of raw material (examples: resin, rubber, heat of steel) can create multiple lots. Only one batch of raw material can be identified in each lot – (i.e. cannot mix two batches of raw material in a single lot). Batch information must be traceable via lot number. Lot definition will be approved by the Nexteer Manufacturing Engineer and AQE/SQE.

Critical assemblies, sub-assemblies and components shall have traceability to the safety critical component feature or features. Singular traceability, marking / serialization, is Nexteer's preferred method. In the event that singular traceability (marking/serialization) is not possible, lot control shall be implemented. Critical

components shall be marked at the earliest possible operation and traced throughout the remaining operations. Key process and quality data shall be included in the stored data. Selection of traceability method and determination of data to be collected is determined by the Nexteer Manufacturing Engineer, AQE/SQE and Supplier.

Product Traceability will be reviewed during the Nexteer Supplier Capability & Selection Review.

See Section 1.7 – Control of Records for record retention requirements for lot traceability.

4.7 FMEA's

The supplier shall prepare process FMEA's for all part numbers supplied to Nexteer. Where the supplier is responsible for design, the supplier shall prepare design FMEA's.

FMEA's may be written for families of parts where batch processes and common tooling is used. Families shall be clearly defined and have a full part number listing of the family. The Nexteer Product Engineer and AQE/SQE shall approve the family designations.

Upon request by Nexteer, the supplier shall provide a copy of the FMEA documents for review. The Nexteer AQE/SQE may request that the supplier's FMEA be written in the supplier's local language and English. If the document is considered proprietary, the supplier may provide the applicable section, or provide qualified technical support and bring the FMEA to the requestor for review without retention of copies. A letter stating the proprietary nature shall be included in the Production Part Approval submission package.

FMEA's shall be prepared using the AIAG Potential Failure Mode and Effects Analysis reference manual including the AIAG rating tables.

Supporting Documentation, Forms or Reference:

- **www.aiag.org**
- **APQP and Current Production Cycle Forms – located on the Nexteer Supplier Portal, Frequently Used Documents, Supplier Standards**
- **Reference TS Clause 7.5.1.1**

4.8 Control Plans

The Advanced Product Quality Planning and Control Plan manual, available from AIAG, should be used as a guide in developing and maintaining control plans (i.e., Prototype, Pre-Launch & Production). Early Production Containment shall be implemented and identified on the Pre-Launch Control Plan for a duration specified by the Nexteer AQE/SQE. Exit from Early Production Containment must be approved by AQE/SQE. A change history shall be maintained as part of the control plan to document implementation of changes.

Nexteer reserves the right to require approval of control plans for any part from any supplier.

All parts shall have Control Plans. Family control plans may be used for parts with common processes. The family shall be clearly defined on the control plan so that applicability is defined.

Design and process controls shall focus on prevention rather than detection and correction. Special attention shall be placed on the identification of input control characteristics rather than the post processing inspection and containment.

Proposed repair or rework of product shall be defined on the control plan and submitted to Nexteer for approval as part of the initial PPAP, or through a subsequent Supplier Change Request and PPAP submission.

Repaired, reworked, or out-of-process product shall be re-inspected to all control plan requirements and documented procedures.

The supplier shall develop a control plan that includes, as a minimum, the elements as specified in the current version of ISO/TS 16949, Annex A.

Supporting Documentation, Forms or Reference:

- **www.aiag.org**
- **The following Documents are located on the Nexteer Supplier Portal, Frequently Used Documents, Supplier Standards:**
  - **Early Production Containment Training**
  - **Appendix 11 – AIAG Checklist**
  - **Appendix 60 – Containment Checklist**
  - **Extended Downtime Checklist**

4.9 Engineering Specification (ES) Test Performance Requirements

In process (IP) testing to the ES is typically specified through an IP test plan/control plan or in the ES. The supplier shall develop a plan to meet those requirements and submit them for approval as part of the PPAP package. Reaction plans to failures shall be included in the IP test plan.

Family data shall not be used unless it can demonstrate that the products are a "family" that uses the same process equipment and process specifications. Clarification or approval of the use of family data shall be through Nexteer Supplier Quality. (Reference TS Clause 8.2.4)

4.10 Measurement System Analysis

Unless otherwise agreed upon with the Nexteer AQE/SQE, Gage R&R's:

- Shall be completed on all measurement systems identified on the control plan. This includes hand tools such as micrometers or calipers, as well as those features checked by a CMM, Optical Comparator, Smart Scope, attribute gages, etc.

- Shall be included in PPAP submission for special characteristics such as QCI's and KPC's and those features that will have capability studies submitted at the time of PPAP.

- Minitab is the required statistical software package for preparation of Measurement System Analysis.

Variable Gage Studies – Shall be completed with all operators who will be using the gage as part of normal production process. The study shall consist of a minimum of 3 trials, using a minimum of 10 parts. All variable gage R&R studies should have a minimum of 5 distinct categories. The required method for calculating the gage R&R is by using the ANOVA method. Recent gage R&R's may be used if completed within one year at the time of submission.

For process control situations (where measurement determines stability, direction, and compliance with natural process variation) percentage R&R should be calculated based on study variation.

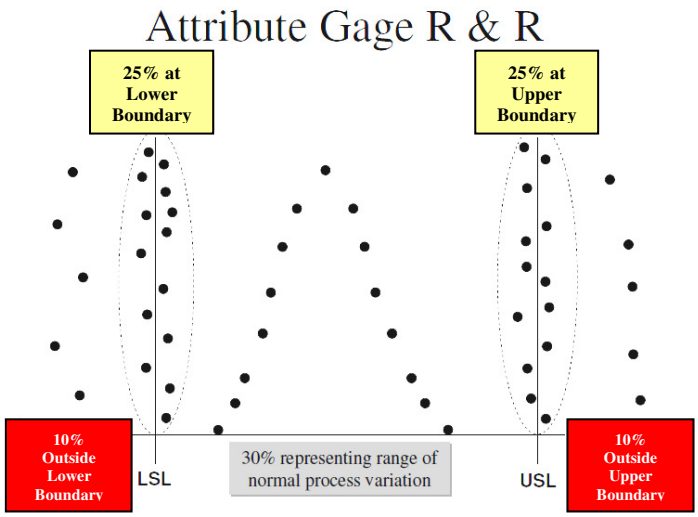
For product control situations (conformance or non-conformance) the percentage R&R should be calculated based on tolerance.

Upon request from the Nexteer AQE/SQE, the Supplier is required to provide linearity and bias studies.

Attribute Gage Studies – Shall be completed with 3 operators, 3 trials, using 50 parts and evaluated with KAPPA calculations as outlined in the AIAG Manual. NOTE: 25 parts should be discrepant parts. 50% of the discrepant parts should be outside each boundary limit, and 50% should be near each boundary limit (on both sides of the limit). The remaining 25 parts should represent the full range of the process variation.

All attribute gages for special characteristics used for process control must be built to 75% of the specified tolerance, centered around the target, unless otherwise agreed upon with the Nexteer AQE/SQE. Gages to the full tolerance may be used for product control (i.e., EPC, final inspection, or sorting operations). Separate gage studies are required for any attribute gage using appropriate discrepant parts for each study.

Gages not meeting the acceptance criteria per the AIAG MSA manual shall have a containment plan (such as 100% inspection, gage improvement, or other means) and shall be submitted in writing to the Nexteer AQE/SQE for approval.



Gage studies should be re-verified at a frequency that is appropriate for gage use and wear. Recommendation – Gage re-verification studies should be completed at the time of calibration

Supporting Documentation, Forms or Reference:

- **www.aiag.org**
- **APQP and Current Production Cycle – Located on the Supplier Portal, Frequently Used Documents, Supplier Standards**
- **Reference TS Clause 7.6.1**

4.11 Initial Process Capability Studies

125 piece capability studies are required at time of PPAP for all QCI's and KPC's and other characteristics directed by the Nexteer AQE/SQE. The 125 piece data points should come from the 300 piece PPAP production run, in time-ordered subgroups of 3 to 5 pieces. The sampling plan is to be documented and pre-approved by the Nexteer AQE/SQE.

On the initial process studies for special characteristics (i.e., QCI's, KPC's, etc) the supplier needs to demonstrate that the process is stable and in control through the use of a control chart. Normality and capability must also be demonstrated. The required statistical software package is Minitab and the above can be shown using the "Capability Six Pack, within Minitab," unless an alternative software package is agreed upon by the Nexteer AQE/SQE.

The acceptance criteria for the process indices are per the requirements in Section 4.5.

Supporting Documentation, Forms or Reference:

- **www.aiag.org**

4.12 Special Process Assessments

Special processes for suppliers of heat treated, plated, coated, welded or soldered products, suppliers shall comply with the requirements documented in CQI-9 Special Process: Heat Treat System Assessment (HTSA), CQI-11 Special Process: Plating System Assessment (PSA), CQI-12 Special Process: Coating System Assessment (CSA), CQI-15 Special Process: Welding System Assessment (WSA), CQI-17 Special Process: Soldering System Assessment (SSA), published by AIAG. Suppliers are responsible to apply these requirements to applicable sub-suppliers pursuant to Section 1.3.

Supporting Documentation, Forms or Reference:

- **Published by AIAG (Required when part of the supplier's value stream):**
  - **CQI-9 Special Process: Heat Treat System Assessment**
  - **CQI-11 Special Process: Plating System Assessment**
  - **CQI-12 Special Process: Coating System Assessment**
  - **CQI-15 Special Process: Welding System Assessment**
  - **CQI-17 Special Process: Soldering System Assessment**
- **Reference TS Clause 7.5.2**

4.13 Manufacturing Feasibility & Capacity Planning

Suppliers shall perform Manufacturing feasibility reviews and shall include supplier and the Nexteer team members as appropriate. Product volume changes of 20% or more over a previously verified volume capability shall require full volume feasibility studies. The capacity study shall include identification of the capacity constraints and evaluation of risk to Nexteer by the supplier. The results of this study shall be provided to the Nexteer AQE/SQE. The capacity information provided with the quote should reflect the available daily capacity and operating plan (hours/day, days/week). The operating plan should meet weekly volume requirements and current model service requirements and should be no more than 100 hours per 5 day work week. The Nexteer Buyer shall be notified and approve of any operating plan using more than 100 hours per work week. Suppliers shall be responsible to have capacity to provide 15% above the quoted volume without additional investment from Nexteer. (Reference TS Clause 7.2.2.2)

4.14 Run-at-Rate

When specified in the APQP process, Run-at-Rate shall be performed as a method for production capacity and quality system verification.

NOTE: Commodity or batch based products may demonstrate Run-at-Rate by a process analysis to determine constraints and show sufficient capacity is in place to support the product release rates.

4.15 Annual Layout Inspection and Functional Testing

It is the supplier's responsibility to annually perform a layout inspection (including all notes and specifications called out on the product drawing), functional verification, and raw material certification including the updated laboratory scope of accreditation (to all engineering material and performance requirements). These results, along with an updated Part Submission Warrant, shall be submitted upon request to the using Nexteer manufacturing site. If discrepancies are found in the layout inspection or functional tests, the supplier shall include an Interim Recovery Worksheet indicating the added controls to protect Nexteer from potential defective material.

Family data may be used if developed within the prior twelve months and if it meets the requirements of the current version of ISO/TS16949. Nexteer AQE/SQE will approve the use of family data in the same manner as any other PPAP submission. (Reference TS Clause 8.2.4.1)

5. Materials & Logistics Expectations

5.1 Packaging

Suppliers shall provide packaging in accordance with the Nexteer Global Supplier Packaging and Shipping Manual. Any deviation from the guideline shall be directed to the Nexteer Buyer and approved by Nexteer Production Control & Logistics. The supplier is responsible for maintaining up-to-date Supplier Packaging Information (SPI) forms and supplier profiles of manufacturing sites.

Supporting Documentation, Forms or Reference:

- **Nexteer Global Packaging Manual – Located on the Nexteer Supplier Portal, Frequently Used Documents, Supplier Standards**
- **Supplier Packaging Information Form – Located on the Nexteer Supplier Portal, Frequently Used Documents, Supplier Standards**
- **Reference TS Clause 7.5.5**

5.2 Property – Returnable Containers

Nexteer will retain ownership of all returnable container systems. Nexteer Production Control & Logistics will determine the quantity of containers assigned to a supplier. Nexteer will not provide containers for suppliers' internal work-in-process. The supplier is responsible for tracking and cleaning returnable containers in their possession. (Reference TS Clause 7.5.4)

5.3 Labeling

For all destinations, materials shall be identified in compliance with Shipping/Parts Identification Label Standard. A sample or facsimile of your label shall be provided with your PPAP package.
Shipping containers shall be identified with the material's appropriate "COUNTRY OF ORIGIN". Containers must be identified with their own country of origin. Questions concerning labels for regions outside of North America may be addressed to Nexteer Production Control & Logistics at +1(989) 757-4915.

A legible packing slip shall be affixed next to the master label when skid packed and next to the container label if the shipment is a single container.

- Master packing lists are required for each supplier shipment, with individual packing lists on each skid listing the materials on that particular skid.
- Master and skid packing lists must be identified with the word “Master” or “Skid” Packing list.
- Each packing slip (both master and individual skid) shall contain the formation as referenced in the Label Specification links.

Supporting Documentation, Forms or Reference:

- **Global Supplier Container Label Standard EDIFACT – located on the Nexteer Supplier Portal, Frequently Used Documents, Supplier Standards**
- **Global Supplier Container Label Standard ANSI X-12– located on the Nexteer Supplier Portal, Frequently Used Documents, Supplier Standards**
- **Reference TS Clause 7.5.3**

5.4 Production Scheduling & Shipping

Suppliers shall electronically receive ship authorizations, schedules and forecasts, and send ASN’s at the time of shipment. Suppliers shall be EDI ANSI-X12 compliant or EDI EDIFACT or Web EDI capable.

Nexteer expect ASN’s will be sent a maximum of 30 minutes after the shipment leaves the dock.

Fabrication Authorization terms will be 2 weeks and Material Authorization will be 2 additional weeks for a total of 4 weeks. All information beyond 4 weeks is for planning purposes only. Exceptions to these terms shall be agreed upon during the quoting process and documented in the purchase agreements.

Nexteer Production Control & Logistics will establish the shipping frequency for each production part. The supplier shall be able to ship daily at a minimum. Supplier shall ship to the exact quantities, dates, and times specified on the release: no over, under, early or late shipments, including holidays and no freedom of the week delivery. All Nexteer schedules shall be in standard pack quantities in the smallest approved standard pack container. Suppliers shall have shipping capability that matches Nexteer receiving plants normal production schedule.

At the time of pick up, the supplier shall allow the authorized carrier's driver to check the shipping quantities against the scheduled quantities.

Over-shipments will not be accepted, if an over-shipment occurs it will be returned at the expense of the supplier.

If for any reason the supplier is unable to meet the schedules communicated, it is the responsibility of the supplier to notify Nexteer Production Control & Logistics personnel immediately and receive authorization for the under-shipment. Suppliers will make up all under-shipments via supplier paid premium transportation on Nexteer authorized carriers to meet the originally scheduled destination window.

If Nexteer and/or our customer's production is interrupted by the failure of the supplier to deliver contracted goods within the terms of the contract, all costs that are incurred by Nexteer and/or our customers will be the sole responsibility of the supplier and corrective action taken in the form of a Problem Case.

Scheduling Lead Time – The scheduling lead-time will be quoted in calendar days and should quantify the time from receipt of order to ship availability. Steady state lead-time (when schedule and/or forecast are routinely available) is 10 calendar days or less. Exceptions to this lead-time requirement must be approved by PC&L and Supply Management, and must be documented in the purchase agreement.

All suppliers shipping under a Nexteer Legal Entity Purchase Order to other Nexteer suppliers must provide copies of the packing slips to the Nexteer Material Coordinator within 30 minutes after the shipment leaves the dock. ASN's are required to be generated within 30 minutes of shipment. Once these packing slips are received & verified by the consignment location they will be entered into Nexteer's system. This will generate payment to the initial supplier.

Suppliers receiving drop shipments from other Nexteer suppliers must **verify part number & quantities** physically received. They must then sign & date the packing slip, acknowledging receipt of material. If there are any discrepancies, they must be noted and sent with the signed packing slip to the Nexteer Material Coordinator. Any inventory variances, that are the result of discrepancies not noted on the signed packing slip, will be charged to the receiving location.

Suppliers who receive Nexteer material on a consignment basis are required to provide monthly scrap & inventory certifications as well as physical count certifications at the time that Nexteer conducts its Annual Physical Inventory.

5.5 NAFTA – North American Free Trade Agreement

Suppliers within North America – It is the responsibility of suppliers to provide the most current, valid, and appropriate Certificates (NAFTA, Manufacturer's Affidavits, etc.) and other Free Trade Agreement documentation by part number and manufacturing site (Including DUNS number) to Nexteer.

Prior to release of any product per related purchase order/spot buy, supplier shall provide appropriate Certificates and other Free Trade Agreement documentation valid for the remainder of the year.

During the 4th quarter of that year and each year thereafter, supplier shall provide appropriate Certificates and other Free Trade Agreement documentation valid for the following year January 1 through December 31.

Suppliers to Nexteer in North America (United States, Canada and Mexico) shall forward all completed Certificates and other Free Trade Agreement documentation to the attention of Sandler and Travis, using email address: Nexteerdocs@strtrade.com or fax their documents to (248) 474-9454.

Suppliers to Nexteer outside North America shall forward all completed Certificates and other Free Trade Agreement documentation as directed by Nexteer.

Certificate of Origin – To obtain a NAFTA Certificate of Origin form (CBP434), and for Instructions on how to fill out the form, go to the Customs and Border (CBP) Website for a printable on-line version.

Country of Origin for Declarations – Nexteer relies on the supplier provided Manufacturing DUNS for Country of Origin declarations for supplier provided purchased parts and products. If the manufacturing DUNS address is incorrect or does not reflect the country of manufacture of the product, the supplier is responsible to provide the correct information in writing without delay to the Nexteer Buyer. (Refer to Sections 5.1 and 5.3)

Shipping Goods Across Borders – Reference Shipping Goods Across International Borders located in the Nexteer Supplier Portal, Frequently Used Documents.

Supporting Documentation, Forms or Reference:

- **NAFTA Form: http://forms.cbp.gov/pdf/CBP_Form_434.pdf**
- **Customs and Border Forms Website: http://www.cbp.gov/xp/cgov/toolbox/forms/**
- **Shipping Goods Across International Borders – Located on the Nexteer Supplier Portal, in Frequently Used Documents**
- **Reference TS Clause 7.2.3.1**

5.6 Transportation

Routing instructions will be provided by Nexteer Production Control & Logistics for all suppliers who ship under the Nexteer paid freight terms.

All shipments shall be made by normal mode at the prescribed ship window time on a Nexteer authorized carrier, unless otherwise specified by Nexteer.

The supplier will pay supplier caused premium transportation.

Nexteer Production Control & Logistics will schedule a transportation carrier for any premium freight to be paid by Nexteer.

Material ownership and freight terms for all material received by Nexteer are title transfer our plant (TTOP); FCA Seller's Premises (2010 INCOTERMS), unless otherwise agreed to by the Nexteer Global Supply Management Department, Production Control & Logistics Department and the supplier, and, documented in the purchase agreement. If required, offshore suppliers will be responsible for the transfer of parts to small lot containers prior to delivery to the Nexteer receiving plant. Nexteer will not carry any inventory cost associated with this process.

International shipments must meet Nexteer and country specifications. The supplier shall generate advanced forwarder information and customs documentation on time and to specifications.

6. Change Management

6.1 Change Control & Control of Design and Development Changes

This requirement includes changes to part design, material, and sub-tier supplier, manufacturing location or process. (Follow AIAG PPAP, current edition).

All proposed changes including, but not limited to design, process, component, packaging, component suppliers, or facilities, and site changes including supplier proprietary designs shall be submitted to the Nexteer AQE/SQE for approval and obtain concurrence on effect on the part fit, form, function, finish, and durability prior to implementation. The supplier shall not make any changes without prior written notification and approval from Nexteer. Any unauthorized changes can result in the supplier being placed on New Business Hold and costs incurred with the unauthorized change will be at the expense of the supplier.

The supplier shall retain approved change requests, for the life of the material. Initial shipments of new or revised material will be appropriately labeled with the change level until notified by Nexteer Production Control, that all superseded materials, have been cleared from the supply chain.

Requested changes require timely response to Buyer. Response to product or pack change requests shall be reviewed and responded to within 10 business days. (Reference TS Clause 7.1.4 & 7.3.7)

Supplier Change Requests – Suppliers are responsible to communicate supplier change requests (SCR) through the Supplier Portal (Refer to Section 1.2) for all Nexteer locations via the Supplier Suggestion/Change Request Application located on the Supplier Portal.

Supporting Documentation, Forms or Reference:

- **AIAG PPAP Manual -- www.aiag.org**
- **APQP and Current Production Cycle – located on the Nexteer Supplier Portal, Frequently Used Documents, Supplier Standards**
- **Supplier Suggestion Change Request Form (SCR) – Located on the Supplier Portal, and visible once logged in**

7. Supplier Performance

7.1 Continuous Improvement

When necessary, Nexteer will provide suppliers with tools and expertise for improvement activities. One tool suppliers may utilize is the **Manufacturing Capability Assessment (MCA)** to help identify management and process gaps and to develop appropriate corrective actions.

Suppliers are responsible to develop and implement a First Time Quality (FTQ) improvement process with appropriate alarms and reaction plans defined. FTQ issues should be prioritized with action plans showing continual improvement over time. A FTQ improvement process should be implemented during APQP and PPM calculations verified at PPAP and Run-at-Rate. The goal of FTQ should be zero PPM. (Reference TS Clause 8.5.1)

Supporting Documentation, Forms or Reference:

- **Frequently Used Documents, Select Supplier Standards Link, Select Containment Link, SPDP 58.1 – Manufacturing Capability Assessment**

Suppliers shall use the Supplier Suggestion/Change Request Application for any process changes associated with continual improvement activities. (Reference TS Clause 7.1.4 & 7.3.7)

Supporting Documentation, Forms or Reference:

- **Supplier Suggestion Change Request Form (SCR)** – **(Visible once logged in).**

7.2 Confidentiality

Suppliers shall maintain confidentiality of Nexteer and Affiliates' products and information as documented in the Nexteer contracts.

7.3 Problem Reporting and Resolution Process

Problem Case Response: Suppliers shall monitor and respond to all Problem Cases issued by Nexteer. The initial response to a problem is due within 24 hours. Final response, (with verified root cause analysis), is due within 15 calendar days, unless additional time has been requested and approved by the Problem Case owner.

Suppliers shall complete a **5-Why Analysis** document as a means of ascertaining root cause analysis and verification. The 5-Why Analysis document shall be submitted via the final response in Problem Solver.

Cost recovery will be communicated with a Problem Case and through a cost recovery notice in the Problem Solver System. Suppliers shall respond to the cost recovery notices within 15 days.

Supporting Documentation, Forms or Reference:

- The following forms are located on the Nexteer Supplier Portal, Frequently Used Documents, Supplier Standards, APQP and Current Production Cycle Forms:
  - **Five Why Form F1043**
  - **Five Why Training**
  - **Reference TS Clause 8.5.2**

7.4 Control of Nonconforming Product

The supplier shall have an internal containment procedure that integrates the requirements of the Nexteer Supplier Containment Procedure.

Should a Supplier be placed in Controlled Shipping Level 2, the Supplier shall contact their ISO/TS 16949 Registrar and submit irreversible corrective action plans upon entrance into Controlled Shipping Level 2.

Supplier shall upload the irreversible corrective action plans in Problem Solver for review and acceptance of the Nexteer AQE/SQE. If the Registrar completes an on-site assessment at the Supplier location, the Supplier must upload the assessment results in Problem Solver for review and acceptance by the Nexteer AQE/SQE.

Supporting Documentation, Forms or Reference:

- The following forms are located on the Nexteer Supplier Portal, Frequently Used Documents, Supplier Standards, APQP and Current Production Cycle Forms:
  - **Containment (Folder)**
  - **Reference TS Clause 8.3**

7.5 Scorecards

Nexteer uses a Scorecard to monitor supplier quality performance and drive corrective actions for quality improvement. The Scorecard provides an on-going assessment of quality and delivery performance. Based on the e-mail addresses maintained in Supplier Profile, (Refer Section 1.2) supplier Scorecards will be e-mailed on a periodic basis. Suppliers are responsible to ensure action plans are developed as applicable to achieve good scorecards. (Reference TS Clause 8.2.1)

A new Nexteer Balanced Scorecard and Supplier Rating System are under development, and will be available in 2012.

Scorecard Usage to Drive Improvement

In the event the scorecard has problem indicators or quality issues, the supplier is responsible to establish aggressive plans to drive improvement.

Supplier Quality Certification Compliance

Supplier scorecard ratings regarding quality certification requirements are as follows:

- **Green (Acceptable)** – Supplier is certified to minimum requirement of ISO 9001:current version, or the preferred ISO/TS 16949:current version and has a valid certificate or waiver in Supplier Profile.

- **Red (Unacceptable)** – Supplier is not certified to ISO 9001 or ISO/TS 16949 or current certification is expired. This is not an acceptable certification status and may result in the Supplier being placed on New Business Hold.

8. Glossary

AQE - Advanced Quality Engineering – A group of Nexteer engineers responsible for assessing potential suppliers and taking contracted suppliers through the APQP process until the product is into production. In some regions, the SQE may perform this role.

ASN - Advanced Shipment Notification – An electronic communication which identifies advanced shipment details to Nexteer via EDS*ELIT (Van).

Capacity Verification – A verification methodology to demonstrate that a supplier can meet the capacity planning volume requirements as defined in the GSM Request for Quote (RFQ).

Covisint – Covisint is a business-to-business company that provides services and tools in an online environment.

CTPAT – Customs Trade Partnership Against Terrorism – A **voluntary** government-business initiative to build cooperative relationships that strengthen and improve the overall international supply chain and U.S. border security and focused on improving the security of private companies' supply chains with respect to terrorism.

DUNS Number – A nine-digit number assigned and maintained by Dun and Bradstreet to identify unique business establishments. DUNS numbers are assigned worldwide and include US, Canadian, and international organizations.

External Direct Suppliers – Suppliers to Nexteer excluding Nexteer owned subsidiaries or joint ventures with greater than 50% ownership that manufacture customer specified parts for production or service.

Family Parts – These are groups of parts processed on the same production line, using the same control plan, PFMEA and process equipment. The parts differ only in end item value. PPAP for the "family" is approved by using the extreme values of the "family" specification to define the "family" boundary.

FTQ- First Time Quality – FTQ is defined as a measure of the number of pieces rejected in a manufacturing process versus the total number of pieces attempted. FTQ can be measured at any step in the manufacturing process where parts are rejected. FTQ is reported in parts per million (PPM) defective.

Gate Chart – A matrix chart used to track and report warranty, customer returns, or first time quality claims. This chart documents problem resolution and monitors effectiveness of corrective actions over time.

GSM – Global Supply Management – The Nexteer Department that has the responsibility to procure materials, products and services worldwide. GSM is also responsible for ensuring quality of supplied parts, materials and services from suppliers, including customer-designated suppliers.

MAPP – Manufacturability Assessment & Process Plan – Excel Template tool used to identify and assess risk and mitigation plans for purchased parts throughout the launch process.

Nexteer Automotive Portal – The Nexteer Automotive Portal is a website, accessible through the Internet that allows suppliers to access useful information and interact with Nexteer. It is the single point of e-contact between Nexteer and the supply base and acts as an integration point for common systems and processes.

Problem Case – A document to track supplier performance issues that impacts a supplier's Scorecard.

Responsible – The supplier is held accountable to manage and meet the mandatory requirement without the need for Nexteer's verification.

Shall – The word "shall" indicates a mandatory requirement.

Should – The word “should” indicates a recommendation.

Site – A specific supplier physical location under one address, such as a manufacturing plant, that can be assigned or has a DUNS or User Block number.

Sub-supplier – Providers of production materials, production or service parts, assemblies, heat-treating, welding, painting, plating, or other finishing services directly to any direct supplier**.**

SQE - Supplier Quality Engineer – A group of Nexteer engineers responsible for managing the current production quality issues and continuous improvement with supplier.

Supplier – Producers of production materials, production or service parts, assemblies, heat-treating, welding, painting, plating, or other finishing services that ship to Nexteer or their customers**.**

SCR - Supplier Suggestion/Change Request – The supplier must notify Nexteer of any design, manufacturing location change and process changes as defined in the PPAP manual. The SCR form shall be submitted through the Nexteer Supplier Suggestion/Change Request application located on the Nexteer Supplier Portal.

9. Normative Reference Documents

The following reference documents are vital to the development of a quality system that meets the Nexteer standards. Therefore, it is expected that the supplier will have the following documents.

- Production Part Approval Process, PPAP
- Statistical Process Control, SPC
- Potential Failure Mode and Effects Analysis, FMEA
- Advanced Product Quality Planning and Control Plan, APQP
- Measurement Systems Analysis, MSA
- Heat Treat Manual (CQI-9 Special Process: Heat Treat System Assessment)
- Plating System Manual (CQI-11 Special Process: Plating System Assessment)
- Coating System Manual (CQI-12 Special Process: Coating System Assessment)
- Welding System Manual (CQI-15 Special Process: Welding System Assessment)
- Soldering System Manual (CQI-17 Special Process: Soldering System Assessment)
- Technical Specification ISO/TS 16949:current version
- Nexteer Global Packaging and Shipping Manual - Located on the Nexteer Supplier Portal (Frequently Used Documents) at www.covisint.com
- Nexteer Appendixes – Located on the Nexteer Supplier Portal (Frequently Used Documents) at www.covisint.com

Copies of PPAP, APQP, FMEA, MSA, SPC, and Special Processes: CQI-9 Heat Treat System Assessment Manual, CQI-11 Plating System Assessment Manual, CQI-12 Coating System Assessment Manual, CQI-15 Welding System Assessment Manual and CQI-17 Soldering System Assessment Manual, Current version of ISO/TS 16949 and other related manuals are available from the AIAG at 1-248-358-3003, or at the following link: www.aiag.org. Copies of ISO documents are available from the American National Standards Institute (ANSI) at (212) 642-4980, or http://webstore.ansi.org/.

10. Nexteer Supplier Requirements – Change Review Log

Approval Date	Section	Issue/Revision Description	Title/Function
June 6, 2011		Complete Rewrite, with major changes to Sections: 4.5 – Nexteer Designated Special Characteristics 4.6 – Product Traceability 4.10 – Measurement System Analysis	Jim Corbeil Vice President Global Supply Management Lois Alverson Director Global Supplier Quality & Development
December 15, 2011	5.3 Labeling 5.4 Production Scheduling and Shipping	5.3 Eliminated the North American Label Specification and replaced it with two (2) Global Supplier Container Label Standards; one (1) based on EDIFACT and one (1) based on ANSI X12 5.4 Added EDI EDIFACT to the statement: Suppliers shall be EDI ANSI-X12 compliant or EDI EDIFACT or Web EDI capable.	Lois Alverson Director Global Supplier Quality & Development