



Explosives and blasting

1. INTENT

This standard identifies the controls required to manage the risk associated with personnel handling, transporting, storing or using explosives.

2. APPLICATION

This standard applies to all Perenti projects where explosives are transported, stored and used.

3. REQUIREMENTS

3.1 PEOPLE

- Personnel who are involved in the storage, transport, handling and use of explosives must be trained, assessed as competent and where required hold a licence according to local legislative requirements.
- All personnel who require regular access to explosives must be appointed by the Project Manager, SSE or explosives licence holder. Any other persons who require access to explosives as part of their employment must always be supervised by a secure nominee.
- Charging and firing will be conducted under direct supervision of an appointed shotfirer.
- All personnel who have access to explosives must have their original security clearance (where required) available upon request.
- All personnel working with explosives must carry a time piece that is synchronised to 'mine time'.

3.2 SYSTEMS AND PROCEDURES

- All Projects will develop and maintain applicable documentation as per their respective jurisdiction's legislative requirements with a minimum of:
 - Explosives Risk Assessment;
 - Explosives Management Plan, inclusive of security arrangements;
 - Blast plans;
 - Misfire Record book;
 - Standard Operating Procedures for safe handling, transport, storage, theft or loss and disposal of explosives;
 - Procedures for explosives inventory management, control and reconciliations, with records kept for a minimum of two years;
 - Explosive manufacturers Safety Data Sheet (SDS) or Technical Data Sheet (TDS) available at the entrance to the magazine;
 - A copy of the magazine storage license detailing the maximum capacity of the magazine.

3.3 TRANSPORT AND STORAGE OF EXPLOSIVES

- No ignition sources (naked flames, welding or smoking) are permitted within 10 metres of explosives.
- Mobile phones are not permitted inside explosives magazine compounds, explosives transport vehicles or where explosives are to be used.
- Surface Magazines require lightning protection as per AS/NZS 1768:2007 Lightning Protection.
- Explosives must not be transported on the surface during lightning storms.
- All unattended explosives must be secured in an approved locked container or magazine.
- Charge and transport vehicles must be shut down and isolated before loading of any explosives.
- Charge and transport vehicles must only carry enough explosives and detonators for the shift.
- Explosives and detonators must be segregated in magazines as per AS 2187.1 Explosive – Storage, Transport and Use.
- Explosives and detonators must be transported and stored in approved, separate and secured containers as per AS 2187.1 Explosive – Storage, Transport and Use.
- Any explosives spillage must be cleaned up and neutralised.
- Waste material (rubbish) must be stored outside a magazine and removed each shift to reduce the potential or escalation of a fire.

3.4 USE OF EXPLOSIVES

- All charging of explosives must be completed according to an approved blast plan.
- The nominated shotfirer must complete and sign off on the blast plan.
- Primers are only to be made up at the point of charging.
- When charging and an intersecting drill hole or void is encountered, this must be reported to the supervisor prior to firing.
- There must be a procedure for dealing with misfires.
- All misfires must be reported to the responsible supervisor prior to any remedial action. All misfires must be recorded in the Misfires Record Book.



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3.5 BLASTING

- The location and times of blasting operations must be communicated to personnel who work at the mine.
- All blast areas must be visually inspected by the firing crew prior to seeking approval for permission to blast.
- Blast sites must be adequately signed and barricaded to prevent unauthorised or inadvertent access.
- Only approved equipment is to be used to initiate blasts.
- Initiation of any blast will only occur at a firing point designated in the project-specific Explosives Management Plan.

3.6 PLANT AND EQUIPMENT

- Explosives vehicles must meet the requirements of the Australian Code for the Transport of Explosives by Road and Rail including the relevant jurisdiction (Explosives) Regulations including:
 - Dangerous Goods placarding and relevant warning signage for the type of explosives and detonators being carried;
 - EXPLOSIVES sign, 150mm high lettering in red uppercase on a white background and an orange Dangerous Goods Class Diamond sign, displayed front, rear and sides when carrying explosives.
 - Be earthed with an approved earthing system;
 - Have approved lockable explosives containers securely attached to the vehicle;
 - Have two accessible handheld 9kg dry chemical fire extinguishers;
 - Have an operational blue flashing light (LED rotating beacon).
- Ignition sources must be kept at least 10 metres away from any explosive's vehicle.
- ANFO kettles must have a secured guard or covering fitted to prevent detonators or foreign material from entering the kettle opening.
- Before entering any workshop or commencing any hot work, all explosives carrying vehicles must be free from any explosives, detonators and be washed down to remove any explosive residues.
- Equipment used to mix, or transport explosives must be located to ensure isolation from the potential for impact damage, or any spillage contacting electrical sources, hot surfaces or flammable liquid storage infrastructure.