Element 5.27 Make and Buy	Statisti cal Process Control

Element Owner:
Quality Engineer, Manufacturing Engineer

Element Definition
Monitoring the production processes, with special attention given to Key Characteristics (KCs), should be conducted as an ongoing process to improve customer satisfaction and reduce cost thru variation reduction. Data analysis using statistical techniques (Cp and CpK) is the preferred method for identifying variation reduction opportunities. Appropriate actions should be implemented where improvement opportunities are identified. Statistical Process Control (SPC) is typically required for Key Characteristics and should be identified in the Control Plan.
It may be necessary to present planned improvement actions to the customer prior to implementation.
Product and process documentation (i.e. Process Flow Chart, PFMEA, Control Plan, etc.) should be updated as appropriate with the implementation of any improvement.

Deliverables:
On-going data analysis and planned improvement actions to reduce variation of the processes.

Necessary Inputs:	Source of Inputs:
Data from the Ongoing Production Runs	Quality Engineer, Manufacturing Engineer
Control Plan	Quality Engineer

Resources:
Quality Engineer, Manufacturing Engineer, Production Engineer, Design Engineer, Operators

Methodology:
1. Process Flowchart, Element, is used to identify production process outputs and inputs
2. Measure outputs to determine if they are in alignment with desired state and overall variability requirements
3. Determine the critical inputs for those outputs where variation reduction is desired
4. Analyze input parameters to determine impact on desired output
5. Establish action plan
6. Validate improvement (reduced variation)
7. Update and issue Standard Work and limits

Reference document
None