

### **Types of Audits:**

The Engineered Systems Group (ESG) is prepared to assist with the most rigorous of safety and hazard, reliability, SIL, refurbishment, energy and efficiency, and assessments.

AMCS Corporation is committed to ESG' active participation in the ASTM G-4 Committee, NFPA, AIChE, and CGA in the areas of safety. Coupled with a rock solid grounding in AIChE HAZOP procedures and combined with the experiential and historical base of all AMCS and ESD experts, we are uniquely qualified to prepare comprehensive and fact based analysis of events, remediations, installation of equipment, and establishment of procedures.

### **Techniques:**

Today, various standards and requirements in the industrial and medical products sector require companies to apply scientific Risk Assessment and Reliability techniques to not just their products, but also their manufacturing processes. Scientific and technically sound risk assessments form the basis of all risk mitigation activities required to be documented by these standards organizations. The basic activities in risk assessments are a four part process: identify the hazards and their causes, determine the consequence of the hazards, calculate their probability of their occurrence and determine mitigations for unacceptable risks. While various risk assessment & reliability techniques seem similar, only with experience can you avoid using incorrect techniques in the wrong application or getting bogged down in meetings that do not provide practical solutions to identified risks.

At AMCS, our vast experience in the practical application of various types of risk assessment and reliability techniques ensures you will expend the minimum time and cost while achieving the maximum benefit from your risk assessment activities. AMCS offers services in conducting risk assessment studies, facilitation of in-house risk assessment teams, employee training and risk assessment documentation systems using the following process and product techniques:

- HACCP (Hazardous Assessment of Critical Control Points)
- FMEA (Failure Mode Effects Analysis)
- Fault Tree Analysis
- PSM (Process Safety Management)
- HAZOP (Hazardous Assessment of Operations)
- RAM (Reliability, Availability and Maintainability)

### **A Solution Example**

A major pharmaceutical manufacturing client required their national prescription and schedule II distribution facilities, operating and computerized systems to be retrospectively assessed for potential latent Failure Modes and Critical Control Points. The result was so successful that the client engaged AMCS to perform risk assessments and Critical Control Point determinations prospectively for a newly approved drug product for distribution.