
FMU-139 operators make heavy and effective employment of SPC throughout their processes. In addition to the four manufacturing engineering personnel, who are constantly on the factory floor, working with and listening to operators recommendations, certain select individuals are trained and used as SPC technicians. "POKA-YOKE" or mistake proofing from Shiegeo Shingo's "Zero Quality Control: Source Inspection and the POKA-YOKE System" has been locally applied to operators processes with great success.

This pre-control system employs very tight and fast quality checks based on process operating characterization. Thresholds, still within acceptable limits are established. When process performance meets or goes beyond the safe limits, a warning flag is activated. When the actual unacceptable limit is exceeded, the process shuts down.

Focused Factory - Statistical Process Control

A model Statistical Process Control (SPC) program has been implemented throughout Motorola GEG. The program, known as Six Sigma, has provided the capability to continuously analyze and control the performance of their manufacturing. The intended results of the program are being realized on a daily basis through a significant reduction in defects along with lower rework and scrap rates.

SPC is being successfully implemented throughout manufacturing with a team effort by both management and manufacturing personnel. This coordinated effort has produced some significant results from the standpoint of SPC by placing more responsibility for the monitoring and controlling of various process charts with those personnel who operate the process. Along with this is the SPC Process Technician Program, where a select group of manufacturing personnel trained in the use of SPC are assigned to implement and monitor the program in their respective areas.

GEG has aggressively moved one step beyond their own facility and implemented a voluntary vendor SPC program. Those vendors who agree to participate in the program must be willing to maintain an acceptable level of critical process controls within their own manufacturing facilities.

GEG has developed and implemented an exemplary training program, once again using the team approach stating that everyone from management to the operators will receive varying degrees of SPC training. Numerous programs and support areas have already received training in the SPC basics. Training is being reinforced through the implementation of various plans and control charts, constructed in a class room environment, along with identifying problem areas and new processes.

The development of new processes is being accomplished through an in depth four phase progression system. From defining the process to performing extensive process capability analysis, parameter optimization, and process control all of which enabled Motorola GEG to characterize their manufacturing processes.