

Developing Operational Excellence in the Process Industry

Duration: 5 Days

Language: en

Course Code: PO2-107

Objective

Upon completion of this course, participants will be able to:

- Describe best practices for achieving operational excellence.
- Identify and outline the effects of technical and human risk on operations.
- Develop a customised operational improvement plan that addresses areas of significant risk.
- Apply benchmarking techniques to generate performance metrics.
- Leverage the experiences of High-Reliability Organisations (HROs).
- Design an effective action plan to inculcate operational excellence across the organisation.

Audience

This course is intended for:

- Operations, Maintenance, and Reliability Professionals
- Safety Professionals
- Engineering and Technical Support Professionals
- Professionals involved in process and quality improvement activities

Training Methodology

This course uses a variety of adult learning styles to aid full understanding and comprehension. Participants will review case studies to highlight key areas of importance and possible areas for faults. They will be supplied with the best tools required for learning exercises to improve their skills. Participants will analyse the examples to gain a thorough understanding of how these skills, techniques and methods apply in the workplace.

Summary

Process industries face various challenges, including global competition, improving manufacturing efficiencies, and capacity constraints. In addition, some operations and processes can involve high risk, which can impact the entire organisation.

This course provides comprehensive strategies for developing operational excellence to improve business processes, safety, and culture. You will explore strategic and operational best practices in safety, risk, reliability, and quality management. Lessons from High-Reliability Organisations (HROs) provide models of learning and unlearning from near misses and failures.

Course Content & Outline

Section 1: Safety Systems and Managing Risk

- Understand the principle of safety first.
- Define behavioural safety through examples and strategies.
- Discuss how to best learn from failures.
- Compare and evaluate accidents and incidents (including near misses).
- Describe safety taxonomies.
- Examine safety systems, including Permit to Work (PTW) and Hazard and Operability Study (HAZOP).
- Explore risk assessment strategies.
- Outline the structure of a comprehensive safety management system.

Section 2: Ensuring Operational Continuity through Plant Reliability

- Identify operational risks and mitigation strategies.
- Outline the key components of a Vulnerability Assessment.
- Contrast the differences between vulnerability and resilience.
- Explore Reliability Centred Maintenance (RCM) strategies.
- Evaluate systemic failures and undesired results using Fault Tree Analysis (FTA).
- Outline using Reliability Block Diagram (RBD) analysis to assess and calculate reliability.
- Describe methods of plant asset care and reliability improvement.
- Discuss essential components to developing an appropriate maintenance strategy.
- Review the impacts of agile manufacturing on safety management.

Section 3: Quality

- Describe process control measures.
- Outline the Six Sigma approach.
- Examine the continuous improvement model approach.
- Discuss the key components of quality assurance
- Review standard operating procedures and error-proofing techniques.

Section 4: Costs

- Examine costing systems.
- Describe lean manufacturing
- Outline inventory control systems.
- Discuss the lifecycle approach.
- Outline asset management plans.

Section 5: Case Studies from High-Reliability Organisations (HROs)

- Review cases from the following industries:

1. Aviation
2. Oil and Gas

3. Nuclear
4. Process

Section 6: Generic Benchmarking

- Describe the process and benefits of generic benchmarking.
- Outline and compare the methods of benchmarking.
- Discuss the practice of learning from failures and worst practices.

Section 7: Learning, Unlearning, and Relearning Excellence

- Describe the benefits of adaptive organisational learning.
- Explore the risks of routine dynamics and corrective actions.
- Understand the Decision Making Grid (DMG) model and its use.
- Develop a framework to assess near-misses and failures.
- Compare low frequency – high severity and high frequency – high severity incidents and accidents.

Certificate Description

Upon successful completion of this training course, delegates will be awarded a Holistique Training Certificate of Completion. For those who attend and complete the online training course, a Holistique Training e-Certificate will be provided.

Holistique Training Certificates are accredited by the British Assessment Council (BAC) and The CPD Certification Service (CPD), and are certified under ISO 9001, ISO 21001, and ISO 29993 standards.

CPD credits for this course are granted by our Certificates and will be reflected on the Holistique Training Certificate of Completion. In accordance with the standards of The CPD Certification Service, one CPD credit is awarded per hour of course attendance. A maximum of 50 CPD credits can be claimed for any single course we currently offer.

Categories

Aviation, Health, Safety & Environment HSE, Quality & Productivity

Tags

Operational Excellence, Process Industry, High-Reliability Organisations, HRO, Plant Reliability

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