

# **ISA-18.2 Alarm Management (IC-39)**

## **2-Day program**

### **Day-1**

- Introduction
- Terms, definitions, and acronyms
- Alarm system models (Alarm systems, Alarm management lifecycle, Alarm states, Alarm response timeline, Feedback model of operator – process interaction)
- Alarm philosophy (Purpose, Alarm philosophy contents, Alarm philosophy development and maintenance)
- Alarm system requirements specification (Purpose, Recommendations, Development, Systems evaluation, Packaged systems, Customization, Alarm system requirements testing)
- Identification (Purpose, Alarm identification methods, Identification training, Identification documentation)
- Rationalization (Purpose, Rationalization documentation, Alarm justification, Alarm setpoint determination, Prioritization, , Classification, Review, Removal of rejected alarms)
- Detailed design: basic alarm design (Purpose, Basic alarm design capabilities, Usage of alarm states, Alarm types, Alarm attributes, Programmatic changes to alarm attributes, Review basic alarm design)
- Detailed design: human-machine interface design for alarm systems (Purpose, HMI functions, Alarm states indications, Alarm priority indications, Alarm message indications, Alarm displays, Alarm shelving, Out-of-service alarms, Alarms suppressed by design, Alarm annunciator integration, Safety alarm HMI)

### **Day-2**

- Detailed design: enhanced and advanced alarm methods (Purpose, Basis of enhanced and advanced alarming, Information linking, Logic-based alarming, Model-based alarming, Additional alarming considerations, Training, testing, and auditing systems, Alarm attribute enforcement)
- Implementation (Purpose, Implementation planning, Implementation training, Implementation testing and validation, Implementation documentation)
- Operation (Purpose, Alarm response procedures, Alarm shelving, Refresher training for operators)
- Maintenance (Purpose, Periodic alarm testing, Out-of-service alarms, Equipment repair, Equipment replacement, Refresher training for maintenance)
- Monitoring and assessment (Purpose, Performance monitoring, Monitoring and assessment, Alarm system performance metrics, Unauthorized alarm suppression, Alarm attribute monitoring, Reporting of alarm system analyses, Alarm performance metric summary)
- Management of change (Purpose, Changes subject to management of change, Change documentation requirements, Alarm removal recommendations, Alarm attribute modification recommendations)
- Audit (Purpose, Benchmark, Audit interviews, Audit recommendations, Action plans)