nexteer AUTOMOTIVE

Nexteer Supplier Requirements

October 7, 2019

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Introduction /Business Philosophy

Welcome Nexteer Automotive Suppliers:

Nexteer's vision is to be a global leader in intuitive motion control. Our mission is to be a model global company, achieving profitable and balanced global growth, while fostering a culture that focuses on our People, Operational Excellence and Sustainable Growth. We want suppliers to perceive Nexteer as a business partner of choice that delivers world-class products while demonstrating operational excellence.

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 Nexteer and its partners 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 direct support of Nexteer's commitment to perfect quality, it is expected that suppliers meet the ***Nexteer Supplier Requirements***. This is demonstrated through consistent delivery of quality products and services (including service products) to Nexteer and our customers. In addition, suppliers are expected to be globally competitive and provide the best delivered value to Nexteer Automotive. Your performance will be a key factor in your growth with Nexteer.

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:

Guilherme Pizzato
Executive Director
Global Supply Management

Kurt Heberling
Executive Director
Global Supplier Quality & Development

1. SCOPE

1.1 Scope – General

****This document applies to external suppliers of automotive products, processes and services.****

This includes products and services affected by OEM customer requirements such as but not limited to production parts, sorting, rework, software development, service packaging, logistics providers, and calibration services (typically referred to as “Indirect Suppliers”). Note that distributors adding no manufacturing value must adhere to sections 4.3a, 4.3i, and 8.2.1 of this document.

Section 5.1.1.1, Corporate Responsibility applies to all suppliers to Nexteer Automotive including Indirect suppliers.

The current version of IATF 16949, the current version of ISO 9001, Nexteer General Terms and Conditions and this document define the fundamental quality system and commercial requirements for Nexteer. The requirements apply throughout the Supplier’s entire productive value-stream, including sub-supplier processes. Suppliers are responsible to cascade all Nexteer requirements throughout their supply chain. This document contains the Nexteer specific requirements including Nexteer’s Customers’ requirements if applicable, which are supplemental to the current version of IATF 16949 and the current version of ISO 9001. This may also apply to other similar registrations as applicable and stated within this document. Failure to comply with this document may result in the supplier location being placed on New Business Hold.

The US English language version of this document shall be the official version for purposes of third-party registration. Any translations of this document shall be for reference only.

2. NORMATIVE REFERENCES

2.1 Normative and Informative References

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 current version of the following documents.

- AIAG Production Part Approval Process, PPAP
- AIAG Statistical Process Control, SPC
- AIAG Potential Failure Mode and Effects Analysis, FMEA
- AIAG Advanced Product Quality Planning and Control Plan, APQP
- AIAG Measurement Systems Analysis, MSA
- AIAG CQI-8 Layered Process Audit Guidelines
- AIAG CQI-9 Special Process: Heat Treat System Assessment
- AIAG CQI-11 Special Process: Plating System Assessment
- AIAG CQI-12 Special Process: Coating System Assessment
- AIAG CQI-14 Automotive Warranty Management Guideline
- AIAG CQI-15 Special Process: Welding System Assessment
- AIAG CQI-17 Special Process: Soldering System Assessment
- AIAG CQI-19 Sub-Tier Supplier Management Process Guideline
- AIAG CQI-23 Special Process: Molding System Assessment
- AIAG CQI-27 Special Process: Casting System Assessment
- Nexteer Global Packaging and Shipping Manual - Located on Nexteer.com, Suppliers, Shipping & Labeling Processes: http://www.nexteer.com/shipping-labeling-processes/

- Nexteer APQP and Current Production Cycle Documents– Located on Nexteer.com, Suppliers, Quality Processes: http://www.nexteer.com/quality-processes/
- Nexteer Global Supplier Standard Label Requirements EDIFACT – Located on Nexteer.com, Suppliers, Shipping & Labeling Processes: http://www.nexteer.com/shipping-labeling-processes/

Copies of PPAP, APQP, FMEA, MSA, SPC, Special Process Assessments, Guidelines, and other related manuals are available from 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) 642-4900, 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 documents (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.

Quick Reference Guide

Sections of this document related to PPAP:

MSA	7.1.5.1.1
Critical characteristics and capability requirements	8.2.3.1.2
Run-at-Rate	8.2.3.1.3
Process readiness audit F1058	8.2.3.1.3
PFMEA	8.3.2.1
PPAP	8.3.4.4
SoC	8.4.2.2
Control Plan	8.5.1.1
Boundary board and standardized work	8.5.1.2
Shipping and Packaging Information	8.5.4
Labeling	8.5.4
Change control requirements	8.5.6.1
Annual PPAP	8.6.2
Capability studies defined	9.1.1.1

3. TERMS AND DEFINITIONS

3.1 Terms and Definitions for the Automotive Industry

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.

ASN - Advanced Shipment Notification – An electronic communication which identifies advanced shipment details to Nexteer via GXS - Trust Link (Van).

Buyer – The Nexteer Automotive representative responsible for supplier selection, negotiation, and contract issuance**.**

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). Verification of capacity to be documented with the Nexteer Run-at-Rate form F1019.

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.

CPB – Complaints Per Billion parts received.

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

Direct 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.

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

DSS – Design Severity and Sensitivity – The DSS Assessment is the risk analysis tool that determines if a product characteristic is standard or special and assigns the QCL type, based on the characteristics severity and sensitivity. Severity is a ranking of 1 – 10 on the negative impact a failure mode could have on vehicle function. Sensitivity is a measure of a dimension's ability to tolerate variation relative to its specification, without impact to vehicle function. 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.

eAPQP - an application within Intelex that supports a standard approach for Advanced Product Quality Planning.

EIPD – Electrically Induced Physical Damage – Damage to an integrated circuit due to electrical/thermal stress beyond the level which the materials could sustain.

EOS – Electrical Over Stress – Voltage beyond tolerance (Absolute Maximum Rating) resulting in physical damage.

EPC – Early Production Containment – Added inspection that validates the supplier's process and is part of APQP.

ESD – Electrostatic Discharge – Short event with very high intense energy dissipated into a chip which may result in physical damage.

External Direct Suppliers – Suppliers to Nexteer excluding Nexteer owned subsidiaries or joint ventures with greater than 50% ownership that manufacture Nexteer or OEM 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 (but does not include normal set-up and inspection pieces). 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.

IATF – International Automotive Task Force – An ad hoc group of automotive manufacturers which aims at providing improved quality products to automotive customers worldwide. The source of the IATF 16949 Automotive Quality Management System Standard. Note that when IATF 16949 is referred to in this document, the reference is to the current version.

ISO – International Organization for Standardization – A worldwide federation of national standards bodies. The source of the ISO 9001 Quality Standard. Note that when ISO 9001 is referred to in this document, the reference is to the current version.

Indirect Supplier – Producers of items or services that are not part of the final product that is shipped to Nexteer customers or which Nexteer has defined as Indirect based on business structure or strategy.

Intelex – A business to business platform upon which Nexteer builds applications for supplier interaction.

MAQMSR - Minimum Automotive Quality Management System Requirements for Sub-Tier Suppliers
A set of requirements for automotive suppliers that helps them transition to IATF16949 by allowing many of the key automotive requirements to be met while developing the remainder of the quality management system. It is not certifiable or a third-party auditable standard.

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 can 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.

Nexteer Supplier Assessment (NSA) – A standardized audit to evaluate a supplier's business and quality systems. The NSA is equivalent to the IATF Minimum Automotive Quality Management System Requirements for Sub-Tier Suppliers (MAQMSR).

OEA - The Authorized Economic Operator (OEA - Operadores Económicos Autorizados) is a voluntary program that aims to strengthen supply chain security of foreign trade in Mexico by establishing, in coordination with the private sector, internationally-recognized safety standards.

OEM – Original Equipment Manufacturer; considered to be Nexteer customer.

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

R&R – Reproducibility and Repeatability, a statistical tool that measures the amount of variation in the measurement system arising from the measurement device and the people taking the measurement.

SDE – Supplier Development Engineer – A Nexteer engineer responsible for training and development of new suppliers to Nexteer.

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.

SPI – Supplier Packaging Information form.

Spill - A Spill is a supplier caused quality nonconformance that has a major impact on a Nexteer plant, or a Nexteer customer.

Sub-supplier – Providers of production materials, production or service parts, assemblies, heat-treating, welding, painting, plating, or other finishing services in the direct supplier's value stream**.**

SQE - Supplier Quality Engineer – A Nexteer engineer responsible for managing the current production quality issues and continuous improvement with the supplier. In some regions, the AQE may perform this role.

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

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

TFS – Top Focus Supplier – A quality improvement program. It is SQEP level 3.

Vontik/3PI – 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.

4. CONTEXT OF THE ORGANIZATION

4.1 Understanding the Organization and its Context

No Nexteer specific requirements for this section

4.2 Understanding the Needs and Expectations of Interested Parties

No Nexteer specific requirements for this section

4.3 Determining the scope of the quality management system

Quality System Certification

The supplier's entire facility shall be certified to the applicable standard as detailed below. Nexteer satisfies the goal of supplier conformity to the current version of IATF 16949 as follows:

a. For supplier locations that manufacture direct product or materials, certification to the current version of ISO9001 and compliance to MAQMSR is the minimum requirement. Such suppliers may be subject to a risk-based audit by Nexteer to verify compliance to MAQMSR. The preferred certification is IATF 16949. Manufacturing locations that are certified only to ISO9001 must submit a plan to Nexteer that shows how the location complies with the requirements of IATF16949, with the ultimate objective of certification to IATF 16949.
b. Distributors of direct product or materials must be certified to the current version of ISO9001.
c. Direct Supplier locations that manufacture products or materials, that are not certified to any quality standard (e.g. greenfield locations) 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.
d. Suppliers are responsible to comply with the Nexteer Supplier Requirements.
e. Nexteer only recognizes TS 16949 and IATF 16949 certificates issued by IATF recognized Certification Bodies carrying the IATF logo and specific IATF number. See Supporting Documentation, Forms, or Reference section below for the link to the certification body official list.
f. 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.
g. Every manufacturing site of a supplier to Nexteer shall be individually certified either by single site or by corporate scheme. (See IATF Certification Reference or consult the certification body)
h. A clear summary definition of what product value added process shall be included in the certification scope (Example: manufacturing, assembly, etc.) along with the address for each manufacturing site.
i. Suppliers of non-automotive product should contact their Buyer for specific requirements.
j. 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 IATF 16949.
k. Supplier quality certificates shall be in English or include an accurate English translation on them.
l. Suppliers of inspection, test, or calibration services must be certified to ISO/IEC 17025 or national equivalent by an accreditation body (Signatory) of the ILAC MRA (international laboratory accreditation forum mutual recognition arrangement – www.ilac.org) and have a defined laboratory scope that includes the capability to perform the required service. The certificate of calibration or test report shall be traceable to a national standard.
m. Suppliers of sorting and rework services must be certified to the current version of ISO 9001.
n. Suppliers of software development services must be certified to the current version of ASPICE or CMMI software assessment methodologies.
o. Suppliers of service packaging must be certified to the current version of ISO 9001.
p. Suppliers are responsible to ensure their certificate name and address information matches the DUNS location that is in the Supplier 360 Profile Application.
q. Certification Body/Registrar Notification - Suppliers registered to ISO 9001, IATF 16949, or ISO/IEC 17025 are responsible to notify Nexteer of certificates being revoked, withdrawn, being placed on suspension, or re-instated. In those cases, the supplier may be subject to a second party audit process until the supplier is recertified.

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 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 including any government environmental regulatory requirement (e.g. audit or testing results).

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

NOTE: Nexteer Automotive does not grant Quality Management System waivers.

Electrostatic Discharge Standards

When electronic components, or assemblies, are present, the supplier must fulfill the requirements of ANSI/ESD S20.20 , IEC 61340, or equivalent as determined by Nexteer and audit to this requirement a minimum of once per year.

4.3.1 Determining the Scope of the Quality Management System – Supplemental

No Nexteer specific requirements for this section

4.3.2 Customer Specific Requirements

No Nexteer specific requirements for this section

4.4 Quality Management System and its Processes

4.4.1

No Nexteer specific requirements for this section

4.4.1.1 Conformance of Product and Processes

No Nexteer specific requirements for this section

4.4.1.2 Product Safety

For suppliers of software development services, the supplier shall establish and maintain the software safety specific processes for the project and keep their descriptions at the disposal of Nexteer. The Supplier shall also establish and maintain rules, guidelines, and trainings for the teams involved including a reporting line of safety status and issues, reporting to the supplier's safety management and to Nexteer's designated safety representatives.'

4.4.2

No Nexteer specific requirements for this section

Supporting Documentation, Forms or Reference for Section 4:

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

5. LEADERSHIP

5.1. Leadership and commitment

5.1.1 General

No Nexteer specific requirements for this section

5.1.1.1 Corporate 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/Responsibility, Ethics, and Diversity. For details on no-cost AIAG Corporate Responsibility eLearning, go to:

http://www.aiag.org/store/corporate-responsibility/training.

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: http://www.nexteer.com/corporate-governance/.

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/

Reference section 11.7, Corporate Social Responsibility (CSR) Supplier Principles

5.1.1.2 Process Effectiveness and Efficiency

No Nexteer specific requirements for this section

5.1.1.3 Process Owners

No Nexteer specific requirements for this section

5.1.2 Customer focus

No Nexteer specific requirements for this section

5.2 Policy

5.2.1 Establishing the Quality Policy

No Nexteer specific requirements for this section

5.2.2 Communicating the Quality Policy

No Nexteer specific requirements for this section

5.3 Organizational roles, responsibilities and authorities

5.3.1 Organizational roles, responsibilities and authorities – supplemental

No Nexteer specific requirements for this section

5.3.2 Responsibility and Authority for Product Requirements and Corrective Actions

No Nexteer specific requirements for this section

Supporting Documentation, Forms or Reference for Section 5:

- Nexteer EEO Policy: http://www.nexteer.com/doing-business-with-nexteer/
- Nexteer Policy on Gifts and Gratuities: http://www.nexteer.com/doing-business-with-nexteer/
- Forced Labor Policy http://www.nexteer.com/doing-business-with-nexteer/
- Nexteer Overarching Global Privacy Policy: http://www.nexteer.com/doing-business-with-nexteer/

6. PLANNING

6.1 Actions to Address Risks and Opportunities

6.1.1

No Nexteer specific requirements for this section

6.1.2

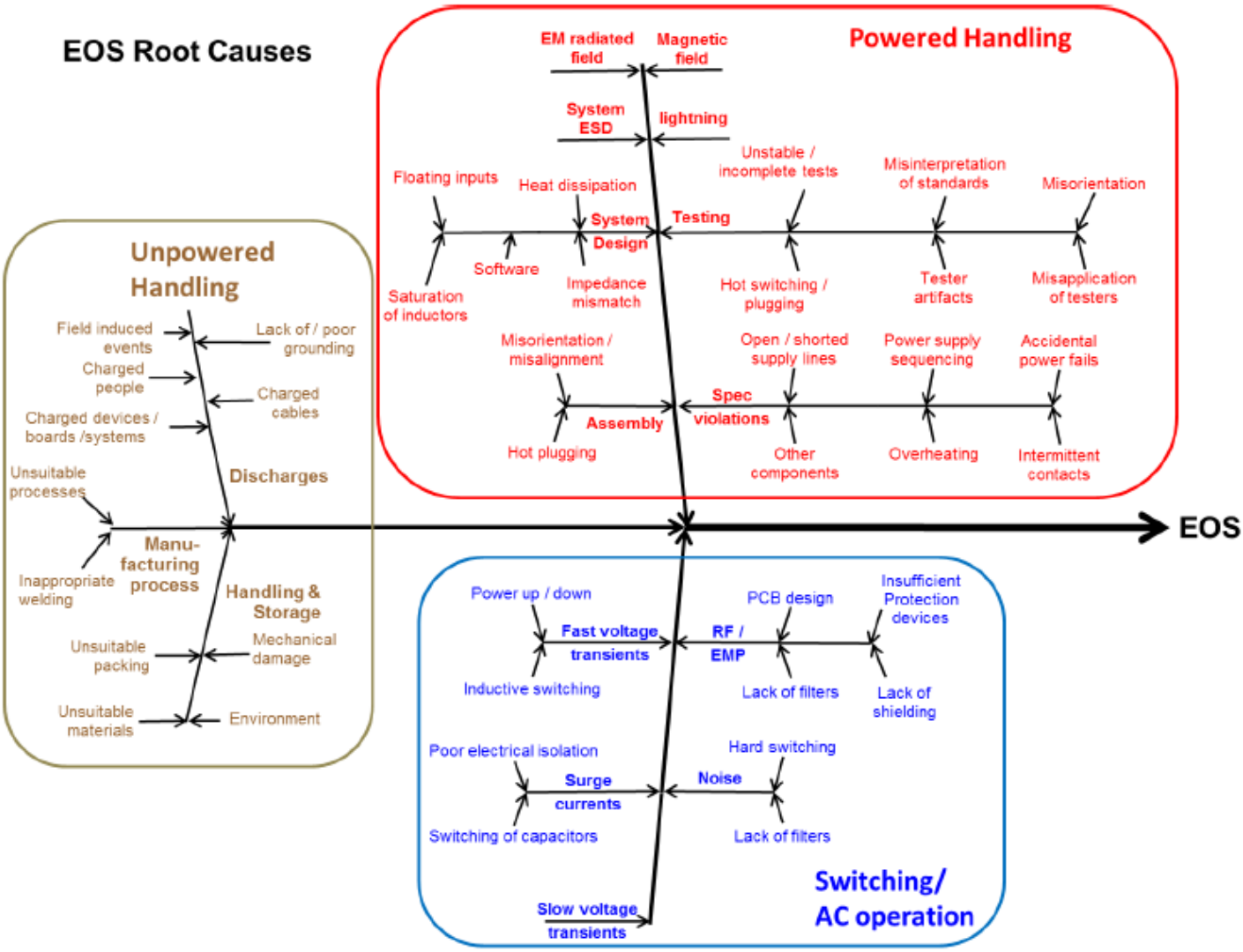
No Nexteer specific requirements for this section

6.1.2.1 Risk Analysis

No Nexteer specific requirements for this section

6.1.2.2 Preventive Action

Electrical Over Stress (EOS)
When electronic components, or assemblies, are present, the supplier must identify the potential opportunities to induce EOS/EIPD damage and implement controls to eliminate the risk. Some leading root causes for EOS/EIPD damage are highlighted in the fault tree analysis below.



6.1.2.3 Contingency Plans

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, cyber-attacks on information technology systems, 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.

6.2 Quality Objectives and Planning to Achieve Them

6.2.1

No Nexteer specific requirements for this section

6.2.2

6.2.2.1 Quality Objectives and Planning to Achieve Them – Supplemental

No Nexteer specific requirements for this section

6.3 Planning of Changes

No Nexteer specific requirements for this section

Supporting Documentation, Forms or Reference for Section 6:

- AIAG PPAP Manual -- www.aiag.org
- APQP and Current Production Cycle Forms – located on Nexteer.com, Suppliers, Quality Processes: http://www.nexteer.com/quality-processes/

7. SUPPORT

7.1 Resources

7.1.1 General

No Nexteer specific requirements for this section

7.1.2 People

No Nexteer specific requirements for this section

7.1.3 Infrastructure

No Nexteer specific requirements for this section

7.1.3.1 Plant, facility, and equipment planning

Refer to section 8.2.3.1.3

7.1.4 Environment for the Operation of Processes

No Nexteer specific requirements for this section

7.1.4.1 Environment for the Operation of Processes – Supplemental

No Nexteer specific requirements for this section

7.1.5 Monitoring and Measuring Resources

7.1.5.1 General

7.1.5.1.1 Measurement systems analysis

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, online test or inspection equipment, visual inspection, etc.

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

- Gage R&R's are to be updated annually along with annual layouts.

- Minitab version 15 or newer is the required software and format for all MSA submissions, unless an alternate software has been evaluated by Nexteer and proven to match the results from Minitab.

- Reference section 9.1.1.2 Identification of statistical tools for software requirements.

Variable Gage Studies – Shall be completed with all operators who will be using the gage as part of normal production process. The study shall consist of a minimum of 3 trials, using a minimum of 10 parts unless agreed to and documented during the APQP process with the Nexteer AQE. 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%.

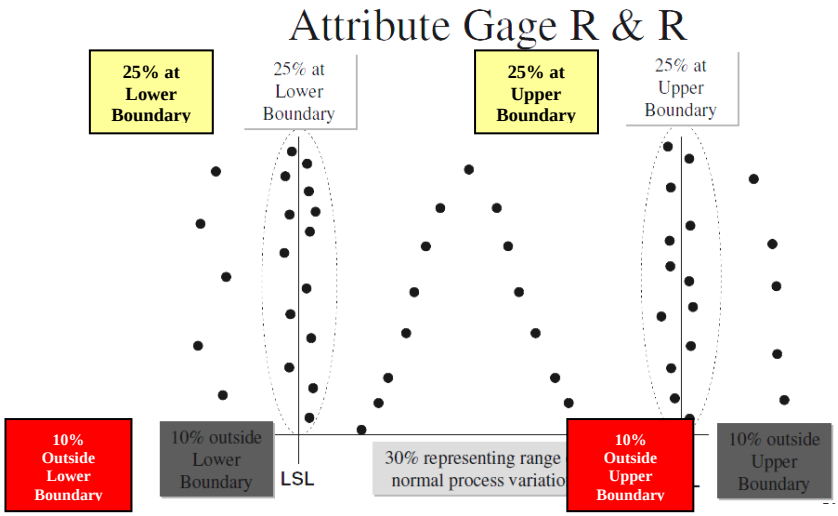
For product control situations (conformance or non-conformance) the percentage R&R should be calculated based on tolerance with a maximum target of 10%.

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

7.1.5.2 Measurement Traceability

7.1.5.2.1 Calibration and Verification Records

No Nexteer specific requirements for this section

7.1.5.3 Laboratory Requirements

7.1.5.3.1 Internal Laboratory

No Nexteer specific requirements for this section

7.1.5.3.2 External Laboratory

No Nexteer specific requirements for this section

7.1.6 Organizational Knowledge

No Nexteer specific requirements for this section

7.2 Competence

7.2.1 Competence – Supplemental

No Nexteer specific requirements for this section

7.2.2 Competence – on-the-job-training

No Nexteer specific requirements for this section

7.2.3 Internal Auditor Competency

No Nexteer specific requirements for this section

7.2.4 Second Party Auditor Competency

No Nexteer specific requirements for this section

7.3 Awareness

7.3.1 Awareness – Supplemental

No Nexteer specific requirements for this section

7.3.2 Employee Motivation and Empowerment

No Nexteer specific requirements for this section

7.4 Communication

See section 8.2.1

7.5 Documented information

7.5.1 General

No Nexteer specific requirements for this section

7.5.1.1 Quality Management System Documentation

Reference section 4.3

7.5.2 Creating and updating

No Nexteer specific requirements for this section

7.5.3 Control of documented information

7.5.3.1

No Nexteer specific requirements for this section

7.5.3.2

No Nexteer specific requirements for this section

7.5.3.2.1 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. Periodically, Suppliers may be requested to provide retained data.

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 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 and engineering change approval documents must be maintained by Nexteer Suppliers for the production run plus 50 years. Master sample(s) are to be retained per AIAG PPAP current edition unless otherwise communicated by Nexteer.

Some programs or Customer Requirements may indicate longer retention periods than specified above and shall not supersede any regulatory requirements.

7.5.3.2.2 Engineering specifications

No Nexteer specific requirements for this section

Supporting Documentation, Forms or Reference for Section 7:

- www.aiag.org
- APQP and Current Production Cycle Forms – Located on Nexteer.com, Suppliers, Quality Processes: http://www.nexteer.com/quality-processes/

8. OPERATION

8.1 Operational Planning and Control

8.1.1 Operational Planning and Control – Supplemental

Planning of Product Realization

MAPP – 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. The drawing and DSS Assessment are inputs to the MAPP. After award of business, any deviations to the MAPP agreement require written approval from GSM.
Note: If the Government/Safety Regulation Block on the drawing is checked "yes" then refer to the DSS (Design Severity and Sensitivity) .pdf document for CL3s.

APQP – 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 eAPQP application within Intelex unless otherwise identified or approved by the responsible AQE/SQE.

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 AQE/SQE. These requirements are further detailed in 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)
- Submit initial and final completed Supplier Characteristic Summary (SCS)
- Verification of supplier equipment, tool and gage purchase orders
- Provide and maintain Process Flow, PFMEA and Process Control Plan(s)
- Perform and provide Measurement System Analysis/Gage Reviews
- Develop capability study plan to include rational sampling
- Submit supplier plan for APQP management of sub-tier suppliers
- Provide an Early Production Containment and Pre- Launch Control Plan
- Submit traceability 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.

8.1.2 Confidentiality

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

Supporting Documentation, Forms or Reference for Section 8.1:

- MAPP is located on Nexteer.com, Sourcing Processes: http://www.nexteer.com/sourcing-processes/
- APQP and Current Production Cycle Forms – located on Nexteer.com, Suppliers, Quality Processes: http://www.nexteer.com/quality-processes/

8.2 Requirements for Products and Services

8.2.1 Customer 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/doing-business-with-nexteer/) 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, logistics providers, and any supplier of sub-assembly, sequencing, sorting, rework, software development, service packaging, and calibration services 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-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.

Direct Material 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 10.2.3)
- SQ Escalation (reference section 8.4.2.4)
- Supplier Balanced Scorecards (reference section 9.1.2.1),
- Supplier Suggestions and Change Request (reference section 8.5.6.1),
- Supplier 360 Profile Application (see below)
- Cost Recoveries (reference section 11.5)
- eAPQP - Advanced Product Quality Planning (reference section 8.1.1)
- CQI-X application (see below)

A Supplier 360 (Profile) Application within Intelex is a requirement for direct material manufacturing locations and distributors of direct material conducting business with Nexteer. Indirect material and service suppliers, see note below. 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 changes at any time during the year. Suppliers are required to maintain information consisting of:

- Quality Certification (refer to Section 4.3) – The latest valid and complete quality management system certificate shall be posted in the Supplier 360 Application
- Customs Program Requirements (e.g. CTPAT, OEA, etc.) Reference section 8.5.4.

The following are maintained by Nexteer:

- Manufacturing Capability Assessment (MCA) - Reference section 8.4.1.2.
- New Business Hold (NBH)

Note: Regarding indirect material and service suppliers: It is a requirement for any supplier of sequencing, sorting, rework, software development, service packaging, and calibration services that conduct business with Nexteer, to maintain their profile in the Supplier 360 Application including the appropriate quality certificate (Refer to section 4.3) within the Supplier 360 Profile application. Logistics providers should refer to section 8.5.4, Shipment Security.

To better utilize our systems, we recommend that your organization create a group mailbox within your email client. A group mailbox such as nexteerapps@supplier.com 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/3PI

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 risk 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/3PI 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 direct material suppliers. It is imperative that you fully participate in a timely manner (within 30 days of when you receive your invitation from Vontik/3PI). 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 by country regarding the legal protection of eSignatures may be found at https://www.docusign.com/how-it-works/legality/global. This guide covers current eSignature laws, local legal systems, and electronic signature technology preferences for countries around the world.

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.

CQI-X Special Process Assessments

CQI-9
Nexteer utilizes the AIAG special process assessment CQI-9 to ensure suppliers are using proper heat treat techniques, processes, and controls. The method for submission to Nexteer of this assessment is via the CQI-X application within the Intelex system. An assessment that is no older than 12 months must be submitted each year. Suppliers are also responsible to submit an assessment for any sub-tier supplier that uses heat treat operations either as a purchased service or part of the process flow of a part purchased by the Nexteer supplier. A full assessment must be uploaded to the CQI-X application (a summary page alone is not acceptable).

All Other Applicable CQI Assessments
The annual submission requirement via the CQI-X application in Intelex applies to all applicable AIAG special process assessments. A listing of the special process assessments is shown in section 2.1.

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.
- Customer Representative Change – When the supplier's customer representative changes, the supplier is responsible to update contact information in the Nexteer Supplier 360 Profile Application in Intelex.
- Quality certificate - Suppliers registered to ISO 9001, ISO/TS 16949, IATF 16949, or ISO/IEC 17025 are responsible to notify Nexteer of certificates being revoked, withdrawn, being placed on suspension, or re-instated.

8.2.1.1 Customer Communication – Supplemental

No Nexteer specific requirements for this section

8.2.2 Determining the Requirements for Products and Services

8.2.2.1 Determining the Requirements for Products and Services - Supplemental

Reference section 8.4.2.2

8.2.3 Review of the Requirements for Products and Services

8.2.3.1

8.2.3.1.1 Review of the requirements for products and services – supplemental

No Nexteer specific requirements for this section

8.2.3.1.2 Customer-Designed Special Characteristics

Nexteer may utilize specific symbols on drawings and specifications to designate special characteristics. These special characteristics must be identified as customer special characteristics

on the supplier's documents, including PFMEA, PFD, PCP and operator standardized work instructions. Operator standardized work instructions will highlight tasks that affect QCLs. The supplier's management must assure that all operators are knowledgeable and understand the appropriate controls for special characteristics existing on the parts being produced at their workstation. 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 Design Severity and Sensitivity Assessment (DSS) to evaluate the severity and sensitivity of the requirements shown on product drawings and specifications and to determine if a product characteristic is standard or special and assigns the QCL type. The drawing along with the DSS Assessment is an input to Vehicle/End User Severity for PFMEA. The drawing and DSS Assessment are inputs to the MAPP – reference section 8.1.1, Operational Planning and Control – Supplemental.

Nexteer uses KPCs, QCIs (Quality/Customer Interface Characteristics) and QCLs (Quality Control Level Characteristic) to designate special characteristics on product drawings and specifications. (Note: KPCs and 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 assembly 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.

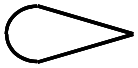
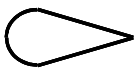
For any safety/compliance characteristic (CL1, CL2, CL3), the machine set-up procedure must include special checks to verify correct machine set up and that parts meet 100% of requirements prior to release of the process for production.

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 Characteristic Chart for use without QCLs

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) <u>Note</u>: A variable gage may be used to perform 100% verification	Same as Fit/Function QCI CI-100V.	▪ Sorting and/or engineering permit required with customer notification when specification not met. Document containment plan for all non-conforming parts.
Safety QCI  **QS-DR** Variable or Attribute Gages	Select safety-critical product dimensions where ongoing charting is required on the plant floor ▪ Vehicle interface dimensions ▪ Possible pass-through defects ▪ Design & process knowledge (BOD/BOP) ▪ Customer returns, recalls, lessons learned ▪ Control plans from similar parts ▪ Design & Process FMEA ▪ Process capability ▪ Customer required Compliance with government regulation	Same as Fit/Function QCI CI-DR.	Same as Fit/Function QCI CI-100V.	▪ Same as Fit/Function QCI CI-DR and, ▪ Document containment plan for all non-conforming parts.
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 Characteristic Chart for use without 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. <u>Process Indices Acceptance Criteria</u>: • Initial (PPAP) process study o Capability Index Target Cpk and Ppk >1.33 & demonstrated statistical control o Extended production run (> 6 months) Performance Index Ppk <u>></u> 1.0	Control plan is based on process capability. If plant floor control charts are required to maintain the process then this requirement should be documented on the control plan.	▪ Sorting ▪ Request Nexteer Engineering Permit to allow the deviation ▪ Reduction in variability required when Ppk capability is not met.
Fit/Function QCI  **CI-100V** Attribute or Variable Gages	Select function-critical product dimensions requiring 100% functional or go/no go checks ▪ Vehicle interface dimensions ▪ Possible pass-through defects ▪ Design & process knowledge (BOD/BOP) ▪ Customer returns, recalls, lessons learned ▪ Control plans from similar parts ▪ Design & Process FMEA ▪ Process capability Customer required	100% verification using attribute check (Pass/fail gage or test) <u>Note</u>: 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 9.1.1. ▪ 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. <u>Process Indices Acceptance Criteria</u>: • Initial (PPAP) process study o Capability Index Target Cpk <u>></u> 1.67, & demonstrated statistical control o Ppk must be <u>></u> 1.33, or 100% inspection and/or error prevention Extended production run (>6 months) Performance Index Ppk <u>></u> 1.33 or 100% inspection and/or error prevention	Same as Fit/Function QCI CI-100V.	▪ Engineering permit required with customer notification for usage of parts not accepted with a full tolerance gage. ▪ When using a reduced tolerance attribute gage, a full tolerance gage must be used to check 100% of the parts produced since the last acceptable check. Reduction in variability required when Ppk is not met or when process is not in statistical control.

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 are required for all special characteristics unless otherwise agreed upon in the MAPP section 3, 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 and documented by the Nexteer Product Engineer and AQE, 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 (unless superseded by a customer specific requirement) & demonstrated statistical control and Ppk must be > 1.33, or 100% inspection and/or error prevention
    - Unless otherwise agreed to and documented by the Nexteer Product Engineer and AQE or superseded by a customer specific requirement, 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.
    - 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.

- **Long Term (Ongoing) Capability Requirements**

Suppliers are required to maintain process capability including control charting throughout the product life. Supplier must provide long term 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 $\geq$1.33 & demonstrated statistical control.
    - QCLs classified as CL3 with either bilateral or one-sided distributions must achieve a capability index target Cpk $\geq$ 1.33 (unless superseded by a customer specific requirement). The Ppk must be $\geq$ 1.33 or 100% inspection and/or error prevention employed.
    - Standard Dimensions with either bilateral or one-sided distributions must achieve a capability Index Target Cpk and Ppk $\geq$1.0 & demonstrated statistical control

8.2.3.1.3 Organization Manufacturing Feasibility/Run-at-Rate

Suppliers shall perform Manufacturing feasibility reviews and shall include supplier and the Nexteer team members as appropriate. (Reference section 8.1.1, APQP, F1058 Supplier Process Production Readiness Audit).

Product volume changes of 20% or more over a previously verified volume capability shall require run-at-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 total weekly volume requirements and current model service requirements and shall be no more than 100 hours per 5-day work week. The Nexteer standard work year is based on 48 weeks, 240 workdays. Any operating plan using more than 100 hours per work week (e.g. 5 days x 20 hours per day) or different than the standard 48 weeks, 240 working days, must be agreed upon by Nexteer and will be documented in the Nomination Letter at time of business award. Suppliers shall be responsible to have capacity to provide 15% above the aggregate Nexteer volume on a sustained basis without additional investment from Nexteer. The 15% may be produced outside of the 100-hour work week but less than or equal to 120 hours.

The full capacity for the part should be in place at the Supplier's floor and its sub-suppliers' floor no later than the Nexteer Run-at-Rate date. Any deviation from this requirement must be agreed in writing by Nexteer and will be documented in the Nomination Letter at time of business award.

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. It is preferred to perform the Run-at-Rate analysis over multiple shifts with production operators and including a part number change-over if appropriate. The final Run-at-Rate plan will be agreed upon in the early stages of Supplier APQP.

Run-at-Rate will be given a status of Pass, Open, or Fail. The supplier is expected to put into place the necessary corrective actions to ensure a successful (Pass) Run-at-Rate. An APQP Problem Case may be issued for failure to meet agreed upon target date or for requirements not met.

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

8.2.3.2

No Nexteer specific requirements for this section

8.2.4 Changes to Requirements for Products and Services

No Nexteer specific requirements for this section

Supporting Documentation, Forms or Reference for Section 8.2:

- Nexteer Supplier Website: http://www.nexteer.com/
- Supplier Suggestion Change Request Application (SSCR) – 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

8.3 Design and Development of Products and Services

8.3.1 General

8.3.1.1 Design and Development of Products and Services – Supplemental

No Nexteer specific requirements for this section

8.3.2 Design and Development Planning

8.3.2.1 Design and Development Planning – Supplemental

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 (or DSS document if available) 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.

8.3.2.2 Product Design Skills

No Nexteer specific requirements for this section

8.3.2.3 Development of Products with Embedded Software

No Nexteer specific requirements for this section

8.3.3 Design and Development Inputs

8.3.3.1 Product Design Input

No Nexteer specific requirements for this section

8.3.3.2 Manufacturing Process Design Input

No Nexteer specific requirements for this section

8.3.3.3 Special Characteristics

Refer to section 8.2.3.1.2 for Nexteer specific requirements regarding customer defined symbols

8.3.4 Design and Development Controls

8.3.4.1 Monitoring

No Nexteer specific requirements for this section

8.3.4.2 Design and Development Validation

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.

8.3.4.3 Prototype Programme

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

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

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

Prototype Parts Provision – 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.

8.3.4.4 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 (other than those ordered for PPAP) 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 8.6.2. The requirements identified on the PPAP check sheet such as CQI Assessments, gage studies, and capability studies must also be included and be dated within one year of the PPAP submission date. 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 after PPAP approval, will be issued by the Nexteer Production Control Department (PC&L) and will contain the delivery due date and quantity to be shipped. To ensure breakpoint is established and in agreement with Nexteer plant requirements, suppliers must contact the Nexteer regional PC&L representative. Shipments not authorized by Nexteer PC&L may result in a Problem Case issued to the supplier.

8.3.5 Design and Development Outputs

8.3.5.1 Design and Development Outputs – Supplemental

No Nexteer specific requirements for this section

8.3.5.2 Manufacturing Process Design Output

No Nexteer specific requirements for this section

8.3.6 Design and Development Changes

8.3.6.1 Design and Development Changes – Supplemental

No Nexteer specific requirements for this section

Supporting Documentation, Forms or Reference for Section 8.3:

- www.aiag.org
- APQP and Current Production Cycle Forms – located on Nexteer.com, Suppliers, Quality Processes: http://www.nexteer.com/quality-processes/
- APQP and Current Production Cycle Forms: F1020, F1020-1, F1020-2, F1020-3, F1020-4 PPAP Check Sheets, and F-1021 PPAP Check Sheet Instruction – Located on Nexteer.com, Suppliers, Quality Processes: http://www.nexteer.com/quality-processes/

- Global Sample and PPAP Label – Located on Nexteer.com, Suppliers, Quality Processes: http://www.nexteer.com/shipping-labeling-processes/
- AIAG Production Part Approval Process (PPAP) manual, AIAG Service Production Part Approval Process (Service PPAP) manual.

8.4 Control of Externally Provided Processes, Products and Services

8.4.1 General

8.4.1.1 General – Supplemental

No Nexteer specific requirements for this section

8.4.1.2 Supplier Selection Process

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 Nexteer's product requirements.

The Manufacturing Capability Assessment is available as a tool to assist in the selection and evaluation of sub-suppliers. 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. The CQI-8, Layered Process Audit Guideline may also be used for sub tier supplier QMS development.

CQI-9, CQI-11, CQI-12, CQI-14, CQI-15, CQI-17, CQI-23, and CQI-27 shall apply to any sub-tier suppliers in the value stream. Suppliers are required to review and update their suppliers' assessments on an annual basis.

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.

The Supplier shall complete a financial assessment of their supply chain at a minimum annually to evaluate and mitigate risk in the supply chain. The supplier shall be required to supply evidence of this evaluation upon request.

8.4.1.3 Customer-Directed Sources (also known as "Directed-Buy")

No Nexteer specific requirements for this section

8.4.2 Type and Extent of Control

8.4.2.1 Type and Extent of Control – Supplemental

No Nexteer specific requirements for this section

8.4.2.2 Statutory and Regulatory Requirements

Chemical Material Content, Reporting, and Approval Requirements

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

Governmental Hazard Communication Standard Requirements
Suppliers shall provide samples, testing, and supporting documentation in the form of MSDSs (Material Safety Data Sheets) or GHS-compliant SDSs (Safety Data Sheets) per local governmental and Nexteer-specific requirements 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, raw material, component or assembly as provided to Nexteer. Nexteer review and approval of all such materials is required prior to delivery of these items to Nexteer. Questions may be directed to the appropriate Nexteer Buyer, Quality Engineer, or Nexteer HMCC email at mailto:nexteer.divhmcc@nexteer.com

Substances of Concern and Recycled Content
Global legal requirements and customer specifications necessitate the need for material substance disclosure via the International Material Data System (IMDS) for all parts and raw materials that become part of the Nexteer saleable product or end item. The content and reporting requirements are detailed in the Nexteer 23000000 Substances of Concern and Recycled Content specification. This specification is part of the standard engineering drawing template and is posted in the Nexteer Supplier Website. Any references to GM100M, GMW3059, or 10949001 is replaced/superseded by Nexteer 23000000 specification. Questions may be directed to the appropriate Nexteer Buyer, Quality Engineer, or Nexteer SoC email at mailto:nexteer.soc.saginaw@nexteer.com.

Responsible Sourcing
All suppliers shall be able to annually, determine the locations where Conflict Minerals (i.e. tin, tantalum, tungsten, and gold, as determined by the U.S. Securities and Exchange Commission), contained within products sold to Nexteer originated. This includes if originated within the Democratic Republic of the Congo OR surrounding areas OR be able to verify that such Conflict Minerals did not originate within the Democratic Republic of the Congo or surrounding areas. Suppliers shall be required to submit this Responsible Sourcing information upon the request of Nexteer Automotive via the Assent Compliance Conflict Minerals Module OR by reporting manually using the latest electronic version of the Responsible Minerals Initiative Conflict Minerals Reporting Template. Suppliers are to refer to AIAG (www.AIAG.org) or the Responsible Minerals Initiative (www.responsiblemineralsinitiative.org) for more information.

8.4.2.3 Supplier Quality Management System Development

Nexteer requires suppliers of productive parts and services to develop and implement a quality management system (QMS) certified to ISO 9001, and to improve that QMS with the ultimate objective of certification to IATF 16949.

Any direct material manufacturing supplier that is not certified to IATF 16949 will be subject to a second-party audit by Nexteer Supplier Quality to verify that the supplier's QMS is certified to the requirements of ISO 9001 and compliant to the Minimum Automotive Quality Management System Requirements for Sub-Tier Suppliers (MAQMSR) or certified to ISO 9001 and compliant to IATF 16949.

Suppliers will be prioritized for QMS verification audits based on 1) parts with safety/regulatory requirements, 2) current performance to Nexteer, 3) quality certification status.

A supplier may be subject to annual QMS verification audits by Nexteer until IATF 16949 certification is achieved.

8.4.2.3.1 Automotive Product-Related Software or Automotive Products with Embedded Software

No Nexteer specific requirements for this section

8.4.2.4 Supplier monitoring

For Direct Suppliers, 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 4 stages of escalation (Level 1 through 4). 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 via the NSA and supplier improvement plan.

Level 2 includes level 1 activities plus additional focus by Nexteer Supplier Quality (NSA on-site audit), a PFMEA to Control Plan gap analysis by both the supplier and Nexteer, supplier improvement plan to address the gaps, and submission of the supplier's most recent annual Quality Management System surveillance audit report.

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, monthly face to face reviews (may be at supplier location or Nexteer location), verification of DFMEA alignment, problem solving certification, demonstrated performance improvement (complaint rate reduction), in addition to level 1 and level 2 activities to be completed.

Level 4 is an on-site Quality Management System audit by the Nexteer SQE. This includes TFS activities of level 3. Entry into level 4 is based on risk related to: 1) Number of problem cases, 2) Quality certification status, 3) Supplied parts contain safety critical or regulatory features, and 4) Other additional risk factors as appropriate (e.g. financial health, program life, etc.).

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. Some suppliers may remain in Level 3 due to criticality of the commodity and/or the need to maintain strong supplier relationships at all levels.

Suppliers of calibration services, sorting and rework, software development, and service packaging are subject to a supplier evaluation which is taken into consideration for future business awards.

8.4.2.4.1 Second-party audits

Nexteer follows IATF 16949 2nd party audit requirements. Where a Nexteer OEM customer has additional requirements (e.g. annual audits, scope and duration per IATF Rules), those requirements will apply and will be communicated to the affected supplier.

8.4.2.5 Supplier development

No Nexteer specific requirements for this section

8.4.3 Information for External Providers

8.4.3.1 Information for External Providers – Supplemental

No Nexteer specific requirements for this section

Supporting Documentation, Forms or Reference for Section 8.4:

- Manufacturing Capability Assessment (MCA)/Nexteer Supplier Assessment (NSA) (F1004), Located on Nexteer.com, Quality Processes: http://www.nexteer.com/quality-processes/
- 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

- 23000000 Substances of Concern and Recycled Content specification – Located on Nexteer.com, Suppliers, Quality Processes: http://www.nexteer.com/quality-processes/

8.5 Production and Service Provision

8.5.1 Control of Production and Service Provision

8.5.1.1 Control plan

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 control plan must include layout inspection and functional testing to be performed annually.

The control plan must include the applicable AIAG Special Process Assessments and Guidelines (CQIs). Each applicable CQI Assessment must be submitted annually. Refer to section 8.2.1, Customer Communication, 8.3.4.4, Product Approval Process and section 9.2.2.3, Manufacturing Process Audit.

Traceability as documented in the control plan, shall include a definition of the lot including number of parts and number of production hours.

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.

8.5.1.2 Standardized Work – Operator Instructions and Visual Standards

Visual standards and/or boundary samples that differentiate “good” from “bad” shall satisfy customer requirements and be controlled.

8.5.1.3 Verification of Job Set-Ups

No Nexteer specific requirements for this section

8.5.1.4 Verification After Shutdown

No Nexteer specific requirements for this section

8.5.1.5 Total Productive Maintenance

No Nexteer specific requirements for this section

8.5.1.6 Management of Production Tooling and Manufacturing, Test, Inspection Tooling and Equipment

No Nexteer specific requirements for this section

8.5.1.7 Production Scheduling

Suppliers shall electronically receive ship authorizations (DELJIT), schedules and forecasts (DELFOR) – depending on the local requirement and send DESADV's at the time of shipment. Suppliers shall be EDIFACT compliant. Suppliers who are not EDI capable should contact PC&L for deviation approval and develop a plan to reach the standard requirement.
Nexteer expects DESADV's are not sent until the shipment leaves the dock and within a maximum of 30 minutes of the shipment leaving 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. Suppliers shall provide 100% on time delivery. Suppliers shall proactively communicate any delay or risk to the affected Nexteer location. 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.

Scheduling Lead Time – 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 after the shipment leaves the dock and within 30 minutes of the shipment leaving the dock. Once these packing slips are received & verified by the consignment location, they will be entered into Nexteer's system. This will generate payment to the initial supplier.

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

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

8.5.2 Identification and 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, key process parameters/data, etc. Key process parameters/data must be captured throughout the process using the applicable traceability method.

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 8.2.3). Nexteer Product Engineering designates 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:

- Singular/Serialization – used to reduce the risk to a single part or component. In the event of parts being moved from the normal process flow, the parts shall be marked for singular traceability. Marking location and method of the direct part marking shall be indicated on the product drawings. Serial number is the minimum information required for singular traceability marking. Parts must be tracked for defect reconciliation.

- Lot Control – used to reduce the risk to a specific number as determined by the size of the lot. A lot is the maximum quantity of parts that share consistent dimensional, material and process characteristics. Lot sizes shall be a maximum of one (1) shift (typically 8 hours) of supplier's production. NOTE: One batch of raw material (examples: resin, rubber, heat of steel) can create multiple lots. Only one batch of raw material can be identified in each lot – (i.e. cannot mix two batches of raw material in a single lot). Batch information must be traceable via lot number. Lot definition will be approved by the Nexteer 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. All CL1 control levels must be compliant to singular traceability unless otherwise approved during the MAPP process. If 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, as identified in the control plan, shall be included in the stored data. Selection of traceability method and determination of data to be collected is determined by the

Nexteer Requirements (DSS, Part Print, MAPP, etc.) and the Nexteer AQE/SQE. Evidence of the record system, including retrieval, must be fully established and available prior to PPAP submission.

Supplier's traceability system will be assessed through the Nexteer MCA/NSA process. Specific part traceability will be reviewed, documented and verified through the MAPP process and Supplier APQP process, such as control plan, supplier process production launch readiness audit, etc.

See Section 7.5.3.2.1 – Control of Records for record retention requirements for lot traceability.

8.5.2.1 Identification and traceability – supplemental

No Nexteer specific requirements for this section

8.5.3 Property Belonging to Customers or External Providers

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
- Number of shots produced from tool
- Remaining tool life (number of shots)
- Indicate previous part number if tool has been changed to produce a new part number

If tooling is to be paid by Nexteer, suppliers will be paid for tooling contingent on receipt and approval of requested tooling documentation, full PPAP approval, and successful run at rate at documented contracted capacity.
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. See Nexteer.com for Tooling Terms and Conditions for full details.

Returnable Containers

Nexteer will retain ownership of all returnable container systems except as commercially agreed between the supplier and Nexteer. 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.

8.5.4 Preservation

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 located on nexteer.com, suppliers, shipping & labeling processes. 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.

For electronic assemblies and components, acceptable packaging material shall be made of ESD Dissipative or Antistatic material. This includes, but is not limited to: glues, tapes, stickers, and bags.

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.

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

Suppliers to Nexteer in North America (United States, Canada and Mexico) shall forward all completed Certificates and other Free Trade Agreement documentation to the attention of Sandler and Travis Trade Advisory Services, using email address: **nexteerdocs@sttas.com** 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.

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

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

Shipping Goods Across Borders – 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.

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, etc.). 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. Refer to section 8.5.1.7, Production Scheduling.

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.

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. CTPAT and Mexico OEA minimum security requirements. Suppliers not shipping into North America should maintain any equivalent supply chain security programs administered by

the affected regions. Suppliers shipping goods into North America shall provide and verify all information required in the Customs Security 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 Customs Security Questionnaire.
For more information on becoming CTPAT or OEA certified, go to http://www.cbp.gov/border-security/ports-entry/cargo-security/c-tpat-customs-trade-partnership-against-terrorism or http://omawww.sat.gob.mx/comext/esquema_integral/Paginas/OEA.aspx or https://www.sat.gob.mx/tramites/88401/obten-tu-certiicacion-como-operador-economico-autorizado, respectively.

8.5.4.1 Preservation – Supplemental

No Nexteer specific requirements for this section

8.5.5 Post-delivery activities

8.5.5.1 Feedback of information from service

No Nexteer specific requirements for this section

8.5.5.2 Service agreement with customer

No Nexteer specific requirements for this section

8.5.6 Control of Changes

8.5.6.1 Control of Changes – Supplemental

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 Nexteer for approval 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 Suggestion Change Request (SSCR) is submitted. It's critical that the supplier notify Nexteer

via an SSCR (see below) as early as possible to allow time for Nexteer to review and approve the SSCR and supplier PPAP. In some cases, the OEM may have additional requirements and 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 per section 7.5.3.2.1.

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 the Buyer. Supplier responses are required within 10 business days.

Supplier Suggestion Change Requests – Suppliers are responsible to communicate supplier suggestion change requests (SSCR) with appropriate supporting documentation through the Intelex Supplier Suggestion Change Request Application, for all Nexteer locations. See link below included in the Supporting Documentation, Forms or Reference section.

8.5.6.1.1 Temporary change of process controls

No Nexteer specific requirements for this section

Supporting Documentation, Forms or Reference for Section 8.5:

- www.aiag.org
- The following Documents are located on Nexteer.com, Suppliers, Quality Processes: http://www.nexteer.com/quality-processes/
  - Early Production Containment Training
  - F1094 – Containment Checklist
- Nexteer Global Packaging and Shipping Manual – Located on Nexteer.com, Suppliers, Shipping & Labeling Processes; http://www.nexteer.com/shipping-labeling-processes/
- Supplier Packaging Information Form – Located on Nexteer.com, Suppliers, Shipping & Labeling Processes; http://www.nexteer.com/shipping-labeling-processes/
- Global Supplier Container Label Requirements Standards EDIFACT – Located on Nexteer.com, Suppliers, Shipping & Labeling Processes: http://www.nexteer.com/shipping-labeling-processes/
- Global Sample and PPAP Label – Located on Nexteer.com, Suppliers, Shipping & Labeling Processes: http://www.nexteer.com/shipping-labeling-processes/
- 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 IATF Clause 7.2.3.1
- AIAG PPAP Manual -- www.aiag.org
- APQP and Current Production Cycle Forms – Located on Nexteer.com, Suppliers, Quality Processes: http://www.nexteer.com/quality-processes//
- Supplier Suggestion Change Request Application (SSCR): Link is located on Nexteer.com, Suppliers, Supplier Applications, Intelex: http://clients.intelex.com/login/Nexteer

8.6 Release of products and services

8.6.1 Release of Products and Services – Supplemental

No Nexteer specific requirements for this section

8.6.2 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. Annual layout inspection and functional testing shall be included in the supplier's control plan.

8.6.3 Appearance items

No Nexteer specific requirements for this section

8.6.4 Verification and acceptance of conformity of externally provided products and services

No Nexteer specific requirements for this section

8.6.5 Statutory and regulatory conformity

No Nexteer specific requirements for this section

8.6.6 Acceptance criteria

No Nexteer specific requirements for this section

8.7 Control of nonconforming outputs

8.7.1

No Nexteer specific requirements for this section

8.7.1.1 Customer authorization for concession

No Nexteer specific requirements for this section

8.7.1.2 Control of nonconforming product – customer-specified process

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. When required, 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.

Controlled Shipping

The intent of Controlled Shipping is to implement a rigorous process that protects Nexteer from the receipt of nonconforming parts and/or material. Controlled Shipping is a formal requirement by Nexteer Supplier Quality for a supplier to put in place an additional inspection process to sort for nonconforming material, while implementing root-cause analysis and corrective actions.

Controlled Shipping Level 1 (CS1) is an additional inspection process separate from the PPAP approved process controls, implemented at the supplier's manufacturing facility.

Controlled Shipping Level 2 (CS2) is an additional inspection process above and beyond CS1, with the additional inspection process being completed by a third party. The third-party inspection company is selected by the supplier and approved by Nexteer Supplier Quality. The supplier is responsible for the cost of the third-party inspection company and additional incidental cost of CS2.

The Controlled Shipping process includes a detailed notification to the affected supplier for each level. The Controlled Shipping notification clearly identifies the dimensions or features that must be inspected, the supplier's responsibilities, the minimum duration of the inspection, and the specific exit criteria that must be met before the supplier may request exit from controlled shipping.

8.7.1.3 Control of suspect product

No Nexteer specific requirements for this section

8.7.1.4 Control of reworked product

No Nexteer specific requirements for this section

8.7.1.5 Control of repaired product

No Nexteer specific requirements for this section

8.7.1.6 Customer notification

Refer to 8.7.1.2

8.7.1.7 Nonconforming product disposition

Refer to 8.7.1.2

8.7.2

No Nexteer specific requirements for this section

<u>Supporting Documentation, Forms or Reference for Section 8.7</u>:

- The following forms are located on Nexteer.com, Suppliers, Quality Processes: http://www.nexteer.com/quality-processes/
  - Containment: Supplier Containment Instruction, F1004 MCA/NSA, F1094 Containment Checklist

9. PERFORMANCE EVALUATION

9.1 Monitoring, measurement, analysis and evaluation

9.1.1. General

No Nexteer specific requirements for this section

9.1.1.1 Monitoring and Measurement of Manufacturing Processes

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 minimum 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 per section 9.1.1.2.

The acceptance criteria for the process indices are per the requirements in Section 8.2.3.1.2.

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.

Also refer to section 8.2.3.1.2 for on-going capability requirements.

9.1.1.2 Identification of 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. Any alternate software proposed must be evaluated by Nexteer and proven to match the results of Minitab.

9.1.1.3 Application of Statistical Concepts

No Nexteer specific requirements for this section

9.1.2 Customer satisfaction

No Nexteer specific requirements for this section

9.1.2.1 Customer satisfaction – supplemental

Monitoring and measurement, analysis and evaluation

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. Additionally, scoring rules are available in the Balanced Scorecard application via a link located within each individual monthly scorecard.

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.

9.1.3 Analysis and Evaluation

No Nexteer specific requirements for this section

9.1.3.1 Prioritization

No Nexteer specific requirements for this section

9.2 Internal audit

9.2.1

No Nexteer specific requirements for this section

9.2.2

9.2.2.1 Internal Audit Program

No Nexteer specific requirements for this section

9.2.2.2 Quality Management System Audit

No Nexteer specific requirements for this section

9.2.2.3 Manufacturing process audit

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. There may be additional unique OEM specific assessments required.

Suppliers of new parts that require special processes will be notified during the APQP process that they must submit all CQI assessments for their value stream as part of their PPAP submission package. The initial CQI assessment must be less than 12 months old from the date the assessment was performed. An annual reassessment is required. Contact your Nexteer SQE for submission requirements. Refer to section 8.2.1, Customer Communication.

9.2.2.4 Product Audit

No Nexteer specific requirements for this section

9.3 Management Review

9.3.1 General

No Nexteer specific requirements for this section

9.3.1.1 Management Review – Supplemental

No Nexteer specific requirements for this section

9.3.2 Management Review Inputs

No Nexteer specific requirements for this section

9.3.2.1 Management Review Input – Supplemental

No Nexteer specific requirements for this section

9.3.3 Management Review Outputs

No Nexteer specific requirements for this section

9.3.3.1 Management Review Output – Supplemental

No Nexteer specific requirements for this section

Supporting Documentation, Forms or Reference for Section 9:

- www.aiag.org
- Intelex Supplier Balanced Scorecard Scoring Rules – Located on the Nexteer Supplier Website, Supplier Applications: http://www.nexteer.com/learning-center/balanced-scorecard/
- 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

10. IMPROVEMENT

10.1 General

No Nexteer specific requirements for this section

10.2 Nonconformity and Corrective Action

10.2.1

No Nexteer specific requirements for this section

10.2.2

No Nexteer specific requirements for this section

10.2.3 Problem Solving

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 14 calendar days.

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.

10.2.4 Error Proofing

If the part has CL1 or CL2 features, Nexteer Supplier Quality may complete an additional review of quality documents to determine if controls are adequate. Additional error proofing may be required as a result of this review.

10.2.5 Warranty Management Systems

Supplier shall have a warranty analysis process consistent with AIAG CQI-14, Consumer Centric Warranty Management. Warranty issues are documented via an Intelex problem case with the expectation of supplier root cause analysis and corrective action submission within 14 calendar days.

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.

10.2.6 Customer Complaints and Field Failure Test Analysis

No Nexteer specific requirements for this section

10.3 Continual Improvement

10.3.1 Continual Improvement

When necessary, Nexteer will provide suppliers with tools and expertise for improvement activities. Tools suppliers may utilize **are the Manufacturing Capability Assessment (MCA) and Nexteer Supplier Assessment (NSA)** to help identify management and process gaps and to develop appropriate corrective actions. Suppliers are strongly encouraged to perform self-assessments utilizing the NSA, to evaluate the effectiveness of their quality management system and culture of quality.

Suppliers are responsible to develop and implement a First Time Quality (FTQ) improvement process with appropriate alarm limits and reaction plans defined. FTQ issues should be prioritized with action plans showing continual improvement over time. An 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.

Suppliers are responsible to develop and implement a Layered Audit Process. The program shall be administered under the guidance of a competent manufacturing process auditor as defined in IATF 16949 sanctioned interpretation no. 4. The AIAG CQI-8, Layered Process Audit Guideline may be used as a reference. 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.

Suppliers shall use the Intelex Supplier Suggestion/Change Request application for any process changes associated with continual improvement activities.

Supporting Documentation, Forms or Reference for Section 10:

- The following forms are located on Nexteer.com, Suppliers, Quality Processes: http://www.nexteer.com/quality-processes/
  - Five Why Form F15-1-5-F6
  - Five Why Training
- CQI-14 Consumer Centric Warranty Management
- F1004 – Manufacturing Capability Assessment (MCA)/ Nexteer Supplier Assessment (NSA) F1004: Located on Nexteer.com, Suppliers, Quality Processes: http://www.nexteer.com/quality-processes/
- Layered Audit – Located on Nexteer.com, Suppliers, Quality Processes: http://www.nexteer.com/quality-processes/
- AIAG CQI-8, Layered Process Audit Guideline
- Supplier Suggestion Change Request Application (SSCR) – Link is located on Nexteer.com, Suppliers, Supplier Applications, Intelex: http://clients.intelex.com/login/Nexteer

11. COMMERCIAL

11.1 Commercial Expectations

To work with suppliers toward perfect program launches and continued seamless production, Nexteer will need access to suppliers' facilities and appropriate documents. In some cases, this may require access to sub-tiers' facilities and documents, with prior approval and participation of the Nexteer supplier.

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.

- When the Buyer requests a quotation in Nexteer's On-Line Quoting System, the supplier shall submit their response 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 will 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 pre-assessment prior to an on-site meeting.
- Other commercial and technology assessments may be performed prior to 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.

11.2 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 (SSCR) application (reference section 8.2.1). 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.

11.3 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.

11.4 Payment

Note: For production parts, payment (including tooling) requires the following supplier actions:

- Completion of APQP process
- Full PPAP approval
- Successful run-at-rate for the documented contracted capacity

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. Supplier invoices must be issued to the Nexteer legal entity location from which the purchase order was issued, and each invoice must include the purchase order number.

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.

11.5 Cost Recovery

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

11.6 Data Privacy

At Nexteer we respect and are committed to protecting the Personal Information and align Nexteer's privacy policies and data protection practices with the law. Personal Information means any information relating to an identified or identifiable individual. Nexteer policies and processes reflect current standards and principles with respect to the processing of Personal Information, including sensitive personal data, and will abide by any laws and regulation specific to the countries in which Nexteer does business.

The commitment to protecting the Personal Information and associated data protection practices are extended through contract to our suppliers and partners. Accordingly, all Nexteer suppliers shall comply with (i) all laws, rules, regulations, court orders and governmental requirements applicable to the privacy, confidentiality or security of Personal Information, including without limitation, to the extent they may be applicable: (a) the European Union Directives and/or Regulations governing data protection as well as the laws and regulations that implement such Directives; (b) laws and regulations imposing security requirements to protect Personal Information; (c) laws and regulations restricting international transfers and processing of Personal Information; and (d) laws and regulations requiring the secure disposal of records containing certain Personal Information; (ii) all applicable industry standards concerning privacy, data protection, confidentiality and security of Personal Information; and (iii) all applicable provisions of Nexteer's privacy policies (see notably), statements or notices

made available to the supply base. Suppliers shall enter into any further privacy or information security agreements, including any applicable data transfer agreement, or take any other steps requested by Nexteer for purposes of compliance with the foregoing.

EU / US Privacy Shield

With respect to personal information (as defined in Privacy Shield) received or transferred pursuant to Privacy Shield, Nexteer Automotive Corporation is subject to the regulatory enforcement powers of the U.S. Federal Trade Commission. The company's commitment to participate in the Privacy Shield program can be found at the following U.S. Department of Commerce website located at: https://www.privacyshield.gov/list.

Data Processing Agreement

Where Nexteer transfers Personal Information onward to suppliers for processing, such suppliers will enter into a Data Processing Agreement setting forth their undertakings with respect to adherence to adequate data protection principles. Nexteer's standard Data Processing Agreement is located on the Nexteer Supplier Website at http://www.nexteer.com/doing-business-with-nexteer/*.*

11.7 Corporate Social Responsibility (CSR) Supplier Principles

Nexteer is committed to acting in accordance with all applicable laws and conducting our business in a socially and environmentally responsible manner with the highest degree of integrity. This commitment is extended to our global supply base via Nexteer's **Corporate Social Responsibility (CSR) Supplier Principles.**

Nexteer's Global Supply Chain Management expects the entire supply chain to specifically adhere to the principles described in this document. For each non-compliance, the supplier must implement corrective action plans to remain compliant with Nexteer CSR Supplier Principles. In the event the supplier fails to respect these principles, Nexteer reserves the right to impose penalties up to the exclusion of the supplier from Nexteer's supply base.

Supporting Documentation, Forms or Reference for Section 11:
Manufacturability Assessment & Process Plan (MAPP) Template - Located on Nexteer.com, Suppliers, Sourcing Processes: http://www.nexteer.com/sourcing-processes/
Manufacturing Capability Assessment - Located on the Nexteer.com, Suppliers, Quality Processes: http://www.nexteer.com/quality-processes/
EFT Payment Authorization Forms - Located on the Nexteer.com, Suppliers, Financial Processes: http://www.nexteer.com/financial-processes/
Corporate Social Responsibility (CSR) Supplier Principles – Located on Nexteer.com, Suppliers, Doing Business With Nexteer: https://www.nexteer.com/doing-business-with-nexteer/

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

Nexteer Automotive

Product Characteristics Control Levels Chart

Revised: 10-Jun-2016

Design Criteria				Manufacturing Requirements[1]				
Design Severity & Sensitivity (DSS) Result				Detection Activity (Detect nonconforming parts)		Process Control (Monitor the process)	Nonconforming Material Handling	Traceability
FMEA Severity[2]	Sensitivity	Control Level	QCL Symbol	Frequency of Inspection	Allowed Detection Controls			
G1346, G1174	G1331	G1331	G1331	G1331	G1174	G1763	G1901, G1786	G1783
9 - 10	RED	CL1		100%[3]	1 - 4	1 - 4	A	Singular Preferred Lot Control Required
9 - 10	YELLOW	CL2		100%[3]	1 - 7a	1 - 4	A-B	Lot Control or Singular
9 - 10	GREEN	CL3	No drawing symbol	Per Control Plan[5]	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[4]		Per Control Plan[5]	1 - 7a	1 - 7	A-C	Per Control Plan
8	GREEN	STD	No drawing symbol		1 - 8			Per Control Plan
4 - 7	RED	CL5[4]		Per Control Plan[5]	1 - 7a	1 - 7	A-C	Per Control Plan
4 - 7	YELLOW	STD	No drawing symbol	Per Control Plan[5]	1 - 8			Per Control Plan
4 - 7	GREEN							Per Control Plan
1 - 3	R - Y - G	STD	No drawing symbol	Per Control Plan[5]	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.

Attachment C

Detection Controls (Reference SAEJ1739 FMEA Standard)		
Key Words	**PFMEA DET Ranking**	**PFMEA Criteria (Breakdown)**
Not applicable	**10**	No current process control
Random Inspection	**9**	Random audit performed
Manual Inspection	**8**	Visual/tactile/audible detection of defect (failure mode) later in process (downstream operation)
	7b	Visual/tactile/audible detection of defect (failure mode) at operation
Gauging	**7a**	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 operation is acceptable when the product requirement is called out without specific measureable limits *e.g. fully engaged (tactile push/pull), clear of grease (visual), etc.*
	6b	Variable gauge detects defect (failure mode) later in process (downstream operation)
	6a	Attribute gauge detects defect (failure mode) at operation
	5b	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.)
Automated Cannot make, Cannot accept, Cannot pass discrepant part	**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)*
	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

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.

* 100% Attribute gauging is considered a Detection Control.

Attachment E

DEFECT HANDLING TABLE

	Nonconforming Material Handling / Reconciliation / Response (Reference G1735, G1786, G1901)							
	Nonconforming Material Handling			Reconciliation Reject Count from Equipment or Process Must Match Actual Physical Rejects and/or Log Sheets		Response		
When Inspecting Part or Monitoring Process 100%	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, 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.	Nonconforming parts placed into approved container, properly identified, and 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	If reject count versus actual rejects/log does not reconcile, there must be clearly defined standard reaction plan (containment procedure) that is utilized	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.						
A	✓			✓		✓	✓	
B		✓		✓			✓	✓
C			✓		✓			✓

12 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 • 4.6 – Product Traceability • 4.10 – Measurement System Analysis	Jim Corbeil Vice President Global Supply Management Lois Alverson Director Global Supplier Quality & Development
December 15, 2011	• 5.3 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: • 1.2 Code of Conduct and Corporate Social Responsibility. • 1.3 Supplier Communication: Intelex, Nexteer Supplier Management System which replaces Covisint. Vontik participation requirement. • 1.4 Quality Management System – update to Environmental Management • 1.6 Regulatory Conformity Material Expectations – Conflict Minerals • 1.8 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	Jim Corbeil Vice President Global Supply Management & Chief Procurement Officer Lois Alverson Director Global Supplier Quality & Development
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 previous Excel form • 7.3 Problem Reporting and Resolution Process – Update the initial response to a problem is due from 24 hours to 48 hours. • 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.	Jim Corbeil Vice President Global Supply Management & Chief Procurement Officer Kurt Heberling Director Global Supplier Quality & Development
February 15, 2015	• 1.2 Code of Conduct and Corporate Social Responsibility – added EEO • 1.3 Supplier Communications – Clarified Intelex registration process, added English language requirement, identified all Intelex applications, and added DocuSign information.	Jim Corbeil Vice President Global Supply Management & Chief Procurement Officer

Approval Date	Issue/Revision Changes	Title/Function
	• 1.4 Quality System Certification – Added IATF Minimum Automotive Quality Management System Requirements for Sub-Tier Suppliers. • 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 regard 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	Kurt Heberling Director Global Supplier Quality & Development
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.	Jim Corbeil VP Global Supply Management & Chief Procurement Officer Kurt Heberling Director Global Supplier Quality & Development

Approval Date	Issue/Revision Changes	Title/Function
	• 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 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. • 1.9 Record Retention – Added 50-year retention requirement for PPAP documentation. Supplier must maintain operating systems and equipment to facilitate retrievability 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	Jim Corbeil VP Global Supply Management & Chief Procurement Officer Kurt Heberling Director Global Supplier Quality & Development
November 15, 2017	Complete Rewrite to align with IATF 16949 clauses and numbering scheme, moved Supporting Documentation, Forms, References, to the end of each section. Major changes involve Sections: • Introduction – Updated vision. • 1.1 Scope – Added indirect services. • 3.1 Definitions – Added multiple definitions • 4.3 Determining the Scope of the QMS – Updated for indirect services and reference to certification bodies. Removed waiver allowance. • 4.4.1.2 Product Safety – Added software development • 5.1.1.1 Corporate Responsibility – Added AIAG training reference • 7.1.5.1.1 Measurement Systems Analysis – Added online test or inspection equipment, visual inspection. Gage R&Rs to be updated annually. • 8.1.1 Operational Planning and Control Supplemental – Added written approval from Nexteer is required on changes to MAPP after business award. APQP updated for multiple additions to the process. • 8.2.1 Customer Communication – Specific indirect service suppliers now required to register to Intelex and participate in the Supplier 360 Profile application.	OT Benson Executive Director Global Supply Chain Management Kurt Heberling Director Global Supplier Quality & Development

Approval Date	Issue/Revision Changes	Title/Function
	• 8.2.3.1.2 Customer Designated Special Characteristics – Added DSS description. Initial Process Capability Studies for PPAP – required for all special characteristics unless otherwise agreed in MAPP (e.g. cap study may not be possible). Long Term Process Capability Studies – added control charting, clarified requirements for CL3. • 8.2.3.1.3 Organization Manufacturing Feasibility/Run-at-Rate – Added a reference to section 8.1.1 Process Readiness Audit. Clarified rules for capacity including requirement of full tooling in place for run-at-rate. • 8.3.4.4 Product Approval Process – Annual PPAPs must include the appropriate CQI Assessments which must be dated within 1 year of the PAPP submission date. Clarified the authorization to ship parts is provided by Nexteer PC&L after PAPP approval. • 8.4.1.2 Supplier Selection Process – Added CQI-8 Layered Process Audit Guideline, added requirement of financial assessment of sub-tier suppliers. • 8.4.2.2 Statutory and Regulatory Requirements – re-wrote section to add clarification. • 8.4.2.3 Supplier Quality Management System Development – Added the requirement of progression of QMS development including 2nd Party Audits. • 8.4.2.4 Supplier Monitoring – Clarified the SQEP process. • 8.4.2.4.1 – Second Party Audits – New Section includes reference to OEM customer requirements. • 8.5.1.1 Control Plan – Updated annual layout inspection requirement to include applicable AIAG special process assessments and guidelines. Traceability requirement added to control plan. • 8.5.1.2 Standardized Work - Operator Instructions and Visual Standards – Added OEM customer requirement • 8.5.1.7 Production Scheduling – Clarified EDI requirement and added OEM customer requirement for 100% on time delivery and notifications. • 8.5.2 Identification and Traceability – Added requirement that key processes and quality data be identified in the control plan. Added evidence of the record system including retrieval be available prior to PPAP submission. • 8.5.4 Preservation – Packaging – requirement that packaging of electronic components and assemblies shall be made of ESD dissipative or anti-static material. Shipment Security – added Mexico OEA requirements. • 8.5.6.1 Control of Changes Supplemental – Added that a completed and approved production trial run may be required. • 8.7.1.2 Control of Non-Conforming Product – Customer Specified Process – Clarified Controlled Shipping. • 9.2.2.3 Manufacturing Process Audit – Changed requirement for annual CQI assessment submission to now be included in the annual PPAP submission instead of Intelex. • 10.2.4 Error Proofing – Added review of CL1 and CL2 features for adequate control during APQP. • 10.2.5 Warranty Management Systems – Added reference to AIAG CQI-14, Consumer Centric Warranty Management. • 10.3.1 Continual Improvement – Added Nexteer Supplier Assessment as a tool for use and added reference to AIAG CQI-8, Layered Process Audit Guideline. • 11.4 Payment – Added Supplier Quality requirements for direct supplier payment. • 11.6 Data Privacy – Added reference to Privacy Shield. • Attachment F - Nexteer Ethics Line – removed the attachment; information now contained in 5.1.1, Corporate Responsibility.	
September 18, 2018	• 1.1 Scope – Added NBH for failure to comply with this document. • 3.1 Terms and Definitions – Complaints per Million was changed to Complaints per Billion, added other miscellaneous definitions. • 4.3 Determining the Scope of the QMS – re-write of this section for clarity. • 6.1.2.3 Contingency Plans - Added cyber-attacks. • 8.1.1 Operational Planning and Control Supplemental – clarified the SCS submission requirement. • 8.2.1 Customer Communication – Added CQI-9 Application.	OT Benson Vice President Global Supply Management Kurt Heberling Director Global Supplier Quality & Development

Approval Date	Issue/Revision Changes	Title/Function
	• 8.3.2.1 Design and Development Planning – Added DSS document reference. • 8.4.2.4 Supplier Monitoring – Added 1 additional stage to the escalation process, added the requirement for the supplier to submit their most recent annual QMS surveillance audit report. • 8.4.3.1 Supporting Documentation – Changed Appendix 58.1, MCA, to F1004. • 8.5 Supporting Documentation – Eliminated Appendix 11, AIAG Check-sheet and Extended Downtime Checklist. • 8.5.3 Property Belonging to Customers or External Providers – Updated to coordinate with section 11.4. • 8.7 Supporting Documentation – Eliminated Extended Downtime Checklist and Appendix 57.3 Step Down Chart. • 9.2.2.3 Manufacturing Process Audit – Added reference to section 8.2.1, Customer Communication. • 10.3.1 Continual Improvement – Added that suppliers are strongly encouraged to utilize the MCA/NSA, added that layered audits must be administered under the guidance of a competent manufacturing process auditor. • 11.1 Commercial Expectations – Access to sub-tier's facilities and documents will be through prior approval of the Nexteer supplier. • 11.4 Payment – Updated to "successful" run at rate.	
October 7, 2019	• 2.1 Normative and Informative References – Added a quick reference section to list sections of this document that relate to PPAP • 3.1 Terms and Definitions – Capacity Verification clarified to show verification is documented using the Nexteer Run-at-Rate form F1019, added definitions for EIPD, EOS, ESD and SDE. • 4.3 Determining the Scope of the Quality Management System – added that when electronic components or assemblies are present, the supplier must fulfill the requirements of ANSI/ESD S20.20, IEC 61340, or equivalent as determined by Nexteer and audit to this requirement a minimum of once per year. • 6.1.2.2 Preventive Action – Added EOS requirement. • 7.1.5.1.1 Measurement System Analysis – Any alternatives to mini tab version 15 must be evaluated by Nexteer, any exceptions to variable gage studies must be agreed to and documented during the APQP process with Nexteer, for product control situations a max target of 10% was added. • 7.5.3.2.1 Record Retention – Added Engineering Change Approval documents to retention requirements. • 8.2.1 Customer Communication - Updated naming of CQI-9 application to CQI-X Special Process Assessments to represent the requirement of uploading multiple special process assessments. A full assessment must be uploaded to the application as a summary page only is not acceptable. • 8.2.3.1.2 Customer Designed Special Characteristics – Initial process capability requirements for PPAP - clarified Nexteer approvers. • 8.2.3.1.3 Organization Manufacturing Feasibility/Run-at-Rate – Clarified the 15% overage may be run outside of a 100 hour week but no more than 120 hours. • 8.4.2.2 Statutory and Regulatory Requirements – Added references to Chemical Registration, clarified that old SoC specification references are replaced by Nexteer 23000000 specification, references to Conflict Minerals was updated to Responsible Sourcing. • 8.4.2.4 Supplier Monitoring – Added additional risk factors for SQEP level 4. • 8.5.1.7 Production Scheduling – Added Nexteer expects DESADVs are not sent until the shipment leaves the dock and within a maximum of 30 minutes of the shipment leaving the dock. • 8.5.2 Identification and Traceability – Added typical traceable items may include key process parameters/data, etc. Key process parameters/data must be captured throughout the process using the applicable traceability method. Clarified that Singular/Serialization marking location and method will be shown on the Nexteer drawing. Added parts must be tracked for defect reconciliation. Clarified that all CL1 control levels must be compliant to singular traceability unless otherwise approved during the MAPP process. Clarified approval responsibility. Added that supplier traceability system will be assessed through	Gui Pizzato Executive Director Global Supply Management Kurt Heberling Executive Director Global Supplier Quality & Development

Approval Date	Issue/Revision Changes	Title/Function
	the Nexteer MCA/NSA process. Specific part traceability is reviewed, documented, and verified through the MAPP process. • 8.5.3 Property Belonging to Customers or External Providers – Removed design engineer name from tool inventory list. • 8.5.4 Preservation – Packaging – added where to find the Nexteer Global Packaging and Shipping Manual. Shipment Security link was updated. • 8.5.6.1 Control of Changes – Supplemental – Added that the supplier shall retain approved change requests for the life of the material as per section 7.5.3.2.1. • 8.7.1.2 Control of Non-Conforming Product – Customer Specified Process – Clarified that Supplier Quality organization manages Controlled Shipping. • 9.1.1.1 Monitoring and Measurement of Manufacturing Processes – Initial process capability studies – added the word "minimum" to the 300 piece PPAP production run. • 9.1.2.1 Customer Satisfaction – Supplemental – Clarified locations of scoring rules. • 11.1 Commercial Expectations – Clarification that when Nexteer requests a quote in the Nexteer on-line quoting system, the supplier shall submit their response in Nexteer's on-line quoting system. • 11.7 Corporate Social Responsibility – Added section regarding Nexteer Corporate Social Responsibility Supplier Principles.	