



Alarm Management Best Practices
Training Course



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Introduction to Effective Alarm Management Practices

The ease at which Distributed Control Systems DCS alarms can be created has removed the incentive to limit the number of such alarms. The result is that operators today face more alarms than they can effectively monitor. An Alarm Management System AMS should, therefore, identify unnecessary alarms, those set at the wrong value, and improve the systems and procedures.

Management and ownership of alarm systems, with no agreed alarms policy, inevitably lead to a situation where alarms are incorrectly set, giving large numbers of irrelevant alarms that the operator, frustrated, begins to ignore or may obscure more critical alarms. Rationalization and de-manning control rooms without an awareness of human factors further increase potential risks. In this 'non-technically' based seminar, you will learn how to build a robust alarm management strategy and effectively utilize alarm management tools.

Additional Module on Alarm Management Training and Certification

As part of the commitment to cultivating an effective alarm management strategy and ensuring safety, we offer alarm system training focused on alarm management and patient safety strategies, complete with an alarm system certificate for those who complete the module successfully.

This alarm management best practices and strategy course provides additional modules and comprehensive training to prepare operators and technicians for various alarm scenarios, ensuring they are well-equipped to manage and respond effectively.

Participants in the alarm management best practices and strategy course complement the comprehensive training and underscore the importance of having skilled personnel in managing complex alarm systems within industrial settings.

Targeted Groups

- Automation, Chemical, and Process Engineers.
- Installation and Maintenance Technicians.
- Instrumentation and Control Engineers.
- Process Operators.
- Production and Project Managers.
- This alarm management best practices and strategy course is for Professionals who want a better understanding of alarm management in process control.

Course Objectives

At the end of this alarm management best practices and strategy course, the participants will be able to:

- Apply concepts and procedures for improving alarm management.
- Assess the performance of your system with a range of improvement techniques, such as mercury alarm systems.
- Improve and apply alarm management best practices.
- Evaluate their current operator readiness, state of training, and ability.
- Consider the opportunities for increased plant performance and safety.
- Understand the number of ways of measuring the performance of an alarm system and its users.
- Understand the costs of poor alarm performance or not implementing effective alarm management practices.

Targeted Competencies

The target competencies in this alarm management best practices and strategy course will be able to:

- Understand the collection of techniques, tools, standards, and procedures that will improve operations and the overall effectiveness of alarm management.
- Business case tools.
- Best practice alarm management strategies.
- Alarm management performance.
- Ensuring that emergency response systems are in place so if/when the system does fail, the response can be efficient and effective.

Course Content

Unit 1: Introduction, Aims, Objectives, and Key Issues

- Guidance document EEMUA 191.
- What does basic alarm management philosophy include?
- 5 justifications for alarm management.
- Alarm management: all plants need it!
- Project plan outline - not a one-off project!
- Benchmark and assessment.
- Alarm management philosophy.
- Alarm analysis/rationalization.
- Implementation and execution.
- Continuous improvement.
- Functional definitions of systems.

Unit 2: Principles of an Alarm Management Program

- Managing an improvement program - who should be involved?
- Personal and team targets.
- Alarm proliferation.
- Alarm review and control of modifications.
- Increased hazards, use of alarms, control, and protection.
- Significant commercial hazards will involve risks to people and the environment.
- Strategy and culture of improvement.
- Learn about operator involvement and 'no-blame' reporting.
- Integrate alarm management to boost plant production.

Unit 3: Measuring Performance Along With Human Factors

- Alarms need people.
- Human factor issues.
- Understand human factors - International Standard IEC61508.
- Operator questionnaires, improving operator procedures.
- Deal with unwanted alarms.
- Logical processing of alarms.
- Case histories - Some examples of loss.
- Learn about potential conflicts between various business needs.

Unit 4: Legislation and Self-Evaluation

- Operator interface. "Are there problems with your existing alarm system"? Take some measurements to find out.
- How many alarms are there?
- Are you overwhelmed by alarm 'floods'?
- Manage the responsibilities of the legislation.
- Physical assessment trees.
- Learn from sample business case studies.
- Is your organization prepared? Self-evaluating activities and questionnaires.
- The alerting process communications and warnings.
- Equip and identify emergency operations/communications centers.
- Stress levels of control room operators and emergency responders.

Unit 5: Should the System Catastrophically Fail and a Major Incident Follow

- Departmental roles and responsibilities.
- Understand the role of first responders in the emergency response teams.
- Learn about the role of the incident's on-scene commander.
- Shelter or evacuation.
- Design drills.