# Failure Modes and Effects Analysis (FMEA)



# **Global OpEx Solutions**

## **DEDICATED WORKSHOP**

Identifying potential failure modes and managing risk is much more effective and considerably less expensive if done proactively. Regrettably, most organizations are very reactive in dealing with failure modes resulting in accidents, defects, and excess costs.

Failure Modes and Effects Analysis (FMEA) is one of the most effective risk management tools used to avoid or reduce risks in important business processes. Two typical uses are product and process design. It can also be employed for equipment, logistics, safety, and many other products and processes to proactively identify and manage risks. FMEA workshops are particularly useful where organizations have far reaching implications of failures. OSI consultants are subject-matter experts in training and facilitating FMEA.

#### Consequences of Risk

- Expensive & reactive means of risk management
- Breakdowns, shortages, instability & chaos
- Poor quality & on-time delivery
- High inventory & underutilized capacity
- Costs from expediting, overtime & penalties
- Limits commitments & pad schedules
- Purchasing supply from competitors
- Loss of sales & market share
- ♦ Loss of intellectual property
- Accidents, injuries & ergonomic issues

## Workshop Code: FMEA—RIW—V01

#### FMEA Target Areas

- Hospitals, clinics & laboratories
  - Operating rooms
  - Emergency care
  - Patient care & room management
  - Prescription accuracy
- Manufacturing, assembly & process industry
  - Product design
  - Assembly processes & operations
  - Machining processes & operations
  - Fabrication
  - Continuous & batch processes
- Equipment
  - Developing specifications
  - Pre-service risk assessment & management
- ♦ Logistics
  - Dock-to-dock assessment
  - Milk runs
- ♦ Business processes
  - Order-to-ship assessment
  - Deliver-to-payment assessment
- Safety, ergonomics & facilities
  - Integration with other FMEAs
  - Safety processes & systems
  - Initial & periodic process hazard reviews
  - Problem Solving & Root Cause Analysis

#### **FMEA Facilitators**



John P. Gay, Master Black Belt, Principal Consultant — OpEx Solutions, has been Supervising Master Black Belt and Global Best Practices Leader for Focused Improvement for DuPont, delivering over \$1M per person every year in hard, validated savings in addition to \$2M + in soft savings until his retirement. He also led 14 engineers and chemists as Technical Superintendent for the LaPorte, Texas Dupont plant, ensuring compliance with new environmental permit standards including effluent water quality. John is an APICS Certified Supply Chain Professional and a SCORE (Supply Chain Council) Professional.

**Ken McClymonds PE, Principal Consultant — OpEx Solutions,** is a registered Professional Industrial Engineer and Six Sigma Master Black Belt with over 40 years of professional experience and 19 years at VP level, leading process improvement systems resulting in significant and sustainable bottom line results. Ken is a Senior Member of IIE, and a director of the Institute for High Performance Planning.



**Payment & Cancellation Policy:** A 50% advance payment is due at the time of scheduling. The balance and expenses will be invoiced after the event. For cancellation up to seven days prior to the event date, the advance will be refunded less 10%.

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