SMR Global Supplier Manual Appendix I –Mahindra and Mahindra Customer Specific Requirements for Suppliers

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SMR Global Supplier Manual
Appendix I

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SMR Global Supplier Manual - Additional Customer Specific Requirements

Scope of this document

The scope of this document is to ensure compliance to customer requirement by sub-suppliers of SMR Automotive who are supplying for any Mahindra and Mahindra project. This document is listing requirements for these suppliers in addition to standard IATF16949 requirements and in addition to standard SMR requirements.

Responsibility

Suppliers who are supplier for SMR of a component for a Mahindra and Mahindra product shall meet all requirements listed in this document during the whole project lifetime. This includes but not limited to:

- Regularly check for updates of this document on www.smr-automotive.com
- Ensure availability and awareness of related Mahindra and Mahindra standards and requirements mentioned in this document
- Ensure requirements are met in their supply chain

1. Product Safety

- Presence of all Critical characteristics in all allied documents and indication on allied work/process stations with mechanism of special check(Gauge/Instrument and pokayoke for attribute and 100% inspection for visual/variable)
- Availability and adherence of procedure to identify RC & countermeasure against even a single non-conformity(Record retention must be defined with customer)
- COR (Control Of Records) for Concern reporting, Counteraction cut-off date, Quarantined lots, CFT, Effectiveness monitoring etc.
- End to End Execution records for reworked/repaired/replaced parts with 100% inspection identification details
- Presence of part bar code and bin/box bar code, Must be readable & eligible(To operator) to throw the part details(Production date, time, shift, operator code, customer details)
- Operators must be with A skill identity cards having photo and details
- Skill upgradation plan and procedure must be in adherence with all allied records
- Mechanism for periodical recertification training and maintain records.
- Management review frequency must be clearly defined and documented with Prepared, Reviewed and Approved authorities

2. Organization Roles, Responsibilities and Authorities

- The Quality Organization, responsibilities and roles are clear (QA organization chart)
- In case of safety characteristics responsible people must be clearly identified.
- Responsibility chart with Yearly quality targets vs achievement are clear (Breakdown at each level)
  a) Top management reviews through MRM(Management Review Meeting) or FRM(Functional Review Meeting)
  b) Quality meeting is organized to check warranty claim reduction, new product development, new technologies & plant quality.
  c) Record retention for all processes must be settled and signed off with customer

3. Calibration

- Calibrations plans Vs actual charts/sheet must be in adherence
- System for checking Inspection equipment's by Masters and WCP (Wear out check plug gauge) with records..
- Method to validate the inspection equipment with record(at start of every shift/Production run)
- Person responsible for internal calibration must be certified by international standard ISO 17025.
- Check sheets with daily monitoring for all measuring instruments, gauge, machines, workstations, Process stations, can be captured in JSS (Job Setup Sheet)

4. Competence (On the Job Training)

- Method to identify the training needs
- Training stuff for individual functions (NC handling, Breakdown, Process knowledge, Process Instructions, Controls of process, Instrument handling, Escalation hierarchy etc.)
- Organization top view induction presentation including customers, scope, market contribution, product portfolio etc.)
- Awareness session for product application & failures
- Red bin monitoring and analysis
- Awareness on importance & contribution of identification and traceability
- Skill level evaluation included not only operations but also "unusual situations" and recovery after short planned and unplanned intervals
- Mechanism to review & monitor the effectiveness & adherence of trainings

5. Control Plan

- Supplier shall have a manual to make the control Plan.
- All PFMEA failures consideration while preparing CP
- Design characteristics(SC, CC) without omission must be indicated in CP
- Availability of CP for all the events of development (Prototype, Prelaunch, IFC and Production control plan).
- Control methods of product and process according to gravity (safety, OBD, function regulation) are defined in standard
- Controls must be certified & validated by QA
- Use QA matrix, QA network or QA B-chart as guide for Control methods
- Control plan must include all processes
- Judgement criteria of characteristics control value is set within tolerances of the parts drawings
- Latest Part drawing is coherent with control plan and process instructions.
- All critical/fitment dimensions must be present with controls
- Important process parameters are clearly specified.
- Linkage of PFD, PFMEA & CP

6. Identification and Traceability

- Identification & Traceability for Incoming parts (Part name, Part code, supplier name, supplier code, RM batch, DOM, DOD, Quantity etc.). Same details must be match with sub-suppliers records
- All locations & bins/boxes/pockets for semi-finished, finished, Sub assembled, Assembled, Issued, offered must be clearly defined with visual identification and direction signages
- Access authority list for FG must be displayed on FG area
- Presence of identification labels which denotes the receiving date & inspection date for finished goods.
- Identification should be legible and understandable to all concerned.
- Approved packaging standards must be displayed in respective areas/sections
- Packaging conditions/limitations/stacking limit must be defined and documented
- Handling & escalation process of abnormal situations must be defined and documented
- Authority matrix for decisions must be defined and documented

7. Control of Changes

- Awareness on importance and contribution of 4M to all levels
- Matrix with directions & guidelines for internal & external changes
- Record maintenance of 4M documents(Including all back up documents
- ECN & PCN Handling procedure must be in adherence
- Special checks/actions pre & post change with records
- Evidence of risk analysis should be documented
- Approval authority for 4M
- System of prior approval from smr.
- Feasibility approval from all related department.
- Revision & confirmation of all related documents(PFD, PFMEA, Control Plan, Process Instructions etc) to capture changes
- All PSW/PPAP (or equivalent) are maintained for all change requests entered in the process change list.

8. Control of Nonconforming Outputs

- Outputs that do not conform to their requirements are identified and controlled to prevent their unintended use or delivery Non-conforming products in manufacturing process are analyzed according to analysis procedure. Every time the problem is detected, the parts of non-conformity are collected.
- Make problem statements, counter measure, target, timing, responsible person and status of achievement.
- Non-conforming parts and suspected components are identified immediately marked and put in box and number of pats match with number of defects.
- Method in the process to prevent mixing non conformity parts.
- Procedure for controlling non-conforming product and responsibility and Definition of non-conformity is clear in work place.
- Non-conforming product is isolated and scrap frequency must be defined and documented
- Decide action for each problem at daily meeting with display of non-conforming parts and follow progress
- Records & traceability for segregation, Deviation(Internal & external), Rework, Quarantined parts

9. Application of Statistical Concepts

- Concept of process capability, Process capability index, Calculation of process capability index, Process capability judgement and measure, key points for process capability, Interpretation and Judgment of Data, Condition Setting with Allowance, Evaluation at the Production Preparation Stage
- Operator has good knowledge of purpose, how to use SPC sheet & control method.
- Process capability of characteristics in Control plan controlled with SPC sheet.
- Automatic alert, reaction required, counter measure recorded.
- Control Charts - Concept of Control Chart, Control Chart, Types and Choices of Control Charts, Representative Control Charts, Reading of Control Charts

10. Component Supply Chain Chart (CSCC)

- The Component Supply Chain Chart (CSCC) is a chart which visualizes the structure of the component supply chain to reinforce the sub supplier management.
- Minimum Content Requirement(s):
- The CSCC shall cover all tiers of the supply chain down to raw material level (including grease, sealant, solder, etc.).
- The document shall include details of the supplier names, plant locations, development experience and responsibility.
- Special Characteristics shall be identified at each tier using the appropriate symbols (Refer to the “4.5 Special Characteristics Management”)
- Key Features (as required) should be identified at each tier.

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History of Revision

No.	Cause of modification	Date	Modifier	Approved
1	First issue	16.10.2017	Judith Robertson	Steffen Dehner
2	Update Logo	24.08.2020	Maria Reyes	Judith Robertson
3				
4				
5				