APQP Internal Assessment Checklist

Customer: Audit Type: APQP Internal Assessment APQP Phase / Support Process: **Process Design and Development Phase** Checklist: Page 1 of 3	Audit Date: Auditor: Project / Platform: Department: Area:
Author: Quality-One	Date Created:

Requirements:	Finding:
1. Are system and/or component level Project Teams formed? **Deliverables may include: Team roles and responsibilities, organizational charts, etc.**	
2. Is adequate training or skill available to team members for this phase? **Deliverables may include: skill assessments, training plans.** **Skills and Training may include: Product Development Systems, Reliability, Assembly Variation Analysis, Block Diagrams, Quality Function Deployment (QFD), Benchmarking, Design of Experiments (DOE), Failure Mode Analysis (FMA), Pugh Concept, Design for Manufacturing and Assembly (DFMA), Flow Charting, Design Verification Planning and Reporting, Serviceability, Supplier Feasibility Assessment, Error /Mistake Proofing, Design Failure Mode and Effects Analysis (DFMEA), Process Failure Mode Effects Analysis (PFMEA) Finite Element Analysis (FEA), Geometric Dimensioning and Tolerancing (GD&T), Statistical Process Control (SPC), Process Capability Analysis, Process Mapping, Fault Tree Analysis (FTA), Control Plans, Measurement Systems Analysis (GR&R), Reliability and Maintainability (R&M), Total Productive Maintenance (TPM), etc.**	
3. Have Process FMEA's been updated from Design phase activities? Have Key Process Characteristics been finalized? Are Actions followed up and are Process FMEA's updated to reflect actions taken?	
4. Have Mistake Proofing requirements been updated for high-risk operations?	
5. Are Supplier Product Development Plans and supporting documentation available and reviewed?	
6. Are Special Characteristic Matrixes utilized? Do they identify Special Characteristic to Manufacturing Process operation relationships?	
7. Are Pre-Launch Control Plans utilized and do they include: o Specific additional actions / reactions which must occur to assure error-free output? o Linkage to key Design and Process FMEA's and Process Flow charts? o Statistical evaluation of the process o Reaction plans if problems are encountered in builds? o Quality Assurance vs. Quality Control Methodology?	

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Requirements:	Finding:
8. Are Product Level Predictive Indicators established? **Deliverable may include: First Time Capability (FTC) vs Product Quality Assessments, FTC vs Warranty, etc.**	
9. Have Tooling, Equipment, Gage, Fixture, and Test Equipment requirements been finalized to include: o Comparison to key process characteristics? o Comparison to Control Plan to identify any new requirements?	
10. Have Process Capability Estimates been finalized for each process characteristic? Are reaction plan developed for each characteristic that does not meet capability targets?	
11. Are Component Packaging and Shipping Design and Test Plans available which include: o Packaging and shipping instruction? o Shipping and Part identification label? o Lab and Shipping Test requirements for expendable packaging and/or returnable containers? o Returnable container management program?	
12. Have Operator Process Instructions been finalized and do they reflect FMEA's, Control Plan(s), Engineering requirements, Process Flow Chart, Floor Plan Layout, Characteristic Matrix, etc.?	
13. Is Operator Training performed and are training plans available?	
14. Are Pilot Builds conducted that include: o Components from Hard Tooled processes? o Reviews that Components meet design intent for Process Capability?	
15. Is System and/or Component Production Validation Testing conducted that include: o Test results that include descriptive statistics, capability statistics, etc.? o Identification of any test Failures on Design and Process FMEA's?	
16. Are Supplier Process Sign-off's performed and include: o A procedure for Process Sign-off's?	

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Requirements:	Finding:
○ A systematic and sequential review of the manufacturing process at quoted peak daily line rate, including manpower, facilities, equipment, material, methods, procedures, etc.?	
17. Are Potential Process Failure Modes identified with the use of Process FMEA's at the product level, system, and component level designs? Are high-risk failure modes identified by station and are lists available?	
18. Are Measurement Systems Analysis plans developed and do they include: ○ The responsibility for gage linearity, accuracy, repeatability, reproducibility? ○ Correlation for duplicate gages? ○ Inclusion of measuring devices on Manufacturing calibration systems?	

Auditor Additional Notes: