

Eaton Automotive Supplier Quality Procedure

This Supplier Quality Procedure (“**Procedure**”) applies to all items (“products”) that Eaton Corporation, an Ohio corporation, through its Automotive Group operations (“**Eaton**”) purchases from supplier under a purchase order, or other contract (collectively “Purchase Contract”) that makes this Procedure part of the Purchase Contract’s terms and conditions. The scope of this procedure applies to automotive production and relevant service part organizations. Service parts and materials applicability does not include aftermarket parts. All ISO/TS 16949:2002 requirements and the requirements of this document shall be addressed by the supplier’s quality system.

1. Definitions

(a) Capitalized terms not defined in this Procedure have the same meaning as in the contract for the sale of the items. The following abbreviations mean:

- (i) AIAG Automotive Industry Action Group
- (ii) APQP Advanced Product Quality Planning
- (iii) D.M.R. Defective Material Report
- (iv) I.D.R Inspection Deviation Request
- (v) IMDS International Material Data System
- (vi) Lot A batch of parts produced with homogeneous material on a continuous manufacturing process, but not exceeding one shift of production (8 hours).
- (vii) PFMEA Process Failure Mode and Effects Analysis
- (viii) PPAP Production Part Approval Process
- (ix) PPM Parts Per Million
- (x) RPN Risk Priority Number
- (xi) S.P.C. Statistical Process Control
- (xii) S.Q.E. Supplier Quality Engineer-Plant location
- (xiii) S.T.S. Ship to Stock
- (xiv) ISO/TS-16949 Quality System Requirement latest revision
- (xv) WISPER Worldwide Integrated Supplier Performance Evaluation Resource
- (xvi) P.T.C Pass thru characteristics see definitions in Eaton’s Corporate Supplier Excellence Manual

2. Supplier’s General Obligations: Supplier shall:

- (a) Control the product and production process, for the life of the product produced in order to enable the product produced to be S.T.S;

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- (b) Comply with all requirements of Eaton’s Supplier Excellence Manual. The Supplier Excellence Manual may be downloaded from the following link: www.eaton.com, click on link “Doing Business with us”, next click on link “selling to us” then click on link “Supplier Excellence Manual”;
- (c) Participate in Eaton’s supplier quality and development program(s);
- (d) Comply with all quality requirements and procedures specified by Eaton, including those applicable to Eaton as set forth in ISO/TS-16949:2002 Quality System Requirements as well as comply to Eaton’s customers requirements;
- (e) Permit Eaton to enter Supplier’s facility at reasonable times to inspect the facility, goods, materials and any property of Eaton or of Eaton’s Customer covered by this Procedure. Eaton’s inspection of the goods, whether during manufacture, before delivery or within a reasonable time after delivery, does not constitute acceptance of any work-in- process or finished goods. Supplier shall include in all quotations the costing to reflect error occurrence detection (poka yoke, error proofing devices, etc) and defect outflow prevention to customers. Any controls implemented by supplier are the financial responsibility of the supplier;
- (f) Comply with Eaton’s Supplier Code of Conduct available in the Supplier Excellence Manual and at <http://www.eaton.com/>;
- (g) Pro-actively communicate to Eaton any issues that could affect Eaton or its customers to the appropriate buyer (i.e. supplier issues, capacity, quality issues);
- (h) Submit request for authorization of any proposed material, design, process changes or moves of production locations to appropriate Eaton buyer in advance prior to implementation (supplier to follow appropriate customer specific guidelines regarding process/material changes. For example, if the final customer is Ford, supplier to follow the SREA process with Eaton). Reference section 8 under PPAP submittal;
- (i) Have contingency planning strategies in place for all manufacturing facilities that ship to Eaton Automotive per ISO/TS 16949:2002 requirement 6.3.2.;
- (j) Have EDI capabilities for facilities that are shipping production parts, assemblies, components and production material to Eaton. For additional information on EDI refer to <http://www.eaton.com/>, Doing business, selling to us, and the EDI link;

3. **Supplier Quality System Qualifications (ISO/TS 16949:2002 cls. 7.4.1.2):** Eaton Automotive recognizes the Global ISO/TS 16949:2002 and other Customer Specific

Requirements as they apply to automotive production and relevant service part organizations.

- (a) The Eaton Automotive Quality Management System requirements for all approved production/service supplier manufacturing locations is:
 - (i) 3rd party certification to ISO/TS 16949:2002 and compliant to core tools from the AIAG manuals for APQP, SPC, MSA, PPAP, FMEA latest revision.
- (b) The above applies to organizations that manufacture product that ends up in the final vehicle assembly, including: production materials, production or service parts, assemblies, heat treating, welding, painting, plating or other finishing services.

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- (c) Suppliers are required to submit all quality certificates (including updates) for each manufacturing location in WISPER under capability section of Supplier profile module. Information on all certificates MUST match the name and address of record of the manufacturing location.
- (d) Supplier shall notify Eaton in writing of any registration scope change(s) affecting the sourced products including a change of registrars; and notify Eaton in writing if the quality certification registration expires or is revoked or suspended within 5 working days of the occurrence.
- (e) In extreme cases, Eaton may consider waiving TS 16949 3rd party certification when a supplier is so small as to not have adequate resources to fully develop this quality system Eaton recognizes that a simpler Quality Management System approach could be used for smaller suppliers. Under these circumstances, Eaton will consider the type of product supplied, existing quality system, manufacturing and delivery systems capability and associate risks before issuing any such waiver.

4. Suppliers Subcontractor development: Supplier shall:

- (a) Control the quality of its suppliers and, if Eaton requests, provide evidence of its suppliers quality systems, including product validation, material certificates, annual layouts and other items Eaton may request (reference ISO/TS 16949 cls. 8.2.4.1)
- (b) Assure traceability of the parts received from its suppliers to a specific lot produced reference ISO/TS 16949 cls. 7.5.3;
- (c) Ensure that each of its supplier's quality level meets the requirements set out in this procedure and supplier performs supplier quality management system development with its suppliers with the goal of supplier conformity with ISO/TS-16949 or whatever the customer requires.

5. Process control and inspection results: Supplier shall;

- (a) Comply with all requirements of ISO/TS 16949:2002 clause 7.4.3.1;
- (b) Keep evidence of all inspection results and capability data for review by Eaton;
- (c) Maintain capability data on all critical, special and significant characteristics identified on the Eaton print and the product characteristics mutually agreed by Supplier and Eaton;
- (d) Implement the Product Control Plan
- (e) Have incoming inspection of incoming material consistent with the risk and quality impact of the material. These inspections shall include variables data where appropriate and be used as a key indicator of supplier quality management.

- 6. Requirements for special characteristics (ISO/TS 16949:2002 cls. 7.3.2.3, 7.2.1.1):** Eaton may establish control characteristics for certain characteristics of the Product(s). The control characteristics are labeled with a symbol designating their importance: (e.g., delta, diamond etc), safety, critical, key, and significant. In special cases Eaton may require initial capability data for non-designated characteristics in order to determine the process feasibility. In these cases on-going data will not be required.

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- (a) Supplier shall take the following actions and provide the following information to Eaton depending on the specific special characteristic:
 - (i) For critical, significant, and control designated characteristics the supplier must ensure that the capability established at the time of PPAP submission/approval are maintained throughout the products life, anything showing a decay trend must be shared with Eaton. Eaton must approve any actions taken by the supplier related to product shipments when capability is not met. Eaton requires proof of capability data. It is the suppliers responsibility to ensure this data is available with each shipment, Eaton may allow the supplier to maintain the data in its facility provided the data is available to Eaton immediately upon request.
 - (b) Supplier shall provide quality-related data (e.g. historic inspection, first time quality, reject data, capability data) to Eaton if requested;
 - (c) In regards to quality indices and initial process capability studies, supplier shall reference AIAG PPAP manual latest edition, SPC and MSA manuals;
 - (d) Supplier shall immediately notify its Eaton plant Supplier Quality Engineer representative if:
 - (i) During Product/Process development, there is any reason to believe that the product may not meet the capability required by Eaton;
 - (ii) Develop a plan to assure compliance or obtain Eaton's written approval to deviate from the capability requirements;
 - (e) For critical characteristics, supplier shall prevent the shipment of non-conforming product to Eaton. Note: this is typically accomplished by incorporating poke yoke systems to the manufacturing and material handling processes to ensure quality.
 - (f) Pass thru characteristics are to be addressed in quality documents (i.e. use PTC on control plan and FMEAs to indicate the Pass thru characteristic.

7. Cleanliness Requirements (reference ISO/TS 16949:2002 cls. 6.4.2): Supplier shall:

- (a) Consider part and process cleanliness during the development of the PFMEA;
- (b) Consider dunnage in this requirement.

8. PPAP submittal: Suppliers shall:

- (a) Comply with the AIAG Production Part Approval Process Manual latest revision
- (b) Use an advanced product quality planning process that complies with the AIAG APQP manual that ensures production readiness with parts that meet 100% of the specifications (reference ISO/TS 16949:2002 cls. 7.1, 7.1.1);
- (c) Submit PPAP level 3 in all cases as required in the PPAP manual, unless waived by an SQE representative;
- (d) Receive Eaton's approval before making any changes;

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- (e) Submit sub-suppliers PPAP's in the PPAP's submitted to Eaton;
 - (f) Submit IMDS (International Material Data System) reporting requirements prior to PPAP submission and Eaton's subsequent approval. Information to be put into www.mdsytem.com or contact using facilities for further direction if unable to utilize this system;
 - (g) Perform capacity verification and included as part of the PPAP;
 - (h) Review PPAP documents yearly for current applicability and updated as necessary. This review shall include, but not be limited to: reliability monitors, capability data, control charts, lay out inspection data, internal yield data, and conformity to engineering drawings. PSWs shall be entered into the suppliers PPAP files after successful completion of the review on existing parts and made available to Eaton upon request.
 - (i) Supplier shall notify Eaton SQE immediately if there are any functional/material test failures or out of spec conditions identified during the annual layout/specification verification.
9. **WISPER:** Upon award of business, suppliers shall contact their SQE representative to register to use WISPER. Supplier shall utilize WISPER for direct material to:
- (a) view/track their quality performance
 - (i) DMR
 - (ii) PPM
 - (iii) PPAP management
 - (iv) Ship to Stock status
 - (v) Quality System registration
 - (b) To communicate APQP plans for changes and new product, at Eaton's request
 - (c) Update their Supplier Profile section
 - (d) update/manage their corrective actions for Audits and DMR's
 - (e) Initiate an Inspection Deviation Request
10. **Ship-To-Stock criteria:** Supplier shall use its best efforts to qualify for Ship-to-Stock as soon as possible after production begins. In order to qualify for S.T.S. Supplier must meet the conditions listed in the Supplier Excellence Manual and meet conditions set by the receiving Eaton plant.
11. **Change Management:** Eaton understands that change is necessary to achieve continual product and process improvement and is in support of this; however it is a decision that must be made mutually with input from all the affected parties. Unauthorized change is an issue that can have significant financial impact to both of our organizations and will not be tolerated. It is the expectation of Eaton that all suppliers will notify their Eaton Supplier Representative in writing, in advance by submitting a "Supplier Change Request Form" of any change. This form is found in the

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Supplier Excellence Manual, Automotive Addendum. Failure to contact Eaton and obtain formal approval prior to implementing and shipment of product will result in New Business Hold and responsibility for compensating Eaton for all associated costs as a result of the unapproved change.

Eaton's supplier representative needs to ensure that the form and relevant supporting data is received from the supplier. Change approval should be granted based on satisfactory review of the data analysis and verification/validation results published with the supplier change request. Supplier will not be able to ship products to Eaton sites prior to the approvals as defined in the "Supplier Change Request Form."

12. Non Conformity (reference ISO/TS 16949:2002 cls. 8.3, 8.5.2, 8.5.3): Supplier shall:

- (a) Have processes and systems in place to prevent shipping of non-conforming product to any Eaton Automotive facility. Eaton encourages the supplier to embrace the "Zero Defect" philosophy. The supplier shall ensure that ongoing product quality shall meet the commodity expectations and continually improve towards zero defect expectations. Management of quality "spills" and control of nonconforming material is as follows:
 - (i) Use 8D methodology when analyzing any non-conforming product or process to ensure root cause correction and problem prevention;
 - (ii) Respond to DMR with immediate containment measures (24 hours) in WISPER and the results of root cause analysis within 5 days in WISPER. A full 8D study is required within 14 business days;
- (b) Have a documented system for internal notification, analysis and communication of all Eaton receiving plant returns;
 - (i) Communicate the results for analysis in the WISPER system;
 - (ii) Implement corrective actions to prevent future Eaton plant concerns;
- (c) If Eaton, or its customer, identifies non-conformity in the products after the products have been received by Eaton or the customer, Eaton shall notify Supplier and Supplier shall:
 - (i) Immediately confirm the non-conformity;
 - (ii) Provide assistance to Eaton in one or more of the following manners as Eaton may request:
 - 1) Replace the products, or send people to sort or repair the products at Eaton's facility or its customer's facility.
 - 2) Assist Eaton in problem solving by providing qualified representatives to assist in the process.

Note: if Supplier fails to assist Eaton as provided above, Eaton may organize a sort or repair operation for which Supplier will be responsible for all expenses and damages.
- (d) Supplier is responsible for all costs or damages Eaton incurs if it changes a Product without authorization, including changes in processes or materials, without Eaton's prior written approval.

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13. **Traceability.** Supplier shall establish and maintain systems that provide for traceability of the product, including, but not limited to:

- (a) Single lots of products will be packaged and identified separately with a different lot number,
- (b) Placing the lot number on:
 - (i) The packing slip,
 - (ii) Each box and
 - (iii) Inspection results.

14. **Delivery Conditions (reference ISO/TS 16949:2002 cls. 7.4.3.2)**

- (a) Supplier shall select packaging (in accordance with Eaton specifications) as well as the logistic carrier so as to guarantee the quality of the delivered parts.
- (b) Each package's labeling must enable a rapid identification of the delivered material (corporate name, Eaton part number, lot number, quantity, date and revision, Eaton order number)
- (c) Supplier shall monitor On-Time Delivery. It is Eaton's expectation of 100% On-Time Delivery from Suppliers.

15. **Quality Level and Continuous Improvement. Supplier shall:**

- (a) Establish and maintain effective manufacturing practices and procedures to ensure a continuous flow of defect free parts to Eaton;
- (b) Establish and maintain a system to continuously improve the quality of its products;
- (c) Monitor its quality performance, on-line, through Eaton's WISPER system;

Note: Continuous Improvement Assessments may be done. Suppliers will be notified when one is required by appropriate Eaton personnel.

16. **Supplier Certification.** The Suppliers goal is to become an Eaton Certified Supplier. To obtain this certification the Supplier shall:

- (a) Be ISO/TS16949 certified;
- (b) Be in the top quartile on quality and delivery performance relative to suppliers' peers;
- (c) Attain the position of strategic supplier classification;
- (d) Pass a Manufacturing Quality Systems Assessment

17. **Heat Treat Process.** Reference ISO/TS 16949:2002 cls. 8.2.2.2. Supplier shall:

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- (a) Audit heat treat processes (their own or subcontractors) utilizing the AIAG CQI-9, 11 & 12 Special Process: Heat Treat System Assessment and maintain records of the audit. The audit shall be done annually and be available for review at Eaton's request.
18. **Procedure Effect.** This Procedure is an integral part of the Purchase Contract. This Procedure supersedes all prior quality Procedures and quality statements between Eaton and Supplier that relate to the items supplied under the Purchase Contract.
19. **Default.** If Supplier fails to meet its obligations under this Procedure, Eaton may take any action permitted in the Purchase Contract including, but not limited to, termination or cancellation of the Purchase Contract.