Safety Leadership in Process Industries Training Course

Professional Development Training Course Outline

Category	General Training	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Safety Leadership in Process Industries is designed to strengthen proactive safety culture, operational risk management, and leadership accountability in high-hazard environments such as oil & gas, petrochemicals, mining, manufacturing, and energy production. This training focuses on building strong behavior-based safety (BBS) leadership, enhancing process safety management (PSM) systems, and embedding a culture of zero harm, incident prevention, and operational excellence across all organizational levels.

In today’s rapidly evolving industrial landscape, organizations face increasing pressure to improve workplace safety performance, regulatory compliance, and ESG standards while minimizing catastrophic risks. This course equips leaders with advanced tools to drive safety performance improvement, human factors awareness, risk-based decision-making, and frontline safety engagement, ensuring sustainable safety transformation and resilience in complex process environments.

Programme Curriculum

Safety Leadership in Process Industries Training Course

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Course Duration

5 days

Course Objectives

1. Develop strong Safety Leadership mindset for high-risk process industries
2. Strengthen understanding of Process Safety Management (PSM) frameworks
3. Improve hazard identification and risk assessment capabilities
4. Build competence in behavior-based safety (BBS) implementation
5. Enhance incident investigation and root cause analysis (RCA) skills
6. Promote safety culture transformation and employee engagement
7. Reduce Lost Time Injury Frequency Rate (LTIFR) and Total Recordable Incident Rate (TRIR)
8. Improve regulatory compliance and OSHA/EHS standards alignment
9. Strengthen leadership accountability in safety performance
10. Develop emergency preparedness and crisis management leadership
11. Integrate human factors engineering into safety systems
12. Promote continuous improvement using safety KPIs and analytics
13. Drive zero-incident mindset and operational excellence culture

Target Audience

1. Plant Managers and Operations Managers
2. HSE (Health, Safety & Environment) Managers
3. Process Engineers and Production Supervisors
4. Maintenance and Reliability Engineers
5. Safety Officers and Safety Supervisors
6. Oil & Gas and Petrochemical Industry Leaders
7. Manufacturing and Industrial Plant Executives
8. Project Managers in High-Risk Process Operations

Course Modules

Module 1: Foundations of Safety Leadership in Process Industries

- Principles of modern safety leadership and accountability
- High-risk industry safety challenges and global benchmarks
- Leadership influence on safety culture transformation
- Safety vision, mission, and organizational alignment
- **Case Study:** Deepwater Horizon disaster leadership failures and lessons learned

Module 2: Process Safety Management (PSM) Excellence

- Core elements of OSHA PSM and industry standards
- Major accident hazard (MAH) identification and control
- Safety critical equipment and barrier management

- Process safety performance indicators (PSPIs)
- **Case Study:** Texas City Refinery explosion and PSM breakdown analysis

Module 3: Risk Assessment & Hazard Identification

- HAZID, HAZOP, and What-If analysis techniques
- Quantitative Risk Assessment (QRA) fundamentals
- Layer of Protection Analysis (LOPA)
- Workplace hazard recognition and mitigation strategies
- **Case Study:** BP Texas City risk assessment failures

Module 4: Behavior-Based Safety (BBS) Implementation

- Human behavior and safety psychology principles
- Observation and intervention techniques
- Unsafe act and condition management
- Safety coaching and feedback mechanisms
- **Case Study:** DuPont safety culture transformation success story

Module 5: Incident Investigation & Root Cause Analysis

- Incident classification and reporting systems
- 5 Why's, Fishbone, and RCA methodologies
- Near-miss reporting and learning systems
- Corrective and preventive action (CAPA) systems
- **Case Study:** Piper Alpha disaster investigation insights

Module 6: Safety Culture & Employee Engagement

- Building a positive safety culture framework
- Leadership communication and safety engagement
- Safety behavior reinforcement strategies
- Contractor safety management systems
- **Case Study:** Shell global safety culture improvement program

Module 7: Emergency Response & Crisis Leadership

- Emergency preparedness planning and drills
- Crisis communication strategies
- Fire, explosion, and toxic release response
- Coordination with external emergency services
- **Case Study:** Bhopal gas tragedy emergency response breakdown

Module 8: Digital Safety, KPIs & Continuous Improvement

- Digital transformation in safety management systems
- IoT, AI, and predictive safety analytics
- Leading and lagging safety indicators
- Continuous improvement using PDCA cycle
- **Case Study:** Smart plant safety monitoring in modern refineries

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com