Root Cause Analysis (RCA)

What is it?
A root cause is the basic physical phenomena that results in a product/process “failure”. Root cause analysis (RCA) is a systematic approach for identifying and eliminating a root cause. A failure “symptom” will reoccur if its root cause is not eliminated, even if that “obvious” symptom looks like it was corrected. Reliability growth can occur only if root failure causes are identified and removed.

What’s the payoff?
A formal RCA process promotes reliability growth in products and processes. Up-front investment in strategic performance of RCA can result in significant savings in total life cycle cost. It can also promote a “lessons-learned” process for understanding failure relationships, causes, effects and solutions.

How can we help?
- Perform analyses to determine when RCA should be cost-effectively performed and quantify the long-term cost savings that result.
- Perform or participate in RCA to determine the true root cause of failure, as opposed to a failure symptom
- Identify a candidate corrective action (or actions) to ensure that a root failure cause (and not just a symptom) has been eliminated or suitably mitigated
- Collect and analyze data to verify that a corrective action has successfully resolved a root failure cause
- Define and implement a closed-loop reporting system/database that includes RCA and corrective action results