

BEST PRACTICE PROCESS SAFETY MANAGEMENT FRAMEWORK (ENERGY INSTITUTE)

“Embedding a Risk-Based Culture to Prevent Major Accidents and Achieve Operational Integrity”

Schedule

Date	Venue	Fees (Online)
08 – 12 Mar 2026	Online	USD 1500 per delegate

Introduction

Major accidents in high-hazard industries such as oil, gas, petrochemicals, and energy have demonstrated the critical importance of effective Process Safety Management (PSM). The Energy Institute's Best Practice Framework provides a structured and internationally recognized approach to managing process safety risk.

This five-day online training program delivers a deep dive into the Energy Institute's PSM framework and helps participants build competence in implementing the 20 key elements required to systematically manage safety risks. It includes real-world examples, tools, and interactive discussions to foster a culture of risk awareness and operational discipline.

Objectives

By the end of this course, participants will be able to:

- Understand the 20 elements of the Energy Institute PSM Framework.
- Design and apply a practical PSM system in high-risk environments.
- Evaluate and improve organizational barriers to process incidents.
- Identify major accident hazards (MAHs) and critical risk controls.
- Conduct audits and maturity assessments using industry best practices.
- Strengthen leadership engagement and workforce involvement in PSM.

Why Attend

- Gain technical and operational insight into international process safety standards.
- Learn to reduce catastrophic risks through structured safety management.
- Understand how to build PSM into daily operations and long-term strategies.
- Enhance organizational readiness for audits, incidents, and emergencies.
- Support leadership in establishing a proactive process safety culture.

Target Audience

- Gain technical and operational insight into international process safety standards.
- Learn to reduce catastrophic risks through structured safety management.
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Individual Benefits

Key competencies that will be developed include:

- Systematic PSM framework design and application
- Leadership of hazard identification and risk reduction programs
- KPI and indicator tracking for safety performance
- Alignment with Energy Institute, OSHA, and CCPS guidance
- Safety culture enhancement and communication

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved major accident risk control
- Stronger compliance with global safety expectations
- Enhanced cross-functional coordination of safety systems
- Reduced potential for process-related losses and incidents
- Continuous improvement in operational risk governance

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Live Online Lectures – Delivered via Zoom or Microsoft Teams
- Digital Case Studies – EI framework application in global sites
- Exercises – Maturity assessment, barrier modeling, safety metrics
- Group Discussion – Benchmarking and sharing industry experience
- Tools – Element implementation guides and gap checklists
- Session Recording – Provided post-session for review and reinforcement

MAWA EVENTS

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Course Outline

Detailed 4-Day Course Outline

Delivery Format: Online (Live) | Platform: Zoom, WebEx or Microsoft Teams

Day 1: Introduction to Process Safety and the EI Framework

• Module 1: Foundations of Process Safety

- Why process safety?
- The difference between occupational and process safety
- History and drivers of PSM evolution

• Module 2: Overview of the Energy Institute Framework

- Structure of the 20 elements
- Governance and risk management integration
- Regulatory alignment and benchmarking

• Module 3: Leadership & Culture in Process Safety

- Management commitment and workforce engagement
- Safety culture maturity models
- Roles and responsibilities

Day 2: Risk Identification and Control

• Module 4: Process Hazard Identification

- HAZID, HAZOP, bow-tie and barrier analysis
- Defining major accident hazards (MAHs)

• Module 5: Risk Assessment and Control Measures

- Inherent safety principles
- Layers of protection and critical safeguards
- LOPA and SIFs (safety instrumented functions)

• Module 6: Change Management and Emergency Preparedness

- MoC systems and critical review steps
- Emergency response and scenario planning
- Drills, learnings, and response gaps

Day 3: Systems and Assurance

• Module 7: Asset Integrity and Operating Procedures

- Mechanical integrity, inspections, and testing
- Procedure standardization and change protocols
- Permit-to-work integration

• Module 8: Workforce Competence and Training

- Role-based competence models
- Behavioral safety and coaching
- Training evaluation and assurance

• Module 9: Contractor Safety and Interfaces

- Prequalification and onboarding
- Contractor performance monitoring
- Joint safety responsibilities

Day 4: Monitoring, Learning & Improvement

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Module 10: Performance Measurement

- Leading vs. lagging indicators
- Safety dashboards and trend reporting
- Thresholds, triggers, and alerts

Module 11: Incident Investigation and Learning

- Root cause analysis techniques (5 Whys, RCA, etc.)
- Sharing lessons and creating safety actions
- Tracking recommendations

Module 12: Audit and Review (02:00 - 03:00)

- PSM auditing frameworks and maturity models
- Assurance cycles and continuous improvement
- Independent reviews and board reporting

Day 5: Integrated Application and Final Simulation**Module 13: PSM Implementation Planning**

- Gap analysis against the 20 elements
- Prioritization and roadmap development
- PSM alignment with other systems (QHSE, ISO, etc.)

Module 14: Final Simulation - PSM Case Study

- Evaluate a real-world process safety breakdown
- Identify failures across multiple elements
- Group-based action planning and presentation

Module 15: Course Summary and Certification Briefing

- Review of key learning points
- Participant feedback and Q&A
- Certification instructions and resources

Certification

Participants who complete the program will receive a Certificate of Completion in **Best Practice Process Safety Management Framework (Energy Institute)**, recognizing their ability to apply risk-based PSM principles to prevent major accidents and support operational integrity.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
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In-House / Customized Training

Interested in running this course for your team?

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