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# **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 <u>Nexteer Supplier Requirements Manual</u>. 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 <u>Nexteer Supplier Requirements Manual</u> 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 & Chief Procurement Officer

Kurt Heberling
Director Global Supplier Quality & Development
Global Supply Management

# 1. General Requirements

# 1.1 Scope

## This document applies only to external automotive direct material suppliers.

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, including sub-supplier processes. This document contains the Nexteer specific requirements including Nexteer's Customers' requirements if applicable, which are 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 stated within this document.

Indirect and service providers are not included in this requirement, e.g. logistics, sequencers, parts packagers, tooling & equipment. Note that distributors adding no manufacturing value must adhere to sections 1.3, 1.4a, and 1.4h.

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 Code of Conduct and Corporate Social Responsibility

Nexteer recognizes that being a good corporate citizen is making a positive impact where we do business and is the basis for sustainability. Nexteer is committed to the welfare and health and safety of all its employees and contractors and to delivering socially and environmentally responsible products to our customers. We have a moral and ethical responsibility to respect human rights throughout our supply chain and make a difference where we operate. Nexteer complies with all applicable laws, government regulations and rules in the countries where we operate, and has established a Code of Conduct (available at nexteer.com) governing the actions of its employees. We expect that our supply base does the same and enforces policies that include but are not limited to: providing a safe and healthy working environment, offering competitive wages and benefits, establishing reasonable working hours, allowing freedom of association, providing training and development of employees, intolerance of harassment and discrimination as well as, forced and child labor. In addition, suppliers must operate honestly and equitably in accordance with laws pertaining to terrorism, money laundering, corruption and conflicts of interest, anti-competitive business practices, protection of intellectual property, confidential information, company data and personal data, respect for company property, and export controls. Suppliers shall, upon request, provide evidence of adherence to these global requirements. Failure to comply or failure to work with Nexteer to correct non-compliant situations is grounds for termination of our business relationship. Nexteer encourages suppliers to seek training in Corporate Compliance, Ethics, and Diversity.

Inappropriate behavior by a Nexteer employee may be reported to your Nexteer contact or by calling the Nexteer Ethics Line or filing a report on-line. The Nexteer Code of Conduct document contains the Ethics Line phone numbers and link for on-line reporting and is available on Nexteer.com at the following link: www.nexteer.com/investor-center/corporate-governance-2/. For convenience, the Ethics Line phone numbers and the link to on-line reporting may be found in Attachment F of this document.

Nexteer believes in equal employment opportunity (EEO) and fully complies with government requirements. Nexteer expects suppliers to comply with the Nexteer EEO policy which may be found on the Nexteer supplier website at http://www.nexteer.com/doing-business-with-nexteer/

## 1.3 Supplier Communication

#### **Supplier Website**

The Nexteer Supplier Website provides easy access with links to supplier systems and important documents required to do business with Nexteer. (http://www.nexteer.com/supplier-portal/) All communication with Nexteer and in Nexteer systems should be in English to facilitate multi regional sharing of information.

#### Intelex

Registration to the Nexteer Supplier Management System through Intelex is a requirement for all supplier manufacturing locations and distributors of direct material conducting business with Nexteer. Suppliers must register for Intelex by completing the registration form located on the Nexteer Supplier Website at http://www.nexteer.com/supplier-portal/supplier-applications/. Upon receipt of the registration, Nexteer will set-up the supplier location within Intelex and provide log-in credentials to the requester. Suppliers are responsible to have the appropriate hardware and software needed to access and use the system. It is the supplier's responsibility to obtain and maintain a Dun and Bradstreet DUNS number(s) to support the system applications. Suppliers are responsible to contact Nexteer GSM (Global Supply Management) Systems Support for any system related issues at: gsm.systems@nexteer.com.

Suppliers (including distributors of direct material) are responsible to access the Intelex system on a regular basis to maintain supplier data integrity and monitor Nexteer initiated communication. Communication may include but is not limited to:

- Problem Case Management (reference section 7.3)
- SQ Escalation (reference section 7.2)
- Supplier Performance Scorecards (reference section 7.5),
- Supplier Suggestions and Change Request (reference section 6),
- Supplier 360 Profile Application (see below)
- Cost Recoveries (reference section 7.3)
- APQP Advanced Product Quality Planning (reference section 4.2)

A Supplier 360 (Profile) Application within Intelex is a requirement for direct material manufacturing locations and distributors of direct material conducting business with Nexteer. Suppliers are required to maintain their supplier profile in the Supplier 360 Application. Failure of the supplier to review this Information on an annual basis will result in a deduction of points on the Supplier's Balanced Scorecard. Suppliers can and should update for changes at any time during the year. Suppliers are required to maintain information consisting of:

- Quality Certification (refer to Section 1.4) The latest valid and complete quality management system certificate shall be posted in the Supplier 360 Application
- Supplier Address Information
- Supplier Contact Information
- C-TPAT (Customs Trade Partnership Against Terrorism) compliance if required. Reference section 5.7
- CQI-9 Heat Treat Assessment annual submission (full assessment and corrective action plan when applicable)

In order to better utilize our systems, we recommend that your organization create a group mailbox within your email client. A group mailbox such as <a href="mailto:nexteerapps@supplier.com">nexteerapps@supplier.com</a> will allow your organization to manage the users that would receive communication for the Nexteer systems. This email address can then be the email address associated with the one user ID in the Intelex system, as well as be used for any other communications from Nexteer. The benefit of having this group mailbox allows for communications to still be received by your organization regardless of vacation, leave, or employee responsibility changes. If you are unsure how to create or use a group mailbox, please contact your local IT support group.

#### Vontik

As part of our ongoing efforts to maintain, develop and properly manage our supply base, Nexteer regularly monitors performance by tracking and investigating various aspects of our suppliers such as quality, delivery, launch and financial health. We believe that a strong supply base is a competitive advantage that allows us to deliver innovative, high quality products at a competitive price to our customer.

To better enable us to monitor financial health on an ongoing basis and avoid interruptions and delays caused by supplier financial dilemmas, Nexteer has contracted with a third party to provide a financial data entry system that generates ongoing high level financial assessments on each of our suppliers. This system, Vontik located at gtp.kpmg.com, requires that suppliers initially input certain financial and other data and then provide updates on a quarterly basis.

Participation in this program is mandatory for all Nexteer suppliers. It is imperative that you fully participate in a timely manner (within 30 days of when you receive your invitation from Vontik). Failure to take part will directly impact new business.

#### **DocuSign**

Nexteer may request documents to be signed electronically using DocuSign. DocuSign provides electronic signature technology and Digital Transaction Management services for facilitating electronic exchanges of contracts and signed documents. DocuSign meets statutes and regulations globally, utilizing industry leading encryption standards, retention and storage practices and data security, to support the integrity and legality of transactions. Information regarding the legal protection of eSignatures may be found at https://www.docusign.com/how-it-works/legality.

It is Nexteer's expectation that documents sent to the supplier via DocuSign, are signed and returned to Nexteer by the supplier using this tool. Note: Registration is not required nor is there a cost to the supplier.

## **Additional Supplier Communication Requirements:**

- Ownership Change The supplier shall notify the Nexteer Buyer in advance or immediately in writing
  of any change in ownership.
- Manufacturing Site Change The supplier shall notify the Nexteer AQE/SQE in advance of any planned change in manufacturing site location using the Supplier Change Request Form.
- <u>Customer Representative Change</u> When the supplier's customer representative changes, the supplier is responsible to update contact information in the Nexteer Supplier 360 Profile Application in Intelex.

#### **Supporting Documentation, Forms or Reference:**

- Reference TS-16949 Clause 7.2.3
- Nexteer Supplier Website: http://www.nexteer.com/supplier-portal/
- Supplier Suggestion Change Request Application (SCR) Link is located on the Nexteer Supplier Website, Supplier Applications, Intelex http://clients.intelex.com/login/Nexteer
- Nexteer Help Desk for Supplier Systems and Applications: gsm.systems@nexteer.com

# 1.4 Quality Management System

## **Quality System Certification**

Nexteer recognizes the transition from ISO/TS 16949 to IATF 16949 and that ISO/TS 16949 will no longer be valid after 14th September 2018. Additional information may be communicated via a Nexteer supplier bulletin at a later date. Suppliers are urged to refer to the information located on the IATF website: http://www.iatfglobaloversight.org/.

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. Manufacturing locations that are certified only to ISO9001 must submit a plan to Nexteer that shows how the location complies with the requirements of TS16949. Distributors of direct product or materials must be certified to the current version of ISO9001. Suppliers that are not registered to any quality standard (i.e. greenfield locations or waivered) or are certified only to ISO9001 must comply with IATF publication, Minimum Automotive Quality Management System Requirements for Sub-tier Suppliers (MAQMSR). Greenfield locations must submit a letter from their ISO Registrar indicating their plan and timing for certification.
- b. Suppliers are responsible to comply with the Nexteer Supplier Requirements.
- c. Nexteer only recognizes TS16949 certificates issued by IATF recognized Certification Bodies carrying the IATF logo and specific IATF number. See below links for official lists.
- d. Nexteer only recognizes ISO9001 certificates issued through a certification body bearing the accreditation mark of a recognized IAF MLA member and where the accreditation body's main scope includes management system certification to ISO/IEC 17021. This is effective December 31, 2017.
- 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 the Supplier 360 Profile Application.
- k. Certification Body/Registrar Notification Suppliers registered to ISO 9001 or ISO/TS 16949 are responsible to notify Nexteer of certificates being revoked, withdrawn, being placed on suspension, or re-instated.

## **Environmental Management System Certification**

Nexteer encourages suppliers to seek environmental training and strongly recommends registration to the current versions of ISO14001. Nexteer is committed to environmental responsibility. We strive for economical use of raw materials, energy, water and other goods; we fully consider the life cycle of our products and strive for continuous improvement. We therefore expect our suppliers to pursue environmental responsibility throughout the supply chain in order to reduce the life-cycle environmental footprint of products. All products manufactured, and the applied materials and substances used in the process are expected to meet environmental standards for design, development, distribution, use, disposal, or recycling. Such items include but are not limited to: reducing energy consumption, reducing emissions, increasing use of renewable energy, appropriate waste management, environmental testing, training of employees and sub-contractors, and regulatory requirements. Suppliers are to communicate to their employees an Environmental Policy Statement reflecting their commitment. Suppliers shall, upon request, provide evidence of adherence to these requirements.

#### **Supporting Documentation, Forms or Reference:**

- ISO/TS 16949 Certification Body Official List: www.iaob.org
- ISO9001 Certification Body Official List: www.anab.org
- Reference TS Clause 4.1
- Minimum Automotive Quality Management System Requirements for Sub-tier Suppliers (MAQMSR): www.iatfglobaloversight.org

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

<u>NOTE</u>: When a supplier provides parts that are very low volume to Nexteer, or supplies non-engineered products, 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**

<u>Materials</u> – 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)

## 1.5 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 Website.

#### **Supporting Documentation, Forms or Reference:**

 23000000 Substances of Concern and Recycled Content specification – located on the Nexteer Supplier Website, Processes, Quality: http://www.nexteer.com/supplier-portal/processes/quality/

# 1.6 Regulatory Conformity Material Expectations

Suppliers shall provide samples, testing, and supporting documentation in the form of MSDSs (Material Safety Data Sheets) or GHS-compliant SDSs (Safety Data Sheets) for all purchased materials or items that pose a potential health & safety, storage, transportation, use, or environmental risk to Nexteer or its employees. This requirement also applies to any rust preventative, grease, lubricating oil, or other chemical material that is present on a part or assembly provided to Nexteer. Nexteer review and approval of such is required prior to delivery of these items to Nexteer. (Reference TS Clause 7.4.1.1)

Suppliers shall ensure that products provided to Nexteer meet all regulatory requirements in the region of use. This includes, but is not limited to, requirements that address governmental chemical registration (REACH), transportation (Dangerous Goods), and environmental restrictions as set forth by the applicable governmental agencies for the Nexteer point of receipt from the supplier.

#### **Conflict Minerals**

All suppliers shall be able to determine the locations where the tin, tantalum, tungsten, and gold, contained within products sold to Nexteer, originated within the Democratic Republic of the Congo OR be able to verify that the tin, tantalum, tungsten, and gold contained did not originate within the Democratic Republic of the Congo. Suppliers shall be required to submit this conflict minerals information upon the request of Nexteer

Automotive via the iPoint Conflict Minerals Platform (iPCMP) tool OR by reporting manually using the electronic version of the Electronic Industry Citizenship Coalition and Global e-Sustainability Initiative (EICC-GeSI) Conflict Minerals Reporting Template. Suppliers are to refer to AIAG for more information and details (www.AIAG.org).

# 1.7 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 incoming receiving and inspection, the acceptance level shall be zero defects.

Suppliers are responsible to select sub-suppliers (e. g. 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 subsuppliers. The Nexteer Supplier Quality Engineer may elect to participate in sub-supplier on site visits and/or audits. The AIAG CQI-19, Sub-tier Supplier Management Process Guideline, should be used as a tool for quality system development of a sub-supplier.

CQI-8, CQI-9, CQI-11, CQI-12, CQI-14, CQI-15, CQI-17, CQI-19, CQI-23, and CQI-27 shall apply to any subtier 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 Forms Located on the Nexteer Supplier Website, Processes, Quality http://www.nexteer.com/wp-content/uploads/2012/FILES/QUALITY/appendix\_58\_1.xls
- Published by AIAG (Required to be completed and made available to Nexteer when part of the supplier's value stream):
  - CQI-8 Layered Process Audit Guideline
  - CQI-9 Special Process: Heat Treat System Assessment
  - CQI-11 Special Process: Plating System Assessment
  - CQI-12 Special Process: Coating System Assessment
  - CQI-14 Consumer Centric Warranty Management
  - CQI-15 Special Process: Welding System Assessment
  - CQI-17 Special Process: Soldering System Assessment
  - CQI-19 Sub-Tier Supplier Management Process Guideline
  - CQI-23 Special Process: Molding System Assessment
  - CQI-27 Special Process: Casting System Assessment

## 1.8 Confidentiality

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

#### 1.9 Record Retention

Supplier project records must be stored by suppliers in a manner that will facilitate effective search and retrieval as required for business, legal or tax purposes for their entire retention period. Computing and communication resources must be maintained to access and retrieve records throughout the total retention period. These resources may include required operating systems, applications, retrieval tools and retention media.

Records of process control data, product inspection data and records of appropriate reaction actions to readings outside the specification shall be retained in a recoverable format for a minimum of 2 years, available to Nexteer Automotive upon request. The actual values of process parameters and product test results (variable or attribute) shall be recorded. Simple pass/fail records of inspection are not acceptable for variable measurements.

Maintenance records 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 of measurement equipment calibration are to be held for one calendar year or when superseded, whichever is longer.

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 the current year plus15 additional years, unless otherwise specified by Nexteer GSM.

Records related to PPAP must be maintained for 50 years from PPAP approval by Nexteer.

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 Website.

- As part of the Request for Quote provided by the Buyer, suppliers shall submit their quotation via Nexteer's On-Line Quoting System. Included with the on-line Quote Template, the supplier shall submit the Manufacturability Assessment & Process Plan (MAPP) template when requested by the Buyer.
- Nexteer utilizes the Manufacturing Capability Assessment (MCA) prior to contracting a business
  relationship with a new supplier or a new supplier facility. An MCA shall also be used if a technology or
  part family is new to an existing supplier's manufacturing location. A supplier will only be considered for
  business by Nexteer, if the MCA results in a green rating or has an acceptable action plan.
- Suppliers may be requested to participate in an MCA with Nexteer personnel or conduct a preassessment 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.

#### **Supporting Documentation, Forms or Reference:**

- Manufacturability Assessment & Process Plan (MAPP) Template, located on the Nexteer Supplier Website, Processes, Sourcing: http://www.nexteer.com/supplier-portal/processes/sourcing/
- Manufacturing Capability Assessment located on the Nexteer Supplier Website, Processes, Quality: http://www.nexteer.com/supplier-portal/processes/quality/

## 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 Sections within the Direct Works system. 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 on-line quoting system hosted by Direct Works. When requested by the Buyer, Supplier will complete the Manufacturability Assessment & Process Plan (MAPP), Supplier Packaging Information form (SPI), etc.

Suppliers are expected to provide best cost pricing to Nexteer. Suppliers are also expected to have a continual cost reduction improvement process in order to reduce their costs and improve the value of the product to Nexteer. The expected cost reduction goal will be based on how a supplier's book of business compares to the target (determined by the market and target cost) and may be above or below 3% per year depending on the gap to the target. It is critical that suppliers continually improve their cost competitiveness as suppliers who do improve will be "preferred" to those who do not. All cost reduction improvements are to be submitted using the Intelex Supplier Suggestion/Change Request (SCR) application (reference section 1.3).

When appropriate, Nexteer GSM can provide assistance in cost reductions, through various workshops. For further information, contact your Nexteer Buyer.

Suppliers who provide prototype/pre-production part requirements are expected to provide them at production pricing unless otherwise agreed to by GSM.

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

# 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 or Nexteer customer 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 shall provide electronic reproducible tooling prints for existing tools. (Reference TS Clause 7.5.4.1)

# 2.5 Payment

To affect Electronic Funds Transfer (EFT), new suppliers will complete an EFT Payment Authorization Form for the appropriate Nexteer region location, if applicable. These forms are available on the Nexteer Supplier Website and are required only prior to issuing first payment or if remit name, address or "Ship From" DUNS number changes. Payments cannot be issued until the documented remittance information is provided to Nexteer 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 Forms - Located on the Nexteer Supplier Website, Processes, Financial: http://www.nexteer.com/supplier-portal/processes/financial/

# 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 (e.g. 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

<u>Prototype Program</u> – 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.

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

<u>Prototype Parts Provision</u> – Suppliers who provide prototype/pre-production part requirements are expected to provide them at production pricing unless otherwise agreed to by GSM.

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

<u>MAPP</u> – Manufacturability Assessment and Process Plan. The MAPP is a tool for early risk identification and documentation of mitigation plans. The MAPP requires the supplier to consider each dimension, feature or requirement on the drawing or in the product specification and document how it will be manufactured, measured and controlled in production. MAPP is required unless otherwise agreed to by GSM. Note: If the Government/Safety Regulation Block on the drawing is checked "yes" then refer to the DSS (Design Serverity and Sensitivity) .pdf document for CL3s.

<u>APQP</u> – The AIAG 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 APQP application within Intelex unless otherwise identified or approved by the responsible AQE/SQE.

In order to facilitate multi-regional sharing of information, all Sourcing, APQP documentation (including MCA, MAPP, PPAP documentation, shipping paperwork, packaging, labeling, part marking, etc...), and Intelex responses shall be in English or include an accurate English translation. Documentation in any other language is for reference only.

Suppliers shall be responsible for and lead the APQP activity for all new parts. Suppliers will receive specific instructions from the Supplier Quality Engineer. These requirements are further detailed in the Supplier Performance Development Process (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.
- Conduct or participate in a Supplier Process Production Readiness Audit (F1058)

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

<u>Supplier Performance Development Process (SPDP)</u> – 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 SPDP tasks and appendices are posted on the Nexteer Supplier Website. The Nexteer AQE/SQE will communicate any waivers from these processes.

#### **Supporting Documentation, Forms or Reference:**

- MAPP is located on the Nexteer Supplier Website, Processes, Sourcing: http://www.nexteer.com/supplier-portal/processes/sourcing/
- See the Nexteer Supplier Website, Processes, Quality, APQP and Current Production Cycle Forms: http://www.nexteer.com/supplier-portal/processes/quality/
- Reference TS Clause 7.1

# **4.3 Product Approval Process**

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

The required method of submission is electronically. Each section of the PPAP submission should be a separate PDF file. Reference the Nexteer Electronic PPAP Submission Instructions located in the Nexteer Supplier Website for additional submission requirements. Any exception must be approved by the Nexteer AQE/SQE.

Any parts shipped from production tooling to Nexteer Manufacturing Facilities or third party equipment manufacturers for Nexteer must have some level of PPAP approval (may be interim approval). The Supplier is to ensure that all sub-tier supplier processes are PPAP approved prior to submission of the saleable part to Nexteer.

The supplier should be prepared to submit a PPAP annually at no cost to Nexteer. An annual PPAP package should include requirements listed in Section 4.15. Additionally, gage studies and capability studies may also be required by the Nexteer AQE/SQE. Copies of supplier PPAP's will immediately be made available upon request from Nexteer.

PPAP parts are to be shipped to Nexteer using the Global Sample and PPAP Label located on the Nexteer Supplier Website. The label is to be printed on bright orange paper and securely affixed to all 4 sides of the container(s) of sample parts.

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 Website, Processes, Quality, F1020, F1020-1, F1020-2, F1020-3, F1020-4 PPAP Check Sheets and F-1021 PPAP Check Sheet Instruction: http://www.nexteer.com/supplier-portal/processes/quality/
- Global Sample and PPAP Label located on the Nexteer Supplier Website, Processes, Shipping and Labeling: http://www.nexteer.com/supplier-portal/processes/shipping-and-labeling/
- AIAG Production Part Approval Process (PPAP) manual, AIAG Service Production Part Approval Process (Service PPAP) manual.

#### 4.4 Statistical Tools

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

Minitab version 15 or newer (due to calculation differences in earlier versions) 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 and understand the appropriate controls for special characteristics existing on the parts being produced at their work station. If special characteristics are generated by a sub-supplier it is the responsibility of the Nexteer supplier to ensure compliance with the special characteristics requirements in this manual.

Nexteer uses QCIs (Quality/Customer Interface Characteristics) and QCLs (Quality Control Level Characteristic) to designate special characteristics on product drawings and specifications. (Note: QCIs are used on drawings prior to the 2016 vehicle model year. QCLs are used on drawings both new and carry-over parts beginning with the 2016 vehicle model year.) These designations 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.

For any press operation that has a severity 9 or 10 (CL1, CL2, CL3) on the DFMEA/PFMEA the process control will be a force displacement profile, where force and distance will be measured simultaneously, and must conform to established values along the length of the press operation. Compliance to the force displacement profile will be the only acceptable criteria for determining good parts.

For any safety/compliance characteristic (CL1, CL2, CL3), the machine set-up procedure must include special checks to verify correct machine set up and that parts are 100% to print prior to release of the process for production.

The following are the QCI & KPC designations and the process/inspection requirements related to each. There may be unique OEM specific standards that exceed the requirements listed in this section.

	Product Cha	racteristic Chart for use wi	thout QCLs	
Drawing and Control Panel 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  Capability Index Target Cpk and Ppk >1.33 & demonstrated statistical control  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.	<ul> <li>Sorting</li> <li>Request Nexteer         Engineering Permit to         allow the deviation</li> <li>Reduction in variability         required when Ppk         capability is not met.</li> </ul>
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     Request Nexteer     Engineering Permit to allow the deviation
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     Capability Index Target Cpk ≥ 1.67, & demonstrated statistical control     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.	<ul> <li>Engineering permit required with customer notification for usage of parts not accepted with a full tolerance gage.</li> <li>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.</li> <li>Reduction in variability required when Ppk is not met or when process is not in statistical control.</li> </ul>

Drawing and Control Panel Information	Inputs to Selection	Process Requirements	Documentation Requirements	Response to Nonconforming Material
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.	<ul> <li>Same as Fit/Function QCI CI-DR and,</li> <li>Document containment plan for all non-conforming parts.</li> </ul>
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.

## PRODUCT CHARACTERISTICS CHARTs and Capability Requirements for use with QCLs

#### Product Characteristics Control Levels Chart – See Attachment B

- Detection Control Table See Attachment C
- Process Control Table See Attachment D
- Defect Handling Table See attachment E

## Initial Process Capability Requirements for PPAP

- Initial Process Capability studies will be required on all QCLs except CL3 unless otherwise agreed upon in the MAPP Supplier Capability and Selection Review by the Nexteer Product Engineer and AQE. Process studies of other characteristics may be requested by Nexteer during the MAPP review.
- Unless otherwise agreed to by the Nexteer organization, the Acceptance Criteria for the initial Process Capability Studies for QCLs classified as CL1, CL2, CL4, and CL5 with either bilateral or one sided distributions must achieve a Capability Index Target Cpk and Ppk ≥1.67 & demonstrated statistical control.
- If an Initial process capability study is required for a CL3, the Acceptance Criteria for either bilateral or one sided distribution is: Initial (PPAP) process study
   Capability Index Target Cpk ≥ 1.33 & demonstrated statistical control and Ppk must be ≥ 1.33, or 100% inspection and/or error prevention.
- Unless otherwise agreed to by the Nexteer organization, the Acceptance Criteria for the initial Process Capability Studies (if required) for Standard dimensions either bilateral or one sided distributions are: Initial (PPAP) process study Capability Index Target Cpk and Ppk >1.33 & demonstrated statistical control.

### Ongoing Capability Requirements

Suppliers are required to maintain capability throughout the product life. Supplier must provide ongoing capability studies from an extended production run if requested by Nexteer

- QCLs classified as CL1, CL2, CL4, and CL5 with either bilateral or one sided distributions must achieve a Capability Index Target Cpk and Ppk ≥1.33 & demonstrated statistical control.
  - If the capability index is not met, for CL1, CL2, and CL4, then 100% inspection is not acceptable as the only method for controlling the process. An additional detection control method must be used in conjunction with 100% inspection. Reference Attachment B
- QCLs classified as CL3 with either bilateral or one sided distributions must achieve capability index target Cpk ≥ 1.33 & demonstrated statistical control, and Ppk must be ≥ 1.33, or 100% inspection and/or error prevention
- Standard Dimensions with either bilateral or one sided distributions must achieve a capability Index Target Cpk and Ppk >1.0 & demonstrated statistical control

## 4.6 Product Traceability

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

Typical traceable items may include lot, date, shift, raw material, machine, die/cavity number, department number, etc...

Critical components are defined as those components that have features designated with safety/compliance QCIs or KPCs (QCI – QS, or KPC S/C) 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. For drawings with QCLs, refer to attachment B for traceability requirements.

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

- <u>Singular/Serialization</u> 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.
- <u>Lot Control</u> 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 (typically 8 hours) of supplier's production. <u>NOTE</u>: 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 (Reference section 1.9, Record Retention). 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 1.9 – 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.

For Nexteer drawings containing QCL Special Characteristics, the severity shown on the supplier FMEA should be no less than what is shown in the Nexteer DFMEA SEVERITY column on the Product Characteristics Control Levels Chart, Attachment B. For example, all potential failure modes associated with a characteristic identified as a CL4 on the Nexteer drawing should have no less than an "8" shown as a severity on the supplier FMEA.

The supplier must have a system to feedback root cause and corrective actions from problem cases to the PFMEA, and create linkage between lessons learned and the PFMEA to drive improvement. Evidence must be available to substantiate the PFMEA action results.

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 Website, Processes, Quality: http://www.nexteer.com/supplier-portal/processes/quality/
- 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 including the annual layout.

## **Supporting Documentation, Forms or Reference**:

- www.aiag.org
- The following Documents are located on the Nexteer Supplier Website, Processes, Quality: http://www.nexteer.com/supplier-portal/processes/quality/
  - 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 the supplier 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 and those features that will have capability studies submitted at the time of PPAP.

<u>Variable Gage Studies</u> – 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 with a maximum target of 10%.

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

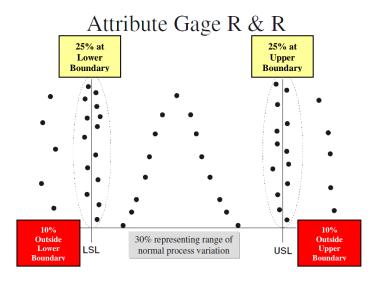
In special cases where the manufacturing process is very capable, stable and in control, the percentage R&R should be calculated based on tolerance, with concurrence of the Nexteer AQE/SQE. The minimum number of 5 distinct categories may not be applicable in this situation.

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

<u>Attribute Gage Studies</u> – Shall be completed with 3 operators, 3 trials, using 50 parts and evaluated with KAPPA calculations as outlined in the AIAG Manual. The parts used should be distributed as shown in the below graph.

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 (e.g. 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 an alternate inspection method and a gage improvement plan. This 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 Forms Located on the Nexteer Supplier Website, Processes, Quality http://www.nexteer.com/supplier-portal/processes/quality/
- Reference TS Clause 7.6.1

# 4.11 Initial Process Capability Studies

125 piece capability studies are required at time of PPAP for all special characteristics unless otherwise agreed upon in the MAPP Supplier Capability and Selection review. Process capability studies of other characteristics may also be requested by Nexteer during the MAPP or APQP reviews. The 125 piece data points should come from the 300 piece PPAP production run, in time-ordered rational subgroups of a minimum of 3 pieces. The sampling plan is to be documented and pre-approved by the Nexteer AQE/SQE.

On the initial process studies for special characteristics the supplier needs to demonstrate that the process is stable and in control through the use of a control chart as per the AIAG PPAP manual. Normality and capability must also be demonstrated. The above can be shown using the "Capability Six Pack", within Minitab.

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

## **Supporting Documentation, Forms or Reference**:

www.aiag.org

NOTE: Any expected non-normal distributions should be communicated at the Supplier Capability & Selection 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)

## **4.12 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), CQI-23 Special Process: Molding System Assessment, and CQI-27 Special Process: Casting System Assessment published by AIAG. Suppliers are responsible to apply these requirements to applicable sub-suppliers pursuant to Section 1.7. There may be additional unique OEM specific assessments required.

Suppliers of new parts that require heat treat will be notified during the APQP process that they must submit all CQI-9 assessments for their value stream as part of their PPAP submission package. These CQI-9 assessments must be less than 12 months old. Suppliers of current production parts will be notified via e-mail from the Intelex system to submit their annual CQI-9 assessments for any heat treat operations in their value stream. The annual CQI-9 assessments shall be up-loaded into Intelex by the supplier's registered user. Failure to do so may result in new business hold.

#### **Supporting Documentation, Forms or Reference:**

- Published by AIAG (Required to be completed and made available to Nexteer 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
  - CQI-23 Special Process: Molding System Assessment
  - CQI-27 Special Process: Casting 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 run@rate. 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 shall 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 aggregate Nexteer 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 based on the aggregate Nexteer volume and is performed as a method for production capacity and quality system verification.

<u>NOTE</u>: 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, raw material certification including the updated laboratory scope of accreditation (to all engineering material and performance requirements), and MSA study. These results, along with an updated Part Submission Warrant, shall be submitted upon request to the Nexteer Supplier Quality Engineer. 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

The supplier is responsible for providing a packaging proposal that ensures product quality from the supplier's plant to the Nexteer dock. 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 and Shipping Manual Located on the Nexteer Supplier Website, Processes, Shipping and Labeling: http://www.nexteer.com/supplier-portal/processes/shipping-and-labeling/
- Supplier Packaging Information Form Located on the Nexteer Supplier Website, Processes, Shipping and Labeling: http://www.nexteer.com/supplier-portal/processes/shipping-and-labeling/
- 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 Nexteer Global Supplier Container Label Requirements Standards EDIFACT. A sample or scanned PDF image 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 email address: supplier.label@nexteer.com.

A legible packing slip shall be affixed next to the master label when skid packed, or 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 information as referenced in the Label Specification links.

#### **Supporting Documentation, Forms or Reference**:

- Global Supplier Container Label Requirements Standards EDIFACT located on the Nexteer Supplier Website, Processes, Shipping and Labeling: http://www.nexteer.com/supplier-portal/processes/shipping-and-labeling/
- Global Supplier Container Label Requirements Standard ANSI X-12—located on the Nexteer Supplier Website, Processes, Shipping and Labeling: http://www.nexteer.com/supplier-portal/processes/shipping-and-labeling/
- Global Sample and PPAP Label located on the Nexteer Supplier Website, Processes, Shipping and Labeling: http://www.nexteer.com/supplier-portal/processes/shipping-and-labeling/
- Reference TS Clause 7.5.3

## 5.4 Production Scheduling & Shipping

Suppliers shall electronically receive ship authorizations (DELJIT), schedules and forecasts (DELFOR), and send DESADV's at the time of shipment. Suppliers shall be EDIFACT compliant. Suppliers who are currently EDI ANSI X-12 will be required to transition to EDIFACT. (Current suppliers who are Web EDI capable, will remain on ANSI X-12).

Nexteer expects DESADV's will be sent a maximum of 30 minutes after the shipment leaves the dock.

With respect to material obsolescence claims, the standard Nexteer terms are to authorize suppliers to manufacture 2 weeks of material and procure/manufacture an additional 2 weeks of raw material/work-in-process (material authorization will total 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 agreement.

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. Suppliers are expected to ship on weekends, holidays and vacation periods if required. 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.

Nexteer reserves the right to return over-shipments 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.

<u>Scheduling Lead Time</u> – Nexteer expects suppliers to meet schedule requirements based on forecast information provided. Suppliers are expected to maintain appropriate finished goods inventory buffers to protect delivery requirements. Significant short-term fluctuations will be reviewed as required.

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 <u>verify part number & quantities</u> 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 Regional Customs Documents

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 4<sup>th</sup> 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 Trade Advisory Services, using email address: <a href="mailto:nexteerdocs@sttas.com">nexteerdocs@sttas.com</a> or fax their documents to (248) 474-9454.

Suppliers to Nexteer outside North America shall forward all complete Certificates and other Free Trade Agreement documentation as directed by Nexteer or Sandler and Travis Trade Advisory Services.

<u>Certificate of Origin</u> – 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.

<u>Country of Origin for Declarations</u> – 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)

<u>Shipping Goods Across Borders</u> – Nexteer imports shipments accompanied by Supplier invoices. The Supplier invoice shall contain the Nexteer Automotive part number(s), Manufacturing Country of Origin, and a detailed English description of the goods. The Supplier is also responsible to provide any information that would assist Nexteer or its Service Provider in determining the correct tariff classification for these goods. Supplier's failure to provide Nexteer part number(s) and a detailed English description invoice has the potential to lead to tariff classification errors and duty rate calculation errors of imported merchandise.

Should a Supplier's non-compliance with this requirement be the cause of an administrative penalty action against Nexteer or any revenue loss to Nexteer, the Supplier will pay for all additional costs and expenses incurred by Nexteer.

#### **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/
- 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.

Suppliers are expected to meet Nexteer shipping requirements. Supplier must have shipping capability to match the Nexteer logistics routing. Suppliers are expected to secure loads on Nexteer conveyances as required (blocking and bracing, air bags). Suppliers are expected to pay any administrative fees for pickups by designated Nexteer carriers (e.g., FedEx).

All shipments shall be made by normal mode, at the prescribed ship window time, and 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 terms for all material received by Nexteer are title transfer at the Nexteer plant receiving dock (TTOP). Standard INCO terms for Nexteer are 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.

# 5.7 Shipment Security

Prior to any shipment into the U.S., the supplier is to ensure the shipment does not contain unauthorized material or persons per the U.S. C-TPAT minimum security requirements. Suppliers not shipping into the U.S. should maintain any equivalent supply chain security programs administered by the affected regions. Suppliers shipping goods into the U.S. shall provide and verify all information required in the C-TPAT Questionnaire located on the Nexteer Supplier 360 application for their DUNS number locations. On an annual basis, the supplier is responsible to review and update the C-TPAT Questionnaire.

For more information on becoming C-TPAT certified, go to http://www.cbp.gov/border-security/ports-entry/cargo-security/c-tpat-customs-trade-partnership-against-terrorism

# 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 (internal or external) or process. (Follow AIAG PPAP, current edition). Nexteer requires that all suppliers and their sub-tier suppliers understand the importance of the timeframe required to get change request approvals through each customer level up to and in some cases, including the Original Equipment Manufacturer (OEM). Contact your Nexteer Supplier Quality representative to discuss the scope and timing of the change approvals.

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. Additionally, a completed and approved Production Trial Run (PTR) may be required. The supplier shall not make any changes without prior written notification and approval from Nexteer. Any unauthorized changes can, and in most cases will 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 is responsible to communicate Nexteer's Change Management requirements to its sub-tier suppliers. An unauthorized sub-tier change can also lead to Nexteer's supplier being placed on New Business Hold.

The supplier must consider the entire scope and consider key information for the change before a Supplier Change Request (SCR) is submitted. It's critical that the supplier notify Nexteer via an SCR as early as possible to allow time for Nexteer to review and approve the SCR and supplier PPAP. In some cases, the OEM will need to approve the change and Nexteer will need to obtain a PPAP approval from the OEM.

Examples of key information to be considered include but are not limited to:

- Does the change require an appearance approval from the OEM?
- Will Nexteer be required to submit a PPAP to the OEM for this change?
- What quantity of banked inventory will Nexteer require?
- How is the supply chain going to be affected by this change?

Involving Nexteer early on, will ensure all parties will be able to develop an acceptable timing plan for the change.

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.

Nexteer 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)

<u>Supplier Change Requests</u> – Suppliers are responsible to communicate supplier change requests (SCR) through the Intelex Supplier Suggestion Change Request Application, for all Nexteer locations.

#### Supporting Documentation, Forms or Reference:

- AIAG PPAP Manual -- www.aiag.org
- APQP and Current Production Cycle Forms located on the Nexteer Supplier Website, Processes, Quality: http://www.nexteer.com/supplier-portal/processes/quality/
- Supplier Suggestion Change Request Application (SCR): Link is located on the Nexteer Supplier Website, Supplier Applications, Intelex http://clients.intelex.com/login/Nexteer

# 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. For additional tools available, see Nexteer Supplier Website.

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)

Suppliers are responsible to develop and implement a Layered Audit Process. The purpose of performing layered audits is to verify compliance to the documented manufacturing/assembly process to assure the production system and process controls are working optimally. Production Control Charts - When a control chart indicates that the production process has gone out of control, it is the supplier's responsibility to stop and fix the process, and quarantine the suspect material for 100% inspection.

### **Supporting Documentation, Forms or Reference**:

- SPDP 58.1 Manufacturing Capability Assessment: Located on the Nexteer Supplier Website, Processes, Quality: http://www.nexteer.com/wpcontent/uploads/2012/FILES/QUALITY/appendix 58 1.xls
- Layered Audit Located on the Nexteer Supplier Website, Processes, Quality: http://www.nexteer.com/wp-content/uploads/2012/FILES/QUALITY/layered\_audit.pdf
- AIAG CQI-8, Layered Process Audit Guideline

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 Application (SCR) – Link is located on the Nexteer Supplier Website, Supplier Applications, Intelex http://clients.intelex.com/login/Nexteer

# 7.2 Supplier Quality Escalation/Top Focus Supplier Process

Nexteer utilizes a Supplier Quality Escalation Process (SQEP) to identify declining supplier performance and engage suppliers early as issues are developing to implement sustainable quality improvement. The intent is to implement a rigorous process that protects Nexteer from any degrading levels of quality performance at a supplier that can lead to spills and customer impacts.

The SQEP application in Intelex manages and documents the Supplier Quality process for early intervention. There are 3 stages of escalation (Level 1 through 3). While the levels are typically sequential, a supplier may skip levels based on risk to Nexteer. The levels with general requirements are:

Level 1 is driven by the supplier and requires a quality system self-assessment and supplier improvement plan.

Level 2 includes level 1 activities plus additional focus by Nexteer Supplier Quality, a PFMEA to Control Plan gap analysis by both the supplier and Nexteer, and supplier improvement plan.

Level 3 is the Nexteer Top Focus Supplier (TFS) process. The TFS process requires the active participation of the supplier leadership in weekly performance reviews, verification of DFMEA alignment, problem solving certification, demonstrated performance improvement, in addition to level 1 and level 2 activities to be completed.

Each supplier's improvement plan is tailored to the specific needs of the supplier and will be based off the problem cases and gaps identified during the improvement process. The SQEP process is not punitive; it is a focused effort to improve performance and build a stronger relationship between the supplier and Nexteer.

# 7.3 Problem Reporting and Resolution Process including Cost Recovery

It is Nexteer's expectation that Suppliers shall have resources certified in structured problem solving (e.g. Six Sigma, Shainin, or equivalent). 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 as a means of ascertaining root cause analysis and verification. The 5-Why Analysis shall be submitted via the final response in Problem Case Management within Intelex.

Cost Recoveries including Warranty Recovery will be communicated through the Cost Recovery Management application within Intelex. Warranty costs will be inclusive of all Nexteer incurred expenses including charges from Nexteer customers. Nexteer customers use various methodologies to charge back warranty or recall costs to Nexteer. These methods shall result in a warranty chargeback method between Nexteer and the Nexteer supplier. The most common Nexteer customer chargeback methods are described in the table below, as well as the resulting charge back method between Nexteer and the Nexteer supplier.

		Regular '	Warranty		Warranty Spike (in case
				Warranty Performance	of special warranty
	Direct Chargeback	Responsibility	/ Factor RF (%)	Target	cause)
		Cost chargeback by OEM			
		is defined based on			
		warranty return			
		sampling analysis at a	Cost charge back by OEM		
	Cost charge back by OEM	defined time in the	is pre-established	Cost charge back by OEM	Cost charge back by
	is defined based on	project. RFNexteer can be	(40/60, 100/0). Can be	only if Nexteer does not	OEM after negotiation
OEM to Nexteer	individual analysis of	carried over project life	carried over project life	meet the contractual	with Nexteer
Charge Back	each warranty returned	or updated at agreed	or updated at agreed	warranty performance	depending on spike
Method	part	frequency	frequency.	target (i.e. IPTV)	scenario
		PC not necessarily issued, CR issued referring RFsupplier established between Nexteer and external			
Nexteer to		supplier. RFSupplier			
External		ideally results from the	Specific negotiation	Specific negotiation	
Supplier		analysis of same above	required between	required between	
Resulting	Problem Case issued,	samples used for	Global Supply	Global Supply	Problem Case issued,
Chargeback	Cost Recovery refers to	RFNexteer (between OEM	Management and	Management and	Cost Recovery refers to
Method	Problem Case	and Nexteer)	Supplier	Supplier	Problem Case
Debit from		Facility Mark			
Nexteer to		Equals debit Nexteer			
external	Equals debit Nexteer	received from OEM	L	L	Equals debit Nexteer
supplier	received from OEM	multiplied by RFsupplier	Depends on negotiation	Depends on negotiation	received from OEM

#### **Supporting Documentation, Forms or Reference:**

- The following forms are located on the Nexteer Supplier Website, Processes, Quality: http://www.nexteer.com/supplier-portal/processes/quality/
  - Five Why Form F1043
  - Five Why Training
  - Reference TS Clause 8.5.2
  - Nexteer Escalation Process
- CQI-14 Consumer Centric Warranty Management

# 7.4 Control of Nonconforming Product

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

Per Attachment E, Defect Handling Table, suppliers shall have a material handling, reconciliation and response process that protects Nexteer and Nexteer customers. Reject reconciliation must be completed prior to shipment of parts. If reject counts versus actual reject log does not reconcile, there must be a clearly defined reaction plan that includes a robust communication throughout the supplier's organization and communication to Nexteer that defective parts may have not been 100% contained.

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 the Intelex Nexteer Problem Case Management System for review and acceptance by the Nexteer AQE/SQE. If the Registrar completes an on-site assessment at the Supplier location, the Supplier must upload the assessment results in Intelex Nexteer Problem Case Management System for review and acceptance by the Nexteer AQE/SQE. Nexteer may require that a supplier retain returned warranty parts after analysis has been completed. If required for a particular Nexteer customer, an extended retention period (minimum of 90 days) will be communicated during a MAPP review or via a nomination letter.

#### **Supporting Documentation, Forms or Reference:**

- The following forms are located on the Nexteer Supplier Website, Processes, Quality: http://www.nexteer.com/supplier-portal/processes/quality/
  - Containment: Supplier Containment Instruction, Extended Downtime Checklist, Appendix 57.3
     Step Down Chart, Appendix 58.1 Manufacturing Capability Assessment, Appendix 60
     Containment Checklist
  - Reference TS Clause 8.3

# 7.5 Supplier Performance Scorecards

Nexteer uses a Balanced Scorecard to monitor supplier performance. The Scorecard provides an on-going assessment of quality, cost, delivery, and responsiveness. Suppliers will receive a Scorecard based on a 100 point maximum. Monthly performance details will also be provided to allow the supplier to identify improvement areas. The scorecard calculation is based on Cost (Calendar year % booked savings), Quality (6 month rolling data), Delivery (6 month average score), and Responsiveness (6 month average score) The Nexteer Supplier Scorecard performance levels are used as a measurement tool to compare suppliers:

Preferred -100 to 85

Source-able – 84 to 70

At Risk – 69 and below

The Intelex Supplier Balanced Scorecard User Guide defines in detail the individual scoring elements. This guide can be found on the Nexteer Supplier Website, Supplier Applications, Application Learning Center.

The scorecard is available online via the Intelex System. Suppliers are responsible to access Intelex, review their scorecards, and ensure action plans are developed as applicable to achieve good scorecards. (Reference TS Clause 8.2.1)

#### **Supporting Documentation, Forms or Reference:**

• Intelex Supplier Balanced Scorecard Scoring Rules – Located on the Nexteer Supplier Website, Supplier Applications: http://www.nexteer.com/supplier-applications-learning-center/

## 7.6 Attachment B (Note-attachment A does not exist. This document intentionally begins with attachment B)

#### **Product Characteristic Control Levels Chart**

#### **Nexteer Automotive**

#### **Product Characteristics Control Levels Chart**

Revised: 10-Jun-2016

Design Criteria				Manufac	turing Requi	irements <sup>1</sup>		
Desig	Design Severity & Sensitivity (DSS) Result			Detection Ac (Detect nonconform		Process Control	Nonconforming	
FMEA Severity <sup>2</sup>	Sensitivity	Control Level	QCL Symbol	Frequency of Inspection	Allowed Detection Controls	(Monitor the process)	Material Handling	Traceability
G1346, G1174	G1331	G1331	G1331	G1331	G1174	G1763	G1901, G1786	G1783
9 - 10	RED	CL1		100% <sup>3</sup>	1 - 4	1 - 4	А	Singular Preferred Lot Control Required
9 - 10	YELLOW	CL2		100% <sup>3</sup>	1 - 7a	1 - 4	A-B	Lot Control or Singular
9 - 10	GREEN	CL3	No drawing symbol	Per Control Plan <sup>5</sup>	1 - 7a	1 - 7	A-B	Per Control Plan
8	RED	CL4		100%³	1 - 7a	1 - 6	A-B	Per Control Plan
8	YELLOW	CL5 <sup>4</sup>	$\Diamond$	5 0 1 15 5	1 - 7a	1 - 7	A-C	Per Control Plan
8	GREEN	STD	No drawing symbol	Per Control Plan <sup>5</sup>	1 - 8	1 - 7	A-C	Per Control Plan
4 - 7	RED	CL5 <sup>4</sup>		Per Control Plan <sup>5</sup>	1 - 7a			Per Control Plan
4 - 7	YELLOW	CTD			4.0	1 - 7	A-C	Per Control Plan
4 - 7	GREEN	STD	No drawing symbol	Per Control Plan <sup>5</sup>	1 - 8			Per Control Plan
1 - 3	R - Y - G	STD	No drawing symbol	Per Control Plan <sup>5</sup>	1 - 10	1 - 7	A-C	Per Control Plan

#### **Attachment B Notes**

Note 1: WHEN AN ALTERNATIVE CONTROL STRATEGY IS NECESSARY OR APPROPRIATE USE NEXTEER G1331 APPROVAL FORM X-1331.

**Note 2**: AS PRESCRIBED BY SAEJ1739 FMEA STANDARD AND AIAG FMEA 4th EDITION REFERENCE MANUAL, THE PFMEA SHALL INCLUDE EFFECTS ON THE PRODUCT AND PROCESS. THE PFMEA SEVERITY RANKING USED TO CALCULATE THE RISK PRIORITY NUMBER SHOULD BE EQUAL TO OR GREATER THAN THE SEVERITY RANKING IN THE DFMEA.

#### Note 3:

a. IF 100% PART INSPECTION IS NOT THE MOST EFFECTIVE OR FEASIBLE SOLUTION, THEN PROCESS CONTROL PARAMETERS MUST BE 100% MONITORED AND IDENTIFIED AS A KCC IN THE CONTROL PLAN ALONG WITH AN APPROPRIATE VERIFICATION PLAN & DETECTION METHOD WITH DOCUMENTATION REQUIRED.

Examples: BATCH OR STEADY STATE PROCESSES (e.g.: BATCH OR BELT HEAT TREAT, PLATING), DIMENSIONS RESULTING FROM A MOLDING, STAMPING OPERATION OR FROM A MACHINING OPERATIONS WHERE 1 TOOL CUTS MULTIPLE DIMENSIONS, MATERIAL PROPERTIES AND DIMENSIONS FOR INCOMING INSPECTION, GEOMETRIC TOLERANCES VERIFIED BY COORDINATE MEASURING MACHINE AND WHEN DESTRUCTIVE TESTING IS REQUIRED.

b. PART INSPECTION OR PROCESS MONITORING FOR ALL COMPONENTS AND ASSEMBLIES MUST BE WITHIN THE MANUFACTURING FACILITY. EXCEPTIONS THAT RESULT IN 100% VERIFICATION DOWNSTREAM AT NEXTEER INSTEAD OF AT THE SUPPLIER MUST BE APPROVED BASED ON EFFECTIVENESS OF CONTROLS. ALL NEW PART NUMBERS WILL REQUIRE PART INSPECTION OR PROCESS MONITORING AT THE COMPONENT OR ASSEMBLY'S MANUFACTURING LOCATION INDEPENDENT OF PREVIOUS EXCEPTIONS.

**Note 4**: CUSTOMER DOCUMENTED REQUIREMENTS SUPERSEDE REQUIREMENTS SHOWN. WHERE POSSIBLE CUSTOMER DESIGNATED CHARACTERISTICS WILL BE A CL5 OR APPROPRIATE DESIGNATION BASED ON SEVERITY & SENSITIVITY.

Note 5: THE OPTIMUM CONTROL STRATEGY METHOD WILL BE DETERMINED DURING PFMEA (MAKE) AND SUPPLIER MAPP DEVELOPMENT AS INPUT TO THE CONTROL PLAN.

# 7.7 Attachment C

# Detection Controls (Reference SAEJ1739 FMEA Standard

	PFMEA DET	DENTA Citatia (Durah Januar)
Key Words	Ranking	PFMEA Criteria (Breakdown)
<u>Not applicable</u>	10	No current process control
Random Inspection	9	Random audit performed
Manual Inspection		Visual/tactile/audible detection of defect (failure mode) later in process (downstream operation)
- Indirect inspection	7b	Visual/tactile/audible detection of defect (failure mode) at operation
<b>7</b> a		Attribute gauge detects defect (failure mode) later in process (downstream operation) (Includes machine enhanced solutions e.g. Xray, Magnaflux, Eddy current, etc.)  Visual/tactile/audible detection of defect (failure mode) at
Gauging		operation is acceptable when the product requirement is called out without specific measureable limits <i>e.g. fully engaged (tactile push/pull), clear of grease (visual), etc.</i>
	6b	Variable gauge detects defect (failure mode) later in process (downstream operation)
6a 5b		Attribute gauge detects defect (failure mode) at operation
		Variable gauge detects error (cause) or defect (failure mode) at operation
Semi-Automated Cannot continue without operator response	5a	Automated controls in-station detect discrepant part (defect/failure mode) and notify operator to take action (light, buzzer, etc.)
<u>Automated</u> Cannot make,	4	Automated controls detect discrepant part (defect/failure mode) and lock part to prevent further processing later in process (downstream operation) (Includes bar code or RFID defect pass/fail tracking)
Cannot accept, Cannot pass discrepant part	3	Automated controls detect discrepant part (defect/failure mode) and lock part to prevent further processing at operation (Includes automatic movement of part from station to detection device)
	2	Automated controls detect error (cause) and prevent discrepant part from being made at operation (process monitoring)
Error Prevention	1	Error (cause) prevention as a result of fixture design, machine design or part design

# 7.8 Attachment D

# PROCESS CONTROL TABLE

PROCESS CONTROL*	Process Controls Description
7	Sampling using attribute gauging - to monitor and adjust process
6	Sampling using variable gauging - to monitor and adjust process
5	Sampling using stop light style(red, yellow, green) variable gauging
4	Variable gauging with SPC charting
3	Variable gauging with automatic feedback/compensation control
2	Machine monitoring/control
1	Error (Cause) prevention as a result of fixture design, machine design or part design.

<sup>\* 100%</sup> Attribute gauging is considered a Detection Control.

# 7.9 Attachment E

# DEFECT HANDLING TABLE

	Nonconforming Material Handling / Reconciliation / Response (Reference G1735, G1786, G1901)					77/	PAUTO	HEL
	Nonconform	ing Material Handlin	g	Reject Count Process Must M	nciliation from Equipment or latch Actual Physical d/or Log Sheets		Respons	se
When Inspecting Part or Monitoring Process 100%	in subsequent operations by means of disassembly, destruction or part tracking (RFID or Barcode).  In case of small parts or parts without RFID/barcode, part is placed automatically into a lock box with a tamper proof reject chute.	Nonconforming parts prevented from being used in subsequent operations by means of disassembly, destruction or part tracking (RFID or Barcode).  In case of small parts or parts without RFID/Barcode, operator required to place nonconforming part in lock box interlocked to prevent equipment from advancing until reject part is detected. Reject Chute and lock box must be tamper proof.	conforming parts placed into approved container, properly identified, segregated from in-process material	Reject reconciliation completed prior to shipment of parts	Standard Reject Containment process formalized	Re-use, repair or rework not allowed	vunt versus actual rejects/log does not reconcile, <u>there must</u> defined standard reaction plan (containment procedure) that	Rework and repair allowed only with PPAP approved methods unless an engineering permit, and/or Supplier Suggestion/Change Request (SCR), is issued and approved to utilize (re-use/repair/rework) any material that deviates from the product drawing or specification requirements
When sampling (< 100% inspection)	Not applicable	If nonconformity found must segregate all parts produced back to the last known good part/lot and place in a lock box.	Nonconforming pand segregated f	Reject reconcilia	Standard Reject	Re-use, repair o	If reject count versus be clearly defined sta is utilized	Rework and repi an engineering p (SCR), is issuec material that dev requirements
Α	✓			✓		✓	✓	
В		✓		✓		_	✓	✓
С			✓		✓			✓

## 7.10 Attachment F

# **Nexteer Ethics Line**

USA: 1-855-405-4744

China: 4008801409

Australia: 1-800-60-6596

Brazil: 0800-892-0661

France: 0800-90-0028

India: 000-800-100-1689

Italy: 800-784920

Korea: 00308 133014

Mexico: 001-855-411-2669

Poland: 0-0-800-151-01 33

Germany: Access Code: 0-800-225-5288

At the prompt, dial 855-405-4744

To report online, you can go to the following

web address:

Nexteer Ethics Line Web Form:

www.nexteer.ethicspoint.com

# 8. Glossary

#### APV - Annual Purchase Value

**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.

Direct Works – The e Procurement application used to obtain supplier quotations electronically.

**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).

**Carry-Over Part** – A part that is currently sourced and PPAP approved, that is going to be used on a new customer program for additional volume.

**CPM** – Complaints Per Million parts received.

**C-TPAT –** Customs Trade Partnership Against Terrorism – A <u>voluntary</u> 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.

**DSS –** Design Severity and Sensitivity – Sensitivity is as products approach the nominal value, the loss is less than when it departs from the target. Measuring loss encourages a focus on achieving less variation. Sensitivity Red, Yellow and Green are shown in the Nexteer Design Severity & Sensitivity (DSS) Assessment

**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.

**Intelex –** A business-to-business company that provides services and tools in an online environment.

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

**MCA** – Manufacturing Capability Assessment – An assessment that helps determine if a manufacturing location has the ability to successfully produce component parts that meet Nexteer Requirements. The MCA aids the team in identifying gaps in the manufacturing process and the actions required that would eliminate or minimize those gaps.

**Nexteer Supplier Website –** The Nexteer Supplier Website 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.

QSB – Quality Systems Basics – A standardized system of quality management tools focused on shop floor practices.

**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.

**SQEP – Supplier Quality Escalation Process –** A process for early engagement between Nexteer Supplier Quality and suppliers when issues are developing in order to implement sustainable improvement. The process includes multiple levels and specific actions required at each level.

**Supplier –** Producers of production materials, production or service parts, assemblies, heat-treating, welding, painting, plating, or other finishing services that are used in the creation of the final product that is shipped to Nexteer customers. These material, parts, or services are used to fulfill the requirements of a Nexteer product drawing, material specification, or purchase specification.

**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 application located on the Nexteer Supplier Website shall be used by the supplier to communicate changes.

**TFS – Top Focus Supplier –** A quality improvement program.

**Vontik** – A web based business intelligence tool that supports external networks of unaffiliated but similar members such as supplier and customer or industry groups that desire performance monitoring and benchmarking capability of financial and or operational data.

#### 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
- CQI-8 Layered Process Audit Guidelines
- CQI-9 Special Process: Heat Treat System Assessment
- CQI-11 Special Process: Plating System Assessment
- CQI-12 Special Process: Coating System Assessment
- CQI-14 Consumer Centric Warranty Management
- CQI-15 Special Process: Welding System Assessment
- CQI-17 Special Process: Soldering System Assessment
- CQI-19 Sub-Tier Supplier Management Process Guideline
- CQI-23 Special Process: Molding System Assessment
- CQI-27 Special Process: Casting System Assessment
- Technical Specification ISO/TS 16949:current version
- Nexteer Global Packaging and Shipping Manual Located on the Nexteer Supplier Website, Processes, Shipping and Labeling: http://www.nexteer.com/supplier-portal/processes/shipping-and-labeling/
- Nexteer APQP and Current Production Cycle Documents
   Located on the Nexteer Supplier Website, Processes, Quality: <a href="http://www.nexteer.com/supplier-portal/processes/quality/">http://www.nexteer.com/supplier-portal/processes/quality/</a>
- Nexteer Global Supplier Standard Label Requirements Located on the Nexteer Supplier Website, Processes, Shipping and Labeling: http://www.nexteer.com/supplier-portal/processes/shipping-and-labeling/

Copies of PPAP, APQP, FMEA, MSA, SPC, Special Processes Assessments, Guidelines, 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/.

Order of Precedence -- These Supplier Requirements are incorporated into, and made a part of, each purchase order, release, requisition, work order, shipping instruction, specification and other document (collectively, the "Contract"), whether expressed in written form, by electronic data interchange or other tangible format, relating to the goods and/or services to be provided by Seller pursuant to the Contract. To the extent of any conflict between the terms of any purchase order, Buyer's General Terms and Conditions and these Supplier Requirements, the terms and conditions of such documents will apply, govern and control in the following order of precedence: (1) the provisions and terms contained in the purchase orders; (2) Buyer's General Terms and Conditions; (3) the Supplier Requirements

# 10. Nexteer Supplier Requirements – Change Review Log

Approval Date	Issue/Revision Changes	Title/Function
June 6, 2011	Complete Rewrite, with major changes to Sections:  4.5 – Nexteer Designated Special Characteristics	Jim Corbeil Vice President Global Supply Management
	4.6 – Product Traceability	Lois Alverson
	4.10 – Measurement System Analysis	Director Global Supplier Quality & Development
December 15, 2011	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
October 1, 2013	Complete Rewrite, with major changes involving Sections:	Jim Corbeil Vice President
	1.2 Code of Conduct and Corporate Social Responsibility.	Global Supply Management & Chief Procurement Officer
	1.3 Supplier Communication: Intelex, Nexteer Supplier Management System which replaces Covisint. Vontik participation requirement.	Lois Alverson
	1.4 Quality Management System – update to Environmental Management	Director Global Supplier Quality & Development
	1.6 Regulatory Conformity Material Expectations – Conflict Minerals	
	Record Retention – includes Maintenance records and Calibration records	
	2.2 Pricing	
	4.2 Planning of Product Realization	
	4.3 Product Approval Process – New Global Sample and PPAP Label requirement	
	4.5 Nexteer Designated Special Characteristics – introduction of QCLs and the addition of Attachments B thru E	
	4.14 Run @ Rate – based on aggregate Nexteer volume	
	5.4 Production Scheduling and Shipping – EDIFACT requirement, scheduling lead time, shipping goods across boarders	
	5.6 Transportation	
	7.1 Continuous Improvement	
	7.3 Problem Reporting and Resolution Process Including Cost Recovery – Cost Recovery including Warranty Recovery	
	7.6, 7.7, 7.8, 7.9 Added attachments relating to QCLs	

Approval Date	Issue/Revision Changes	Title/Function
May 22, 2014	Business Philosophy – Kurt Heberling replaced Lois Alverson as the Director of Supplier Quality & Development  6.1 Supplier Change Requests – Intelex application replaced the	Jim Corbeil Vice President Global Supply Management & Chief Procurement Officer
	previous Excel form	Kurt Heberling
	7.3 Problem Reporting and Resolution Process – Update the initial response to a problem is due from 24 hours to 48 hours.	Director Global Supplier Quality & Development
	7.5 Scorecards – The scorecard is available online via the Intelex System. Suppliers are responsible to access Intelex to review their scorecards	
	Attachment B – updated to remove column titled Statistical Design Target as this is for Nexteer PE use.	
February 15, 2015	1.2 Code of Conduct and Corporate Social Responsibility – added EEO	Jim Corbeil Vice President
	1.3 Supplier Communications – Clarified Intelex registration process, added English language requirement, identified all Intelex applications, and added DocuSign information.	Global Supply Management & Chief Procurement Officer
	1.4 Quality System Certification – Added IATF Minimum Automotive Quality Management System Requirements for Sub-Tier Suppliers.	Kurt Heberling Director Global Supplier Quality & Development
	1.7 Sub- Supplier Selection – Added AIAG CQI-19 Sub-Tier Supplier Management Process Guideline, added AIAG CQI 8 Layered Process Audit Guideline, and added AIAG CQI-23 Special Process: Molding System Assessment.	
	4.2 Planning for Product Realization – Added the Intelex APQP application.	
	4.3 Product Approval Process – Added service PPAP	
	4.5 Nexteer Designated Special Characteristics – Added CL3	
	4.12 Special Process Assessments – Added the requirement that these assessments are to be completed and made available to Nexteer.  Added AIAG CQI-23 Special Process: Molding System Assessment.	
	7.2 Top Focus Supplier Process – Added section	
	7.3 Problem Reporting and Resolution Process – Added statement "unless additional time has been requested and approved by the problem case owner" in regards to final response due date.	
	7.4 Control of Nonconforming Product – Added extended retention period.	
	7.6 Attachment B – modified Notes, and added CL3 QCL designation.	
	7.9 Attachment E - updated	
	8.0 Glossary – Added CPM, QSB, TFS, and clarified definition of supplier	
	9 Normative Reference Documents – Added AIAG CQI-8, CQI-19, CQI-23	

March 1, 2016

- 1.2 Code of Conduct and Corporate Social Responsibility Added reference to Nexteer Code of Conduct and Attachment F
- 1.3 Supplier Communication Clarified heat treat assessment (AIAG CQI-9) annual submission requirement. Updated Vontik link to: gtp.kpmg.com.
- 1.4 Quality Management System Clarified quality certificates are recognized by Nexteer only if the certification body is recognized by IATF as evidenced by the IATF logo and number on the quality certificate.
- 1.7 Sub Supplier Selection Added CQI 27 Special Process: Casting System Assessment.
- 1.9 Record Retention Added extended requirement for retention of Process Control Data, Process Inspection Data, and records of Reaction Activities for readings outside of specification. Also modified record retention for product traceability from 5 years to the current year plus 15 additional years.
- 4.2 Planning for Product Realization Updated the requirement for Sourcing, APQP documents, and Intelex responses to be in English. Added the requirement of CQI 27.
- 4.3 Product Approval Process Added references to AIAG PPAP manual and AIAG Service PPAP manual
- 4.5 Nexteer Designated Special Characteristics Added that QCLs are used on drawings for both new and carry-over parts. Added press load process control requirement.

Product Characteristic Chart for use without QCLs – Removed Cpm from the process requirements acceptance criteria for standard and fit/function QCI characteristics. Removed extended production run from the process requirements acceptance criteria for standard characteristics.

Product Characteristics Charts for use with QCLs – Removed Cpm index from the initial process capability study acceptance criteria. Removed extended production run Ppk from the process capability requirements acceptance criteria. Added note for CL1, CL2, and CL4 that 100% inspection is not acceptable as the only control where the process indices are not met.

- 4.10 Variable Gage Studies Added a max target of 10% when percentage R&R is calculated based on study variation.
- 4.12 Special Process Assessments Added CQI-9 annual submission requirement and CQI 27 Special Process: Casting System Assessment
- 4.15 Annual Layout Inspection and Functional Testing Added MSA study. Results must be submitted to the Supplier Quality Engineer.
- 5.1 Packaging Clarified supplier's responsibility to provide packaging that ensures product quality to the Nexteer point of use.
- 5.5 Regional Customs Documents When shipping goods across borders, the supplier invoice shall include the manufacturing country of origin.
- 6.0 Change Management re-written to emphasize approval timing of

Jim Corbeil

VP Global Supply Management & Chief Procurement Officer

Kurt Heberling Director Global Supplier Quality & Development changes and communication of Nexteer's change management requirements to sub-tier suppliers.

- 7.2 Top Focus Supplier Process Clarified verbiage regarding suppliers who are selected to participate in the TFS process.
- 7.3 Problem Reporting and Resolution Process including Cost Recovery- Changed initial response timing from 48 hours to 24 hours.
- 8.0 Glossary Added Carry-over part and MCA definitions.

#### November 1, 2016

- 1.3 Supplier Communication Added Supplier Quality Escalation Process to the list of communications.
- 1.4 Quality Management System Added notice of the upcoming transition from ISO/TS 16949 to IATF 16949 effective Sept. 14, 2018. Added in section A, the requirement of a supplier plan to comply with TS16949 if the supplier is certified only to ISO9001. Clarified requirements for suppliers not registered to a quality standard. Section D, clarified ISO9001 quality certificates are recognized by Nexteer only if the certification body is recognized by IAF MLA. Updated the quality certification waiver criteria to exclude annual purchase value.
- 1.9 Record Retention Added 50 year retention requirement for PPAP documentation. Supplier must maintain operating systems and equipment to facilitate retrievable for the entire retention period.
- 2.2 Pricing Annual target reduction changed from 3% to a variable percentage.
- 4.2 Planning of Product Realization Refer to DSS document for CL3 if the drawing safety regulation block is checked "yes".
- 4.5 Nexteer Designated Special Characteristics Added requirement for CL1, CL2, and CL3, that machine set up procedures must include verification of correct set up and that parts are 100% to print prior to release to production.

Product Characteristic Chart for use without QCLs – Added extended production run to the process requirements acceptance criteria for standard characteristics.

Product Characteristics Charts for use with QCLs – Clarified initial process capability requirements for PPAP. Added on-going capability requirements.

- 4.8 Control Plan clarified annual layout requirement.
- 4.10 Measurement System Analysis Clarified attribute gage study requirement for parts distribution.
- 5.1 Packaging Updated to "...packaging proposal that ensures product quality from the supplier's plant to the Nexteer dock".
- 7.2 Supplier Quality Escalation/Top Focus Supplier Process Added the description of the SQ Escalation Process.
- 7.4 Control of Nonconforming Product Added the requirement of a reject reconciliation and response process which includes communication.

7.5 Supplier Performance Scorecards – Renamed section to Supplier Performance Scorecards from Scorecards, re-write of section due to changes in the scorecard calculations.  Attachments B, C, D, and E updated. Drawing symbol removed for CL3 – must refer to DSS document.
8.0 Glossary – Added SQEP