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| Instruction:  **QP-106** | Pages: **3** |
| Printed: | Released: 6/9/2020  Rev. Num: 6 |
| Authorized By: **Chief Engineer** | |

**ADVANCED PRODUCT QUALITY PLANNING**

1. Purpose and Scope

**PURPOSE**

To identify the expectations and processes for product quality planning throughout the product life cycle.

**SCOPE**

This procedure applies to all new product projects undertaken by E.C. Styberg Engineering Co. Plant management may designate existing parts for application of this procedure.

1. Definitions

**Control Plans:** Written descriptions of the systems for controlling parts and processes that address important characteristics and engineering requirements. Each part must have a control plan that may also apply to a family or parts produced with a common process.

1. Process Owners

**Chief Engineer**

**Process Designee: Project Engineer**

**APQP Team**

**SPC Coordinator**

**4. PROCEDURES**

**4.1 Chief Engineer**

**Launches Product Development**

Upon receipt of customer purchase order, the Chief Engineer appoints a Project Engineer to lead the APQP Team and launch the development process.

**Conducting of Final Review and Signoff**

The Chief Engineer holds a final review of APQP outputs and ensures appropriate Quality Planning Signoff.

**4.2 Project Engineer**

**Develops Project Plan**

With assistance from the SPC Coordinator, develops a Project Plan outlining all required steps from the APQP/CP process. The status of these steps shall be noted on the “Engineering Checklist for New Jobs” and updated as the project progresses. The Project Engineer may waive individual steps of the APQP Process after gaining approval from the Chief Engineer or the Engineering Manager.

**Monitoring Key Outputs**

The project Engineer monitors completion of key APQP outputs according to the Project Plan:

*(Responsible Individual within the APQP Team is in parentheses)*

a. Tooling (Project Engineer)

b. Measurement System Evaluation (SPC Coordinator)

c. Production Trial Run (Project Engineer)

d. Production Control Plan (SPC Coordinator)

e. Preliminary Process Capability Study (SPC Coordinator)

f. Production Validation Testing if Required (Customer Responsible)

g. Production Part Approval (PPAP) Package Development (Shipping Supervisor)

h. Packaging Evaluation (ATI – Shipping Supervisor)

**4.3 APQP Team**

**Implements Project Plan**

The APQP Team conducts the planned steps of the Advanced Product Quality Planning Process. The SPC Coordinator and Project Engineer are responsible for establishing both the start and end dates of all plan activities. When required by the customer, the PPAP completion date is confirmed and faxed to the appropriate person. The Chief Engineering will keep record of each step of the process as it progresses.

**Identification of Unresolved Issues**

The APQP Team identifies open issues and concerns from APQP and develops counter measures and resolutions. FMEAs with a Risk Priority Number (RPN) below 30 or over 100 will be reviewed, re-evaluated and resolved.

**4.5 SPC Coordinator**

**Process Control Plan Audits**

Control plan audits will be performed periodically by our customer. To accomplish this, they will meet with the SPC Coordinator, who has access to the program in Waypoint to create control plans.

**5 REFERENCES**

**5.1 Related Procedure**

Contract Review QP-107

Production Process Development and Qualification QP-118

Statistical Methods QP-137

**5.2 Reference Documents**

Advanced Product Quality and Control Plan Reference Manual – 2nd Edition 2008

Failure Mode and Effects Analysis FMEA – Handbook – AIAG / VDA 1st Edition 2019

Production Part Approval Process (PPAP) – 4th Edition 2006

Statistical Process Control (SPC) – 2nd Edition 2005

**6. Records**

Control Plan CP Retain life of job +1 yr. or per customer requirements

Engineering Checklist for New Jobs ENG-014 Retain life of job +1 yr. or per customer requirements

FMEA FMEA Retain life of job +1 yr. or per customer requirements

Process Flow Diagram PFD Retain life of job +1 yr. or per customer requirements

APQP Summary & Signoff Sheet APQP Retain life of job +1 yr. or per customer requirements

Team Feasibility Sheet TFS Retain life of job +1 yr. or per customer requirements

**7. Policy References**

Quality System

Contract Review

**8. Revisions**

**Previous revision(s) to this current issue can be obtained from Quality Systems Coordinator. All previous revisions are in Waypoint/Powerway Program.**

Rev. 6: updated Sec. 4.4.3 (RPN) “below 30 or over 100” also Sec. 5.5.2 “Handbook – AIAG / VDA 1st Edition 2019”. (Initiator: Rodney Sigman 5/28/2020)