Explosive Atmosphere and Hazardous Area Management Training Course

14 – 18 March 2027
Johannesburg

AGILE LEADERS
Training Center

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Ref: 1330_198323 **Date:** 14 – 18 March 2027 **Location:** Johannesburg **Fees:** 4500 Euro

Overview

Explosive Atmosphere and Hazardous Area Management Training Course is a one-week course for experienced HSE, process safety, engineering, facility, and operations personnel who leave with an Explosive Atmosphere Management Assurance File. Participants coordinate classification evidence, ignition-source control, equipment assurance, inspections, work permits, change, contractors, emergency readiness, and performance review across gas, vapor, mist, and combustible-dust hazards. Agile Leaders Training Center presents explosive atmosphere and hazardous area management as an owner-operator governance discipline.

Who Should Attend

- Functions responsible for explosive-atmosphere risk governance and assurance
- Engineering teams responsible for hazardous-area classification interfaces and equipment integrity
- Operations and maintenance functions responsible for controlled work in classified areas
- Process safety teams responsible for release scenarios and ignition-source controls
- Contractor and facility functions responsible for permits, competence, and coordination

The course assumes participants already manage industrial risk, engineering, operations, or assurance, and it leaves out introductory fire safety and detailed electrical design authorization.

Departments and Industries

The course supports departments and industries that operate where flammable substances or combustible dusts may create explosive atmospheres.

- Oil, gas, petrochemical, chemical, and energy operations
- Food, grain, pharmaceutical, wood, and metal processing
- Engineering, maintenance, inspection, and reliability departments
- Health, safety, process safety, and emergency-management functions
- Facilities, logistics, contractor management, and capital-project teams

Learning Objectives

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

- Analyze explosive-atmosphere release and ignition scenarios
- Evaluate hazardous-area classification evidence and interfaces
- Apply equipment, inspection, and maintenance assurance controls
- Build permit, contractor, and management-of-change safeguards
- Diagnose combustible-dust and housekeeping control gaps
- Design emergency, performance, and improvement arrangements

Course Agenda

Day 1: Explosive Atmosphere Governance

- Explosive Atmosphere Risk Context Map
- Gas, Vapor, Mist and Dust Hazard Register
- Release Source and Scenario Analysis Method
- Owner-Operator Accountability Matrix
- Explosion Safety Assurance Framework

Day 2: Classification and Ignition Control

- Hazardous-Area Classification Evidence Review
- Zone Interface and Boundary Verification Map
- Electrical and Non-Electrical Ignition Source Inventory
- Static, Hot-Surface and Mechanical Control Checklist
- Area Marking and Access-Control Plan

Day 3: Equipment and Work Assurance

- IEC 60079-17 Inspection and Maintenance Alignment
- Equipment Suitability and Documentation Register
- Hazardous-Area Inspection Grading Matrix
- Permit-to-Work and Isolation Control Review
- Defect Prioritization and Closeout Tracker

Day 4: Operational Change and Readiness

- Management-of-Change Hazardous-Area Screen
- Contractor Competence and Coordination Matrix
- Combustible-Dust Containment and Housekeeping Audit
- Explosion Emergency Scenario and Response Map
- Leading and Lagging Assurance Dashboard

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Day 5: Hazardous-Area Management Practice

- Exercise: Release and Ignition Scenario Diagnosis
- Exercise: Classification Evidence Challenge
- Exercise: Equipment and Work-Control Assurance
- Exercise: Change and Emergency Readiness Review
- Capstone Exercise: Explosive Atmosphere Management Assurance File

Practical Exercises

The course uses suggested activities drawn from process plants, bulk handling, manufacturing, and maintenance scenarios.

- Suggested activity: map release sources, explosive-atmosphere conditions, ignition sources, and accountable control owners.
- Suggested activity: challenge a classification dossier and trace zone boundaries into equipment and work-control decisions.
- Suggested activity: review inspection findings, prioritize defects, and document evidence required for safe closeout.
- Suggested activity: assess a proposed change and assemble the assurance evidence for operational approval.

FAQs

What is explosive atmosphere and hazardous area management?

Explosive atmosphere and hazardous area management coordinates risk evidence, classification, ignition prevention, equipment assurance, controlled work, change, emergency readiness, and performance review throughout operations.

Who suits explosive atmosphere management training?

Explosive atmosphere management training suits experienced HSE, process safety, engineering, maintenance, facility, and operations personnel who already manage industrial hazards or assurance responsibilities.

How does hazardous area management differ from electrical hazardous-area design training?

Hazardous area management governs interfaces, evidence, equipment integrity, work controls, change, contractors, and performance. Electrical design training develops specialist capability to specify or design protected electrical installations.

How should ignition sources be controlled in hazardous areas?

Ignition sources should be controlled by linking classification evidence to suitable equipment, operating limits, isolation, permits, static control, maintenance, inspection, access, and change review.

How is explosive atmosphere management performance reviewed?

Performance is reviewed through inspection completion, defect closeout, control verification, permit quality, change screening, contractor competence, housekeeping, emergency exercises, incidents, and recurring failures.

Conclusion

The course integrates release scenarios, classification interfaces, ignition prevention, equipment assurance, controlled work, change, contractors, emergency readiness, and performance review. Participants take back an Explosive Atmosphere Management Assurance File containing registers, matrices, checklists, evidence reviews, and action trackers. The file changes how their organizations govern hazardous areas across the asset lifecycle.