



Controlled Blasting Site Management and Supervision Training Course

25 April – 6 May 2027
Muscat

Controlled Blasting Site Management and Supervision Training Course

Ref: 496_139427 **Date:** 25 April – 6 May 2027 **Location:** Muscat **Fees:** 14000 Euro

Overview

Controlled Blasting Site Management and Supervision Training Course is a ten-day advanced course for blasting engineers, quarry and civil works supervisors, construction managers, geotechnical engineers, safety professionals, and client or contractor representatives who leave with a Controlled Blasting Site Management File. Participants connect site characterization, blast-design review, operational controls, monitoring, contractor coordination, and post-blast evidence. Agile Leaders Training Center presents controlled blasting supervision through structured planning, risk controls, and accountable site records.

Who Should Attend

- Engineering functions responsible for reviewing blasting plans and design inputs
- Site supervision functions responsible for coordinating drilling and blasting contractors
- Safety functions responsible for high-risk work controls and exclusion zones
- Geotechnical functions responsible for rock conditions and nearby asset constraints
- Project and client functions responsible for approvals, interfaces, records, and performance review

The course assumes participants can interpret civil or geotechnical drawings and site risk controls, and it leaves out authorization to possess, handle, charge, connect, or fire explosives.

Departments and Industries

The course supports departments and industries that supervise controlled rock excavation and blasting interfaces.

- Civil infrastructure, roads, tunnels, dams, and utilities projects
- Quarrying, mining-development, and aggregate operations
- Industrial, energy, and large earthworks contractors
- Geotechnical, environmental, and vibration-monitoring consultancies
- Project management, site safety, and contractor assurance functions

Learning Objectives

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



- Analyze site and rock information for blasting-management decisions
- Evaluate blast plans, roles, permits, and readiness evidence
- Apply controls for flyrock, vibration, airblast, fumes, and exclusion zones
- Use monitoring and records to assess blast performance
- Diagnose deviations, misfire indicators, and contractor-control gaps
- Build a Controlled Blasting Site Management File

Course Agenda

Day 1: Blasting Governance and Site Responsibilities

- Blasting work boundaries and management objectives
- Licensed competent-person responsibilities and authority
- Client, designer, contractor, supervisor, and safety interfaces
- Applicable permit, approval, and notification register
- Controlled Blasting Site Management File structure

Day 2: Site and Rock Characterization

- Geology, discontinuities, weathering, and groundwater observations
- Rock-mass variability and excavation response
- Nearby structures, utilities, traffic, and community receptors
- Access, bench, face, and working-area constraints
- Site characterization and uncertainty register

Day 3: Blast Design Inputs and Review

- Hole diameter, depth, inclination, burden, and spacing
- Explosive and initiation-system information for management review
- Charge distribution, stemming, decking, and confinement concepts
- Timing sequence and interaction with free faces
- Design assumption and change-review checklist

Day 4: Drilling Quality and Pre-Charge Controls

- Drill pattern set-out and collar-position verification
- Hole depth, deviation, condition, and water checks
- Drilling log and nonconformance treatment
- Face condition and loose-ground controls
- Pre-charge hold point and readiness record



Day 5: Charging Coordination and Blast Readiness

- Explosives-management boundaries and controlled access
- Charge-plan verification by authorized personnel
- Weather, lightning, communications, and simultaneous-operations checks
- Warning signals, sentries, clearance, and exclusion-zone confirmation
- Blast readiness meeting and authorization record

Day 6: Flyrock, Vibration, Airblast, and Fumes

- Flyrock pathways and design or site-control factors
- Ground-vibration concepts and sensitive-receptor planning
- Airblast sources and confinement considerations
- Fume risk, wind direction, re-entry, and ventilation controls
- Risk-control verification and escalation triggers

Day 7: Monitoring and Environmental Evidence

- Pre-blast condition surveys and receptor register
- Vibration and airblast monitoring-location plan
- Instrument custody, setup evidence, and event records
- Dust, noise, fumes, and water-management observations
- Monitoring result review and communication protocol

Day 8: Blast-Day Supervision and Misfire Response

- Final clearance, communications, and countdown control
- Post-blast waiting period and inspection coordination
- Misfire indicators, isolation, reporting, and authorized response
- Unexpected flyrock, vibration, fume, or damage escalation
- Emergency coordination and preservation of evidence

Day 9: Post-Blast Assessment and Improvement

- Fragmentation, muckpile, backbreak, and excavation outcome review
- Overbreak, underbreak, bootleg, and wall-condition observations
- Monitoring comparison with objectives and limits
- Deviation, cause, corrective-action, and lesson register
- Next-blast change proposal and approval controls



Day 10: Contractor Assurance and Management File

- Contractor competence, equipment, document, and briefing assurance
- Permit-to-work and high-risk interface audit
- Suggested Exercise: Blast Plan and Readiness Review
- Suggested Exercise: Monitoring and Deviation Decision Workshop
- Capstone Exercise: Controlled Blasting Site Management File

Practical Exercises

The course uses suggested exercises for planning and supervisory decision-making without practising the handling or firing of explosives.

- Suggested activity: map receptors, interfaces, exclusion zones, communications, and approval hold points for a construction blast.
- Suggested activity: review a blast-plan package for missing assumptions, evidence, and readiness controls.
- Suggested activity: interpret vibration, airblast, fragmentation, and deviation records for follow-up action.
- Suggested activity: build a contractor-assurance and post-blast improvement record.

FAQs

What does controlled blasting site management cover?

It covers governance, site characterization, design review, contractor coordination, readiness, exclusion zones, environmental controls, monitoring, misfire escalation, post-blast review, and accountable records.

Who suits controlled blasting supervision training, and what does it assume?

The course suits engineers, supervisors, managers, safety professionals, and client or contractor representatives. It assumes experience with drawings, site controls, and construction risk management.

How does blasting site management differ from blaster licensing training?

Site-management training develops oversight, interface, assurance, monitoring, and documentation skills. Licensing training and legal authorization govern who may possess, handle, charge, connect, or fire explosives.

How are blast vibration and flyrock risks controlled?

Controls begin with site and receptor information, competent design, drilling accuracy, confinement, timing, exclusion distances, weather and access checks, monitoring, inspection, and documented review before changes are approved.



What should happen when a misfire is suspected?

The area must remain isolated, access controlled, the responsible authorized blaster notified, and the applicable approved procedure followed. Unqualified personnel must not investigate or disturb the location.

Conclusion

Participants take back a Controlled Blasting Site Management File linking site information, responsibilities, plan reviews, readiness records, exclusion-zone controls, monitoring evidence, deviations, contractor assurance, and post-blast actions. It provides a traceable basis for supervising blasting interfaces while preserving the authority of licensed competent personnel.