

Significant explosives accidents and incidents



Safety and Health

Explosives Inspectorate

For : January 2008

Security

Incident	Explosives Type	Quantity	Description
Loss of explosives	Blasting	3 boxes x 70 dets e@	An exporter advised of a discrepancy in the delivery of connectadets to an overseas client.
Theft of explosives			None reported for the month
Other			None reported for the month

Safety

Nature of Harm	High Potential	Explosive Type	Industry Sector	Description
None	No	Blasting	Shotfirer	Fifteen misfires – 5 initiation system failures, 4 procedure errors, 2 slumping, 2 blasting method, 1 column dislocation, 1 unknown
None	No	Blasting	Use	A mine has been neglecting to advise the Inspectorate of misfires in a timely fashion. Eventually, reports of 69 misfires were received in one batch.
None	No	Blasting	Shotfirer	There was a flyrock incident at a quarry, with no report submitted.
None	No	Blasting	Shotfirer	There was an unsubstantiated report of flyrock from a quarry next to a suburban shopping centre, said to have damaged a car in a carpark.

Chief Inspector of Explosives

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Explosives Inspectorate

For : February 2008

Security

Incident	Explosives Type	Quantity	Description
Loss of explosives	Blasting emulsion	A series of small spillages	There have been repeated burst disc ruptures on emulsion tank load-out pumps at a manufacturing facility, each resulting in a spillage of emulsion. An investigation has attributed them to operator error.
	Blasting emulsion	200 kg	There was a spillage when the driver of a mobile manufacturing unit lost control of the vehicle, which rolled over on a highway. Emulsion spilt on to the side of the road.
Theft of explosives			None reported for the month

Safety

Nature of Harm	High Potential	Explosive Type	Industry Sector	Description
None	No	Blasting	Shotfirer	Fifteen misfires – 7 initiation system failures, 3 procedure errors, 2 column dislocations, 1 blasting method, 2 unknown
None	Yes	Blasting	Shotfirer	A pre strip blast consisting of 300 holes loaded with ANFO was washed out. 65 holes collapsed and downlines could not be recovered.
Property damage	Yes	Blasting	Shotfirer	An overburden shot generated flyrock that struck a dragline cable 100 metres away. The impact of the flyrock damaged the cable, tripping the sub-station on earth leakage.
Property damage	Yes	Blasting	Transport	After parking an explosives charge car in the vehicle lockup area, the operator noticed smoke coming from engine bay where the exhaust lagging had caught fire.

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Nature of Harm	High Potential	Explosive Type	Industry Sector	Description
None	Yes	Blasting	Transport	A transport driver delivered a box of explosives to a Government Explosives Reserve as a return sample for testing by the manufacturer. The driver transported the sample in the cabin of the vehicle, not in a carry box.
None	Yes	Blasting	Shotfirer	During the explosive slurry loading sequence a booster became caught in the base of the blast hole and also around retracting discharge hose. This resulted in the nonel being stretched by 1.8m on a 15m length. There is concern that if the nonel had broken there would be the potential for a 'snap, slap, shoot' event to occur. This phenomenon has been reported to occur when nonel is stretched to snapping point, and recoils with such force that the slapping initiates the nonel.
Loss of production	Yes	Blasting	Manufacture - vehicle	When loading a shot, a blockage occurred in the charge hose of an MMU, causing a build up of nitrous oxide in the hopper. A charge crew member inhaled the gas when inspecting the hopper.
Damaged product	Yes	Blasting	Transport	Extension tynes were fitted to a forklift to assist with the unloading of the second row of pallets on a truck. When setting the pallets down the operator misjudged the distance and pierced two bags on the pallet in front.
Damaged product	Yes	Blasting	Transport	A pallet-load of boosters fell from a pallet while the forklift was stopping. The pallet was insufficiently wrapped with plastic. An inspection discovered that the pallet was also faulty and that a box containing boosters had been damaged in transit. Two boosters required to be destroyed on site.

Chief Inspector of Explosives



Significant explosives accidents and incidents

Explosives Inspectorate

For : **March 2008**

Security

Incident	Explosives Type	Quantity	Description
Loss of explosives			None reported for the month
Theft of explosives			None reported for the month
Other			None reported for the month

Safety

Nature of Harm	High Potential	Explosive Type	Industry Sector	Description
None	No	Blasting	Shotfirer	Misfires reported – 3 column dislocations, 3 procedure errors, 3 slumping, 1 initiation system failure, 1 loading method , 3 unknown
None	Yes	Blasting	Shotfirer	A gas emulsion shot was detonated, causing flyrock to land outside the assessed danger zone but within the exclusion zone, landing close to where operators and their vehicles were parked.
Damage to product	Yes	Blasting	Manufacture - vehicle	While conducting charging operations a MMU ran over a 300gram booster that was lying on top of drill cuttings beside a blasthole. The booster was damaged but did not initiate.
Personal injury	Yes	Blasting	Manufacture - site	There were two incidents of workers receiving electrical shocks in an explosives laboratory located within the grounds of a Government Explosives Reserve. The Reserve was closed while being Megga tested for insulation resistance and current leakage.

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Nature of Harm	High Potential	Explosive Type	Industry Sector	Description
None	Yes	Blasting	Transport	When a shipment of railway detonators (1.4S) arrived at a Government Explosives Reserve, a box containing dummy detonators and high explosives plugs was found in amongst the railway detonators.
None	Yes	Blasting	Transport	Staff from a Government Explosives Reserve noticed a B-double loaded with 1.1B Detonators parked outside the local bakery. The vehicle was identified and the driver has been cautioned.

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Explosives Inspectorate

For : April 2008

Security

Incident	Explosives Type	Quantity	Description
Loss of explosives			None reported for the month
Theft of explosives			None reported for the month
Other	Blasting	1 kilogram	Half a bucket (about 2.5 sticks in total) of packaged emulsion explosives was found in a filing cabinet in the control room of a coal mine.

Safety

Nature of Harm	High Potential	Explosive Type	Industry Sector	Description
None	No	Blasting	Shotfirer	Sixteen misfires: 4 initiation system failures, 3 procedure errors, 2 slumping, 2 loading errors, 1 column dislocation, 1 blasting method, 3 unknown
None	Yes	Blasting	Manufacture	Two x 12 metre 650 ms downlines have pulled out of the detonators prior to tying and firing a blast in 5 and 6 metre holes. There is an ongoing issue with this product.
Property damage	Yes	Blasting	Shotfirer	Flyrock from a blast penetrated the roof of a light vehicle parked in a pit.

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Nature of Harm	High Potential	Explosive Type	Industry Sector	Description
None	Yes	Blasting	Shotfirer	There was an exothermic reaction between ammonium nitrate contained in explosives and acidic ground. When a charge crew entered a drive to begin charging, thick black smoke was seen coming from the floor of the drive. A slot had been half charged on the previous shift and it appears that spilt ANFO lying on the floor of the drive has reacted with the acidic ground.
None	Yes	Blasting	Shotfirer	Two oversize rocks were being fired in a crusher rom hopper with two kilos of packaged emulsion explosives. Contract personnel were within 100 metres of the firing and did not receive warning.

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Safety and Health

Explosives Inspectorate

For : May 2008

Security

Incident	Explosives Type	Quantity	Description
Loss of explosives			None reported for the month
Theft of explosives	Blasting	2 cases of packaged emulsion	The residence of a licensed shotfirer was broken into and two cases of packaged emulsion were stolen. Inspectors are investigating the alleged illegal storage of the explosives at the residence. Due to the serious nature of this incident, an urgent suspension was placed on the shotfirers licence pending the investigation.
Other			None reported for the month

Safety

Nature of Harm	High Potential	Explosive Type	Industry Sector	Description
None	No	Blasting	Shotfirer	Twenty-one misfires – 5 initiation system failures, 5 slumping, 3 column dislocations, 2 loading method errors, 1 procedure error, 1 blasting method, 4 unknown.
None	Yes	Blasting	Manufacture	At one site, holes are slumping up to 5 metres, and there have been three instances of primers with dets being found in spoil. Causing the most concern is the LTW (Load Through Water) product.

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Property damage	Yes	Blasting	Shotfirer	Flyrock at a quarry caused minor damage to a shed on the site, located within the exclusion zone. A few days later, another flyrock incident at the quarry damaged a rail line and siding, also located within the exclusion zone.
Personal injury	Yes	Blasting	Manufacture - vehicle	An MPU operator opened a hatch on the vehicle and a release of nitrous oxides occurred. Three persons were taken to hospital for observation
Property damage	Yes	Blasting	Use	A Normet charge car caught fire underground. The AFFF deployed but did not completely extinguish the fire, and so a handheld extinguisher was used. It appears that a rag was left in the engine bay after maintenance.
Property damage	Yes	Blasting	Transport	A Government Explosives Reserve found that pallets being used by a manufacturer are not fit for the purpose, and are falling apart. While unloading a B-Double full of PPP 400 Boosters outside a magazine, a forklift operator noticed that some of the pallets were falling apart, with the timber coming adrift. While putting away the last pallet the forklift took a slight bump. When he came to a stop, he noticed the whole pallet of product move forward even though he had full back tilt, with the product hard up against the backboard of the fork lift. The explosive products fell and hit the concrete apron.

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Explosives Inspectorate

For : June 2008

Security

Incident	Explosives Type	Quantity	Description
Loss of explosives	Blasting	3 tonnes	Containment of Ammonium Nitrate Emulsion was lost while transferring product.
Theft of explosives			None reported for the month
Other	Blasting	1 box of safety fuses	A transporter left a box of safety fuses on a loading dock outside a Government Explosives Reserve magazine.

Safety

Nature of Harm	High Potential	Explosive Type	Industry Sector	Description
None	No	Blasting	Shotfirer	Thirteen misfires, 2 considered to be High Potential Incidents – 5 initiation system failures, 3 procedure errors, 2 loading method errors and 3 unknown
Property damage	Yes	Blasting	Shotfirer	A shed roof, 100 metres from an overburden shot, was damaged by flyrock.
Equipment damage	Yes	Blasting	Shotfirer	Fly rock, possibly caused by a face burst, damaged equipment at a reload area at the limit of the Equipment Exclusion Zone. All personnel were outside the Personnel Exclusion Zone and there were no injuries.

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Nature of Harm	High Potential	Explosive Type	Industry Sector	Description
Personal injury and property damage	Yes	Blasting	Shotfirer	An excavator operator sustained minor lacerations when flyrock, up to 20 kg in size, crashed through the windscreen and showered him with glass. The excavator bucket struck a primer/detonator in an unidentified, misfired shot. The contact caused the primer to initiate which caused the bulk product, about 50kg, to detonate. The operator was approximately 10m away from the blast and debris was thrown up to 230m away. Teeth from the excavator bucket were also blown off from the force of the blast.
None	Yes	Blasting	Use	A fenced-off misfire was disturbed by mining equipment, most likely a bulldozer.
None	Yes	Blasting	Transport	A Government Explosives Magazine Keeper noticed a tear in a bag of ANFO, before removing it from the carry box of a transport vehicle. The driver advised that it was caused by two pallets rubbing together during transit. There was no spillage
None	Yes	Blasting	Shotfirer	A blast crew was charging holes with emulsion explosive when reddish brown gases were noticed in the collars of a number of blastholes.
None	Yes	Blasting	Manufacture - vehicle	An MPU, while manoeuvring around loaded blast holes, drove over a loaded and stemmed blasthole and downline, narrowly missing the spool.
None	Yes	Blasting	Shotfirer	A light vehicle carrying explosives was struck by a loader in an underground coal mine.
None	Yes	Blasting	Shotfirer	While charging a blast hole with emulsion explosives a reddish/brown mist was noticed coming from the blasthole. The pit and underground mine were evacuated and the shot was monitored from the edge of the exclusion zone.

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Explosives Inspectorate

For : July 2008

Security

Incident	Explosives Type	Quantity	Description
Loss of explosives			None reported for July
Theft of explosives			None reported for July
Other			Magazine keys were not secured appropriately on two occasions

Safety

Nature of Harm	High Potential	Explosive Type	Industry Sector	Description
None	Yes	Blasting	Shotfirer	Twenty-eight misfires were reported across the State.
None	Yes	Blasting	Shotfirer	Two blast holes functioned prematurely due to reactive ground. There were no injuries.
None	Yes	Blasting	Shotfirer	A primer with detonator inserted was found during excavation.
None	Yes	Blasting	Shotfirer	A dozer ran over live initiating leads that were not sighted when the shotfirer cleared the blast.
Property damage	Yes	Blasting	Shotfirer	A blast at a quarry resulted in flyrock that damaged a vehicle and crushing-plant. There were no injuries.

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Explosives Inspectorate

For : August 2008

Security

Incident	Explosives Type	Quantity	Description
Loss of explosives	Blasting	Less than one pallet	None reported for August
Theft of explosives			None reported for August
Spillage	Blasting	Small amount	During the unloading of a vehicle at a Government Explosives Reserve, a Magazine Keeper found that a pallet of AMEX (ANFO) was leaking
Other			None reported for August

Safety

Nature of Harm	High Potential	Explosive Type	Industry Sector	Description
None	Yes	Blasting	Shotfirer	Twenty-five misfires reported across the State 7 Product failure, 5 Column dislocation, 3 Shotfirer error, 2 Slumping, 1 Geological, 1 Environmental, 6 unknown

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Nature of Harm	High Potential	Explosive Type	Industry Sector	Description
None	Yes	Blasting	Shotfirer	Explosives uncovered during excavations in the quarry pit have been left unmanaged by Quarry Manager and Explosive Authority Holder. There was no barricading nor was any management or control over the misfires apparent to Inspectors who visited the site. The quarry manager had no knowledge of what a misfire or explosive looks like. Shotfirer has failed to make misfire safe at time of identification
None	Yes	Blasting	Transport	While unloading vehicles at a Government Explosives Reserve, on two separate occasions a box of Magnum was found to be damaged. On one occasion, the damage was caused by two pallets rubbing together, which caused a tear in the boxes and exposed some of the plugs. On the other occasion, a Magazine Keeper noted that one box of Magnum located on the bottom of the pallet had been ripped open

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Explosives Inspectorate

For : September 2008

Security

Incident	Explosives Type	Quantity	Description
Loss of explosives			None reported for month of September
Theft of explosives			None reported for month of September
Other			None reported for month of September

Safety

Nature of Harm	High Potential	Explosive Type	Industry Sector	Description
Spillage	No	Blasting (Amex)	Transport	A pallet jack caught on the lip of the tailgate loader during loading, causing the bags on the pallet to spill.
None	Yes	Blasting	Shotfirer	Twenty-three incidents of misfires reported across the State in September : 6 column dislocation, 6 product failure, 6 shotfirer error, 3 slumping, 1 environmental, 1 unknown
None	Yes	Blasting	Shotfirer	One flyrock incident reported at a quarry
Equipment damage	Yes	Blasting	Transport	A "B" trailer has cracked along the width of a trailer carrying High Explosives. There were no damaged and / or spilt explosives

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Explosives Inspectorate

For : October 2008

Security

Incident	Explosives Type	Quantity	Description
Loss of explosives			None reported for month
Theft of explosives			None reported for month
Other			None reported for month

Safety

Nature of Harm	High Potential	Explosive Type	Industry Sector	Description
None	Yes	Blasting	Shotfirer	Eight misfires reported across the State • 5 shotfirer error, 1 column dislocation, 1 product failure ,1 unknown
None	No	Blasting	Transport	25KG AMEX (ANFO) bags moved off a pallet during transport
None	Yes	Blasting	Shotfirer	A detonator without a lead was found in a rock pile near crusher at a quarry.

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Explosives Inspectorate

For : November 2008

Security

Incident	Explosives Type	Quantity	Description
Loss of explosives	Blasting (Signal)	1 only	Loss of Railway Track Signal from QRail Caboolture during storm activity
Theft of explosives	Blasting (Signal)	3 only	Theft of Railway Track Signals from QRail Central Station Brisbane
Other			None reported

Safety

Nature of Harm	High Potential	Explosive Type	Industry Sector	Description
None	Yes	Blasting	Shotfirer	Seventeen misfires reported across the State : 5 product failure, 3 shotfirer error, 2 slumping, 2 column dislocation, 2 environmental (rain), 3 unknown
Loss of Product	Yes	Ammonium Nitrate	Transport	Spillage of ammonium nitrate from vehicle entering Government Explosive Reserve

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Safety and Health

Explosives Inspectorate

For : December 2008

Security

Incident	Explosives Type	Quantity	Description
Loss of explosives	150 gram boosters	8 only	A loss was reported following the non-reconciliation of stock on the shot. Boosters were not located during a search undertaken prior to firing. The police were notified.
Theft of explosives			None reported for month of December 2008
Other	unknown	Shipping containers	Loss of key for security locks for transshipment of shipping containers

Safety

Injury or property damage	High Potential	Explosive Type	Industry Sector	Description
None	Yes	All types	Store	The Explosives Reserve was closed due to electrical storms.
property damage	Yes	Blasting	Shotfirer	Flyrock struck a blast guard's vehicle
property damage	Yes	Unknown	Transport	An explosives truck damaged the fence and gate at a Government Explosives Reserve . Slight damage was done to the carry box.
None	Yes	Blasting	Shotfirer	8 shots misfired in December 2008, 2 from column dislocation, 6 unknown causes
damaged product	Yes	Detonators	Import	A shipping container had some cases of detonators damaged suspected from dropping of the container.

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