



Developing and Sustaining an Effective Safety Culture



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Introduction

Developing a strong safety culture is essential for safe, reliable, and efficient refinery operations. In high-hazard Oil & Gas and Petrochemical environments, safety culture shapes daily decisions, work habits, and leadership behavior. This Developing and Sustaining an Effective Safety Culture course explains how leadership, systems, discipline, and human factors influence safety performance. Participants will explore how safety culture supports both occupational safety and process safety in complex operational settings. The program shows how to identify cultural weaknesses, prevent organizational drift, and strengthen workforce engagement. Participants will support lasting improvements in safety culture in refinery operations.

Targeted Groups

This Developing and Sustaining an Effective Safety Culture training targets professionals seeking knowledge and skills:

- Refinery supervisors and team leaders.
- HSE and process safety professionals.
- Operations and maintenance staff.
- Managers responsible for safety performance.
- Engineers working in high-hazard industries.
- Shift leaders and field coordinators.
- Personnel involved in safety improvement.

Course Objectives

Participants will achieve the following objectives by completing the Developing and Sustaining an Effective Safety Culture course:

- Understand the meaning of safety culture and safety climate.
- Explain how leadership shapes safety behavior.
- Recognize weak safety culture patterns and organizational drift.
- Identify the role of safety management systems in performance.
- Apply operational discipline principles in refinery work.
- Describe behaviors that support safe and reliable operations.
- Distinguish between positive and unsafe workforce habits.
- Assess barriers to lasting culture improvement.
- Support behavior change through coaching and engagement.
- Develop practical actions to sustain safety performance.

Targeted Competencies

Participants will gain the following competencies during the Developing and Sustaining an Effective Safety Culture program:

- Safety leadership awareness.
- Cultural diagnosis skills.

- Operational discipline understanding.
- Behavioral safety observation.
- Human factors recognition.
- Workforce engagement techniques.
- Safety improvement planning.
- Risk-focused decision thinking.
- Practical coaching and communication skills.

Studying Scenarios

In this Developing and Sustaining an Effective Safety Culture training, participants develop skills through the following scenarios:

- Reviewing weak leadership visibility and its impact on workforce trust.
- Analyzing safety systems with limited practical implementation.
- Addressing workforce resistance to new safety expectations.
- Examining routine shortcuts that create unsafe behaviors.
- Evaluating culture surveys and identifying warning signs.
- Developing improvement plans with clear safety actions.

Course Content

Unit 1: Safety Culture & Leadership

- Define safety culture and safety climate in refinery operations.
- Explain how leadership shapes trust, discipline, and accountability.
- Explore visible leadership and its impact on workforce behavior.
- Review the difference between reactive, dependent, independent, and interdependent cultures.
- Connect occupational safety culture with process safety culture.
- Identify historical developments that shaped modern safety culture thinking.
- Examine common causes of weak culture, including drift, routine violations, and poor role modeling.
- Use refinery-related case studies to link leadership behavior with safety performance.

Unit 2: Safety Management Systems & Operational Discipline

- Describe the link between a Safety Management System and safety culture.
- Review essential system elements such as procedures, controls, and assurance.
- Explain how operational discipline protects refinery reliability and safe execution.
- Show how procedures, leadership, and workforce behavior must work together.
- Identify reasons Safety Management Systems fail, including weak ownership and poor follow-through.
- Discuss how engagement improves compliance, learning, and consistency.
- Study operational scenarios that reveal gaps between standards and daily practice.
- Learn from industry examples that show how effective systems support strong safety performance.

Unit 3: Safety Culture Improvement & Organizational Change

- Review practical models for improving safety culture.
- Identify strengths, gaps, and high-risk behaviors across work groups.

- Examine dependent, independent, and interdependent behavior patterns at the site level.
- Plan change actions that are realistic, visible, and sustained over time.
- Clarify the leadership role in shaping norms, expectations, and accountability.
- Apply intervention principles that encourage workforce participation and ownership.
- Track improvement using key performance indicators and leading indicators.
- Use surveys, attitude checks, and refinery scenarios to guide action planning and improvement.

Unit 4: Behavioural Safety & Human Factors

- Explain behavioural safety and its role in safe refinery performance.
- Connect safety culture with the everyday behavior of the workforce.
- Review human factors that influence attention, judgment, fatigue, and communication.
- Recognize positive and negative influences on safe work habits.
- Compare motivation theories from Taylor, Herzberg, McGregor, and Maslow.
- Apply ABC Analysis to understand behavior, triggers, and consequences.
- Identify sources of unsafe behavior, human error, and operational drift.
- Practice communication, coaching, reinforcement, and natural consequences through role-play and observation.

Unit 5: Assessing & Sustaining Safety Culture

- Review methods for assessing safety culture maturity and workforce attitudes.
- Establish the current status of safety culture using observations and evidence.
- Use questionnaires, feedback, and field inputs to understand real conditions.
- Study lessons learned from industrial organizations with strong and weak outcomes.
- Address workforce attitudes that support or resist safety expectations.
- Apply practical methods to sustain safe behavior across daily operations.
- Develop personal leadership commitments and individual workplace action plans.
- Design simple questionnaires and complete course reflection for long-term application.

Final Insights & Key Takeaways

A strong safety culture is not created by procedures alone; it is built through leadership, discipline, behavior, and consistent follow-up. When refinery teams align safety management systems with workforce commitment, they create safer, stronger, and more reliable operations.