

# DESIGN AND REVIEW OF FIREFIGHTING SYSTEMS FOR OIL AND GAS FACILITIES

*“Enhancing Safety Through Effective Fire Protection System Design”*

## Schedule

| Date             | Venue  | Fees (Online)        |
|------------------|--------|----------------------|
| 22 - 23 Jun 2026 | Online | USD 700 per delegate |

► **Available delivery methods:** Face-to-Face & Online Training

## Introduction

Effective firefighting systems are critical in oil and gas facilities to protect lives, assets, and operations from fire hazards. This course provides participants with practical knowledge and skills to design, review, and assess firefighting systems in compliance with international standards and industry best practices. Attendees will learn to integrate safety measures into facility design and ensure effective fire protection throughout the operational lifecycle.

Through interactive online sessions, case studies, and hands-on exercises, participants will gain expertise in evaluating firefighting system designs, performing risk assessments, and recommending improvements. The course emphasizes practical strategies to enhance safety, regulatory compliance, and operational reliability in high-risk oil and gas environments.

## Objectives

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

- Understand the principles and requirements of firefighting systems in oil and gas facilities.
- Design and review effective fire protection systems.
- Conduct risk assessments and identify potential fire hazards.
- Ensure compliance with international fire safety standards (NFPA, API, ISO).
- Integrate firefighting systems into facility design and operations.
- Develop actionable plans to improve fire protection and safety performance.

## Why Attend

Participants should attend this course to:

- Gain practical knowledge of firefighting system design and review.
- Learn how to conduct fire risk assessments and mitigation planning.
- Ensure compliance with international standards and industry regulations.
- Enhance safety in oil and gas facilities and reduce fire-related risks.
- Apply best practices to protect personnel, assets, and operations.

## Target Audience

This program is designed for:

- Fire safety engineers and safety officers
- Facility and operations managers in oil and gas
- Design engineers and project engineers
- Risk management and compliance professionals
- Professionals responsible for fire safety and emergency planning

## Individual Benefits

Key competencies that will be developed include:

- Designing and reviewing firefighting systems for high-risk facilities
- Conducting fire hazard identification and risk assessment
- Knowledge of international fire safety standards and regulations
- Skills in integrating fire protection into facility design and operations
- Ability to recommend improvements to enhance fire safety and compliance

## Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved fire safety and risk mitigation in oil and gas facilities
- Enhanced compliance with regulatory and industry standards
- Stronger emergency preparedness and response capabilities
- Reduced potential for fire-related incidents and operational losses
- Better integration of safety systems into facility operations

## Instructional Methodology

The course follows a blended online learning approach combining theory with practical application:

- Strategy Briefings – Overview of firefighting system design principles and standards
- Case Studies – Examples of successful fire protection design in oil and gas facilities
- Workshops – Interactive exercises on system review, hazard identification, and risk mitigation
- Peer Exchange – Group discussions on challenges, lessons learned, and best practices
- Tools – Templates and guidelines for firefighting system design and risk assessment

## Course Outline

Detailed 2-Day Course Outline

Training Hours: 9:00 AM – 5:00 PM Daily Format: 3-4 Learning Modules | Online Breaks: 11:00 & 03:00

Day 1: Fundamentals of Firefighting Systems

Module 1: Introduction to Fire Safety in Oil & Gas (09:00 – 11:00)

- Importance of fire safety and protection systems
- Overview of fire hazards in oil and gas facilities
- Regulatory and industry standards (NFPA, API, ISO)

Module 2: Firefighting System Components (11:15 – 01:00)

- Sprinkler systems, hydrants, and suppression systems
- Detection and alarm systems
- Material selection and system layout considerations

Day 2: System Design Review and Risk Mitigation

Module 3: Design Review and Risk Assessment (01:45 – 03:00)

- Conducting design reviews and compliance checks
- Identifying gaps and potential hazards
- Recommending improvements for enhanced protection

Module 4: Best Practices and Implementation (03:15 – 05:00)

- Integrating firefighting systems into operations
- Lessons learned from industry case studies
- Action planning for system optimization and compliance

## Certification

Participants will receive a Certificate of Completion in Design and Review of Firefighting Systems for Oil and Gas Facilities, validating their expertise in designing, reviewing, and implementing effective fire protection systems in oil and gas environments.

## Why Choose MAWA Events

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