

Safety alert



Explosives

Explosives Inspectorate

Safety alert no. 41 (version 2)
25 June 2010

Unplanned initiation of an electric detonator by an electronic detonator firing unit

Purpose

1. This alert is to advise the users of electronic initiation systems of the incompatibility which electric detonators have with the firing box for the electronic detonator system.

Scope

2. This alert provides important safety information for users of electric and electronic detonators.

Background

3. Electronic initiation systems are being integrated into underground mines that have traditionally used conventional electric detonators to initiate blasts. With this change comes the additional hazards associated with the incompatibilities between the firing systems of the two technologies.

4. An explosives incident occurred recently where a development face being initiated with an instantaneous electric detonator was unintentionally tied in with a production blast being initiated with electronic detonators.

5. The development blast with the electric detonator was unintentionally initiated during the test sequence for the electronic detonator system. There were no casualties in this instance as other precautions were in place.

Issues

6. Conventional electric detonators and electronic detonators must not be connected in the same firing circuit. The testing and programming voltage of electronic systems can be sufficient to initiate electric detonators.

7. Conventional electric detonators must not be connected to a blaster or programming unit designed for electronic detonators.

8. Shotfirers must be trained and certified in the correct use of electric and electronic firing systems.

Recommendations

9. All users should immediately review the safety management system including their system and operational procedures to ensure that this type of event will be prevented.

10. All users should check that the control measures are in place, suitable training has been undertaken, personnel are competent and the procedures under the safety management systems are being followed.

11. Ensure that all persons in your organisation receive a copy of this safety alert.

Further Information

12. Further information is available by contacting the Explosives Inspectorate's Regional Offices at the contact numbers below.

More safety alerts, information bulletins and reports are available on the Inspectorate's website:

http://www.dme.qld.gov.au/mines/safety_compliance.cfm

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