











Curtiss-Wright Defense Solutions

SUPPLIER QUALITY COMMUNIQUE

Root Cause and Corrective Action with Containment

Thread Quality

Subject Supplier Containment First Off Discipline/verification and Performance:

As a valued partner and supplier to Curtiss-Wright we have adopted annual supplier bulletin process to ensure suppliers are kept informed in advance of quality and supply chain focus areas, changes to our supplier quality clauses and terms and conditions.

Our Procurement and quality teams at Curtiss-Wright work in partnership to inform our supply and services base whenever we observe trending quality issues that may impact Curtiss-Wright and our customers and to engage with suppliers on issues related to the evolution of Quality Management Standards.

As CWDS strives to provide class leading mission and safety critical parts, process and systems to our customers our supply chain shall strive to prevent defective escapes to Curtiss Wright. Some suppliers have recently failed to properly verify the adherence to drawing and quality requirements at the first off opportunity and also failed to contain defective materials after discovery internal to their operations. This lead to corrections to process to eliminate a defective material occurrence and did not properly contain the defect or inform customers. The root cause analysis must immediately focus on a containment process such as D2 in the 8D structure.

Investigations right after problem statement shall focus on containment efforts to protect the customer or down-stream suppliers:

- 1. Systemic Containment-actions are critical to understand where prevention of additional escapes shall occur.
 - Stop work/WIP/finished goods inspection.
 - Stop Shipments/builds at your site or sub tier supplier
 - Tighten and document inspection instructions in systems and or ERP.
- 2. Immediate correction:
 - Parts in containment inspected and deemed compliant or rejected prior to ship.
 - Recall notices or warning to affected customers or suppliers.
- 3. Systemic Containment: (reach across boundaries) are other customers, programs impacted?
 - Where used searches
 - Review like or similar products/process
 - Communicate to customers or supplier affected.

Thread and Fastener Inspection

This year we have experienced several serious rejections related to nut, bolt and screw fastener dimensional quality. We have rejected routinely fastener quality related to undersized and over-sized fasteners. Listed below are some good technical advice relating to the use of GO NO-GO gauges and how minor and major diameters need to be inspected as well. Thread strength is critical and this paper describes good process for inspection. Coupled with the drawing references by Curtiss Wright (MIL SPEC and Other Tech Specifications clearly call out the measurement methods required.

http://greensladeandcompany.com/wp-content/themes/greenslade-theme/pdf/articles/threads/Threads%20-%20Thread%20gages%20are%20not%20enough%20inspection.pdf

You play a critical and valued role to ensure we achieve Zero Defect Quality. After all Zero Defects and 100% on time performance are required. Let's work collaboratively towards these objectives

If you have questions regarding this Supplier Communique, please contact your CWDS buyer and or the officers noted below. Our suppliers are critical to our success. Openly communicating expectations and working together to meet expectations is pivotal to our ongoing relationships.

Larry Mchenry Sr. Manager Quality Assurance (Canada/US)

larry.mchenry@curtisswright.com 613-254-5188

Chris Ingley Sr. Manager Quality Assurance (UK)

Chris.ingley@curtisswright.com

Ron Leblanc Procurement Manager (Canada/US)

Ron.leblanc@curtisswright.com 613-254-5182

Mike Gauthier Supply Chain Manager (Canada US-Global)

Mike.gauthier@curtisswright.com 613-254-5278