# Carry out inspections for misfires

## Overview

### What is this standard about?

This standard specifies the skills, knowledge and understanding required to demonstrate competence to carry out inspections pre-blast to reduce the possibility of a misfire, and post-blast to identify if a misfire has occurred or is suspected. The standard includes the inspection methods required for the identification of a misfire, taking remedial action and recovering the unexploded materials safely.

"Misfire" means an occurrence in relation to firing of shots during blasting operations where:

1. testing before firing reveals broken continuity which cannot be rectified, or
2. a shot or any part of a shot fails to explode when an attempt is made to fire it.

Misfires are a rare occurrence, which should and can mostly be avoided by correct drilling and blasting procedures. However, should they occur, application of safe working practices in conformity with regulations and guidance is essential.

### Who is this standard for?

This standard applies to shotfirers and supervisors responsible for blasting operations. It is applicable in all blasting environments; mining, quarrying, demolition, tunnelling, civil engineering, under water.

## Performance criteria

You must be able to:

1. carry out work in accordance with **approved policies, procedures and practices** for the work activity and **blasting environment**
2. inspect the blast site and initiation system prior to initiation
3. take any corrective actions identified
4. confirm that blast can proceed
5. determine post blast that blast gasses have dispersed and rock fall has ceased
6. select a safe position from which to carry out post blast inspection
7. carry out a post blast inspection for indications of possible **misfires**
8. examine the rock face for post blast hazards
9. take any corrective actions identified from the inspection and examination
10. when completed confirm that work in the area can resume
11. record the result of inspections and any required actions arising

## Knowledge and understanding

You need to know and understand:

1. the **approved policies, procedures and practices** for the work activity and the **blasting environment**
2. the hazards and risks associated with **misfires** and unexploded charges and carrying out inspections
3. the responsibilities of yourself and others under legislation in relation to **misfires**
4. the types and causes of **misfires**
5. the occurrence and causes of desensitisation of certain **explosive materials**
6. how to prevent the possibility of **misfires** occurring
7. how to inspect before and after blasting
8. how to identify, locate and mark suspected **misfires**
9. the immediate actions to be taken should a **misfire** occur or be suspected
10. the requirements of a risk assessment in relation to a **misfire**
11. why and how to secure an area should the inspection indicate the possibility of a **misfire**
12. the methods of dealing with **misfires**
13. the causes, hazards and possible effects of premature or accidental initiation when dealing with **misfires**
14. the methods of handling recovered **explosive materials**
15. how to deal with **explosive materials** recovered from **misfires**
16. how to deal with **explosive materials** discovered during subsequent operations
17. the requirements and methods for recording and reporting **misfires**
18. why and how investigations into **misfires** are conducted

## Scope/range

1. **explosive materials**: explosive articles or substances, and any blasting intermediaries, or as defined in current legislation, as appropriate to the work activity
2. **approved policies, procedures and practices**: legislative, organisational, operational, accident or emergency, health and safety, first aid, and environmental as appropriate to the location and work activity
3. **blasting environment**: in relation to at least one blasting environment: mining, quarrying, demolition, tunnelling, civil engineering, under water
4. **misfire**: must cover both types of misfire as defined in legislative regulations and guidelines

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