

SPC Can Save Your APC

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It is not just a good idea, it's a Law: Left to itself, the entropy of any system can never decrease. Two approaches that attempt to tame the Second Law of Thermodynamics are Statistical Process Control and Advanced Process Control. Both approaches have a long and distinguished history of achievement. For many years, enlightened control practitioners have realized that the most efficient control with the least cost is obtained through the complementary use and coordination of both these methods.

Unfortunately, this is easier said than done due to many factors that include timing, system capability and maturity, and myths about both approaches. As semiconductor manufacturers hurriedly pursue its promised benefits of variation and intervention reduction, many painfully discover that APC is not a panacea. A suboptimal implementation of APC can hide, cause, or exacerbate many process issues. Monitoring the APC system performance could partition special cause variation and detect these issues before quality, customer service, and profits are compromised.

This presentation will briefly discuss some strengths and myths of APC, detail some possible issues resulting from a suboptimal APC implementation, and offer some approaches for detecting these issues by focusing Statistical Process Control on the APC system itself.