

Date: November 14, 2018

From: Jim Razzante  
Supplier Development Engineer – PPAP

Subject: Eaton Aerospace Supplier Production Part Approval Process (PPAP)

Dear Eaton Aerospace Supplier,

In alignment with the “risk-based thinking” heavily outlined in AS9100D, Eaton Aerospace will be revamping efforts to integrate Production Part Approval Process (PPAP) across the Eaton Aerospace Supply Base. PPAP serves as a tool to help prevent Supplier Quality and Delivery issues. While there have been efforts in the past to request a Supplier complete either APQP or PPAP, the new process will focus on PPAP as being the deliverable from the Supplier. There will be added clarity for identifying both when to flow down PPAP requirements, as well as specific PPAP expectations.

Other industries have adopted and deployed APQP and PPAP through the use of the Automotive Industry Action Group (AIAG) standards. However, there is a specific Aerospace Standard that will be the basis of Eaton Aerospace’s process. This standard is AS9145 Aerospace Series – Requirements for Advanced Product Quality Planning and Production Part Approval Process. AS9145 closely follows the AIAG standards, but to tie our process back to Aerospace-specific documents, we will focus on AS9145 and related Aerospace Standards (referenced below).

The specific PPAP elements Eaton will focus on requesting from a Supplier going forward are:

- Design Failure Modes and Effects Analysis (DFMEA) – For suppliers with design authority
- Process Flow Chart
- Process Failure Modes and Effects Analysis (PFMEA)
- Measurement Systems Analysis (MSA) and Capability Study for Key Characteristics identified on the drawing
- Control Plan
- AS9102 First Article Inspection Report (FAIR)
- Part Submission Warrant (PSW)

The above mentioned PPAP elements must be submitted in accordance with the following Aerospace Standards:

- AS9145 Aerospace Series – Requirements for Advanced Product Quality Planning and Production Part Approval Process
- AS9102 Aerospace First Article Requirement
- AS9103 Aerospace Series – Quality Management Systems – Variation Management of Key Characteristics
- AS13003 Measurement Systems Analysis Requirements for the Aero Engine Supply Chain
- AS13004 Process Failure Mode and Effects Analysis (PFMEA) and Control Plans

If the Supplier does not have templates that align to the above standards, the Eaton Aerospace Supplier PPAP Workbook may be used. The Workbook incorporates the AS9145 requirements, and has PPAP element templates along with a Checklist designed to review the compliance of each element. Regardless of which templates are used, the Checklist should be referenced to ensure compliance. The Workbook can be found here: <http://www.eaton.com/us/en-us/company/selling-to-eaton/supplier-excellence/aerospace.html>.

Initial PPAP submission shall be at least four weeks ahead of the Production Part due date to allow for time for review and revisions, unless otherwise specified. Upon completion of the PPAP, the Supplier

shall submit the document(s) via the Eaton FTP, and send an email confirmation to [AeroPPAPCoE@eaton.com](mailto:AeroPPAPCoE@eaton.com) . Instructions for uploading documents into the Eaton FTP can be found here: <http://www.eaton.com/us/en-us/company/selling-to-eaton/supplier-excellence/aerospace.html> .

**When will Eaton Suppliers start seeing PPAP requirements being flowed down?**

As far as the timing for the implementation of this newly revamped PPAP process, some Suppliers have already been involved in pilot efforts. There are other programs within Eaton Aerospace that are already flowing down PPAP requirements, and more are set to be identified through the remainder of 2018. There will be an update to the Eaton Supplier Excellence Manual in April 2019 to better outline Aerospace Supplier PPAP requirements.

**How will PPAP requirements be flowed down?**

In most instances, PPAP requirements will be identified by the time Suppliers are quoting parts or programs. PPAP requirements may also be identified as part of Root Cause Corrective Action (RCCA) responses due to Quality escapes.

Outside of these instances, Eaton Aerospace Supply Chain Management team members shall clearly document any additional PPAP requirements on Purchase Orders.

Thank you,

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