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GENERAL NOTICE

NOTICE 433 OF 2007

DRAFT EXPLOSIVE REGULATIONS 2007

The Minister for Safety and Security intends to put the Explosives Act, 2003, (Act No. 15 of 2003) in operation once the Explosive Regulations has been finalised. Draft Regulations are hereby published for general information and comment from interested parties.

IMPORTANT NOTE: This is merely a working document which is used to obtain the input of interest groups. The finalisation of the draft Regulations, will ultimately be done after the consultation process has been concluded.

NO PART OF THE CONTENT OF THIS DOCUMENT OR ANY ALTERATION THEREOF MAY BE CONSIDERED AS A COMMITMENT TO THE FINAL PROVISIONS OF THE REGULATIONS

Kindly note that as this is a working document certain technical correction with regard to the numbering, spacing and general layout still need to be done.

Any comments, contributions or proposals on the Regulations may be submitted within 6 weeks from the date of publication of this Notice in writing to the following;

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PRETORIA

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DRAFT EXPLOSIVES REGULATIONS

Issued in terms of section 33(1) of the Explosives Act, 2003 (Act No 15 of 2003)

2007-02-28

DEPARTMENT OF SAFETY AND SECURITY**Explosives Act, 2003 (Act No. 15 of 2003)****Regulations**

The Minister for Safety and Security has, under section 33 of the Explosives Act, 2003 (Act No. 15 of 2003), read with the provisions of section 14 of the Interpretation Act, 1957 (Act No. 33 of 1957), made the Regulations in the Schedule.

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EXPLOSIVES REGULATIONS

Definitions

1. In these Regulations any word or expression to which a meaning has been assigned in the Act, will have the meaning so assigned and, unless the context otherwise indicates -

“ammonium nitrate emulsions and gels, intermediate for blasting explosives” means a mixture of ammonium nitrate with one or more other oxidisers and one or more fuels, with or without the addition of any other substance which is intended for use in the manufacture of explosives or for on-site manufacturing;

“black powder” means a substance consisting of an intimate mixture of charcoal or other carbon and either potassium nitrate or sodium nitrate, with or without sulphur, and **“gunpowder”** has a similar meaning;

“blaster” means a suitable person who is in possession of a valid permit referred to in section 15(1)(a) of the Act;

“blasting” means the firing of blasting explosives for such purposes as breaking rock or other material, moving material, or other similar activity approved by the Chief Inspector, and **“blast”** has a similar meaning.

“blasting adviser” means a person, who through extended study, training and experience is specialised in one or more fields of blasting techniques;

“blasting business” means any person, company, partnership or any other form of organisation that, for the furtherance of his, her or its trade, requires the use of explosives and that employs qualified persons in pursuance thereof;

“blasting cartridge” means explosives in Classes 1.1D and 1.5D when encapsulated in any casing or contrivance or otherwise adapted or prepared so as to form a cartridge for use in blasting activities.

“blasting explosives” means any explosives used for the purpose of blasting;

“blasting manager” means a full-time employee of a blasting business who is responsible for the management and control of one or more blasting sites operated by the blasting business;

“blasting method” means all the processes involved in preparing for the carrying out of a successful blast;

“blasting site” means the area where explosives are handled during charging, including the perimeter of blast holes and 20 metres in all directions from charged holes and contiguous holes that are to be charged;

"booster" means articles consisting of a charge of explosives in Classes 1.1D or 1.2D with or without means of initiation, used to increase the initiating powers of detonators or detonating cord;

"breaker" means any implement used for breaking or loosening rock, shale, earth, ground or any material which it was found necessary to blast;

"CAA" means the South African Civil Aviation Authority established in terms of section 2 of the South African Civil Aviation Authority Act, 1998 (Act No. 40 of 1998);

"Class" means combined Class, Division and Compatibility Group as set out in Annexure "A";

"continuous transport permit" means a transport permit issued by the Chief Inspector, where explosives are being transported on the same route on a regular basis;

"detonating cord" means an article consisting of a core of detonating explosive enclosed in spun fabric with plastic or other covering, unless the spun fabric is sift-proof, or clad by a soft metal tube with, or without protective covering;

"detonator" means a small metal or plastic tube which contains an explosive in Class 1.1A or a mixture of such explosives with or without the addition of an explosive in Class 1.1D, designed to start a detonating train and may be constructed to detonate instantaneously or may contain a delay element. This includes detonators for ammunition, detonators for blasting (electric or non-electric) and detonating relays, but excludes **"primers cap type"**;

"distress signal" means **"signal"**;

"explosives vehicle" means a vehicle traveling by road licensed in terms of regulation 32(1);

"Firearms Control Act" means the Firearms Control Act, 2000 (Act No. 60 of 2000);

"foreman blaster" means a blaster appointed in writing by the blasting manager to supervise all blasters at any site where more than one blaster is employed;

"gunpowder" means **"black powder"**;

"harbour master" means a person appointed in terms of section 74(3) of the National Ports Act, 2005 (Act No. 12 of 2005) to control a port;

"ICAO" means the International Civil Aviation Organisation established in terms of the Convention on International Civil Aviation, signed at Chicago on 7 December 1944;

"ICAO Instructions" means the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* as adopted and published by the Council of ICAO which

are based on the requirements of Annexure 18 to the Convention on International Civil Aviation (Chicago, 1944);

"IMDG Code" means the *International Maritime Dangerous Goods Code* as published by the IMO;

"IMO" means the International Maritime Organisation established at a United Nations Convention in Geneva on 17 March 1948;

"inner packaging" means a substantial case, bag, canister or other receptacle, made and closed so as to prevent spillage of any explosives and that requires an outer package for transport and storage purposes;

"intermediate bulk container (IBC)" means a purpose-made self-supporting container, with or without structural equipment, of nominal capacity in the range 250 to 3 000 litres, and provided with handling equipment to facilitate mechanical handling;

"learner blaster" means a suitable person appointed in writing as such by a blasting manager to be trained to become a blaster or to be an assistant to a blaster and whose appointment is registered with the Chief Inspector before he or she commences his or her training;

"magazine master" means a person appointed as such in terms of regulation 36(1);

"master" of a ship means any person, excluding a harbour pilot, having command of a boat or ship;

"misfire" means a drill hole or part thereof in which the blasting explosives, or any portion thereof, charged into the hole has failed to explode or of which the contents are unknown, or explosives that fail to initiate as planned;

"outer packaging" means a box, bag, barrel, case or cylinder of wood, metal, fibreboard, or other solid or combination packaging together with any absorbent material, cushioning and any other component necessary to contain and protect inner receptacles or inner packages of such strength, construction and character that it will not be broken or accidentally opened, nor become defective or insecure while being conveyed or stored and will not allow any spillage of explosives;

"permitted explosives" means authorised explosives conforming to SANS 1484 and approved for use in fiery mines;

"percussion caps" means **"primers, cap type"**

"pilot" means a commanding officer of an aircraft;

"primers, cap type" means articles that consist of metal or plastic caps containing a small amount of primary explosives or a mixture of primary explosives that is readily ignited by impact and that serve as igniting elements in

small cartridges, and in percussion primers for propelling charges, and include **"percussion caps"** for use in muzzle loading firearms;

"primer cartridge" means a blasting cartridge into which a detonator for blasting, electric or non-electric, with or without a booster, is inserted;

"private use" means the use of explosives by a person for purposes not connected with any trade or business;

"public building" means a church, university, college, school, hospital, public institution, town hall, court of justice, covered market, supermarket, shopping mall, shop, theatre, concert or recreation hall, office building, workshop, sports ground, stand, museum and any erection of a like nature where people usually assemble, and also a hotel, motel, house and any other dwelling used as a residence;

"public place" means any street, road, square, thoroughfare, sanitary lane, park, beach, recreation or sports grounds or any open space to which the public has access, or which is used by the public or is open for the use by the public or any section of the public;

"pyrotechnics" means explosive substances or articles specifically manufactured for creating visual or sound effects, or both such visual and sound effects, and include fireworks and emergency and military signalling devices;

"Railway Safety Regulator" means a juristic person, comprising of a board, a chief executive officer and staff, established in terms of section 4 of the Railway Safety Regulator Act, 2002 (Act No.16 of 2002);

"railway track signal" means **"signal"**;

"registered" means making a written and formal record of explosives users, manufacturers, importers, exporters, dealers, transporters and brokers, or employees of such users, manufacturers, importers, exporters, dealers, transporters and brokers in a list kept by the Chief Inspector and registration has a similar meaning;

"registered blaster" means any person who has been registered as such by the Chief Inspector;

"rock breaking cartridges (RBC)" means sealed tubular containers filled with deflagrating explosives or chemical mixtures, which upon ignition create gas to break or split rock, if properly confined, and includes power device cartridges used for rock breaking;

"SABS" means the South African Bureau of Standards;

"SAMSA" means the South African Maritime Safety Authority established in terms of section 2(1) of the South African Maritime Safety Authority Act, 1998, (Act No. 5 of 1998);

"SANS" means South African National Standard;

"SANS 120" means the South African National Standard for *Stemming for use in blasting*, published by Standards South Africa, a division of the SABS;

"SANS 953-1" means the South African National Standard for *Storage of firearms and ammunition Part 1: Safes*, published by Standards South Africa, a division of the SABS;

"SANS 953-2" means the South African National Standard for *Storage of firearms and ammunition Part 2: Strongrooms*, published by Standards South Africa, a division of the SABS;

"SANS 1484" means the South African National Standard for *Permitted explosives*, published by Standards South Africa, a division of the SABS;

"SANS 1518" means the South African National Standard for *Transport of dangerous goods - Design requirements for road vehicles and portable tanks*, published by Standards South Africa, a division of the SABS;

"SANS 1910" means the South African National Standard for: *Portable refillable fire extinguishers*, published by Standards South Africa, a division of the SABS;

"SANS 9001" means the South African National Standard for *Quality management systems - Requirements*, published by Standards South Africa, a division of the SABS;

"SANS 10313" means the South African National Standard for *The protection of structures against lightning*, published by Standards South Africa, a division of the SABS;

"SANS 10228" means the South African National Standard for *The identification and classification of dangerous goods for transport*, published by Standards South Africa, a division of the SABS;

"SANS 10229-1" means the South African National Standard for *Transport of dangerous goods - Packaging and large packaging for road and rail transport Part 1: Packaging*, published by Standards South Africa, a division of the SABS;

"SANS 10229-2" means the South African National Standard for *Transport of dangerous goods - Packaging and large packaging for road and rail transport Part 2: Large packaging*, published by Standards South Africa, a division of the SABS;

"SANS 10232-1" means the South African National Standard for *Transport of dangerous goods - Emergency information systems, Part 1: Emergency information system for road transport*, published by Standards South Africa, a division of the SABS;

"SANS 10232-2" means the South African National Standard for *Transport of dangerous goods - Emergency information systems, Part 2: Emergency information system for rail transport*, published by Standards South Africa, a division of the SABS;

"SANS 10233" means the South African National Standard for *Transport of dangerous goods - Intermediate bulk containers*, published by Standards South Africa, a division of SABS;

"SANS 10325-2" means the South African National Standard for *The safe application of detonator systems for use in mining and civil blasting applications, Part 2: Electric detonator systems - Shot exploder based*, published by Standards South Africa, a division of SABS;

"shot exploder" means a shot-firing device as specified in SANS 10325-2, used to release power to electrically or electronically initiate explosives and which is fitted with a removable operating handle or key or with a locking device to secure it against unauthorised use;

"siding" means a short railway track to and from which trains may be shunted;

"signal" means an article containing pyrotechnic substances designed to produce a signal by means of sound, flame, smoke or any combinations thereof and includes hand held signals, ship distress signals, railway track signals and smoke signals;

"smokeless powder" means a substance generally based on nitrocellulose, used as a propellant and includes propellants with a single base, consisting of only nitrocellulose, propellants with a double base consisting of a mixture of nitrocellulose, nitroglycerine and propellants with a triple base consisting of a mixture of nitrocellulose, nitroglycerine and nitroguanidine;

"socket" means any portion of a drill hole which remains after all the blasting explosives charged into the hole have exploded and which is proved by examination not to be a misfire;

"stemming" means inert material used as filling in blast holes intended to confine the explosive gasses for an effective blast;

"tamp" means the consolidation of stemming and blasting explosives in a blast hole and includes **"tamping"**;

"testing facility" means a facility registered with the Chief Inspector for the testing of explosives;

"UN Number" means an identification number of dangerous substances and goods contained in SANS 10228;

"UN Recommendations" means the *Recommendations on the Transport of Dangerous Goods - Model Regulations*, as prepared by the United Nations Economic and Social Council's Committee of Experts on the Transport of Dangerous Goods, published for and on behalf of the United Nations;

"UN Test Manual" means the *Recommendations on the Transport of Dangerous Goods - Manual of Tests and Criteria*, supplement to the UN Recommendations;

“wharf” includes a wharf, quay, dock or any premises in or upon which any goods, when unloaded from ships, may be placed;

CHAPTER 1

INTRODUCTORY PROVISIONS

Authorisation and classification of explosives

2. (1) Explosives listed in the list of authorised explosives may be manufactured, acquired, supplied, imported, exported, transported, stored and used subject to the provisions of the Act and these Regulations.
- (2) The manufacture, acquisition, supply, importation, exportation, transportation, storage or use of explosives other than those referred to in sub-regulation (1) is prohibited, except –
 - (a) in an explosives manufacturing workplace;
 - (b) in small quantities for purposes of classification; or
 - (c) in small quantities for research and test purposes in tertiary educational institutions or laboratories registered by the Chief Inspector, with the permission of and under conditions prescribed by the Chief Inspector.
- (3) For the purpose of classification, explosives are subdivided into Divisions and assigned to Compatibility Groups as per Annexure “A.”

REGISTRATION OF USERS, MANUFACTURERS, IMPORTERS, EXPORTERS, DEALERS, TRANSPORTERS AND BROKERS

Registration of natural persons

3. (1) No person, who is not registered with the Chief Inspector may use, test, destroy, manufacture, import, export, possess, transport, store, acquire or supply explosives or act as a broker with regard to explosives.
- (2) Application for registration with the Chief Inspector must be in writing, and must include -
 - (a) name of the person;
 - (b) full address including business, physical and postal address;
 - (c) telephone, cellphone and fax numbers; and
 - (d) e-mail address, if available.

- (3) The application for registration must be accompanied by a certified copy of a valid clearance certificate, issued by the Criminal Record Centre of the South African Police Service within three months preceding the date of application.
- (4) A certified copy of the identity document showing the photo and personal details of the applicant as well as two recent passport photos must accompany the application for registration.
- (5) Certified copies of relevant qualifications related to explosives.
- (6) Registration depends on the determination of suitability of the applicant.

Additional information for juristic persons

4. If the applicant is a company, close corporation, partnership or trust, the application must be accompanied by -
 - (1) a certified copy of a valid clearance certificate issued by the Criminal Record Centre of the South African Police Service within three months preceding the date of application for the person appointed by the company to be responsible for the control of the explosives or the management thereof and who will legally be responsible for any actions regarding the explosives;
 - (2) certified copies of the identity document showing the photo and personal details of the person mentioned in sub-regulation (1);
 - (3) letter of appointment on the company letterhead, appointing the person contemplated in sub-regulation (1);
 - (4) certified copies of the official registration certificates for the close corporation or company; and
 - (5) certified copy of the mining licence issued by the Department of Minerals and Energy in the case of a mine.

Change of information

5. Any person, company, close corporation, partnership or trust, registered with the Chief Inspector, must, within 30 days inform the Chief Inspector of any change of information as it appears on the registration certificate.

Granting, issuing, expiry, cancellation and suspension and amendment of licences and permits

6. (1) Any licence or permit may be granted or issued when all relevant requirements as prescribed in Chapters 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 15,

16, 17, 18, 19 and 20 are complied with, and may contain conditions to enhance safety and security.

- (2) Licences and permits expire on a date indicated on the permit or licence.
- (3) Cancellation of a licence or permit takes place when -
 - (a) the licensee or permit holder requests cancellation;
 - (b) the necessity of the licence or permit no longer exists;
 - (c) so ordered by a court of law; or
 - (d) sanctions are imposed by the United Nations Security Council.
- (4) Suspension of a licence or permit takes place when circumstances necessitate the temporary suspension of the licence or permit by the Chief Inspector or inspector to ensure compliance with the regulations or conditions of the licence or permit by the licensee or to facilitate the investigation of transgressions of these Regulations.
- (5) When required, original licences or permits must be returned to the Chief Inspector within five working days after the licence or permit has been suspended, cancelled or has expired, as the case may be.
- (6)
 - (a) Licences and permits may be amended by the Chief Inspector upon written request of the holder of such permit or licence.
 - (b) Whenever an amendment is required the original licence or permit must be returned to the Chief Inspector.

Record keeping and statistics

- 7.
 - (1) All registers required by the Chief Inspector in regulations 16(12), 18(8), 39(3), 43(2), 86(6), 94(3), 102(3), 110(3), 111(4) and 112(1)(b) must be kept according to the minimum requirements as specified in Annexure "Q".
 - (2) All records required by the Chief Inspector must be kept for at least three years.
 - (3) All statistics required by the Chief Inspector must be kept for at least five years.

DESTRUCTION, DISPOSAL AND DECONTAMINATION

Powers of inspectors to enter premises

- 8.
 - (1) An inspector may take such steps as he or she may deem necessary to gain entrance to any premises -

- (a) whenever one of the following has been abandoned -
 - (i) a place where explosives have been manufactured under these Regulations;
 - (ii) a magazine or other place of storage;
 - (iii) a place of use; or
 - (iv) any vehicle used in manufacturing or transporting explosives.
 - (b) where there is a reasonable suspicion that explosives are kept in contravention of the Act in any of the above premises; or
 - (c) at any other place where there is a reasonable suspicion that explosives are kept in contravention of the Act; or
 - (d) where the owner of explosives or the licensee fails to comply with the lawful instructions of an inspector regarding the disposal of explosives.
- (2) Where any such premises, vehicle or site may be contaminated with explosives, he or she must take steps to decontaminate, by destruction or otherwise, such premises, vehicle or site.
 - (3) The owner of the explosives or the licensee of such premises, vehicle or site will be liable for any expenses incurred by the State in the safe disposal of such explosives and the decontamination of the premises, vehicle or site, and for any damage suffered by a third party as a direct result of such destruction or decontamination.
 - (4) An inspector may only act in terms of sub-regulation (1) after all reasonable steps have been taken to determine who the owner or responsible person is.

Disposal and destruction

- 9. (1) No person may destroy or attempt to destroy explosives by burying, hiding, or abandoning them, or by dissolving, submerging or dumping them.
- (2) (a) Explosives must only be destroyed when no other method of disposal is suitable.
- (b) No persons other than a blaster or a person specially designated, in writing, by an inspector to do so, may destroy or attempt to destroy or be allowed to destroy or attempt to destroy any explosives.
- (3) (a) The manufacturer of explosives must prescribe the manner in which any explosive supplied by him or her, must be destroyed.

- (b) An importer of explosives must obtain information from the foreign manufacturer or supplier who supplied explosives to him or her, on the manner in which such explosives must be destroyed.
 - (c) The manufacturer or importer must on request supply such methods to any customer, blaster or any other person who has a legitimate interest therein, and who intends to destroy explosives supplied by such manufacturer or importer.
- (4) Destruction methods must be so designed that -
 - (a) they cause no danger to people or property; and
 - (b) they will cause as little damage to the environment as is commensurate with safety.
- (5) Destruction must be carried out according to the methods laid down by the manufacturer or importer.
- (6)
 - (a) Where no such methods have been made available to the person who intends to carry out the destruction or where such method is impractical, such person must not proceed with such destruction but must notify the inspector who will then advise on the most suitable method of destruction.
 - (b) The contents of Annexure "B", must be consulted for acceptable destruction methods.
- (7)
 - (a) Whenever explosives in excess of-
 - (i) In Compatibility Group B, one case or 1000 items whichever is the lesser;
 - (ii) In Compatibility Groups C and D, one case or 25 kilogram gross mass whichever is lesser; and
 - (iii) In Compatibility Groups G and S one case or five kilogram gross mass or 1000 items whichever is lesser;have to be destroyed, the destruction may not be proceeded with, without the written permission of an inspector.
 - (b) Explosives in different Compatibility Groups may not be destroyed at the same place at the same time, nor be kept together at the same place awaiting destruction.

Decontamination

10. (1) No person may transfer or permit another person to transfer any plant, vehicle, container, packaging, equipment or any part thereof to another person for the purpose of sale, carrying out repairs, recovery or recycling of any material, or any other form of disposal unless he or she ensures that such item does not contain any explosives, or where any such item may have been contaminated with explosives, has been effectively decontaminated.
- (2) No person may transfer or permit the transfer, sale or otherwise dispose of any land which may be reasonably expected to have been contaminated with explosives, to another person, until all reasonable steps have been taken for the effective decontamination of such land and written proof of analysis of the land is provided.
- (3) The requirements of sub-regulations (1) and (2) do not apply to the legal supply and acquisition of explosives, nor to the transfer of explosives in pursuance of normal duties.
- (4) Sub-regulations (1), (2) and (3) also apply where any land, plant, vehicle, container, packaging, equipment or any part thereof is transferred to a person who is not exempt by any provisions of section 2 of the Act.

Penalties

11. (1) A person who fails to follow the instructions of the Chief Inspector or an inspector, or who fails to furnish information or documents to the Chief Inspector or an inspector, when so required within the specified period, will, irrespective of any criminal proceedings instituted under the Act or administrative proceedings under these Regulations -
- (a) be liable to a penalty not exceeding R 1 000 for every day during which the failure continues; or
- (b) for a second or subsequent contravention or non-compliance, be liable to a penalty not exceeding R 10 000 for every day during which the failure continues.
- (2) A person who contravenes or fails to comply with a provision of these Regulations, is guilty of an offence and liable on conviction to a fine or imprisonment for a period not exceeding one year : Provided that if the conviction is the result of a contravention of, or failure to comply with a provision of regulations 9(1), 9(2)(b), 10(21), 10(2), 31(25)(a), 61(3)(b) and 61(7), the person is liable to a fine or imprisonment for a period not exceeding five years.
- (3) Explosives seized, must be dealt within terms of the Criminal Procedure Act, 1977 (Act No. 51 of 1977).

CHAPTER 2

MANUFACTURING OF EXPLOSIVES

Manufacturing at a blasting site

12. The permission to manufacture explosives at a blasting site as contemplated in section 14(4)(b) of the Act is confined to explosives consisting of -
- (1) a mixture of ammonium nitrate, with or without other inorganic nitrates, with combustible substances which are not explosive substances, which is classified as UN Number 0082, Class 1.1D; or
 - (2) a mixture of ammonium nitrate, with or without other organic nitrates, partially or wholly dissolved in water and with the addition of any or all of the following:
 - (a) ammonium nitrate emulsions and gels, intermediate for blasting explosives, which is classified in terms of these Regulations as UN Number 3375;
 - (b) combustible substances which are not explosive substances;
 - (c) substances which control the density of the final mix, either by chemical reaction or mechanically, and the final mix is classified as UN Number 0241, Class 1.1D.

Application for permission to manufacture

13. (1) The applicant must conduct a risk assessment to address all possible risks on any equipment he or she intends to use in the manufacture of the explosives as contemplated in regulation 12.
- (2) The applicant must prepare a written report on such risk assessment, and a copy of such report including the risk assessment must be submitted to the Chief Inspector.
- (3) When applying for permission in terms of section 14(4)(b) of the Act, the applicant must declare or submit -
- (a) the physical location and description of the site or sites where the mixing and use of the relevant explosives will take place;
 - (b) the source of the ammonium nitrate, including ammonium nitrate emulsions and gels intermediate for blasting explosives;
 - (c) the nature and composition of the explosive;
 - (d) the limiting percentages of each of the ingredients of the explosive;

- (e) the proprietary name and identification given to the ammonium nitrate emulsion and gels, intermediate for blasting explosives, as defined;
 - (f) a description of the equipment to be used as well as of any ancillary equipment which may be required to facilitate charging of the drill holes, together with three copies of a plan or plans of equipment showing -
 - (i) the outlay;
 - (ii) the materials of construction;
 - (iii) the position and capacity of any of the containers provided for the storage of ingredients;
 - (iv) a process flow chart; and
 - (v) the manner in which the equipment will be powered; and
 - (g) that only stainless steel or another material approved by the Chief Inspector is used in the manufacture of any part which comes into direct contact with any nitrate or finished product.
- (4) If the equipment is to be installed on a mechanically propelled vehicle, the information required by the Chief Inspector for the licensing of mechanically propelled vehicles as per Annexure "E" of these Regulations must also be furnished.
- (5) (a) Before an application contemplated in sub-regulation (3) is approved, the applicant must draft operating instructions, specifying in detail -
- (i) the procedures to be followed before starting the equipment;
 - (ii) the procedures for the operation of the equipment;
 - (iii) the procedures to be followed at the end of a loading cycle to ensure that all the explosives manufactured, are delivered in a blast hole before activities cease;
 - (iv) the procedures for cleaning of the equipment at the end of the shift and when the equipment is removed from the site;
 - (v) the procedures for decontaminating the equipment or parts thereof before repairs are carried out or parts replaced;
 - (vi) procedures for the management of explosive waste; and

(vii) procedure for emergencies.

- (b) The operating instructions must be dated and have a reference number before a copy thereof is submitted to the Chief Inspector for record purposes.

Use of licensed equipment

14. (1) When the Chief Inspector is satisfied with the information submitted in terms of regulation 13(3) and (5), and after an inspector has inspected such equipment he or she must issue a licence for the relevant equipment, and may add such conditions that he or she deems fit.
- (2) (a) A licensee of the equipment must appoint, in writing, a person who is properly trained in the use of the relevant equipment, to be the operator in charge of that equipment during activities.
- (b) A licensee must issue a copy of the latest operating instructions of the relevant equipment to the operator thereof, who must acknowledge receipt thereof, in writing.
- (c) Where a mechanically propelled vehicle is used with equipment, such operating instructions, as well as a copy of the licence must be kept in the cab of the vehicle, where it must be available for perusal by an inspector.
- (3) Depending on the site where the licensed equipment is to be used, that equipment must be operated -
- (a) under the supervision of a blaster; or
- (b) in accordance with the provisions of section 9 of the Mine Health and Safety Act, 1996 (Act No. 29 of 1996).
- (4) (a) An operator of licensed equipment must keep a full record -
- (i) of the date of any transaction;
- (ii) the types and quantities of ingredients received;
- (iii) the quantity and type of explosives delivered;
- (iv) the on-site test results if any; and
- (v) any remarks regarding the operation of the licensed equipment.
- (b) A person in charge of blasting activities must acknowledge, in writing, on the delivery note receipt of the relevant explosives.

- (c)
 - (i) The records contemplated in paragraph (a) must be kept by the licensee or a person acting on behalf of the licensee for a period of three years.
 - (ii) A copy of the records contemplated in paragraph (a) must be kept in a place where it is easily available for perusal by an inspector.
- (5) In addition to operating the licensed equipment for use at a place under his or her control, the licensee may also agree to the use of such equipment on behalf of another party: Provided that -
 - (a) the operator in charge of such equipment must be an employee of the licensee; and
 - (b) a transport permit as specified in regulation 28(1) has been issued.
- (6) (a) The licensee may take samples of the products during loading activities for the purpose of -
 - (i) testing at the blasting site; or
 - (ii) testing and analysis at any testing facility or any other laboratory facility registered with the Chief Inspector.
- (b) For the purposes of testing and analysis, the licensee must apply for a transport permit, if the testing facility is not on the same premises as the blasting site.
- (7) The ingredients in the manufacturing equipment must be stored in a manner to prevent accidental mixing of any of the ingredients through spillage, while filling the containers of the equipment or in any other manner.

Preparation for immediate use

- 15. (1) The Chief Inspector may issue a permit in terms of section 14(4)(b) of the Act to prepare explosives for immediate use.
- (2) In the case of explosives used for blasting, the permission contemplated in section 14(4)(b) of the Act may apply to -
 - (a) the repacking of such explosives at a premises licensed by the Chief Inspector, for dispatch to the workings of a mine;
 - (b) preparing primer cartridges at or near a blasting site for immediate use;
 - (c) the testing for continuity of detonators, igniters and similar articles which depend on electrical discharge for their functioning, and which may be tested individually or in a circuit: Provided that the person

carrying out these tests, takes all reasonable precautions to ensure that no accidental early initiation can occur or that any life or property is endangered by premature initiation;

- (d) the preparation of charges for the demolition of a building or structure;
 - (e) the preparation of charges used in furnace blasting; and
 - (f) any other specialised blasting operations.
- (3) In the case of the use of fireworks, pyrotechnics and explosives by registered pyrotechnicians in terms of Chapter 16 and the use of model rocket motors in terms of Chapter 17, the permission contemplated in section 14(4)(b) of the Act may apply to -
- (a) the preparation, assembly and fusing of fireworks for fireworks displays at the place of intended use;
 - (b) the preparation, assembly and fusing of pyrotechnics or explosives for use in theatrical, television, film or other special effects, performances or productions, at the place of intended use; and
 - (c) the preparation, assembly and fusing of model, experimental or high power rockets at the place of intended use.

CHAPTER 3

SMOKELESS POWDER AND BLACK POWDER

ACQUISITION, TRANSPORT, STORAGE AND USE OF SMOKELESS POWDER

Dealers in smokeless powder

16. (1) This regulation exclusively refers to smokeless powder, UN Numbers 0160 and 0161.
- (2) (a) Any person, who is a manufacturer or importer of smokeless powder, or is licensed in terms of the Firearms Control Act, 2000, to deal in arms and ammunition, may apply to the Chief Inspector for a licence to deal in smokeless powder issued in terms of section 13 of the Act.
- (b) The application must be in accordance with Annexure "N".
- (3) (a) Smokeless powder obtained under these Regulations, must be packed in sealed containers as supplied by the manufacturers and approved by the Chief Inspector.

- (b) The approved containers must be packed in an outer fibreboard box complying with the requirements of specification 4G of SANS 10229, containing not more than 50 X 500 gram containers.
- (4) A licensed dealer may, in terms of these Regulations keep on his or her premises smokeless powder in a quantity not exceeding 100 kilograms net gross mass: Provided that -
 - (a) the powder is stored in a strongroom or safe on the premises;
 - (b) inner approved sealed containers are not opened on the premises; and
 - (c) no person is allowed to smoke or produce a flame on the premises, allocated for smokeless powder.
- (5) The Chief Inspector may, if convinced by a fully motivated, written application by a dealer and after an inspection or investigation that he or she may deem fit, that the premises is suitable for the safe and secure storage of a quantity not exceeding 250kg of smokeless powder, in writing, authorise the applicant to keep such larger quantity of smokeless powder.
- (6) A licensed dealer may obtain from a supplier within the Republic not more than 100 kilograms of smokeless powder, and for the purpose of such acquisition, the licence issued in terms of section 13(1) of the Act will be deemed to be a transport permit issued in terms of these Regulations.
- (7) The number of the relevant licence must be quoted on the consignment note or invoice covering the transaction envisaged in sub-regulation (6).
- (8) The consignment note or invoice referred to in sub-regulation (7) must accompany the consignment from the supplier to the dealer and must be kept by the dealer for at least three years.
- (9) A person to whom a firearm transporter's permit has been issued in terms of section 86 of the Firearms Control Act, 2000, may transport smokeless powder in a quantity not exceeding 100 kilograms that is packed in accordance with these Regulations when such powder is transported in a vehicle not licensed in terms of regulation 32(1).
- (10) A licensed dealer may use a vehicle not licensed in terms of regulation 32(1) to transport smokeless powder from a supplier or from a railhead directly to his or her premises: Provided that during such transportation -
 - (a) the quantity of the smokeless powder does not exceed 100 kilograms;
 - (b) the driver and only one other person, who is not under the age of 16 years old, travel in or on the vehicle;

- (c) the powder is transported in such a way so as to prevent unauthorised access thereto; and
 - (d) no smoking is allowed in or on the vehicle.
- (11) A licensed dealer must supply smokeless powder in its original sealed containers to -
 - (a) persons contemplated in regulation 17(1), on production of one or more valid firearm licences, in a quantity not exceeding two comma five kilograms.
 - (b) persons contemplated in regulation 17(3), on production of the permission intended in that regulation and in the quantities stipulated on that permission.
- (12) In terms of section 21 of the Act, a licensed dealer must, in respect of each transaction, keep a register as specified in Annexure "Q" Part 1 Form A.

Users of smokeless powder

17. (1) Any person who is in possession of one or more valid firearm licences issued in terms of the Firearms Control Act, 2000, may obtain, keep and use smokeless powder for the sole purpose of reloading cartridges for use in his or her licensed firearm.
- (2) A person contemplated in sub-regulation (1), may keep on his or her premises smokeless powder, provided that the net mass of smokeless powder does not exceed two comma five kilograms.
- (3) The Chief Inspector may authorise a dedicated hunter or dedicated sports person to obtain and keep on his or her premises smokeless powder with a net mass not exceeding ten kilograms, provided that such hunter or sports person provides the Chief Inspector with a written application and with certified copies of all applicable licences, permits, certificates or authorisations to possess firearms and proof that he or she is such a dedicated hunter or sports person.
- (4) If the premises referred to in sub-regulations (2) and (3) are shared by other licensed persons, dedicated hunters or dedicated sports persons as contemplated in these Regulations, each such person may keep the quantities prescribed, provided that no more than the quantities provided for in regulations 16(11)(a) and 17(3) may be kept in a single safe, sturdy cabinet or similar container.
- (5) (a) The smokeless powder must be stored and locked away in a safe, sturdy cabinet or similar container on the premises; and
- (b) no smoking or the production of a flame is allowed where the safe, sturdy cabinet or similar container containing the smokeless powder is kept.

- (6) Smokeless powder obtained in terms of sub-regulations (1) and (3), may be transported by a vehicle not licensed in terms of regulation 32(1), to a place of storage: Provided that -
- (a) the powder is transported inside the vehicle;
 - (b) the vehicle proceeds directly from the supplier to the place of storage;
 - (c) the container may not under any circumstances be opened *en route*; and
 - (d) no smoking is allowed in or on the vehicle.
- (7) A person obtaining smokeless powder in terms of sub-regulations (1) and (3) must -
- (a) produce his or her licences to possess a firearm, permission issued in terms of sub-regulation (3), if applicable, and his or her identity document;
 - (b) furnish information or contemplated in Annexure "Q" Part 2 Form A to the dealer or a person acting on behalf of such dealer; and
 - (c) accept the powder acquired only if it is packed in accordance with regulation 16(3)(a).
- (8) A person keeping smokeless powder in terms of these Regulations may reload cartridges for firearms: Provided that -
- (a) the reloaded cartridges are for use in his or her licensed firearms only and may not be supplied to any other person; and
 - (b) all possible precautions are taken to prevent injury to persons.
- (9) Smokeless powder must not be stored in the same safe, sturdy cabinet or similar container as primers, percussion caps or black powder.

ACQUISITION, TRANSPORT, STORAGE AND USE OF BLACK POWDER

Dealers in black powder or is licensed in terms of the Firearms Control Act, 2000, to deal

18. (1) Any person who is a manufacturer or importer of black powder, in firearms and ammunition and intends to deal in black powder, must apply to the Chief Inspector for a licence to deal issued in terms of section 13 of the Act.
- (2) The application must be in accordance with Annexure "N".
- (3) A person to whom a licence to deal in black powder has been issued, may store not more than ten kilograms black powder on his or her premises.

- (4) The Chief Inspector may, in writing, if convinced by a fully motivated written application by a dealer and after an inspection or investigation that he or she may deem fit, that the premises is suitable for the safe and secure storage of black powder in a quantity, not exceeding 20 kilograms, authorise the applicant to keep such larger quantity.
- (5)
 - (a) Black powder obtained under these Regulations must be packed in sealed containers, not exceeding 500 grams per container, supplied by the manufacturer and approved by the Chief Inspector.
 - (b) The approved containers must be packed in an outer fibreboard box complying with the requirements of specification 4G of SANS 10229, containing not more than 50 x 500 gram containers.
- (6) A licensed dealer may use a vehicle not licensed in terms of regulation 32(1), to transport black powder from the supplier or from a railhead directly to his or her premises: Provided that during such transport -
 - (a) the quantity does not exceed twenty kilograms;
 - (b) the driver and only one other person who is not under the age of 16 years, travel in or on the vehicle;
 - (c) the black powder is transported in a way so as to prevent unauthorised access; and
 - (d) no smoking is allowed on or in the vehicle.
- (7)
 - (a) A licensed dealer may supply to a person on production of a permit in his or her name, the quantities of black powder and percussion caps stipulated on that permit.
 - (b) The applicant must furnish information as contemplated in Annexure "C" Form B to the dealer.
- (8) In terms of section 21 of the Act, a licensed dealer must, in respect of each transaction, keep a register as specified in Annexure "Q" Part 1 Form B.

Users of black powder

- 19. (1) Any person who is in possession of a firearm, muzzle loading firearm as defined in the Firearms Control Act, 2000, or a device such as a miniature cannon, and requires the use of black powder and percussion caps for the reloading of ammunition for the firearm, or the firing of the muzzle loading firearm or device, may obtain, keep and use black powder and percussion caps for the sole purpose of loading the firearm, ammunition or device.
- (2)
 - (a) A person referred to in sub-regulation (1) must apply for permission from the Chief Inspector to acquire, transport, store and use black powder and percussion caps.

- (b) An application contemplated in paragraph (a) must be submitted in accordance with Annexure "C" Form A.
 - (c) If the application contemplated in paragraph (a) is approved, the Chief Inspector must issue a permit for the acquisition, transport, storage and use of black powder and percussion caps under conditions as provided for in Annexure "C" Part 1.
- (3)
 - (a) Black powder not being used, must be stored in its original container, in a locked safe, strongroom, lockable steel cabinet or sturdy cupboard.
 - (b) The original permit to acquire, transport, store and use black powder and percussion caps must be kept in the place of storage at all times for inspection purposes and a duplicate or a certified copy must accompany the registered user whenever black powder is acquired, transported, temporarily stored or used.
- (4) Black powder and percussion caps obtained in terms of these Regulations and cartridges reloaded with such black powder, are for private use only and not for supply to any other person.
- (5) Black powder must not be stored in the same safe, sturdy, cabinet or similar container as percussion caps or smokeless powder.

CHAPTER 4

PACKING, MARKING AND LABELLING OF EXPLOSIVES

Packing of explosives

- 20.
 - (1) Explosives must be packed in accordance with the requirements of SANS 10229 read with SANS 10228.
 - (2)
 - (a) Explosives imported into or authorised explosives exported from the Republic by sea must be packed in accordance with the requirements of the IMDG Code.
 - (b) Explosives imported into or authorised explosives exported from the Republic by air must be packed in accordance with the requirements of the ICAO Instructions.
 - (c) Where the requirements contemplated in paragraphs (a) and (b) differ from those of SANS 10229, packaging in accordance with the IMDG Code or ICAO Instructions is acceptable for transport and storage.
 - (d) The importer, or his or her representative, of explosives into the Republic, must ensure that any explosives imported by him or her

are packed and marked in accordance with the requirements of these Regulations.

- (3) The Chief Inspector may determine the maximum mass or number of items which may be packed in an inner as well as an outer package for different types of explosives, in accordance with SANS 10229.
- (4) The licensee of an explosives manufacturing workplace must ensure that any explosives leaving the explosives manufacturing workplace are packed and marked in accordance with the requirements of these Regulations.
- (5) The inside of every package, whether an inner or outer package, must be clean and free of foreign material.
- (6)
 - (a)
 - (i) Boxes, cartons and bags that have contained explosives may not be used again, but such packaging material must be destroyed after being emptied of their explosives content; and
 - (ii) both the inner and outer packaging must be checked to ensure that the contents have been effectively removed.
 - (b) Before destruction, a further check of both the inner and outer packaging must take place to ensure that the contents have been effectively removed.
 - (c) Packing material contemplated in paragraph (a) except paper bags, may be recycled with written permission from the Chief Inspector, subject to conditions prescribed by him or her, relating to the cleaning of packaging material and the prevention of contamination.
- (7) Nothing in these Regulations must be construed to prohibit the use of an additional package, whether an inner or outer package, unless such additional package is of a character prohibited, in writing, by the Chief Inspector.

Marking of packages

- 21. (1) All packaging of explosives must be marked in accordance with the requirements of SANS 10229, or in the case of imported or exported explosives, in accordance with the requirements of the ICAO Instructions if imported or exported by air, or the IMDG Code if imported or exported by sea.
- (2) In addition to the marking required in terms of sub-regulation (1), the outer packaging of blasting explosives must bear the following information -
 - (a) The date of manufacture and the date of issue from the factory, or information indicating such dates, which information must be communicated to the Chief Inspector.
 - (b) the name and address of the purchaser or consignee; and

- (c) the recommended use-by date as contemplated in regulation 74.
- (3) A prominent label containing the information required by sub-regulations (1) and (2) must be attached to a pallet in a readily visible place, if packaged explosives are paletised.

CHAPTER 5

IMPORT AND EXPORT OF EXPLOSIVES

General

22. (1) The explosives contemplated in section 17 of the Act must be packed and marked or labelled in accordance with these Regulations.
- (2) A company that intends to import, export or tranship explosives to, from or *via* the Republic, must be registered with the Chief Inspector prior to applying for any permit.
- (3) A company not based in the Republic that intends to import into, export from or tranship explosives *via* the Republic must appoint a representative or broker permanently residing in the Republic.
- (4) The representative or broker contemplated in sub-regulation (3) is responsible for the following -
- (a) applying for permits;
 - (b) compliance with the requirements of the Act and these Regulations; and
 - (c) the safe and secure transport of consignments of explosives.
- (5) A permit to import, export or tranship explosives granted in terms of section 17, of the Act is regarded as permit from the Chief Inspector for -
- (a) acquisition by import;
 - (b) supply by export; and
 - (c) the transport by rail or road of such explosives within the borders of the Republic.
- (6) (a) Applications to import, export or tranship explosives must be made to the Chief Inspector; and
- (b) the explosives in respect of which the application is made, may not be dispatched or shipped from the supplier until such permission is obtained from the Chief Inspector.

- (7) Applications to import, export or tranship explosives must be submitted on the relevant application forms contained in Annexure "V".

Application for import permit

23. (1) An application for an import permit contemplated in regulation 22(5) must contain the following -
- (a) The full name and the physical address of the applicant;
 - (b) the name, exact description and quantity of the explosives to be imported;
 - (c) container and seal numbers;
 - (d) the UN Number, Class and proper shipping name of the explosives;
 - (e) the name of the country from which the explosives are to be imported;
 - (f) the name and the address of the manufacturer of the explosives;
 - (g) the physical address of the explosives magazine or store in which the explosives are to be stored at the end destination;
 - (h) the purpose for which the explosives are to be used in the Republic; and
 - (i) a declaration by the importer, his or her representative or broker, that the supplier has been advised of the Republic's requirements for the classification, packaging and marking of the explosives to be imported.
- (2) The information that is required in sub-regulation (1) must also be submitted in the form of two copies of a *pro forma* indent, indent, or a similar document.
- (3) The importer or his or her representative or broker must apply for an import permit and must advise the Chief Inspector not less than ten working days before the expected arrival of the explosives in the Republic of -
- (a) the date of the expected arrival of the explosives;
 - (b) the harbour, airport or border post or place of entry;
 - (c) the number of packages in the consignment;
 - (d) the gross mass of each consignment.
- (4) The Chief Inspector must also be informed of -

- (a) the name of the ship transporting the explosives, and the voyage number of the ship; or
 - (b) the name of the licensee and registration number of the vehicle; or
 - (c) the name and address of the carrier, in order for an import permit to be issued.
- (5) (a) A permit to import explosives will be issued on receipt of -
 - (i) a completed application form contained in Annexure "V" Form A;
 - (ii) two identical copies of an invoice containing the information as required by sub-regulations (1) and (3);
 - (iii) a concept bill of lading; and
 - (iv) a declaration of dangerous goods providing the required information.
- (b) Copies of the invoices contemplated in paragraph (a) must be obtained from the country of origin and sent to the Chief Inspector.
- (6) The original documents with regard to the import of explosives must be delivered to the Chief Inspector as soon as they become available.
- (7) The original issued import permit must accompany the consignment from the port of entry to its final destination.

Application for export permit

24. (1) The following information must be supplied in an application for a permit to export authorised explosives -
- (a) The full name and the physical address of the applicant;
 - (b) the name, exact description and the quantity of the explosives to be exported and the place, or harbour of export;
 - (c) the UN Number, Class and proper shipping name of the explosives;
 - (d) the name and the address of the person to whom the explosives are to be exported;
 - (e) the final destination of the explosives;
 - (f) if by sea, the name of the ship and the voyage number of the ship;
 - (g) if by road, the name of the licensee and registration number of the vehicle; and

- (h) if by rail or air the name and address of the carrier and shipping agent.
- (2) A permit to export explosives will be issued on receipt of -
 - (a) a completed application form contained in Annexure "V" Form B;
 - (b) a copy of the relevant declaration of dangerous goods;
 - (c) an undertaking that an import permit will be available at the final destination or a copy of such permit; and
 - (d) an end-user certificate as required by the Chief Inspector.
- (3)
 - (a) A copy of the export permit must accompany the consignment from the consignor to the consignee.
 - (b) Exporters who regularly export explosives may be issued with continuous export permits, valid for a period determined by the Chief Inspector, of which the permit number must be reflected on original consignment notes or other supporting documents accompanying consignments.
 - (c) Written notification of the intention to use such a continuous export permit must be given by an exporter to the Chief Inspector at least five working days prior to dispatch, indicating the relevant permit number and particulars as required in sub-regulation (1).

Import and export control

25. (1) An inspector may open, inspect and remove samples from any consignment of explosives, in the Republic, whether it is in a container or not, whether destined for the Republic or not, at a place and a time determined by the inspector.
- (2) An inspector or member of the South African Police Service who reasonably suspects that a consignment of explosives does not comply with these Regulations, must prohibit that consignment from being unloaded.
- (3) On receipt of an imported consignment of explosives at the destined explosives magazine or store, the importer or his or her representative or broker must immediately notify the inspector whose name appears on the import permit.
- (4) Advice regarding the dispatch of authorised explosives for export must immediately be sent by the exporter to the inspector whose name appears on the export permit.

CHAPTER 6 HARBOUR AND AIRPORT REGULATIONS

Harbour regulations

26. (1) Ships with explosives on board may not enter any port in the Republic except when the explosives are packed, marked and transported in accordance with the IMDG Code.
- (2) Ships with explosives on board intending to enter any port in the Republic must give ten working days written notice to the harbour master and the Chief Inspector prior to arrival at the port.
- (3) The representative or broker in the Republic, appointed in terms of the regulations, of any ship carrying explosives, must arrange for the relevant documentation as required to be submitted ten working days prior to arrival-
- (a) two copies of the required documentation must be forwarded to the Chief Inspector; and
 - (b) a copy of the required documentation must be sent to the harbour master and the relevant terminal manager.
- (4) Ships with explosives on board, transiting a port inside the Republic may not enter such port without the written permission of the harbour master.
- (5) The master of every ship, having explosives on board other than its own supplies of signalling equipment, must immediately upon arrival -
- (a) notify the vessel traffic services station giving the nature, quantity and destination of explosives -
 - (b) anchor in the designated anchorage area unless otherwise directed by the harbour master; and
 - (c) within the limits of the port, by day, keep a red Bravo-flag visibly exhibited, and by night, exhibit an all round red light visible at least three nautical miles.
- (6) Ships with explosives on board, when berthed, must have a fire and security patrol in constant attendance, and in addition, any other measures that may be required to the satisfaction of the harbour master. The cost thereof must be borne by the ship owner or agent.
- (7) No explosives may be unloaded or loaded except -
- (a) under the direction and supervision of the harbour master or a person duly authorised by him or her;
 - (b) on production by the ship's agent of the import, export or transit permit provided for in the Act;

- (c) at allocated berths as determined by the harbour master and in accordance with the specified method of operation as determined by him or her; and
 - (d) on production of the transport permit authorising the transfer of the explosives, issued in terms of these Regulations, if the explosives are shipped from one port of the Republic to another.
- (8) Ships with explosives on board may be brought alongside a quay specified by him or her for unloading: Provided that -
 - (a) the unloading is carried out as expeditiously as possible and due regard is given to safety;
 - (b) the explosives cargo must be the first to be unloaded and must immediately be transported out of the harbour;
 - (c) the ship must keep its main engines ready to move the ship from the quay at any time.
- (9)
 - (a) No explosives may be loaded from, unloaded at, brought to, or deposited upon the quay or place except at such a place as the harbour master, or a person duly authorised by him or her, will from time to time direct.
 - (b) the explosives cargo must be loaded last and this cargo may only be brought to the harbour immediately prior to loading;
 - (c) no explosives cargo may be kept at the harbour with the exception of Class 1.4S cargo;
- (10)
 - (a) The quay or place for loading or unloading must be demarcated to the satisfaction of the harbour master, or a person duly authorised by him or her;
 - (b) No other goods or articles must be handled on the quay or place adjacent to the ship at the same time as explosives;
 - (c) No person other than those actually engaged in or supervising the work of loading or unloading must be allowed within the demarcated area;
 - (d) The vessel must not undertake any actions to load bunkers during loading or unloading of explosives;
 - (e) During the time that a ship is loaded or unloaded with explosives, no other ship must approach within 30 metres of the side of the ship;
 - (f) During the loading and unloading of explosives there must be no uncovered lights or fires on board the ship, at the hatches or in the

hold in which explosives are and within the demarcated area referred to in these Regulations; and

- (g) No person may smoke, carry matches or have any means of producing ignition within 30 meters of the hold of the ship on or from which explosives are being loaded or unloaded.
- (11) Explosives may not be loaded or unloaded between sunset and sunrise, except with the written permission of and subject to any condition, which the harbour master may impose.
- (12) All persons on board the ship, or within 30 meters of the ship, or within the demarcated areas referred to in subregulation (10), must during the loading and unloading of explosives, abstain from any act whatsoever which might cause a fire, ignition or explosion.
- (13) For purposes of this Chapter -
 - (a) all ship's and stevedoring equipment must be of suitable construction for the safe handling of explosives; and
 - (b) the explosives cargo must be carefully lifted, put down or stowed and not dropped when handled.
- (14) In the event of any packages of explosives being found to be leaking or damaged, either before or after being unloaded, the fact must immediately be reported to the harbour master, the inspector and SAMSA, and such packages must not be handled, unloaded or destroyed without the permission of an inspector.
- (15) Any expenses incurred in the supervision, provision of guards, or any other facility in connection with the handling, loading and unloading or destruction of explosives must be borne by the owners or importers of the explosives or their agents.
- (16) Ships having no explosive cargo other than the following on board, are exempt from sub-regulations (2), (5), (6), (8)(c) and (10)(e) -
 - (a) any explosives classified as 1.4S;
 - (b) any other explosives not exceeding 25 kilograms net mass stored in a magazine to the satisfaction of the harbour master and SAMSA; and
 - (c) explosives such as the Chief Inspector may advise the harbour master.
- (17) Ships with explosives on board, and requiring bunkers, ship's stores, provisions, or water, may, at the discretion of the harbour master, or person duly appointed by him or her be brought alongside a quay specified by him or her: Provided that -

- (a) the explosives are stowed on the ship to the satisfaction of the harbour master and SAMSA;
 - (b) the fuel oil, ship's stores or provisions or water, are taken on board as expeditiously as possible;
 - (c) the holds or containers containing explosives are not opened, moved, worked in or entered except for inspection and the taking of temperature, and then only under the supervision of the harbour master or a person duly authorised by him or her;
 - (d) the ship keeps its main engines ready to move the ship from the wharf at any time, should it, in the opinion of the harbour master, be necessary; and
 - (e) depending on prevailing circumstances, a fire watch with fire fighting equipment must be on stand by the whole time and the nature and content of such fire watch and equipment must be specified by the harbour master.
- (18) The harbour master may exempt ships of war from any or all of the regulations of this Chapter.
- (19) The harbour master or the person duly authorised by him or her, at his or her discretion, may refuse any ship carrying explosives, entry to the port if he or she believes that the provisions of this Act and these Regulations and any other relevant legislation are not met, until such time as the contrary is proven.
- (20) The handling and loading or unloading of explosives is subject to such further requirements and restrictions as the harbour master, SAMSA, Chief Inspector or an inspector, may impose to enhance safety and security.

Airport regulations

27. (1) No aircraft with explosives on board, may land at or take-off from any airport in the Republic unless such explosives are packed, marked and transported in accordance with the Technical Instructions for the Safe Transport of Dangerous Goods by Air, published by the ICAO, and the Civil Aviation Regulations of 1997, as amended, with particular reference to parts 92 and 193.
- (2) Aircraft with authorised explosives on board for importation into or exportation from the Republic may only land at, or depart from, an airport in the Republic, on condition that -
- (a) the airport is authorised to handle the importation and exportation of goods in terms of rules 200.03, 200.04 and 200.05 issued in terms of section 200 of the Customs and Excise Act, of 1964 (Act No. 91 of 1964);

- (b) the explosives are limited to those that may be transported by air in terms of the ICAO Technical Instructions and part 92 of the Civil Aviation Regulations, 1997; and
 - (c) a representative in the Republic appointed in terms of regulation 4 or 22(3) arranges for details of the particulars of the explosives contained in the aircraft's shipper's declaration, to be sent to the Chief Inspector and to the airport manager to reach them at least ten working days before the expected date of arrival of the explosives in the Republic.
- (3) The pilot of every aircraft having explosives on board, must before landing, inform the airport manager of the nature, quantity and destination of the explosives.
- (4) The pilot of an aircraft having explosives on board, must park at a terminal assigned to the aircraft by the airport manager.
- (5) No explosives may be loaded onto or unloaded from an aircraft except -
 - (a) under the direction and supervision of the air service operator or an entity operating on its behalf;
 - (b) on production by the operator of the aircraft or his or her representative of the permit provided for in section 17(a) of the Act; and
 - (c) at an area as determined by the airport manager and in accordance with the specified method of operation as determined by him or her.
- (6) No explosives may be dispatched from, unloaded at, brought to or deposited at any terminal or place at an airport except at the terminal or place that the airport manager may direct.
- (7) When explosives are loaded onto or unloaded from an aircraft -
 - (a) no other aircraft may approach to within 100 metres or as determined by the airport authority of the first-mentioned aircraft;
 - (b) no vehicles other than those required for loading and unloading, may approach to within 30 metres of the aircraft;
 - (c) no person may smoke or produce a flame within 30 metres of an aircraft.
- (8)
 - (a) All loading and unloading gear must be of a suitable design and construction for the safe handling of explosives.
 - (b) The explosives cargo must be carefully lifted, put down or stowed and may not be dropped when handled.

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- (9) If any packages of explosives are leaking or damaged, either before or after being loaded or unloaded, that fact must immediately be reported to the air service operator and inspector, and such packages may not be handled, unloaded or destroyed, without the permission of the inspector.
- (10) (a) An air service operator or a person authorised by him or her must ensure that the provisions of the Act and these Regulations and any other relevant legislation are complied with.
- (b) The air service operator must immediately inform the Chief Inspector, the CAA and inspector about any non-compliance.
- (11) The Commissioner for Civil Aviation or a person authorised by him or her may impound any aircraft if he or she believes such aircraft has been contaminated with explosives.
- (12) The air service operator or a person authorised by him or her must immediately notify the Commissioner for Civil Aviation, and inspector for that specific area to determine which decontamination procedures to follow.
- (13) The aircraft may not be released until such decontamination procedures are completed.
- (14) Any expense incurred in the supervision, provision of guards, or use of any other facility in connection with the handling, loading, unloading, decontamination, disposal or destruction of explosives, must be borne by the air service operator.
- (15) The handling, loading or unloading of explosives are subject to such further requirements and restrictions as the air service operator, the Commissioner for Civil Aviation or the Chief Inspector, may impose.
- (16) Aircraft carrying no explosives other than their own supply of signalling and life-saving equipment, as required by any other legislation, or international requirement, are exempt from the requirements of these Regulations.
- (17) The air service operator or an entity acting on its behalf must arrange for safe and secure storage at every airport where explosives are handled, and must ensure that explosives are kept as required in the compatibility table, published by ICAO and as documented in the South African Civil Aviation Technical Standards: Dangerous Goods.
- (18) If any undeclared or misdeclared explosives are detected, the air services operator must without delay inform the inspector.

CHAPTER 7

TRANSPORT OF EXPLOSIVES

General transport

28. (1) No person may acquire and transport explosives from one place to another within the Republic, except under a permit issued by or under the authority of the Chief Inspector in terms of section 10(2)(a) of the Act and subject to the conditions of that permit.
- (2) No person may supply explosives to another person, unless such person is in possession of a permit issued in terms of section 10(2)(a) of the Act.
- (3) The licensed owner of an explosives magazine is exempt from the requirements of sub-regulations (1) and (2) when explosives are transferred from an explosives magazine to the workings operated by the licensed owner of such explosives magazine, provided that public roads or railway lines are not crossed or used.
- (4) No person may dispatch explosives of any description or in any quantity whatsoever through the postal system.
- (5) Transport of explosives by boat, ship or other vessel, or the use of any harbour, quay, wharf, loading, beach, shore, sea or inland waters or any other place for transporting, loading or discharging of explosives, may take place only -
- (a) in accordance with the requirements of regulation 26; or
 - (b) if it is a ship's own supply of signalling and lifesaving equipment.
- (6) Transport of explosives by air, where any airport, airstrip, landing strip, helicopter pad or any other place is used for loading or unloading explosives from an aircraft, may take place only -
- (a) in accordance with the requirements of regulation 27;
 - (b) if a valid permit has been issued; or
 - (c) if it is an aircraft's own supply of signalling and lifesaving equipment.
- (7) The mode of transport must comply with all relevant legislation relating to explosives.

Application for transport permits

29. (1) When applying for a transport permit, an applicant must state -
- (a) the quantity and types of explosives he or she intends to purchase per consignment;

- (b) the name and address of the person or concern from whom he or she intends to make the purchase;
 - (c) the purpose for which and the physical address where the explosives are to be used;
 - (d) the dates on which the explosives are to be dispatched;
 - (e) the total quantity of explosives to be used;
 - (f) the mode of transport to be used for transporting the explosives,
 - (g) particulars of the transporter;
 - (h) registration number of the vehicle, if applicable; and
 - (i) the distance involved.
- (2) Application for a transport permit must be made on the form attached as Annexure "D" to these Regulations.
- (3) Transport permits must be made available for a reasonable period to allow the explosives reaching their destinations within that period.
- (4) A transport permit must be made available for not more than six consignments of explosives.
- (5) Regular users of explosives at a specific site, procuring their supplies from suppliers within the Republic, may be issued with continuous transport permits.

Responsibilities of consignors, drivers and owners

30. (1) The consignor responsible for the transport of explosives must appoint in writing a person -
- (a) to supervise the loading;
 - (b) to personally count the number of packages loaded onto the vehicle, and endorse this number on the consignment note;
 - (c) to ensure that the correct grade, size, type, length, packaging or other requirements, of the explosives that are specified on the consignment note, is loaded;
 - (d) to ensure that the vehicle is locked and sealed and the number of the seal is endorsed on the consignment note; and
 - (e) to hand the keys and consignment note over to the driver of the vehicle.

- (2) The driver of the vehicle must, when receiving the consignment note and keys -
 - (a) ensure that the number of the seal is correct and intact prior to proceeding with the journey;
 - (b) ensure that the vehicle proceeds with due diligence and care directly to its proper destination;
 - (c) prevent any unauthorised access to, or removal of all, or part of the explosives;
 - (d) on arrival at the destination, personally count the number of packages unloaded, and enter this number on the consignment note after the owner of the explosives or his or her representative has ensured that the vehicle was still locked and the seal was intact; and
 - (e) if a vehicle is loaded with explosives for more than one destination, no re-sealing is required for the journey after opening at the first destination, but the unit must be kept locked between destinations.
- (3) The original permit must accompany a consignment of explosives throughout the whole journey, provided that in the case of a continuous transport permit, the number thereof must be endorsed on the consignment note.
- (4) The consignee, on receipt of a consignment of explosives, must immediately advise the inspector for the specific area and the Chief Inspector of any discrepancy or defect in the consignment.
- (5) The consignee of the explosives or his or her representative must ensure that the explosives are without delay placed in an explosives magazine or place of storage approved by an inspector.
- (6) (a) Explosives belonging to different Compatibility Groups as referred to in Annexure "A", may not be loaded onto the same vehicle except as follows -
 - (i) Compatibility Group A alone;
 - (ii) Compatibility Groups B, and Class 1.4G and 1.4S together;
 - (iii) Compatibility Groups C, D and E together;
 - (iv) Compatibility Group F alone;
 - (v) Compatibility Group G alone;
 - (vi) Compatibility Group H alone;
 - (vii) Compatibility Group J alone;

- (viii) Compatibility Group K alone;
 - (ix) Compatibility Group L alone; and
 - (x) Compatibility Group N alone;
- (b) Explosives of the same Compatibility Group, but different Divisions may be transported together: Provided that the whole consignment is treated as belonging to the Division having the lower number.
- (c) With the permission of the Chief Inspector, explosives in Compatibility Group B may be conveyed with explosives in Compatibility Group D in accordance with the conditions attached to a licence issued in terms of Regulations 6(1) and 32(1).
- (7) Explosives packed in metal drums may not be loaded in the same vehicle, rail wagon or freight container as explosives packed in soft packaging.

Railway transport

31. (1) The chief executive of the carrier is responsible for the safety and security of explosives conveyed by rail and must ensure that the provisions of the Act and these Regulations are complied with.
- (2) The chief executive of the carrier may allocate fixed days for the acceptance of explosives for transport by rail and the Chief Inspector must be notified thereof.
- (3) Explosives must be loaded or unloaded only at points or at private sidings approved by the chief executive of the carrier, and the Chief Inspector must be notified in writing of such loading or unloading.
- (4) (a) The consignor must give the chief executive of the carrier at least ten working days notice, in writing, of the proposed dispatch of explosives and advise him or her to make arrangements to take delivery of the explosives as expeditiously as possible.
- (b) Prior to dispatch, the consignor must furnish the chief executive of the carrier or his or her delegate with a copy of the transport permit contemplated in regulation 28(1) or in the case of a continuous transport permit issued in terms of regulation 29(5) the number thereof together with a declaration stating -
- (i) the exact quantity and description of the explosives;
 - (ii) the UN number, Class and proper shipping name of the explosives; and
 - (iii) that the consignee has been advised of the proposed dispatch of the consignment of explosives.

- (c) The chief executive contemplated in sub-regulation (1) may not accept for dispatch quantities of explosives larger than those allowed by the permit, whether such permit is a continuous transport permit or not.
- (5)
 - (a) Rail wagons or freight containers loaded with explosives from different Compatibility Groups may not be transported in the same wagon or container except -
 - (i) Compatibility Groups B and S together;
 - (ii) Compatibility Groups C, D, E, G and S together;
 - (iii) Compatibility Groups F and S together.
 - (iv) Compatibility Groups H and S together;
 - (v) Compatibility Groups J and S together;
 - (vi) Compatibility Group L alone; and
 - (vii) Compatibility Groups N, C, D, E and S together.
 - (b) With the prior written permission of the Chief Inspector, ammonium nitrate may be railed with Compatibility Groups C, D, E and 1.4S.
- (6) Explosives may not be transported in a passenger coach of a train.
- (7) Explosives may be transported on a special explosives train or ordinary goods train in quantities determined by the Railway Safety Regulator in consultation with the Chief Inspector.
- (8)
 - (a) Rail wagons containing explosives transported by an ordinary goods train, must be placed as near to the centre of the train as possible;
 - (b) In all cases when explosives are transported by a special explosives train or an ordinary goods train, except with the consent of and under conditions prescribed in writing by an inspector, at least one rail wagon must intervene between the engine and any rail wagons containing explosives, and one rail wagon not containing explosives must be marshalled behind the last rail wagon containing explosives.
 - (c) No intervening rail wagons contemplated in paragraph (b) are necessary within the danger area of an explosives manufacturing workplace.
- (9) Rail wagons containing explosives may not be placed on the same train, nor marshalled next to rail wagons containing other dangerous goods listed in SANS 10228.

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- (10) Except in the case of trains loaded with ammonium nitrate, rail wagons with end-of-wagon cushioning devices must not form part of a train conveying explosives.
- (11) When loaded explosives wagons form part of an ordinary goods train, it must be separated by at least one wagon from wagons loaded with lime, forage, heavy machinery, projecting timber, rails or telephone poles.
- (12) (a) Rail wagons containing explosives must be shunted, marshalled or coupled with the utmost caution.
- (b) Rail wagons containing explosives may not be detached from a train until the train has been brought to a dead stop.
- (13) (a) Rail wagons with explosives must be loaded or unloaded only under the supervision of a competent person appointed by the chief executive of the carrier or his or her authorised deputy, except that at a private siding no such person is needed, provided that the rail wagons are delivered locked and sealed into the private siding.
- (b) Access to rail wagons is allowed only to persons necessarily engaged in the process of loading or unloading the explosives, and as soon as the rail wagon is loaded, it must be securely locked and sealed.
- (14) (a) Explosives transported by rail must be transported in a rail wagon or freight container which is completely closed and locked with a locking device determined by the Railway Safety Regulator in consultation with the Chief Inspector.
- (b) Every rail wagon, before being loaded with explosives, must be properly cleaned and dried.
- (c) All exposed iron and steel inside a rail wagon must be covered with wood, cloth or other suitable material, or the cases of explosives must be completely enveloped in a covering that will prevent cases containing the explosives from coming into contact with any metal.
- (15) (a) Every rail wagon or container transporting explosives must have placards affixed in accordance with SANS 10232-2.
- (b) All rail wagons and freight containers must be marked with their net mass carrying capacity.
- (c) The net carrying capacity of the rail wagon may not be exceeded.
- (16) (a) No person may carry matches or any other means of producing ignition, or wear boots or shoes with steel or iron heels, tips or exposed nails of any kind while handling explosives on a train.

- (b) Explosives may not be loaded into or unloaded from a rail wagon, within 30 metres of a fire, uncovered light or flame and overhead power lines, and an uncovered light or flame may not be brought closer than 30 metres to a rail wagon which is loaded with explosives, or into which explosives are being loaded or from which explosives are being unloaded.
- (17) Explosives may not be loaded into or unloaded from a rail wagon or freight container between the hours of sunset and sunrise, unless written permission is obtained from the inspector and such loading or unloading is conducted in accordance with the conditions of the permission.
- (18) Only explosives may be transported on a special explosives train, but the rail wagons used for separation purposes as contemplated in sub-regulation (8)(b) may convey goods not listed in SANS 10228.
- (19) (a) Trains transporting explosives must be dispatched without delay.
- (b) An explosives train must be given, subject to the necessary detention for examination, a through schedule to its destination.
- (20) (a) The chief executive or his or her delegate of the carrier must at the dispatch by rail of a consignment of explosives, notify the consignee of the expected or actual arrival of the consignment.
- (b) The consignee must take delivery of and remove the consignment of explosives without delay.
- (c) If the chief executive of the carrier or his or her authorised deputy is unable to contact the consignee or the consignee fails to take delivery without delay after being advised of the arrival of the consignment of explosives, the chief executive or his or her authorised deputy must report telephonically the fact immediately to the inspector for the specific area, and the Chief Inspector must be notified by the chief executive in writing, in terms of regulation 64.
- (d) If an inspector deems it necessary for the security of explosives transported by rail, the consignor, the consignee, the chief executive of the carrier, or his or her delegate must, when instructed by the inspector, place a security officer on guard over the rail wagon or rail wagons containing the explosives.
- (21) The chief executive of the carrier, or his or her authorised deputy must during the time explosives are on railway premises awaiting dispatch or removal, take every precaution to ensure safety and place rail wagons containing explosives in as safe a place as possible.
- (22) Explosives must not be stored in a goods shed or in any other building but must be kept in the rail wagon or freight container in which they have arrived or in the rail wagon in which they are to be transported to a further destination.

- (23) (a) Explosives may be unloaded only at the destination or transshipping station.
 - (b) The competent person, appointed in terms of sub-regulation (13)(a), must satisfy himself or herself that the correct consignment of explosives is unloaded and that any explosives remaining in a rail wagon are properly stowed and secured.
 - (c) When explosives are unloaded at a private siding, the consignor or consignee or his or her magazine master must -
 - (i) supervise the unloading;
 - (ii) comply with the relevant regulations; and
 - (iii) ensure that the correct consignment of explosives is removed from the rail wagon.
 - (d) If any explosive remains on the rail wagon for any other destination, it must immediately be properly stowed and secured by the consignee of the explosives, or by his or her magazine master.
 - (e) Packages containing explosives must be stowed in rail wagons and containers in such a manner so as to prevent any movement of the packages in transit and must be loaded and secured in such a manner so as to prevent the packages from falling out when the rail wagon doors are opened.
 - (f) All layers of packages containing explosives including the uppermost layer must be complete, and the uppermost layer, if not complete, must be secured in such a manner so as to prevent any displacement of the packages.
- (24) No person other than an inspector, whether acting on behalf of the customs authorities or otherwise, may open any package of explosives at a railway station.
- (25) (a) Any person who, while traveling on a train transporting explosives, commits or attempts to commit any act likely to affect the safe operation of the train, commits an offence.
- (b) The driver of the train or his or her assistant must take the necessary steps to have such person removed.
- (26) (a) An inspector may inspect consignments of explosives and the rail wagons, freight containers or train in which they are being transported, provided that in so doing he or she does not unnecessarily impede the rail operations.
- (b) If during this inspection the seal on the rail wagon or container is broken, the inspector must reseal the rail wagon or container and

make an endorsement on the consignment note that the seal was broken for inspection purposes and the number of the new seal must be placed on the consignment note.

- (c) Officials of the carrier must give an inspector contemplated in paragraph (a) all information, documents and assistance he or she requires.
- (27) (a) Every rail wagon transporting explosives must at regular intervals at sites approved by the chief executive of the railway operator *en route*, be inspected for safety and security during the journey by a representative authorised by him or her and without opening the rail wagon.
- (b) Registers in which the inspections contemplated in paragraph (a) must be reflected, must be kept for a period of at least three years after the last entry.
- (c) The register contemplated in paragraph (b) must immediately be submitted to an inspector upon his or her request.
- (28) (a) A train driver or his or her assistant must at all times be present on a train whilst transporting explosives.
- (b) A consignment of explosives must not be left unattended and a system of communication between the train driver and the train control office must be available for the duration of the journey.

Transport by road

32. (1) No person may transport explosives, or cause or permit them to be transported on public roads or at blasting sites, in a vehicle propelled by mechanical power, unless the vehicle has been specially converted for that purpose in accordance with specifications contained in Annexure "E" to these Regulations, and licensed by the Chief Inspector.
- (2) For the purpose of these Regulations, a trailer drawn by a mechanically propelled vehicle is regarded as a vehicle propelled by mechanical power.
- (3) The requirements contemplated in sub-regulation (1) do not apply to -
- (a) an inspector in the execution of his or her duties;
 - (b) persons who have obtained permission, in writing, from an inspector, to transport samples of explosives to a manufacturer or a licensed explosives laboratory, and in accordance with such permission; and
 - (c) exempt quantities as per Annexure "F" to these Regulations.
- (4) No explosives may be transported in a vehicle used for public transport except consumer fireworks as is contemplated in regulation 83.

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- (5) Where explosives in excess of 400 kilograms gross mass are to be carried, only the following vehicles may be used -
- (a) Vehicles with a carrying capacity of at least 1300 kilograms in which the body and cab form two separate units, connected by the chassis members, provided with a totally enclosed body, constructed in accordance with specifications contained in Annexure "E" to these Regulations.
 - (b) a trailer provided with a totally enclosed body or designed for the conveyance of containers and converted in accordance with specifications contained in Annexure "E" to these Regulations, and which is drawn by a mechanically propelled vehicle of sufficient power to pull the gross mass of the loaded trailer.
- (6) Explosives in quantities not exceeding 400 kilograms gross mass may be carried by a vehicle, with an internal body length not exceeding three metres and on condition that the explosives are carried in receptacles specially manufactured for the purpose and which are constructed in accordance with specifications contained in Annexure "E" to these Regulations.
- (7) The vehicle may be either new or used, provided that the vehicle is roadworthy in terms of the National Road Traffic Act, 1996 (Act No. 93 of 1996) and Regulations thereto; and
- (8) The gross mass carried on a vehicle or any combination must not exceed the limit laid down in the National Road Traffic Act, 1996.
- (9) (a) Explosives may not be loaded or unloaded within 30 metres of a fire, uncovered light or flame, nor may any person light a fire or bring an uncovered light or flame within that distance of a vehicle which is loaded or being loaded with explosives, or from which explosives are being unloaded.
- (b) (i) No smoking is permitted within 30 metres of where explosives are being loaded on to, or unloaded from a vehicle.
- (ii) A person who is engaged in handling the explosives, or who travels on the vehicle, may not carry matches or any other means of producing ignition: Provided that a reasonable supply of matches or other means of producing ignition may be carried by a blaster or pyrotechnician travelling to a work site, where such means of ignition is required.
- (10) The owner of the explosives or his or her deputy, must ensure that every consignment of explosives is, throughout the whole journey, under the constant supervision of a person fully conversant with the regulations of this Chapter and whose name is recorded on the consignment note.

- (11) A consignment of explosives transported by road may never be left unattended.
- (12) A person in charge of an explosives magazine or other place of storage from which explosives are removed -
 - (a) is responsible for the loading of the vehicle and must ensure that explosives are loaded only onto a vehicle which is licensed in terms of sub-regulation (1) and in good order as required; and
 - (b) must ensure that the loading of the explosives on vehicles must be done in accordance with these Regulations.
- (13)
 - (a) The driver of a vehicle transporting explosives by road must avoid cities, towns and villages as far as possible and any local authority may prescribe the route along which explosives must be conveyed within its area of jurisdiction, subject to reasonable access being given for reaching any required destination.
 - (b) Halting during a journey if necessary, must be done as far away as possible from inhabited buildings.
 - (c) The driver must inform his or her controller whenever a routine halt, such as for a vehicle inspection or personal hygiene break, is made.
 - (d) In all other cases where a vehicle is halted the driver must immediately notify an inspector of the reasons for the halting and a written report must, within seven days be submitted to the Chief Inspector, by the consignor.
 - (e) The person in charge of the vehicle must keep a constant watch over the explosives.
 - (f) A radio transmitter or cellular telephone, which is fitted or transported in an explosives vehicle, may not be used during the transport of electrically or electronically initiated explosives unless such explosives are packed in the original packaging in which they were received from the suppliers or manufacturers, or carried in a closed and lined metal box as specified in Annexure "E".
- (14)
 - (a) Explosives may not be unloaded from a vehicle *en route* except in the event of a breakdown of the vehicle in which case an inspector must be notified immediately of the circumstances of the incident.
 - (b) In the event of a breakdown contemplated in paragraph (a), the explosives must, where possible, be transferred to another vehicle or trailer that is licensed for the conveyance of explosives.
 - (c) The journey must continue as soon as possible.

- (d) During loading and unloading of explosives, all possible care must be taken to protect the explosives from fire, shock and damp.
 - (e) The person in charge of the vehicle must prevent persons from loitering near the explosives.
- (15)
 - (a) Only an inspector may detain any vehicle containing explosives, to ascertain whether the Act and these Regulations are being complied with.
 - (b) Where an explosives vehicle is stopped at a road block to ascertain whether the provisions of any other Act, regulation or ordinance are complied with, the person in charge of the road block must ensure that -
 - (i) preference is given to the examination of the explosives vehicle above other traffic;
 - (ii) wherever possible the explosives vehicle is moved away from buildings and other vehicles;
 - (iii) the provisions of sub-regulation (9), of these Regulations are complied with; and
 - (iv) the contents of the vehicle are not interfered with unless an inspector is present.
 - (c) An inspector must be informed of the reasons of detaining an explosives vehicle at a road block for a longer period.
- (16)
 - (a) Only a driver, co-driver and an assistant, may travel on an explosives vehicle.
 - (b) When transporting explosives where the duration of the trip can be reasonably expected to exceed five hours, there must be two drivers on the vehicle.
 - (c) No person under 18 years may travel on an explosives vehicle whilst the vehicle is carrying explosives.
- (17) Vehicles used for the manufacturing of explosives at a blasting site must be licensed in terms of regulation 14(1).

CHAPTER 8

LICENSING AND CONSTRUCTION OF EXPLOSIVES MAGAZINES

General

33. (1) The design for an explosives magazine and the materials to be used in its construction, must be approved by the Chief Inspector and may vary according to local conditions.
- (2) Every explosives magazine must be efficiently protected against lightning in accordance with the specifications contained in the SANS 10313.
- (3) At every explosive magazine, provisions must be made for the efficient drainage of the area.
- (4) Every explosives magazine must be surrounded by a substantial fence in accordance with specifications as prescribed in Annexure "H".
- (5) For the storage of up to 500 kg of explosives, a Mag TS3 type magazine as specified in Annexure "R1", may be used.
- (6) For the storage of up to 5000 kilograms of explosives, a 200 case magazine as specified in Annexure "R2" may be used.

Applications for permission to construct magazines

34. (1) An application for permission to construct an explosives magazine must be made to the Chief Inspector on the form attached as Annexure "S" and must be accompanied by -
- (a) four copies of a plan drawn to a scale of either 1:500, 1:1000, 1:2000, 1:2500 or 1: 5000, according to the size of the property, showing the site of the proposed explosives magazine and fence in relation to neighbouring roads, which must also include the access road to the explosives magazine, railways, buildings and boundaries of properties, as well as the contour of the land on which the explosives magazine is to be erected and the plan must indicate, with the site as centre, circles, with radii proportionate to the distance prescribed for the quantity of explosives in the tables contained in Annexure "G";
- (b) a plan or plans, in triplicate, drawn to a scale of 1:25 or 1:50 or 1:100, showing the design and specifications of the proposed explosives magazine and mounds; and
- (c) a layout plan of the proposed explosives magazines showing the distances between magazines as well as between the magazines and the fence, as specified in Annexure "H".

- (2) When the application is approved, one set of endorsed plans must be returned to the applicant, and the building of the explosives magazines and mound may not be commenced with by the applicant until these plans have been received.
- (3) The permission granted for the construction of an explosives magazine lapses if the explosives magazine has not been completed within six months of the date of approval of the construction plan, but may be extended by the Chief Inspector in writing, for a similar period: Provided that an application therefore is made no less than 30 days before the expiry date, and the Chief Inspector is informed of any changes to the original application and plans.
- (4) The term railways, roads, etc. includes open sports grounds, navigable water or house in the same ownership as the explosives magazine and occupied by the owner or an employee.
- (5) The term mounded implies that both the donor building and the receptor building (explosives magazine or process building) are mounded. If either one is, or both are not mounded, the distances shown in the applicable columns must be doubled.
- (6)
 - (a) The distance between two buildings is the shortest distance between the nearest walls of such buildings, whether mounded or unmounded.
 - (b) Where the mound is an integral part of the building, the distance must be taken from the inner wall.
- (7) When an explosives magazine is erected in the vicinity of a power line, the explosives magazine must be separated from the power line by a horizontal distance of not less than 30 metres.

Storage Compatibility Groups

- 35.** (1) Explosives in different Compatibility Groups as contemplated in Annexure "A" may not be stored in the same explosives magazine except -
- (a) explosives in Class 1.4S may be stored with explosives in Compatibility Group B;
 - (b) explosives in Compatibility Groups C, D and E may be stored together in the same explosives magazine;
 - (c) blasting explosives in Class 1.4G may be stored together with explosives in Compatibility Group B and Class 1.4S; and
 - (d) explosives in Compatibility Group B and Classes 1.4G and 1.4S, of which the net explosives content does not exceed ten kilograms, may be stored in a separate compartment of an explosives magazine licensed for explosives in Compatibility Groups C, D and E

: Provided that there is no access to the compartment from inside the explosives magazine, the compartment is of such sturdy construction that an explosion inside the compartment cannot propagate to the explosives in the main section of the explosives magazine, and the design and specifications of the compartment form an integral part of the plans referred to in regulation 34(1)(b).

- (2) An explosives magazine for the storage of explosives in Compatibility Group B and Classes 1.4G and 1.4S of which the net explosives content does not exceed 20 kilograms, may, subject to the permission of the Chief Inspector and under conditions prescribed by him or her in writing, be placed closer to an explosives magazine for the storage of explosives in Compatibility Groups C, D and E, than prescribed in Annexure "G".

CHAPTER 9

STORAGE OF EXPLOSIVES

Appointment of magazine masters

36. (1) The licensee of every explosive magazine must appoint a suitable person, who meets requirements specified in Annexure "T", as magazine master, to be solely in charge of the explosives magazine and to be responsible for compliance with the Act and these Regulations.
- (2) The appointment contemplated in sub-regulation (1) must be made in writing and the original letter of appointment, bearing the signature of the licensee making the appointment, as well as the signature of the appointee, accepting the appointment, must immediately be sent to the Chief Inspector and a copy thereof must be displayed in the lobby of the explosives magazine.
- (3) In the event of a failure to appoint a magazine master contemplated in sub-regulation (1), the licensee is regarded to be the magazine master.
- (4) The magazine master may appoint a trustworthy person, who is thoroughly acquainted with these Regulations, to assist him or her in operating the explosives magazine and such person has the same responsibilities under these Regulations as the magazine master, but the appointment does not relieve the magazine master of his or her responsibilities under these Regulations.

Responsibilities of the licensee of an explosives magazine

37. The licensee of an explosives magazine must ensure that -
 - (1) tools and equipment necessary to enable the magazine master to comply with these Regulations are provided;
 - (2) two sets of keys are available for all explosives magazine doors and gates in the fence surrounding the explosives magazine. One set for use by the

magazine master, and the other set to be kept in such manner as to be immediately available at any time for emergency use or for inspection of the magazine;

- (3) whenever the magazine master is away from his or her place of work due to illness or for any other reason whatsoever, a suitable person must act in his or her position.
- (4) at all times the explosives magazine, including the mound, drainage system, lightning protection system and fence, is kept in a good condition;
- (5) no new building or structure is erected or constructed within the outer danger zone applicable to the explosives magazine, prescribed in the table of distances in Annexure "G" of these Regulations and shown on the official site plan for the explosives magazine, without the prior written approval of the Chief Inspector;
- (6) the lightning protection system is examined in accordance with the requirements of SANS 10313, and the results of the examination and test are also recorded in the register as is prescribed in regulation 39(3) in addition to any other requirements;
- (7) the words "EXPLOSIVES MAGAZINE" in block letters not less than 100 millimetres in height in English and another official language are marked on the outer surface of the outside door of the explosives magazine in contrasting colours;
- (8) the official registered number of the explosives magazine is painted on the outer face of the outside door of the explosives magazine; and
- (9) during September of each year a certificate as contained in Annexure "I" to these Regulations is completed and sent to the inspector for the specific area.

Mandatory documents, tools and equipment

38. (f) (a) In every explosives magazine, the following must be displayed in a place where it can be conveniently read -
- (i) A copy of Chapter 9 of these Regulations in English and another official language;
 - (ii) the licence issued in respect of the explosives magazine, which must be framed with non-sparking material and the frame fixed with brass screws; and
 - (iii) a copy of the original letter of appointment of the magazine master, framed with non-sparking material and the frame fixed with brass screws.

- (b) As soon as the posted notices become defaced, obliterated or destroyed, they must be replaced without delay.
- (2) In every explosives magazine or the lobby or passage thereof, if any, the following must be kept -
 - (a) Tools necessary for opening cases of explosives, which may be only of wood, copper, brass or other non-sparking material;
 - (b) a soft brush and a broom with no metal fittings, for sweeping the explosives magazine; and
 - (c) overshoes of a large size for use when the storage chamber of the magazine has to be entered.

Stock control

- 39.
- (1) An explosives magazine may not be used for the storage of any goods, substances or articles not mentioned in the licence, except the tools and equipment necessary to comply with these Regulations.
 - (2) A quantity of explosives larger than that stipulated in the licence may not be stored in an explosives magazine, and no explosives may be stored in its lobby or passage.
 - (3) A register must be kept in every explosives magazine in the format contained in Annexure "Q" Part 1 Form C.
 - (4)
 - (a) The explosives in an explosives magazine must be kept in the original packaging as received from the supplier.
 - (b) Packaged explosives in an explosives magazine may not be stacked more than one comma nine (1,9) metres high.
 - (c) Stacks of blasting explosives must be so arranged that the markings prescribed in regulation 21(2) on all packaging are easily visible.
 - (d) Palletised packaged explosives are exempt from the requirements of sub-regulation (b) provided the pallet is marked as required in Chapter 4 of these Regulations.
 - (e) The explosives in an explosives magazine must be issued in the same rotation as they are received.
 - (5)
 - (a) Explosives in their original packaging may be returned from a place of use to the explosives magazine, provided that the explosives and their packaging are not damp, soiled or in any way defective.
 - (b) Explosives from a place of use may be returned to an explosives magazine under the same permission under which the transport to the place of use was granted.

- (c) Damp, soiled or defective explosives, or explosives of which the packaging, has become damp, soiled or are damaged, returned from a place of use or received in such condition from suppliers, must be placed on a protective sheet in a separate place in an explosives magazine until such time as they can be disposed of.
 - (d) When defective explosives are received from the supplier or when explosives become damp, soiled or damaged the inspector for the specific area, and where applicable, the supplier, must be contacted by the licensee without delay and informed of such occurrence.
 - (e) Particulars of any explosive returned to an explosives magazine must be entered in the explosives magazine register, in red, and the inspector for the specific area must be notified immediately.
- (6) Explosives may not be kept in a magazine for a longer period than the period approved by the Chief Inspector in terms of regulation 74(2) unless otherwise approved by him or her in writing.
- (7) Explosives may be issued from an explosives magazine when required -
- (a) by the licensee for use in the adjacent workings, only upon the written order of a person authorised by the owner; and
 - (b) for any other purpose, only upon the production of a written order and of a valid permit issued by an inspector authorising the issue.

General safety and security

40. (1) The Chief Inspector must approve the necessary security arrangements at each magazine.
- (2) Every licensee of an explosives magazine must place guards or take other measures acceptable to the Chief Inspector to protect the magazine from unauthorised persons.
- (3) An explosives magazine must be kept locked at all times except when necessary to place explosives in, or remove explosives from the explosives magazine, or to perform any other necessary operation.
- (4) Radio transmitters and cellular telephones must be switched off before entering the fenced area surrounding an explosives magazine.
- (5) (a) No person may -
- (i) smoke, make or have a fire or flame within the fenced area surrounding an explosives magazine;
 - (ii) allow any unauthorised person into the fenced area surrounding an explosives magazine; or

- (iii) take any smoking material, matches or any means of making a flame into the fenced area of the explosives magazine or allow such material, matches or means to be taken into the explosives magazine, except where such a flame is required for repairs to the building and such exception is subject to any precautions specified by the licensee.
- (b) No person entering an explosives magazine may wear boots or shoes having any exposed metal.
- (6) Clear signs indicating items prohibited in terms of sub-regulation (4) and (5) must be posted at the gates of a fenced area surrounding an explosives magazine.
- (7) The floor of an explosives magazine must be kept clean and dry at all times.
- (8)
 - (a) Every explosives magazine must effectively be protected from veld fires.
 - (b) Grass within the fence surrounding an explosives magazine must be kept as short as possible.
 - (c) The fenced area must be kept free of combustible material such as timber, bush, dry grass, newspapers, boxes and cartons.
- (9) When it is suspected for any reason whatsoever that explosives have deteriorated, such explosives may not be used, and full particulars thereof must immediately be reported to the inspector in the specific area and the explosives must be disposed of as directed by the inspector.
- (10)
 - (a) An inspector may order the disposal by destruction, or otherwise, of any explosives which he or she considers to be unsafe for storage or use.
 - (b) The owner of the explosives is responsible for the disposal of the explosives as instructed, and for any expenses incurred in connection with such disposal.
- (11) Explosives in an explosives magazine may only be handled during the hours of daylight, except with the permission of an inspector, in writing, and under conditions determined by him or her.
- (12)
 - (a) Repairs to an explosives magazine containing explosives may not be carried out unless written permission is obtained from an inspector and under conditions determined by him or her.
 - (b) Whenever any repairs are made to an explosives magazine, including the mound, full particulars thereof must, on completion, be reported immediately to the Chief Inspector.

- (13) (a) It is the responsibility of the magazine master and his or her deputy to ensure that persons working at or in an explosives magazine, do so in a safe manner.
- (b) Any person who fails to obey any order given in the interests of safety by the magazine master, or his or her deputy, is guilty of an offence.
- (14) (a) An explosives magazine must be visited by a person designated by the licensee, at least once every twenty-four hours to ascertain whether the explosives magazine has not been interfered with.
- (b) A register reflecting the visits contemplated in paragraph (a) must be kept within the explosives magazine area and be readily available for inspection by an inspector.
- (c) When the security of an explosives magazine is compromised in any way, the matter must be reported immediately to the nearest South African Police Service Community Service Centre, the inspector for the specific area and the Chief Inspector.

Termination, contamination and abandonment

- 41. (1) Whenever the licensee of an explosives magazine ceases to store explosives, whether temporarily or permanently, the licensee must immediately notify the Chief Inspector thereof and render a return of all explosives, if any, in the explosives magazine.
- (2) The explosives as contemplated in sub-regulation (1) must be disposed of in a manner approved by an inspector.
- (3) Explosives may not be stored in an explosives magazine on a mine or works that has closed down, except with the written permission of an inspector.
- (4) (a) Whenever an inspector has reason to believe that an explosives magazine or other building or structure has become contaminated with explosives, he or she must instruct the licensee or the owner of the explosives magazine, building or structure, to render it safe.
- (b) The licensee or owner is responsible for any reasonable expenses incurred in connection therewith.
- (5) (a) No person may cease to use or abandon an explosives magazine without prior written notification to the Chief Inspector.
- (b) All explosives must be removed and the explosives magazine contemplated in paragraphs (4)(a) and (5)(a) must be rendered safe to the satisfaction of an inspector.

- (6) When an explosives magazine ceases to be used or is abandoned without prior notification to the Chief Inspector, or when there is reasonable suspicion that an explosives magazine or building contains explosives in contravention of the Act and these Regulations, and reasonable enquiry has failed to locate the owner, an inspector must take the steps that he or she may deem necessary to gain entrance to such explosives magazine or building and any explosives found there must be dealt with in accordance with section 7 and 8 of the Act.

Delivery of explosives at mines

42. (1) The mine manager must ensure that only explosives approved by him or her, in writing, are received, at the shaft -
- (2) (a) A mine manager who intends to have explosives delivered directly to a shaft from an explosive supplier or manufacturer, must adhere to the guidelines, as contemplated in Annexure "P" and must apply in writing for a permit to the Chief Inspector.
- (b) The mine manager must provide the Chief Inspector, in writing, with a risk assessment dealing with measures to prevent persons not authorised from -
- (i) gaining access to explosives;
- (ii) being in possession of explosives; and
- (iii) removing or attempting to remove explosives from a mine
- before a continuous transport permit may be issued by the Chief Inspector.
- (3) The applicant must supply the information required by regulation 29(1), and state whether the shaft is within a 150 kilometres radius of the supplier or manufacturer, or if explosives magazine facilities, licensed to the mine and maintained in accordance with chapters 8 and 9 of these Regulations, are available.
- (4) The application must be accompanied by three copies of a plan showing the position of the shaft delivery bay as well as major access routes used for delivery of explosives from the supplier.
- (5) An inspector must after receipt of the application contemplated in sub-regulation (2)(a), visit the shaft to establish whether such shaft delivery bay is suitable for the delivery and receiving of explosives, paying due regard to the safety of employees and the public, and the security arrangements at the shaft.
- (6) An approved shaft delivery bay is regarded to be an explosives magazine at all times when explosives are present, and is subject to these Regulations, except the regulations dealing with the construction and maintenance of the magazine.

- (7) In addition to any other requirements, the following conditions apply at any shaft delivery bay where explosives are delivered by a supplier -
 - (a) Explosives in different Compatibility Groups may not be kept simultaneously at the shaft, except blasting explosives in Compatibility Group B which may be stored together with those in Classes 1.4G and 1.4S;
 - (b) explosives must be lowered into the mine without delay after receipt at the shaft; and
 - (c) only explosives packed in terms of Chapter 4 of these Regulations may be received at the shaft.
- (8)
 - (a) Explosives destined for another shaft or delivery point, may not be transported to a shaft delivery bay with the shaft's supply of explosives, except where the mine manager, after a risk assessment, in writing, indicates that he or she has no objection to such arrangement.
 - (b) The risk assessment contemplated in paragraph (a) must be submitted to the inspector for the specific area.
- (9) The magazine master or his or her deputy, must personally accept the explosives delivered and record such delivery immediately.
- (10) Where an incorrect delivery is made or some or all of the explosives delivered are considered to be defective -
 - (a) the explosives must be returned to the supplier from which they were received if such supplier is within a 150 kilometre radius from the shaft; or
 - (b) where such supplier is more than 150 kilometres away from the shaft, the explosives must be placed in the back-up explosives magazine.
- (11) Incorrect deliveries or delivery of defective explosives must immediately be reported to an inspector, for further investigation to determine appropriate corrective action or instructions and the inspector may request a risk assessment from the mine manager.
- (12)
 - (a) The receipt, storage, issuing, transportation and destruction of explosives at mines must be done in accordance with regulation 4.2 of the Regulations issued under the Mine Health and Safety Act, 1996 (Act No. 29 of 1996).
 - (b) These Regulations do not exempt an employer or mine manager from any of his or her duties under any other legislation.

CHAPTER 10

STORAGE AND SALE OF EXPLOSIVES BY LICENSED DEALERS

Application for a licence to sell or deal and record keeping

43. (1) An application for a licence to sell or deal in explosives as contemplated in section 13(1) of the Act, must be done in accordance with Annexure "N"; and
- (2) every dealer in explosives must keep records in the manner and form as specified in Annexure "Q" and must submit such returns as required by the Chief Inspector.

Storage of explosives

44. A dealer in explosives must keep his or her supply of explosives in explosives magazines that are erected, licensed and maintained in accordance with the provisions of the Act and licensed by the Chief Inspector in terms of these Regulations, unless exempt under regulations 16(4), 16(5), 18(3), 18(4), 86(13), 86(14), 109(3) and 114(3).

Supply of explosives

45. (1) A dealer in explosives may not supply explosives to any person who is unable to produce a permit or licence, issued to him or her by, or under the authority of the Chief Inspector.
- (2) (a) A dealer in explosives may not sell any explosives which have passed the expiry date or which are in any way damaged or defective, unless written approval has been obtained from the Chief Inspector who must ensure that safety is not compromised in any manner.
- (b) When any explosives in the possession of a dealer in explosives are found to be damp, exude liquid, or for any reason whatsoever, are suspected of being defective or unsafe, the explosives may not be sold, but the licensee must report the circumstances without delay to an inspector and the explosives must be disposed of as directed by the inspector.
- (3) Explosives, before being supplied or handed to any person, must be packed in accordance with the provisions of Chapter 4 of these Regulations.
- (4) Packaged explosives of the same type, grade and size, may be palletised.
- (5) (a) Inner packaging may not be opened for any dealing in the contents thereof: Provided that in the case of blasting explosives, inner packaging may be opened to supply small quantities of explosives for use on the same day;

- (b) Explosives so obtained, must be placed in specially constructed receptacles as specified in Annexure "E" to these Regulations.
- (6) No explosives may be sold, supplied or handed to any person under the age of 18 years or to any other person except in accordance with the requirements of Chapters 16 and 17 of these Regulations.

CHAPTER 11

USE OF BLASTING EXPLOSIVES

Learner blasters

46. (1) Any person who intends to become a blaster must -
- (a) apply for registration as a learner blaster;
 - (b) submit to an assessment on his or her theoretical knowledge relevant to explosives as required by the Chief Inspector and contained in Annexure "W";
 - (c) after being registered as a learner blaster, arrange to obtain sufficient practical experience in blasting techniques; and
 - (d) produce verifiable proof of such experience and submit to a further evaluation before being registered as a blaster.
- (2) (a) Application for registration as a learner blaster must be made in writing to an inspector and is subject to the applicant -
- (i) being a suitable person;
 - (ii) being in possession of a valid driver's licence;
 - (iii) submitting personal information as contemplated in regulation 3.
 - (iv) obtaining the required pass mark during the assessment referred to in subregulation (1)(b).
- (b) The Chief Inspector must register the applicant as a learner blaster and issue the applicant with a temporary registration number.
- (c) If a learner blaster obtains practical experience under the supervision of a blaster, the blasting manager where the learner blaster is employed must -
- (i) advise the inspector in writing of where the learner blaster is employed, quoting the temporary registration number issued by the Chief Inspector to such learner blaster contemplated in paragraph (b);

- (ii) ensure that the learner blaster is employed under an experienced blaster and gains practical experience for at least 60 shifts on all aspects of surface blasting including storage, transport, marking and drilling of holes, blast patterns, charging, stemming, initiation methods, testing of circuits, precautionary measures, examination after a blast, misfires, disposal and destruction; and
 - (iii) keep a record of the number of shifts worked by the learner blaster and the type of work carried out.
- (d) The Chief Inspector may recognise prior learning and practical experience.
- (3) The blasting manager must advise the Chief Inspector -
 - (a) of the termination of the employment of a learner blaster before his or her practical experience is completed;
 - (b) the reasons for such termination; and
 - (c) submit the record kept in respect of the learner blaster contemplated in sub-regulation (2)(c)(iii) to the Chief Inspector.
- (4) Training may not be interrupted for more than six months, and must be completed within twelve months after registration as learner blaster.

Registration of blasters

47. (1) Competency evaluation for registration as a registered blaster as required by the Chief Inspector, must be conducted by an inspector with the assistance of not more than two external assessors with appropriate experience, or without the assistance of an external assessor.
- (2) The applicant must submit the record or certified copy thereof kept in terms of regulation 46(2)(c)(iii) which must contain the temporary registration number issued by the Chief Inspector and be signed by the blasting manager.
 - (3) The Chief Inspector may determine any additional training and experience required, for the specific use of new products or the application of new blasting techniques and relevant training and experience in other countries may be taken into account.
 - (4) After successful examination, the inspector must register the applicant with the Chief Inspector as a registered blaster and a permanent registration number must be issued by the Chief Inspector to him or her.
 - (5) (a) A blaster who has been inactive for two years or longer must be reassessed on his or her theoretical knowledge on the Act and Regulations as contemplated in Annexure "W"

- (b) A blaster who has been inactive for five years or longer must be reassessed on his or her practical and theoretical knowledge as contemplated in Annexure "W"

Issuing of blasting permits

- 48.
- (1) A registered blaster or blasting manager may apply for a blasting permit for general surface blasting activities.
 - (2) An application for a blasting permit contemplated in sub-regulation (1) must be submitted by a registered blaster or blasting manager on the application form contained in Annexure "D".
 - (3) If blasting activities are conducted within 500 metres of any structure or service, the registered blaster or blasting manager must submit a contingency plan as prescribed in regulation 54(2), with the application.
 - (4) When an inspector is unsure of the exact site where blasting is to be conducted, he or she may require a site plan indicating the exact location from the applicant.
 - (5) A blasting permit issued by an inspector is valid only for the activities and the place stipulated in the permit, and for a period required to complete such activities.

Specialised blasting

- 49.
- (1) Specialised blasting activities including, but not limited to -
 - (a) the demolition of multi-storey buildings and structures;
 - (b) underwater blasting;
 - (c) explosive forming;
 - (d) furnace blasting; and
 - (e) new and specialised blasting and initiation techniques,may require additional theoretical and practical experience.
 - (2) The Chief Inspector may determine any additional training and experience required for the specific use of specialised products, or the application of specialised blasting techniques and proper training and experience in other countries may be taken into account.

Responsibilities of the chief executive of a blasting business

- 50.
- (1) A blasting business must be registered with the Chief Inspector in accordance with regulations 3 and 4.

- (2) The chief executive of a blasting business must -
- (a) appoint blasting managers, blasters and blaster assistants as are necessary to carry out the blasting activities of the business;
 - (b) ensure that the blasting manager, blaster and assistants are supplied with all the assistance, means, special clothing, equipment and instructions to carry out their duties safely and in accordance with the Act and these Regulations;
 - (c) in relation to the risk associated with the blasting activities and the endangerment of life and property, obtain adequate insurance cover;
 - (d) assist the blasting business to carry out its duties and responsibilities;
 - (e) take all reasonable steps to ensure that the provisions of the Act and these Regulations are adhered to by every employee who performs any work in relation to the transport, storage, use and handling of explosives;
 - (f) together with the blasting manager, foreman blaster and blasters, enforce compliance with these Regulations in the areas where the blasting business is in operation;
 - (g) ensure that all employees of the blasting business are instructed in writing with regard to the scope of their authority and responsibilities;
 - (h) supply the necessary means to the blasting manager to maintain equipment in good and proper condition and obtain all information required for safe blasting activities;
 - (i) ensure that sufficient blasting managers are appointed to supervise the blasting activities safely and efficiently; and
 - (j) ensure that all records, recommendations, plans and any other information relating to blasting activities are kept for a period of at least three years after closure of the operation.

Blasting managers

51. (1) The appointed blasting manager contemplated in regulation 50(2)(a) must be registered with the Chief Inspector and must be a suitable person.
- (2) A blasting manager must have a thorough knowledge of -
- (a) the Explosives Act and Regulations as well as of any other legal requirements regarding the safety of the public and workers on or near a blasting site;

- (b) characteristics of explosives, initiating systems; and
 - (c) blast calculations, site planning and drilling patterns.
- (3) A blasting manager must -
 - (a) ensure that foreman blasters, blasters and blaster assistants, carry out their work in a safe and responsible manner;
 - (b) ensure that all equipment are maintained in a good and proper working condition;
 - (c) ensure that records kept in accordance with these Regulations regarding the storage and transport of explosives used in connection with the blasting activities, are properly kept and after completion of a particular activity, are submitted to the chief executive or representative;
 - (d) reprimand any person who behaves in a manner detrimental to the safety and security of life and property at a blasting site, and if necessary remove or have such person removed by the South African Police Service; and
 - (e) immediately report any incident and action taken in terms of paragraph (d) to an inspector.
- (4) When a blasting manager intends to introduce a new or different blasting method or technique, he or she must -
 - (a) consider the effect that any such changes in the blasting method or technique may have on the safety of the blasting activities;
 - (b) fully inform the blasters of the changes envisaged;
 - (c) ensure that such blasters will be aware of the implications of such changes;
 - (d) ensure that the blasters are satisfied with such changes;
 - (e) ensure that the blasters are confident and competent to carry out the changes safely; and
 - (f) keep a record of any objection a blaster may have against the introduction of the changes envisaged.
- (5)
 - (a) The blasting manager must instruct a blaster of the scope of his or her duties.
 - (b) The instruction must be made in writing, signed by the blasting manager and the blaster and the original must be kept by the blasting manager.

- (c) A blaster may refuse to carry out instructions given by the blasting manager if he or she considers such instructions to be outside his or her competency, or if there may be additional risks to the blasting activities.

Foreman blasters

52. (1) At a site where more than one blaster is employed, the blasting manager must appoint one of the blasters to act as the foreman blaster.
- (2) The appointment contemplated in sub-regulation (1) must be made in writing in the form of a letter signed by the foreman blaster and the blasting manager, and the original letter of appointment must be kept by the blasting manager.
- (3) The foreman blaster must -
- (a) during charging activities, ensure that one blaster, with his or her supply of explosives, does not approach closer than 10 metres to another blaster and his or her supply of explosives; and
 - (b) personally supervise the initiation or firing of all explosive charges.

Blasting advisers

53. (1) A blasting adviser must -
- (a) be in possession of a relevant engineering or science degree or diploma;
 - (b) submit his or her personal particulars as contemplated in regulation 3 and proof of his or her educational qualifications; and
 - (c) show proof of practical experience in the field of explosives and blasting.
- to be registered with the Chief Inspector.
- (2) A blasting adviser may not issue any instructions to a blasting manager, foreman blaster or blaster, but may merely advise, and must -
- (a) consider the consequences and implications of any advice he or she may give regarding blasting methods and techniques;
 - (b) thereafter submit any advice in writing to the chief executive or blasting manager of a blasting business; and
 - (c) with the permission of the blasting manager, inform blasters -
 - (i) of the effect and advisability of introducing different or new blasting methods and techniques;

- (ii) the manner in which such blasting methods and techniques are to be applied; and
- (iii) the effects that such blasting methods and techniques may have on the safety of the blasters, blaster assistants, members of the public and property.

Blasting records and contingency plans

54. (1) A blaster must keep a contemporaneous written record as prescribed in Annexure "U", of every blast he or she sets off.
- (2) When blasting activities are to be conducted within 500 metres of any structure or service, the blasting manager must -
- (a) in co-operation with the client prepare a contingency plan which must address -
 - (i) any additional safety measures to be taken;
 - (ii) measures to mitigate any harmful effects caused by the blasting operation; and
 - (iii) arrangements for stand-by services, temporary closures, and emergency repairs.
 - (b) ensure that the contingency plan contemplated in paragraph (a) is co-signed by the client;
 - (c) keep the contingency plan in accordance with regulation 7;
 - (d) ensure by using recognised formulae or by employing the service of experts in the field, that no damage will be caused by blasting vibration;
 - (e) advise the inspector for the specific area in writing of the intention to conduct such activities, attaching a copy of the contingency plan contemplated in paragraph (a); and
 - (f) supply the blasting foreman and each blaster concerned with a copy of the documents required in paragraph (a).

Handling and storage of explosives at blasting sites before charging

55. (1) Explosives must not be drawn from any explosives magazine or supplier and taken to a blasting site until all the holes for the blasting have been drilled, finally checked and found to be suitable for charging activities to commence.

- (2) The blaster must make a realistic estimate of his or her requirements of explosives for the blasting and ensure that the correct quantities, sizes and types are ordered from the explosives magazine or supplier, in writing.
- (3) The person collecting the explosives must ensure that the correct quantities, sizes and types as stated on the order are obtained from the explosives magazines or supplier.
- (4) Any explosives not used at the blasting site, must after obtaining permission from an inspector, be either -
 - (a) returned to an explosives magazine if available; or
 - (b) if no explosives magazine is available, be destroyed in accordance with the requirements of regulation 9.
- (5)
 - (a) Only a blaster, or a learner blaster working under the direct and constant supervision of the blaster, may use explosives or prepare them for use.
 - (b) No person may handle explosives at or near a blasting site unless he or she is acting under the instructions and direct and constant supervision of a blaster.
 - (c) Once explosives are on site, a blaster may utilise only those blaster assistants necessary to comply with these Regulations and ensure that all persons not assisting, have withdrawn to a safe place.
 - (d) Where a blasting operation is of such a size or nature as to require charging up over more than one day, permission must be obtained from an inspector, and the blasting manager must arrange before such an operation for the guarding of the site to the satisfaction of the inspector.
- (6) Every blaster must have in his or her possession, at blasting sites, two containers, as specified in Annexure "E" -
 - (a) In one container, a blaster must keep his or her immediate requirements of explosives in Compatibility Group D, and in the other container his or her blasting accessories in Compatibility Groups B and G until required for use;
 - (b) the containers must be kept securely locked at all times except when it is necessary to place explosives therein, during charging activities or when the containers or their contents are being inspected;
 - (c) the keys of the containers must be kept by the blaster;

- (d) not more than 25 kilograms of explosives in Compatibility Group D and one reel of detonating cord or five kilograms of blasting accessories in Compatibility Groups B and G may be kept in the containers at any given time;
- (e) the containers, when containing explosives, must be kept in a safe and dry place and not less than two metres from each other or from a hole that is being charged and not less than ten metres from any other blasting activities in progress; and
- (f) the blaster may not place or allow any other materials or any implements or tools to be placed in the said containers.

Drilling and charging of holes

56. (1) A blaster must ensure that the holes are drilled at the places marked with wax crayon or paint by him or her.
- (2) No person may drill or permit any hole to be drilled, or use, or permit the use of a breaker, closer than 150 millimetres to any socket or in such a direction as to approach closer than 150 millimetres to any socket, nor may any person deepen or permit to be deepened, any hole which has been left unplugged.
 - (3) Immediately after a hole has been drilled to the desired depth, the person responsible for the drilling, must plug it effectively and the plug may not be removed, except for the purpose of inspection, or until the hole is required to be charged.
 - (4) Only a blaster who indicates where the holes must be drilled, may charge such drill holes, except with the written permission of an inspector, the charging of the drill holes may be done by another blaster appointed by the blasting manager.
 - (5) Explosives which are visibly damaged, may not be used in the charging of a drill hole.
 - (6) All drill holes must be large enough to allow the free insertion of explosives.
 - (7) All drill holes charged with explosives must only be stemmed with clay, sifted earth, fine sand, water, material provided for in SANS 120 or any other material approved by the Chief Inspector.
 - (8)
 - (a) Stemming may not be allowed to come between blasting cartridges, charged into a blast hole, except when detonating cord or shock tube assemblies are used for initiating the charge.
 - (b) Tamping may be done only with properly constructed wooden rods or other approved rods.
 - (c) The rod contemplated in paragraph (b) must -

- (i) fit easily into the drill holes to be charged;
 - (ii) be kept clean and free from grit; and
 - (iii) have square ends.
- (d) No excessive force may be used during tamping activities and explosives may not be subjected to blows.
- (e) No person may extract or attempt to extract explosives from a drill hole once it is charged.
- (9) (a) Primed cartridges may be made only as required for immediate use for each round of blasting and in their making, a detonator may not be inserted into the explosives without first having made a hole of sufficient diameter and depth in the cartridge, with a primer or piercer of non-ferrous metal.
- (b) The detonator must be securely fastened by the blaster to the cartridge in such a manner that it cannot pull out from the cartridge when the primed cartridge is lowered into the hole.
- (10) (a) A blaster may charge only the drill holes that he or she intends firing at the next blast and he or she may not start preparing the charges until all persons not assisting have been removed to a safe place.
- (b) The charges must be fired as soon as possible after charging activities are completed.
- (c) Once explosives are on site, a blaster may use only those blaster assistants necessary to comply with the regulations of this Chapter.
- (11) (a) When blasting in any built-up area, a blaster must -
 - (i) use only an instantaneous electric detonator in conjunction with detonating relays or short period (millisecond) delay action electric detonators, in both cases with detonating cord which must extend down the full depth of each hole, for initiating the charge; or
 - (ii) use shock tube assemblies of suitable design; and
 - (iii) cover the drill holes effectively by means of suitable material so as to prevent any debris being projected into the air.
- (b) When blasting in any built-up area where persons are likely to gather, a blaster must, unless specifically exempt in writing by an inspector, ensure that the site is completely boarded up to a height of at least two metres on all sides facing the streets.

- (12) (a) When deep drill holes or a large number of drill holes are charged, the explosives in Compatibility Group D may not be kept at one point on the blasting site, but must be distributed in piles of unopened cases or cartons of not more than 250 kilograms each and placed under continuous guard.
- (b) The piles contemplated in paragraph (a) may not be less than 20 metres from each other or from a drill hole being charged and not less than 50 metres from any other work in progress or from any inhabited buildings.
- (c) Not more than 25 kilograms of blasting explosives and one reel of detonating cord, may at any time be at a drill hole being charged.
- (13) (a) In all drill holes deeper than three metres, the charges must be initiated only by means of detonating cord or shock tube assemblies.
- (b) The end of the detonating cord or the detonator of the shock tube assembly contemplated in paragraph (a), must be firmly attached to the primed cartridge and the cartridge pushed down until it rests at the bottom of the drill hole.
- (c) Before any further cartridges are charged, the detonating cord contemplated in paragraph (a) must be cut off from the reel at a point not less than 150 millimetres beyond the collar of the hole and the reel must be removed to a safe place not less than two metres from the drill hole.
- (d) The cut end of the detonating cord must be firmly anchored to prevent it from slipping down the drill hole.
- (14) When blasting pole holes, and in other similar work where the drill holes have no free face to which the explosives can break except the surface, detonating cord or shock tube assemblies must be used for firing the charge.

Use of electric or electronic initiation

57. (1) A blasting manager, blaster or foreman blaster must ensure that where any form of electric or electronic initiation is used -
- (a) a shot exploder is available and is securely kept so that it cannot be used prematurely;
 - (b) the key, link or other device, isolating the power source, is kept on the person of the blaster or foreman blaster in charge, and only installed when ready to fire;
 - (c) a suitable apparatus for testing the continuity and resistance of circuits or both such continuity and resistance of circuits, as the case may be, is available in proper working order;

- (d) individual electronic or electric detonators or other electrically initiated articles as well as complete circuits are tested for continuity or resistance or both such continuity or resistance in a safe manner, prior to a blast; and
 - (e) immediately after a blast, the key, link, or other device isolating the power source, is removed and kept by the blaster or foreman blaster.
- (2) When using electric detonators or other electrically initiated articles, a blaster must -
 - (a) use only a firing cable which is in good condition and of sufficient length to provide for the firing of charges from a safe distance and also ensure that the cable cannot come into contact with any other cable or electrical apparatus;
 - (b) ensure that the ends of the firing cable are shorted at all times other than when they are connected to the shot exploder;
 - (c) personally connect the firing cable to the detonator or other electrically initiated articles of any charge or charges, only after he or she has completed all firing preparations;
 - (d) not connect the firing cable to the terminals of the shot exploder until immediately before firing; and
 - (e) ensure, by using appropriate equipment, or by employing the services of experts in the field of the use of explosives, that, at the place where he or she intends using them, such detonators or other electrically initiated articles cannot be initiated by any electromagnetic waves which may be generated from any radar, power line, radio, television, or other transmitter, or in any other manner.

Precautions before firing charges

58. (1) Before firing a charge, a blaster must -

- (a) take every precaution, including the use of covering materials to control fly-rock, to prevent possible injury to persons or damage to property;
- (b) give audible warning with a siren at least three minutes before a blast is fired and the blast must be fired immediately after the period of three minutes;
- (c) at all access points to the blasting site at a distance beyond the probable range of flying debris place-

- (i) a notice board on which the following words: "DANGER - BLAST AREA - KEEP OUT" in English and another official language appear in block letters not less than 100 millimetres in height, on a contrasting background; and
 - (ii) a trained person carrying a red flag with dimensions of 600 mm by 600 mm; and
- (d) ensure that all persons are withdrawn from the danger zone to a place well beyond the probable range of flying debris or to a safe shelter.
- (2) A blaster may not fire a charge while any person is within the probable range of flying debris.
- (3) A person within the danger zone must withdraw to a place beyond the probable range of flying debris or to a safe shelter immediately upon hearing the siren contemplated in paragraph (1)(b).
- (4) A person who, after being warned in accordance with paragraphs 1(b) and (c), approaches closer to the blasting site, is guilty of an offence.

Responsibilities of blasters after firing charges

59. (1) A blaster, after charges have been fired as contemplated in regulation 56(10)(b)-
- (a) may not enter or allow any person to enter the site in which such firing has occurred, until the fumes caused by the explosion have dissipated;
 - (b) may not allow or permit any persons except those necessary to assist him or her in making the blasting site safe, to enter or approach such blasting site until he or she has personally made an examination of the blasting site for misfires, exposed explosives, dangerous ground and has taken all reasonable steps to make the blasting site safe;
 - (c) must carefully examine the blasting site for misfires while the debris is being cleared and must personally instruct the persons engaged in clearing the broken rock to report immediately to him or her the discovery of any explosives, electrical wires, cords, fuses or tubing that may indicate a misfire and he or she must carefully trace such wires, cords, fuses, or tubing to determine whether a misfire occurred;
 - (d) must clean and examine the site where blasting has taken place with a view to locating drill holes and must examine every exposed drill hole to determine whether it is a misfire or a socket;

- (e) must place a guard or guards to prevent any person who is not under his or her direct control or supervision from entering the blasting site until the debris has been cleared and the provisions of paragraph (d) have been complied with; and
 - (f) must, if the debris cannot be cleared on the same day of the blast, ensure that a guard is placed until such clearance can be done and notify the inspector for the specific area accordingly.
- (2) At any blasting site where explosives have been used the blaster must -
 - (a) after examining and cleaning exposed drill holes, plug the sockets with plugs painted red;
 - (b) ensure that the plugs contemplated in paragraph (a) are not removed except temporarily for the purpose of inspection, until all other drill holes in the immediate vicinity are charged, or until all work in connection with the excavation is completed;
 - (c) remove or cause to be removed, all loose rock or ground to a distance of at least two metres around the place where a hole is to be drilled with the purpose of locating misfires and sockets;
 - (d) mark clearly with wax crayon or paint the holes to be drilled, indicating the position of the drill holes and the direction in which they must be drilled; and
 - (e) before allowing the use of a breaker, remove all loose rock or ground to a distance of at least two metres around the place where the breaker is to be used, with the purpose of locating misfires and sockets.
- (3)
 - (a) No explosives found amongst the debris after a blast may be charged into a blast hole but must be collected by the blaster immediately and placed in two separate explosives receptacles for old explosives as specified in Annexure "E", prior to destruction.
 - (b) Recovered blasting accessories in Compatibility Groups B and G must be kept in one receptacle, and recovered explosives in Compatibility Group D in the other receptacle.

Handling of misfires

60. On locating a misfire, a blaster must immediately withdraw all persons from the site, except those necessary to assist him or her, and thereafter the blaster must -
- (1) remove the stemming carefully with an instrument of non-sparking material, preferably with the use of water, to expose the charge;
 - (2) place a fresh primed cartridge on top of the charge which he or she must fire subject to the provisions of regulation 58; or

- (3) cause a hole to be drilled under his or her personal supervision, parallel to, at least 150 millimetres deeper than, and not closer than one metre to the misfire;
- (4) charge and fire the drill hole; and
- (5) recover any explosives exposed or thrown from the misfire and place in the old explosives boxes referred to in regulation 59 (3).

General safety and security at blasting sites

61. (1) On the approach of or during a thunderstorm, a blaster must suspend all blasting activities and ensure that no person remains within an area where he or she may be injured by the accidental initiation of explosives.
- (2) Explosives may not be used between sunset and sunrise except with the written permission of an inspector and under conditions determined by the inspector.
- (3) (a) No person may -
- (i) keep, carry, handle, or use any explosives within 15 metres of a fire or flame;
 - (ii) produce a flame or smoke in or about any place where explosives are being kept, carried, handled or used; or
 - (iii) produce a flame within 15 metres from explosives except that on a confined site in built-up areas near streets, the distance contemplated in sub-paragraph (i) may be reduced to ten metres, but warning notices with prominent red letters not less than 75 millimetres high on a white background, warning persons against smoking or producing a flame, must be displayed on the site.
- (b) Every person on a blasting site or at any other place where explosives are being used or prepared for use, must refrain from any action which may cause a fire or explosion and any person who fails to comply with an instruction given in the interests of safety by a blasting manager, foreman blaster or blaster, is guilty of an offence.
- (4) (a) No person suspected to be under the influence of intoxicating substances or narcotics may handle or attempt to handle explosives.
- (b) The blasting manager and blaster must take all reasonable steps to prevent a person suspected to be under the influence of intoxicating substances or narcotics from handling, approaching or remaining within the vicinity of explosives.
- (5) (a) A blaster must take all reasonable measures to safeguard all persons who may be at or within the area of his or her blasting site

against accidents, whether such persons are under his or her direct supervision or not.

- (b) (i) No person may do work or allow work to be done which involves excavating, drilling or the use of a breaker at any place where explosives were used, unless a blaster is in attendance.
 - (ii) The chief executive or the blasting manager must advise the blaster of the activities involving explosives previously carried out on the site and make any documentation pertaining thereto available.
- (6) Any person who obstructs or hinders any blasting manager, foreman blaster or blaster in the execution of his or her duties, or who fails to comply with the lawful instructions given in terms of these Regulations, is guilty of an offence.
- (7) (a) No person may bury, submerge, hide, abandon or tamper in any way with explosives or any container containing explosives.
- (b) No person in charge of explosives may -
 - (i) relinquish control over such explosives until some other person lawfully accepts control thereof or until such explosives are placed in an explosives magazine as provided for in these Regulations and such explosives magazine has been securely locked; or
 - (ii) leave explosives unattended.
- (8) (a) All explosives receptacles used for storage and transport, must be kept securely locked whilst containing explosives, except when it is necessary to remove explosives therefrom, or when their contents are being inspected.
- (b) The keys must be kept in the possession of the blaster.
- (c) Old explosives boxes must be cleared at least once at the end of each day, and the contents destroyed.

Responsibilities of inspectors and blasting managers to ensure safety

- 62. (1) An inspector must prohibit or restrict the use of explosives in places where, owing to the close proximity of buildings or other works, he or she reasonably believes that the blasting activities may endanger life or property.
- (2) (a) If an inspector has reason to believe that a blaster -

- (i) executes his or her duties in a manner that endangers the safety of life or property; or
- (ii) suffers from any infirmity likely to hamper him or her in the discharging of his or her duties;

the inspector must immediately suspend the permit of such blaster as contemplated in regulation 6(4): Provided that such suspension does not cause any danger to life and property.

- (b) The inspector must, without delay, report the incident and the actions he or she has taken as contemplated in regulation 6(4) and 8, to the Chief Inspector.
- (3)
- (a) If during blasting activities a blasting manager or inspector has reason to believe that a blaster may be under the influence of an intoxicating substance, which may affect his or her judgement, such manager or inspector must immediately suspend such blasting activities and cause the blaster to discontinue working with or near explosives.
 - (b) The blaster as contemplated in paragraph (a) must be instructed to immediately undergo an appropriate examination by a medical practitioner or registered nurse.
 - (c) The blaster's permits must be surrendered to the inspector who must report the incident to the Chief Inspector.
- (4)
- (a) If the chief executive or a blasting manager terminates the services of a blaster or restrains a blaster from carrying out his or her duties as a blaster, such executive or blasting manager must notify the Chief Inspector without delay of such termination and restraint, and the reasons therefore;
 - (b) The notification contemplated in paragraph (a) must be confirmed in writing.
 - (c) The blasting permit issued to the blaster contemplated in paragraph (a), must be surrendered to an inspector.

Special provisions

63. Any authorised explosives for the use of which provision is not made in the regulations of this Chapter, may be used only in such a manner and under such conditions as may be determined, in writing, by the Chief Inspector.

CHAPTER 12

ACCIDENTS AND INCIDENTS

Accidents and incidents

64. (1) A person in charge of -
- (a) an explosives magazine;
 - (b) the transporting of explosives; or
 - (c) premises and sites where explosives are -
 - (i) manufactured, stored, handled, used or dealt with in terms of the Act; or
 - (ii) dealt with or used in terms of the Firearms Control Act, 2000 (Act No. 60 of 2000),
- must report any accident or incident immediately to the inspector for the specific area, regardless if the said accident or incident caused the death of, or injury to persons or damage to property, or not, and must report in writing the full particulars of such accident or incident pertaining to safety and security to the Chief Inspector, within 24 hours.
- (2) The place where an accident or incident occurred may not be disturbed before the arrival, or without the consent of the inspector for the specific area, unless such disturbance is unavoidable to prevent further accidents, or to remove persons from immediate danger or to assist injured persons.
- (3) An inquiry of any accident or incident in terms of section 33(1)(k) of the Act must be held immediately.

CHAPTER 13

TRESPASS

Definition

65. For the purpose of this Chapter -

“explosives manager” means a person appointed in terms of regulation 12(1) of the Explosives Regulations, 2003, to the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), as published in Government Gazette 24272 of 17 January 2003.

Prohibition of entrance to certain premises without authorisation

66. (1) No person may be within the fence surrounding any explosives manufacturing workplace or danger building, or group of danger buildings, and may not approach within 50 metres of the danger building or danger buildings, as defined in the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) unless he or she is authorised thereto by the owner or occupier of such explosives manufacturing workplace.
- (2) No person may enter any explosives magazine, fenced area or mound of an explosives magazine, except with the permission of the magazine master or licensee of the explosives magazine.
- (3) No person may enter any premises where, under the Act or these Regulations, explosives are kept, stored, used or manufactured, except with the permission of the occupier, or the person in control, as the case may be.

Access control at explosives manufacturing workplaces

67. (1) In every explosives manufacturing workplace, the explosives manufacturing and storage sections and so much of the land surrounding them as are shown on the official site plan, must be fenced in and is known as the danger area of the explosives manufacturing workplace.
- (2) Entrance to a danger area may be made only through a gate designated by the explosives manager.
- (3) The gatekeeper, security guard or other person authorised by the explosives manager must identify and record the entrance and exit of any person entering, leaving or found in the danger area.
- (4) Any person entering or leaving a danger area must submit to being searched by the gatekeeper, security guard or other person authorised thereto by the explosives manager.

CHAPTER 14**APPEAL BOARD****Appeal board**

68. (1) An Appeal Board is hereby established.
- (2) The seat of the Appeal Board is in Pretoria.
- (3) The Appeal Board comprises at least three persons appointed on an *ad hoc* basis by the Minister, and the Minister may appoint any person with

special knowledge as member of the Appeal Board to assist it in a specific appeal or to advise the Appeal Board.

- (4) (a) The period of office, remuneration, allowances and other terms and conditions of office of the members of the Appeal Board are determined by the Minister with the approval of the Minister of Finance.
 - (b) The Minister may at any time withdraw the appointment of a member of the Appeal Board if the member is incapacitated or not able to fulfill his or her functions.
 - (c) A member of the Appeal Board may resign by notice in writing to the Minister.
- (5) The Appeal Board must decide any appeal lodged in terms of these Regulations.
- (6) Members and additional members of the Appeal Board may be re-appointed.
- (7) Whenever a member or an additional member of the Appeal Board is absent due to illness or for any other reason, the Minister may appoint another additional member.
- (8) (a) The Minister must nominate a member of the Appeal Board as chairperson of the Appeal Board, when the Appeal Board members are appointed.
 - (b) The chairperson must have a legal qualification and must have practised as an attorney or an advocate for at least five years.
- (9) The chairperson determines the times when the Appeal Board meets and the procedures to be followed at such meetings.
- (10) (a) For the purposes of a meeting of the Appeal Board, the chairperson and a member or an additional member will constitute a quorum.
 - (b) The Appeal Board must determine the rules to govern its proceedings.
 - (c) A record of proceedings must be kept by the chairperson.
 - (d) The decision of the majority of the members present at a meeting of the Appeal Board constitutes a decision of the Appeal Board: Provided that in the event of an equality of votes on any matter, the chairperson of the Appeal Board has a casting vote in addition to his or her deliberative vote.
- (11) A member of the Appeal Board may abstain from voting and such abstention must be noted.

- (12) Additional evidence may be adduced by the chairperson of the Appeal Board in order to come to a just and equitable finding.
- (13) The administrative work relating to the functions of the Appeal Board must be performed by employees or persons employed by the State.

CHAPTER 15

EXPLOSIVES TESTING, AUTHORISATION, CLASSIFICATION AND QUALITY ASSURANCE

Certifying and Competent Authority

- 69.** The Chief Inspector is the Certifying Authority and the Competent Authority where these terms are used in any specification, code or recommendation on explosives.

Registration of testing facilities

- 70.** (1) Unless otherwise provided for, explosives may only be analysed or tested at -
- (a) the Forensic Science Laboratory of the South African Police Service;
or
 - (b) testing facilities registered with the Chief Inspector.
- (2) A testing facility may consist of one or more laboratories, testing ranges or similar facilities.
- (3) To register a testing facility the owner must submit to the Chief Inspector -
- (a) the name under which the facility will operate;
 - (b) the physical address of the facility;
 - (c) a description of each part of the facility, together with such facility and construction plans as the Chief Inspector may require;
 - (d) the nature of tests to be carried out;
 - (e) the types of substances and articles to be tested;
 - (f) restriction to be placed on the quantities of explosives at the facility;
 - (g) restriction to be placed on the number of persons at each facility;
and
 - (h) the name, physical address, occupation, qualifications and identity number of the person in charge of the facility, who will be responsible for compliance with these Regulations.

- (4) If the facility or part thereof is of a mobile nature, such further information as required by the Chief Inspector must be submitted.
- (5) Where a testing facility is part of an explosives manufacturing workplace, the owner is exempt from sub-regulation (3): Provided that a copy of each of the approved plans and the applicable licence schedules of the testing facility are submitted to the Chief Inspector.
- (6) When the Chief Inspector is satisfied with the information submitted, he or she must inform the applicant in writing of the registration of the testing facility.
- (7) The Chief Inspector, an inspector or an official of the Forensic Science Laboratory of the South African Police Service designated by the Chief Inspector, may inspect the facility at any reasonable time.

Applications to authorise an explosive

71. (1) Any person who intends to -

- (a) have a new explosive substance or article listed as an authorised explosive;
- (b) modify an existing authorised explosive;
- (c) change the chemical and/or physical properties of an authorised explosive;
- (d) re-register an existing authorised explosive under another UN Number or Class, must submit an application, in writing to the Chief Inspector.

(2) In his or her application to the Chief Inspector, the applicant must state -

- (a) whether it is intended to manufacture such explosive article or substance in the Republic or to import it, and -
 - (i) in the case of a local manufacturer, the full address of the explosives manufacturing workplace;
 - (ii) in the case of import, the official number allocated to the explosives magazine where the explosives will be stored and the name and physical address of the licensee of the explosives magazine, or where no explosives magazine is available, the physical address and description of the premises where it is intended to keep such explosives and the name and address of the owner of such premises;
- (b) Particulars of -
 - (i) the composition of the explosive;

- (ii) the intended use of the explosive;
 - (iii) the trade name of the explosive;
 - (iv) the limiting percentages of each of the ingredients of the explosive;
 - (v) any substitutes for any specific ingredient;
 - (vi) in the case of an article, a drawing thereof, including its dimensions.
- (c) Where the explosive is encapsulated in a cartridge, tube, shell or the like, a description of the material in which the explosive is to be encapsulated, its size and the quantity of explosives in each article.
- (d) Details of the packaging suggested to be used for the substance or article.
- (3) Application must be made on the form as contemplated in Annexure "J".

Testing of explosives

72. (1) The Chief Inspector may require the substance or article to be subjected to any or all of the recommended tests laid down in the UN Test Manual, and to any other standard, test or analysis included in Annexure "K" to these Regulations, of which the cost involved in such tests or analyses will be borne by the applicant.
- (2) Any tests or analyses must be carried out by -
- (a) the Forensic Science Laboratory of the South African Police Service; or
 - (b) a testing facility registered with the Chief Inspector.
- (3) The Chief Inspector may require the tests or analyses to be carried out in the presence of an inspector, an official of the Forensic Science Laboratory or an expert designated by the Chief Inspector.
- (4) (a) The test and analysis results must be submitted to the Chief Inspector together with any recommendation by the testing facility regarding the UN Number, Class and proper shipping name of the substance or article.
- (b) On receipt of the results and the recommendations, the Chief Inspector must request the applicant to submit any further information which the Chief Inspector may require, if necessary.
- (c) The Chief Inspector may accept the results obtained which have lead to the acceptance of the UN classification of a substance or

article, by the Competent Authority of another country, provided that the tests have been carried out in accordance with the UN Test Manual or another method acceptable to the Chief Inspector.

Authorisation of explosives

73. (1) After deciding on the application, the Chief Inspector must advise the applicant in writing of his or her decision, and if the application is approved, of the UN Number, Class and proper shipping name he or she allocated to the substance or article in the form of a ZA-X certificate as set out in Annexure "L".
- (2) (a) The Chief Inspector must allocate ZA-X numbers to authorised explosive substances or articles.
- (b) If in accordance with regulation 72(4)(c) a substance or article is classified by the Competent Authority of another country, the reference number issued by that Competent Authority and the date of issue must be recorded on the ZA-X certificate.
- (c) The Chief Inspector must maintain an electronic register of all authorised explosives.
- (d) The register must form the basis of the List of Authorised Explosives, as set out in Annexure "M".
- (e) This list may also contain explosive substances and articles which, based on their properties, are not controlled as explosives.
- (f) The list may also contain non-explosive substances and articles which, based on their properties may be controlled.
- (3) The Chief Inspector may issue written permission under such conditions as he or she may deem necessary, to carry out pre-authorisation trials with unauthorised explosives contemplated in section 14(2).

Expiry of explosives

74. (1) Manufacturers and importers of explosives must determine a period of time based on tests, analyses, industry norms and standards for which their products may be safely stored and used.
- (2) The Chief Inspector must, if convinced by a fully motivated application, that the period referred to in sub-regulation (1) is realistic and does not compromise safety or security in any way, approve such period.

Compliance and quality control

75. (1) (a) The Chief Inspector may require a manufacturer or importer to carry out or have such tests and analyses carried out as the Chief Inspector may deem necessary to ensure that the authorised

explosives manufactured or imported by them, still qualify for the UN Number, Class and proper shipping name allocated to it.

- (b) The results of such tests or analyses must be reported in writing to the Chief Inspector.
- (2) An inspector may take samples of any authorised explosive, at any place, to enable the Chief Inspector to ascertain whether the substance or article still qualifies for the UN Number, Class and proper shipping name allocated to it.
- (3)
 - (a) The Chief Inspector may withdraw an authorisation -
 - (i) on request of the manufacturer or importer; or
 - (ii) when the Chief Inspector is satisfied that analyses or test results show that the substance or article no longer complies with the requirements set out in the authorisation.
 - (b) The Chief Inspector must inform the manufacturer or importer in writing of the withdrawal and must amend the List of Authorised Explosives accordingly.
- (4)
 - (a) Manufacturers and importers must ensure that all explosive substances and articles manufactured or imported by them are subject to quality assurance in accordance with SANS/ISO 9001/2000 or similar quality control systems.
 - (b) Manufacturers and importers must keep a written record of substances and articles manufactured or imported by them, containing the following -
 - (i) The test and analysis methods used for quality assurance;
 - (ii) the frequency at which such tests and analyses will be carried out;
 - (iii) the arrangements made for carrying out such tests and analyses; and
 - (iv) the results of all such tests and analyses.
 - (c) The Chief Inspector, an inspector or an official of the Forensic Science Laboratory of the South African Police Service, designated by the Chief Inspector, may inspect such records and the premises where the tests or analyses are carried out at any reasonable time.
- (5)
 - (a) An inspector may take samples of any explosive, or a substance or article suspected of being an explosive, or explosive component at any place to enable the Chief Inspector to ascertain whether such

explosive, substance or article is indeed an explosive in terms of the Act.

- (b) The cost of any tests carried out under these Regulations must be borne by the manufacturer or importer.

Authorised explosives database

76. The database as contemplated in section 18(2) of the Act, kept by the Chief Inspector, must contain the following information -

- (1) Digital images or photographs or both such digital images and photographs of the inner and outer packaging, the explosive itself as well as the manner in which the explosive is packed in the inner packaging;
- (2) information and the dimensions of the inner and outer packaging and any other wrapping or containing materials; and
- (3) information and the dimensions of logos and markings as well as the colour and specific warnings appearing on all packaging material and the position thereof.

CHAPTER 16

FIREWORKS AND PYROTECHNICS FOR ENTERTAINMENT

Definitions

77. For the purpose of this Chapter -

"amorces" means consumer fireworks which is a cap designed for use in toys, which comprises of a paper envelope containing a dot of impact-sensitive pyrotechnic composition and which forms part of a roll;

"cap" means consumer fireworks, (including amorces) designed for use in toys which comprises of a non-metallic envelope or cup containing a dot of impact-sensitive pyrotechnic composition and which produces a report when it is hit;

"consumer fireworks" means fireworks in Class 1.4G UN Number 0336 and 1.4S UN Number 0337, suitable and intended for use by persons of the age of 18 years or older, within the boundaries of their private properties, and **"shop goods fireworks"** and **"domestic fireworks"** have a similar meaning;

"cracker snap" means a firework -

- (1) which comprises of two overlapping strips of cord or paper with a friction-sensitive pyrotechnic composition in sliding contact with an abrasive surface; and
- (2) which produces a report when pulled apart;

"display fireworks" means large fireworks intended for professional use by registered pyrotechnicians, and include all fireworks exceeding the limits placed on consumer fireworks;

"fireworks rocket" means an article consisting of a tube charged with compacted black powder as rocket motor, which is attached to a stick to stabilise its flight;

"gasometer" means any large reservoir in which gas as specified in Class 2 of SANS 10228, is stored for distribution by pipes or otherwise, and also includes any vessel for holding gas and any place where vessels are filled with gas, but excludes containers holding liquefied petroleum gas for domestic purposes, or the filling of such containers;

"novelty match" means a consumer firework comprising of a match with a dot of pyrotechnic composition which is designed to be held in the hand while functioning and which functioning involves a report or the production of visual effects, or both;

"party popper" means a consumer firework comprising of a device -

- (1) which is designed to be held in the hand while functioning;
- (2) which is operated by a pull-string with an abrasive surface in sliding contact with a friction-sensitive pyrotechnic composition or fuse; and
- (3) which functioning involves a report with the ejection of streamers or confetti, or both;

"premises" means any building or room in which consumer fireworks are stored, kept or handled for the purposes of sale and excludes residential premises;

"promoter" means a person, organisation, body or company of any nature that engages in producing any form of live public performance in the entertainment industry, whether it be for stage, film, television or video;

"public firework display" means an event where display fireworks are used in a public place by a registered pyrotechnician for a display;

"pyrotechnic composition" means a substance in a solid or liquid state or a mixture of such substances, designed to produce an effect by heat, light, sound, gas or smoke or a combination of these as the result of non-detonative self-sustaining exothermic chemical reaction, including pyrotechnic substances which do not evolve gases;

"pyrotechnician" means a person who is registered by the Chief Inspector as competent and suitable to produce or present a display of fireworks, theatrical indoor or stage pyrotechnic effects, or pyrotechnic special effects;

"retail dealer" means a person, body or company that, for the purposes of trade, supplies consumer fireworks to any member of the public, who is of the age of 18 years or older, from licensed premises;

“sparkler” means a consumer firework, comprising of a rigid wire partially coated with slow-burning pyrotechnic composition, which functioning involves the emission of sparks without a report;

“special effects” means special effects created for entertainment through the use of pyrotechnic, propellant and explosive materials and articles, including any pyrotechnic composition and/or explosives used with other fuels to produce an effect for a special purpose;

“sponsor” means a person, body, company or organisation, that partakes, financially or otherwise, in the presentation of a fireworks display or the production of special effects or theatrical effects;

“theatrical pyrotechnics” means electrically initiated prepacked indoor fireworks or pyrotechnic devices or compositions meant for use by a licensed pyrotechnician in theatrical productions whether it be for stage, film, television or video;

“throwdown” means consumer fireworks comprising of an impact-sensitive explosive composition and grains of inert material wrapped in paper or foil and produces a report when thrown onto the ground; and

“wholesale dealer” means a person, body, company or organisation that, for the purposes of trade, supplies consumer fireworks to any other licensed dealer in consumer fireworks for resale, from licensed premises.

Prohibited firework compositions

78. (1) The following chemicals or mixtures thereof are prohibited for use in firework compositions -

- (a) Arsenic sulphide, arsenates and arsenites;
- (b) boron;
- (c) mixtures of chlorates with either ammonium salts, sulphur, phosphorus, copper or copper sulphate;
- (d) gallic acid and gallates;
- (e) magnesium, except magnesium / aluminum alloy (magnalium);
- (f) compositions containing heavy metals such as mercury and lead;
- (g) white phosphorus;
- (h) picric acid and picrates;
- (i) thiocyanates;
- (j) titanium; and

- (k) zirconium.
- (2) Notwithstanding anything contained in sub-regulation (1) -
 - (a) mixtures of chlorates and red phosphorus may be used in amorces; and
 - (b) titanium may be used in firework compositions provided that the particle size is larger than 100 mesh.

Prohibited consumer fireworks

79. The following types of consumer fireworks are prohibited -

- (1) Fireworks that are used as trick devices, booby traps, or as a joke;
- (2) hand-held fireworks other than Christmas crackers and sparklers;
- (3) self-propelled fireworks travelling in an unpredictable or erratic path, such as hummers and flying saucers;
- (4) violent fireworks such as firecrackers containing chlorate or metal powders, including but not limited to "Bombs" and "Indian Kings";
- (5) table bombs and table rockets;
- (6) fireworks with fuses that burn less than three seconds or longer than eight seconds after lighting the fuse;
- (7) fireworks with their own means of ignition, such as match crackers, and
- (8) fireworks not marked in accordance with these Regulations.

Prohibition of use of fireworks in conjunction with other dangerous goods

80. No person may use fireworks in conjunction with any dangerous goods as specified in SANS 10228 as -

- (1) Class 1- explosives other than fireworks;
- (2) Class 2 - gases;
- (3) Class 3 - flammable liquids; or
- (4) Class 4 - flammable solids, except safety matches;

unless otherwise authorised in writing by the Chief Inspector.

Fireworks approved for indoor use

81. No fireworks may be used indoors, except -

- (1) theatrical pyrotechnics, used by a pyrotechnician;
- (2) amorces, used in toy pistols;
- (3) Christmas crackers;
- (4) sparklers, not exceeding a total length of 250 millimetres under strict supervision of a person 18 years of age or older; and
- (5) party poppers.

Approved consumer fireworks

82. Consumer fireworks consist of -

- (1) Fireworks in Class 1.4G as provided for in the UN Default Fireworks Classification Table, listed in Annexure "K";
- (2) amorces, toy pistol caps, consisting of plastic or paper caps in shells, strips, rolls or individual caps where the pyrotechnic composition may not exceed 6,5 grams per 1000 caps in the case of plastic caps and 5,0 grams per 1000 caps for paper caps; and
- (3) Christmas crackers consisting of an overwrapped cracker containing a pull-type cracker or cracker snap, which may not contain more than 1,6 milligrams of friction-sensitive pyrotechnic composition.

Transport of consumer fireworks

83. Consumer fireworks packed in terms of regulation 85(2) may be transported in accordance with Annexure "F": Provided that -

- (a) no smoking is allowed on the vehicle;
- (b) no goods of a flammable or combustible nature apart from that required to propel the vehicle, are carried at the same time on the vehicle; and
- (c) any exposed consumer fireworks containers are covered by tarpaulin or otherwise.

Use of consumer fireworks

- 84.** (1) No person may allow any person under the age of 18 years to acquire or transport fireworks or to keep, handle or use consumer fireworks except under the direct supervision of a person 18 years and older.
- (2) No person may use consumer fireworks -
- (a) within 1000 metres from any airport, explosives manufacturing workplace, petroleum depot, liquified petroleum gas (LPG) depot, gasometer, hospital or old age home caring for the aged and frail;

- (b) within 500 metres from any industrial premises, kennels, any filling station or retail premises where flammable gas containers are used, stored or filled;
 - (c) within 500 metres from a South African Police Service Community Service Centre;
 - (d) in any building, or public thoroughfare; or
 - (e) at any public place unless written permission has been obtained from the local authority.
- (3)
 - (a) No person issued with a permit may use consumer fireworks after 23:00.
 - (b) Paragraph (a) may not prohibit the use of firework during a period determined by the Minister.
 - (c) In this regulation a "period determined by the Minister", means a period -
 - (i) beginning at 08:00 on the first day of the Chinese New Year and ending at 24:00 of that day;
 - (ii) beginning at 08:00 on the two days of Diwali and ending at 24:00 of those days; or
 - (iii) beginning at 08:00 on 31 December and ending at 24:00 of that day.
- (4)
 - (a) No person may operate a public display of fireworks on any premises without the written permission of an inspector.
 - (b) The permission contemplated in paragraph (a) must stipulate the conditions to be complied with.

Authorisation, marking and packaging of fireworks and pyrotechnics

85. (1)
 - (a) The manufacturer or importer of any fireworks or pyrotechnics must advise the Chief Inspector of each component and percentage thereof in any pyrotechnic composition he or she proposes to manufacture or import.
 - (b) The manufacturer or importer of any fireworks or pyrotechnics must complete the application form contained in Annexure "J" with regard to each article or substance and submit it with at least five samples to the Chief Inspector for authorisation.
 - (c) The Chief Inspector may utilise the UN Default Fireworks Classification Table listed in Annexure "K", or may request any tests

or analyses contemplated in Chapter 15 to authorise any firework or pyrotechnic.

- (2) All fireworks or pyrotechnics which are manufactured or imported into or exported from the Republic or are offered for sale must be marked, labelled and packed in accordance with the provisions of Chapter 4.
- (3) All consumer fireworks must be marked with -
 - (a) a description showing the principal effect of the firework and short instructions for use;
 - (b) the name and address of the local manufacturer or importer;
 - (c) the UN Number and Class of the article; and
 - (d) the safety precautions to be taken.
- (4) If consumer fireworks are too small to bear the markings required by sub-regulation (3), the outer packaging of such article must bear such markings.
- (5) Consumer fireworks must be packed by a manufacturer or importer in suitable containers which must be sealed, ready for sale to the public, before dispatch to a dealer.
- (6) A dealer in consumer fireworks may not interfere with the inner packaging of any consumer fireworks or allow or permit any person to interfere with such packaging.
- (7) Consumer fireworks must be packed in sealed inner packaging such as cardboard boxes or blister packs, when offered for sale and may not be opened on a dealer's premises: Provided that -
 - (a) a wholesale dealer may repack consumer fireworks, only in a building licensed for that purpose by the Chief Inspector, in a similar type sealed inner packaging and in addition to all other markings required; and
 - (b) such inner packaging must bear a label stating the name under which the wholesale dealer's licence has been issued.
- (8) Any fireworks and pyrotechnics not packed and marked in accordance with the regulations must be regarded as an unauthorised explosive.
- (9) Fireworks bearing UN Number 0333, Class 1.1G, UN Number 0334 Class 1.2G and UN Number 0335 Class 1.3G must also be marked with the following words in English and one other official language -

EXPLOSIVE
IF FOUND REPORT TO POLICE

DANGEROUS
NOT FOR PUBLIC USE

Dealers

86. (1) No person may sell or deal in fireworks unless it is done in accordance with the conditions of the licence issued in terms of section 13(1) of the Act by the Chief Inspector.
- (2) A person must apply to the Chief Inspector for a licence to deal in consumer fireworks and the application must contain the information required in Annexure "N".
- (3) A manufacturer of, or wholesale dealer in consumer fireworks must furnish a properly executed, signed and dated invoice or delivery note with each sale or supply of consumer fireworks, and a copy thereof must be kept for three years.
- (4) A dealer in consumer fireworks, when purchasing or obtaining consumer fireworks, must demand from the seller or supplier a properly executed, signed and dated invoice or delivery note which he or she must retain for a period of at least three years and such invoice must be produced to an inspector when he or she requests it.
- (5) A manufacturer or wholesale dealer may only supply consumer fireworks to a consumer fireworks dealer who is in possession of a valid licence issued in terms of section 13 of the Act, and the number of such licence must be quoted on the invoice.
- (6) The manufacturer or wholesale dealer must keep a register as specified in Annexure "Q" Part 1 Form E.
- (7) (a) Consumer fireworks kept in any premises must be kept in such a way that it does not in any way obstruct the exit.
- (b) A safe exit must be possible in case of an emergency.
- (8) Every retail dealer must place -
- (a) visible from the outside of his or her premises, in a prominent position adjacent to every entrance thereto, notices in English and another official language, reading "DEALER IN FIREWORKS" in red letters not less than 100 millimetres high on a white background; and
- (b) in prominent positions inside his or her premises, prominent signs containing the words "NO SMOKING" in English and another official language.
- (9) Every dealer and every person employed in or about the premises in which consumer fireworks are handled must take all due precautions for the prevention of accidents by fire and for preventing persons from gaining access to the consumer fireworks.

- (10) Goods of a dangerous nature such as flammable liquids, oxidising agents, acids, alkalies and safety matches must be kept at least three metres away from the consumer fireworks.
- (11) No person may smoke in, produce or take a flame or fire into premises where consumer fireworks are kept, stored or being handled.
- (12) Any person on premises where consumer fireworks are kept or handled, who fails to comply with a lawful request made by the licensee or his or her employees in the interests of safety, is guilty of an offence.
- (13) A dealer in consumer fireworks may keep in his or her retail area for which a licence in terms of section 13(1) of the Act is issued, not more than 100 kilogram gross mass of consumer fireworks.
- (14) A dealer in consumer fireworks may store additional quantities of consumer fireworks on his or her premises, only with the written permission and in quantities and under conditions determined by the Chief Inspector: Provided that -
 - (a) the consumer fireworks are stored on the premises in a place not accessible to the public or customers; and
 - (b) the total quantity of consumer fireworks stored on such premises may not exceed -
 - (i) 1000 kilograms gross mass in the case of wholesale dealers; or
 - (ii) 500 kilograms gross mass in the case of retail dealers.
 - (c) The total quantity exceeding the above-mentioned mass may be stored only in an explosives magazine as licensed in terms of Chapter 8.
- (15) A retail dealer in consumer fireworks -
 - (a) may supply consumer fireworks only in the sealed inner packaging as received from the manufacturer or wholesale dealer: Provided that the packaging is in good condition; and
 - (b) must furnish each employee engaged in selling consumer fireworks with a copy of the regulations contained in this Chapter, a copy of the conditions attached to his or her licence to deal in consumer fireworks and ensure that each employee is acquainted with the contents.
- (16) No person may keep or allow more than 10 kilograms gross mass of consumer fireworks on any premises for private use.

- (17) No retail dealer may display or sell any consumer fireworks to any member of the public except during a period starting five working days before the period exempt by the Minister, as contemplated in section 15(2)(a) of the Act, unless a permit to obtain and use consumer fireworks is provided by an inspector in terms of that section.

Exceptions

87. Christmas crackers, throwdowns, sparklers and party poppers may be used supplied, acquired, transported and kept without a licence or a permit.

Certification and training of pyrotechnicians

88. (1) A person who intends to be registered as a pyrotechnician as defined in these Regulations must be a suitable person and must be evaluated by an inspector to ensure compliance with Annexure "O".
- (2) A pyrotechnician's logbook, which must be available at all time for inspection by an inspector must be kept by every apprentice pyrotechnician containing the following information -
- (a) The name or type of event and the location and date of such an event;
 - (b) the name of the contracting company or entity;
 - (c) the products used;
 - (d) the name of the pyrotechnician in charge, with the signature and registration number of the pyrotechnician; and
 - (e) the number of the applicable permit issued to the supervising pyrotechnician.

Responsibilities of sponsors or promoters of fireworks displays, theatrical or stage effect performances or special effects productions

89. (1) Any sponsor or promoter who intends to either present a fireworks display, or to use theatrical pyrotechnics during a live performance, or to create special effects at a public event or for the videotaping, audiotaping, filming or digital recording of any television, radio or movie production, must -
- (a) engage the services of a pyrotechnician; and
 - (b) appoint such pyrotechnician in writing and furnish a copy of that appointment to the pyrotechnician.
- (2) A sponsor of a fireworks display or a promoter of a theatrical or special effect production contemplated in sub-regulation (1), must -

- (a) ensure that the pyrotechnician in charge is provided with all reasonable assistance to produce a safe display or production;
- (b) adhere to all reasonable requests or instructions of the pyrotechnician; and
- (c) terminate the display or the production immediately if a situation arises where the safety of life and property might be endangered.

Fireworks display permit applications

90. (1) A pyrotechnician who intends to present a fireworks display must apply in writing to an inspector for a permit at least seven days before the date of the intended display.
- (2) Applications contemplated in sub-regulation (1) that are urgent may be considered by the Chief Inspector.
- (3) In the application contemplated in sub-regulation (1), a pyrotechnician must furnish -
- (a) the name of the person or organisation sponsoring the fireworks display;
 - (b) the name and registration number of the pyrotechnician in charge of the display;
 - (c) the names, addresses and identity numbers of all persons assisting him or her with the display and such persons must at least be 18 years of age;
 - (d) the date and time at which the display is to be held as well as an alternative date and time, within 72 hours of the date on which the display is to be held, in case the display has to be postponed;
 - (e) the exact location of the display;
 - (f) the name, explosives magazine number and address of the supplier of the display fireworks;
 - (g) the quantities and types of fireworks to be discharged;
 - (h) the manner and place of storage of such fireworks prior to the display;
 - (i) a diagram in triplicate, of the site on which the display is to be held, showing –
 - (i) the north direction;
 - (ii) the direction in which aerial fireworks are to be fired;

- (iii) the area to be kept clear of persons, which must extend at least 50 metres from the front and to the sides of the boundary of the site at which the fireworks are to be discharged;
- (iv) the area to be kept clear on which falling residue from aerial fireworks is expected to drop, which must extend for at least 100 metres to the rear of the firing area;
- (v) the location of all buildings, roads, railways and parking areas within 200 metres of the firing site and of all telephone lines, telegraph lines or power lines, trees and other overhead obstructions at or adjacent to the firing site; and
- (vi) the point at which the fireworks are to be discharged;
- (j) written approval of the local authority within whose jurisdiction the display will take place, as well as that of the owner or manager of the dwelling, building, site or structure;
- (k) verifiable proof of public liability insurance of a type and amount proportional to possible risks associated with the display;
- (l) a letter of approval for the holding of the display from -
 - (i) the national authority in charge of a harbour or navigable water where a display is to be held in such area; or
 - (ii) the airport authority where the display is to be held within two kilometres from an international airport or within one kilometer from a commercial airport; and
- (m) letter of appointment from the sponsor.

Theatrical or stage effects permit applications

- 91.** (1) A pyrotechnician who intends to use theatrical pyrotechnics for stage or theatre effects, must apply in writing to an inspector for a permit, at least seven days before the date of the intended performance.
- (2) Applications contemplated in sub-regulation (1) that are urgent may be considered by the Chief Inspector.
- (3) In the application contemplated in sub-regulation (1), a pyrotechnician must furnish -
- (a) the name of the person, entity or organisation sponsoring the theatrical or stage performance;
 - (b) the name and registration number of the pyrotechnician in charge of the performance;

- (c) the name, addresses and identity numbers of all persons assisting him or her with the performance and such persons must at least be 18 years of age;
- (d) the date and time of the performance, including the dates and times of repeat performances that will take place at the same venue;
- (e) the exact location of the performance;
- (f) the name, explosives magazine number and address of the supplier of the theatrical pyrotechnics;
- (g) the quantities and types of pyrotechnics to be discharged;
- (h) the manner and place of storage of such pyrotechnics prior to the performance;
- (i) a diagram showing -
 - (i) the proposed points at which the pyrotechnics will be discharged;
 - (ii) the proposed areas to which the audience will have access and which must be separated from the firing points by a safe distance; and
 - (iii) in the case of indoor performances, the position of all exits which must be kept unlocked during performances and must be freely accessible;
- (j) verifiable proof of public liability insurance of a type and amount proportional to possible risks associated with the performance;
- (k) a written confirmation that furnishings, stage property or clothes used in close proximity of pyrotechnics at the performance are treated to be flame-retardant;
- (l) a letter from the sponsor or the promoter or both such sponsor and promoter appointing the pyrotechnician; and
- (m) a letter of approval from the owner or manager of the premises where the performance is to take place.

Special effects permit applications

92. (1) A pyrotechnician who intends to use pyrotechnics for special effects must apply in writing to the Chief Inspector for a permit at least seven days before the date of the event.
- (2) Applications contemplated in sub-regulation (1) that are urgent may be considered by the Chief Inspector.

- (3) In the application contemplated in sub-regulation (1), a pyrotechnician must furnish -
- (a) the name of the person, entity or organisation promoting the special effects production;
 - (b) the name and registration number of the pyrotechnician in charge of the special effects production;
 - (c) the name, addresses and identity numbers of all persons assisting him or her with the production and such persons must at least be 18 years of age;
 - (d) the proposed dates and times, or period during which special effects are to be used;
 - (e) the exact location of the production;
 - (f) the name, explosives magazine number and address of the supplier of the special effects;
 - (g) the quantities and types of special effects to be discharged;
 - (h) the manner and place of storage of such special effects prior to the production;
 - (i) a diagram if requested by the Chief Inspector;
 - (j) verifiable proof of public liability insurance of a type and amount proportional to possible risks associated with the production;
 - (k) a letter of appointment from the promoter; and
 - (l) a letter of consent from the owner or manager of the premises where the production is to take place.

Issuing of permits to pyrotechnicians

93. (1) A pyrotechnician will only be allowed to present a public fireworks display, theatrical effects performance or special effects production, commensurate with his or her experience and level of registration as contemplated in Annexure "O".
- (2) If an inspector or the Chief Inspector is satisfied with the correctness of the application contemplated in regulations 90, 91 or 92 he or she must issue a permit to acquire, transport, store and use the required fireworks, pyrotechnics or explosives.
- (3) The permit contemplated in sub-regulation (2) is valid for a period not exceeding three days after the planned date for the event, but the period

may be extended on written application by the applicant contemplated in regulations 90, 91 or 92.

- (4) Where displays, performances or productions are to be repeated at the same venue or a recording is to take place over a number of days, the permit may be validated for the total period or part thereof: Provided that full particulars of storage arrangements for the fireworks, pyrotechnics or explosives, acceptable to the Chief Inspector, are submitted in writing.

Acquisition of fireworks, pyrotechnics or explosives

94. (1) Pyrotechnicians without their own licensed explosives magazines, may only obtain fireworks, pyrotechnics or explosives from dealers licensed in terms of section 13(1) of the Act.
- (2) A supplier of fireworks, pyrotechnics or explosives must record particulars of the permit in his or her register before issuing the required items.
- (3) Such register must be kept as contemplated in regulation 7(1).

General responsibilities of pyrotechnicians in charge

95. (1) A pyrotechnician in charge of a fireworks display, performance or production contemplated in regulations 90, 91 or 92 must, before setting up such display or production -
 - (a) examine the site, to ensure that security and safety measures are adequate;
 - (b) examine all the fireworks, pyrotechnics or explosives to be used, for any signs of damage or fault in construction, and see to it that any damaged or faulty fireworks, pyrotechnics or explosives are removed to a safe place for disposal at a later stage in accordance with the manufacturer's instructions;
 - (c) examine all equipment such as stands, mortars and bases or set pieces, for any fault or defect and repair or replace any faulty or defective equipment;
 - (d) ensure that he or she has a sufficient number of assistants, who must -
 - (i) be at least 18 years of age to carry out the duties the pyrotechnician assigns to them;
 - (ii) be fully aware of their duties and of the risks involved;
 - (iii) be capable of performing their duties safely; and
 - (iv) wear appropriate protective equipment;

- (e) assess all dangers which may arise during preparations before, during and after the display or production; and
 - (f) carry out actions to prevent or mitigate the dangers, and wear appropriate protective equipment.
- (2) A pyrotechnician in charge of a display, performance or production contemplated in regulations 90, 91 and 92 must, while fireworks, pyrotechnics or explosives are on site, ensure that the following safety measures are complied with -
 - (a) all fireworks, pyrotechnics or explosives must be kept in closed weather resistant containers;
 - (b) the fireworks, pyrotechnics or explosives must not be removed from the containers until required for setting up;
 - (c) all persons assisting him or her must do so in a safe and responsible manner;
 - (d) no person may be allowed to enter or be within the barricaded or otherwise protected area while under the influence of, or in possession of liquor or any intoxicating substances, or in possession of any means of producing a flame;
 - (e) only the correct type of equipment may be used for each type and size of display, production or performance;
 - (f) when the installation, testing, connecting or initiation of electrically initiated fireworks, pyrotechnics or explosives is carried out, regulation 57 applies;
 - (g) firing of display fireworks, pyrotechnics or explosives must be stopped immediately upon noticing a change in wind direction that endangers areas considered safe, or any occurrence or incident that could endanger life or property; and
 - (h) all firework displays must be electrically fired.
- (3) A pyrotechnician in charge of the display, performance or production must immediately after the display, performance or production examine the immediate surrounding area for any debris, fall-out or materials created by a failure or partial failure of any fireworks, pyrotechnics or explosives, and collect such material for disposal at a later stage in accordance with the manufacturer's instructions.
- (4) If an examination is held between sunset and sunrise, the examination contemplated in sub-regulation (3) must be repeated at sunrise the following morning.

- (5) (a) No person may be allowed to enter the barricaded or otherwise protected area until it has been declared safe by the pyrotechnician in charge.
- (b) During live theatrical performances in which performers perform within the barricaded or otherwise protected area, the pyrotechnician in charge must -
 - (i) inform such performers of the potential dangers to which they might be exposed; and
 - (ii) take all possible measures to ensure their safety.
- (6) Any accident or incident which results in the death or injury of any person or damage to property, must be reported by the pyrotechnician in charge in accordance with regulation 64 of these Regulations.
- (7) A pyrotechnician in charge is responsible for the safe disposal and destruction of any fireworks, pyrotechnics or explosives left over, damaged or found in the debris and fall-out, in accordance with regulation 9 of these Regulations.
- (8) Where during a display, performance or production, unsatisfactory functioning of fireworks, pyrotechnics or explosives is observed, the pyrotechnician in charge must submit a full written report regarding the circumstances of such functioning to the Chief Inspector.
- (9) Any person who obstructs or hinders a pyrotechnician in the execution of his or her duties in terms of these Regulations, or who fails to comply with a lawful instruction given by a pyrotechnician in terms of these Regulations or whose unruly behavior endangers the safety of life and property, is guilty of an offence.
- (10) (a) If at a fireworks display, performance or production a pyrotechnician is negligent in the execution of his or her duties or contravenes the regulations of this Chapter, an inspector may, immediately suspend the permit issued to the pyrotechnician.
- (b) The inspector must inform in writing a pyrotechnician contemplated in paragraph (a) of such decision and instruct him or her to surrender his or her permit without delay.

CHAPTER 17

MODEL ROCKETS

Model rockets

96. (1) Model rockets are limited to hobby rockets propelled by factory made model rocket motors and fuel which -

- (a) only contains black powder as propellant;
 - (b) have an installed total impulse not exceeding 30 Newton-seconds;
 - (c) are classified as either UN Number 0337 Class 1.4S, UN Number 0336 Class 1.4G or UN Number 0432 Class 1.4S;
 - (d) are for single use only;
 - (e) are manufactured locally at an explosives manufacturing workplace or imported into the Republic; and
 - (f) are electrically ignited.
- (2) The regulations applying to the importation, sale, acquisition, transport and storage of consumer fireworks, apply with the necessary changes to the importation, sale, acquisition, transport and storage of model rocket motors.
- (3)
 - (a) No permit is required for the use of model rockets.
 - (b) Notwithstanding the provisions in section 15 of the Act, the selling of model rockets is not limited to certain days.
- (4)
 - (a) The manufacturer of model rocket motors must ensure that each model rocket motor is supplied with complete instructions for its handling and use, including -
 - (i) warning notices;
 - (ii) performance data such as propellant weight, installed total impulse and time delay;
 - (iii) actions to be taken in case of an accident or incident;
 - (iv) disposal methods for motors that have been damaged or are otherwise suspect;
 - (v) safety precautions to be taken before, during and after launch; and
 - (vi) maximum payload mass allowed.
 - (b) An importer of model rocket motors must ensure that the manufacturer supplying him or her, has included the instructions, at least in English and another official language as required in terms of paragraph (a).
- (6) No person may load or attempt to load a model rocket with any other propellant or chemical mixture, but may only use a model rocket motor as contemplated in sub-regulation (1);

- (7) A payload of a model rocket may not -
 - (a) exceed the mass recommended by the manufacturer; and
 - (b) contain any dangerous goods as specified in SANS 10228.
- (8) (a) No person may allow or permit any person under the age of 16 years to use model rockets except under the direct supervision of a person at least 18 years of age.
- (b) Notwithstanding the requirements of paragraph (a), at any organised event under the control of a responsible organisation, persons between the ages of 12 and 16 years may carry out their own charging, arming and launching of model rockets under supervision of a knowledgeable person at least 18 years of age.
- (9) Model rockets must be constructed of light-weight materials such as cardboard, plastic or balsa wood; and be supplied with a recovery system that allows their safe return to the ground.
- (10) Any person who intends to launch a model rocket must -
 - (a) determine a suitable site for such launch;
 - (b) ensure that the instructions of the manufacturer are complied with; and
 - (c) ensure that the model rocket and the model rocket motor are compatible and in a serviceable condition.
- (11) A launching site for a model rocket must comply with the following -
 - (a) There must be a launch pad on which a launch device is placed and which is cleared of all combustible vegetation and materials for a distance of not less than five metres from the launch device;
 - (b) there must be no buildings or other structures, public roads or railways within 80 metres of the launch pad; and
 - (c) the site may not be closer than -
 - (i) one kilometre from any airport or heliport;
 - (ii) 500 metres from any explosives manufacturing workplace, explosives magazine, petroleum depot, gasometer, hospital or home caring for the aged and frail; and
 - (iii) 200 metres from any petrol filling station, retail premises where liquefied petroleum gas containers are filled, industrial premises, a South African Police Service Community Service Centre, kennels or game and nature reserves.

- (12) (a) No rocket launching may be take place -
 - (i) between sunset and sunrise;
 - (ii) if the wind speed is in excess of 30 kilometres per hour; or
 - (iii) if the cloud conditions are such that there is a reasonable possibility of the flight path of the rocket entering a cloud.
- (b) No model rocket may be launched as part of a fireworks display.
- (13) (a) (i) A model rocket must be launched from a stable launch device providing rigid guidance until a speed has been reached ensuring a safe flight.
- (ii) A launch device contemplated in sub-paragraph (i) must be so constructed or protected that it cannot cause injury.
- (b) A launch device contemplated in paragraph (a) must be installed in such a way that the angle of the launch does not deviate by more than 20° from the vertical and may not be aimed at any target.
- (c) The initiating system must be electrically operated allowing remote control from a distance of at least 15 metres, with the option and the opportunity to abort a launch at the last moment.
- (d) The circuit must contain a removable safety interlock which must be kept by the person launching the rocket and may be inserted only when ready for circuit testing or firing.
- (e) Before preparing a launch of a model rocket, the person responsible for preparing the launch, must ensure that -
 - (i) only he or she and not more than one assistant are on the launch pad during the launch preparations; and
 - (ii) spectators and any other person must be at least 15 metres away from the launch device.
- (14) When ready to fire the model rocket, the person responsible for the launch must ensure that -
 - (a) he or she and his or her assistant are at least 15 metres away from the launch device;
 - (b) all spectators are at least 15 metres away from the launch device;
 - (c) the sky is clear of any air traffic for at least one minute before the launch;
 - (d) the launch is aborted if any air traffic is spotted or heard; and

- (e) an audible countdown for at least 10 seconds, is given.
- (15) (a) After the launch of a model rocket, its flight path must be monitored to detect any malfunction of the rocket, to aid in the recovery of the rocket and the safety interlock must be removed immediately from the firing circuit.
- (b) In the event of a misfire, the person responsible for the launch of a model rocket must -
 - (i) immediately remove the interlock from the circuit;
 - (ii) not allow any person to move towards the launch pad;
 - (iii) after waiting for at least one minute, personally approach the model rocket without any assistants, to examine the cause of the misfire;
 - (iv) remove the igniter from the rocket motor;
 - (v) remove the rocket from the launch device and place it in safe storage; and
 - (vi) ensure that the launch site is safe.
- (c) Where in terms of sub-regulation (8)(b) a person between the ages of 12 and 16 years has charged, armed and attempted to launch a rocket, the person at least 18 years present, is responsible for carrying out the tasks of dealing with a misfire as contemplated in paragraph (b).
- (d) Before vacating a launch site, the person in charge of the launching of a model rocket must ensure that no debris is left on the launch site.
- (16) The use of high power, or other types of hobby rockets for which provision is not made in the regulations of this Chapter, may be used or stored only in such a manner and under such conditions as may be determined, in writing, by the Chief Inspector.

CHAPTER 18

AMMONIUM NITRATE

Definition

97. (1) For the purpose of this Chapter "**ammonium nitrate**" means -
- (a) ammonium nitrate as listed in SANS 10228 as UN Number 1942;

- (b) uniform mixtures of ammonium nitrate with inorganic compatible materials where the total nitrogen content exceeds 28% with not more than 0,2% total combustible substances, including any organic substance calculated as carbon; or
 - (c) ammonium nitrate solutions containing less than 40% water.
- (2) Mixtures of ammonium nitrate, with or without inorganic compatible substances, with unrestricted combustible material and where the total nitrogen content exceeds 15% are classified as explosives.

Packing and marking

98. (1) Unless transported and stored in bulk, ammonium nitrate must be packed for transport in accordance with the specifications of SANS 10229 and SANS 10233.
- (2) For the transport and storage of ammonium nitrate in the Republic, packaged ammonium nitrate must be marked in accordance with the requirements of SANS 10229.

Ammonium nitrate to be supplied to authorised persons only

99. (1) No person may supply to, or acquire ammonium nitrate from any person except in terms of a transport permit, issued in terms of regulations 28 and 29.
- (2) The following are exempt from the requirements of these Regulations -
- (a) *Bona fide* laboratories, or pharmacies dispensing under a doctor's prescription; or
 - (b) any person obtaining ammonium nitrate solutions containing more than 10% but less than 40% water and whose premises is registered with the Chief Inspector: Provided a certificate is issued to the supplier thereof, in which case the certificate is regarded as a permit.
- (3) (a) The certificate contemplated in sub-regulation (2)(b) must state the purpose for which the ammonium nitrate is to be used, give the physical address of the premises where the ammonium nitrate is to be kept; and be signed by a *bona fide* chemist in charge of the laboratory or a qualified pharmacist in charge of a pharmacy.
- (b) The original certificate contemplated in sub-regulation 2(b) must be furnished to the supplier and a copy thereof must be kept by the person acquiring the ammonium nitrate.
- (c) The original and the copy of the certificate must be kept for at least three years after the date of issue, and must be available for inspection by an inspector.

Transport by rail

- 100.** (1) Ammonium nitrate transported by rail in accordance with the requirements of this Chapter, is exempt from the requirements of regulation 31(8), 31(14)(c) and 31(18) of these Regulations.
- (2) When packed in accordance with regulation 98(1), ammonium nitrate may be transported by rail in open or totally enclosed steel rail wagons on condition that -
- (a) in open rail wagons, it must be covered by a tarpaulin in good condition;
 - (b) in totally enclosed rail wagons, an open space of not less than 1000 millimetres is maintained above the load;
 - (c) any damaged bags must immediately be placed in over-bags of which a sufficient quantity must be supplied by the consignor; and
 - (d) it is transported in accordance with these Regulations.
- (3) Packaged bulk ammonium nitrate must be transported by rail in open or totally enclosed steel rail wagons under the same conditions as prescribed in sub-regulation (2) with the additional condition that proper handling equipment of sufficient capacity is available at both the loading and off-loading points, to handle intermediate bulk containers.
- (4) Ammonium nitrate, in bulk, may be transported by rail-
- (a) in a totally enclosed rail wagon on condition that an open space of at least 1000 millimetres is maintained above the load; and
 - (b) in a specially constructed tanker: Provided that -
 - (i) the construction of that tanker is approved by the Chief Inspector;
 - (ii) the tanker is exclusively used for the purpose of transporting ammonium nitrate; and
 - (iii) the tanker is not filled to more than 90% of its volume.
- (5) Ammonium nitrate may be transported by rail -
- (a) by a dedicated train where the total consignment of the ammonium nitrate must be classified as Class 5.1; or
 - (b) by ordinary goods train in quantities not exceeding those determined by the chief executive of the carrier: Provided that no other explosives are carried on the train.

Transport by road

- 101.** (1) Ammonium nitrate transported by road in accordance with the requirements of this Chapter, is exempt from regulation 32(13)(f) of these Regulations.
- (2) Ammonium nitrate packed in accordance with regulation 98(1) in quantities of not exceeding 250 kilograms net mass, may be transported by road in any type of mechanically propelled vehicle: Provided that precautions are taken to prevent the theft of the ammonium nitrate.
- (3) Ammonium nitrate packed in accordance with regulation 98(1) may be transported in a mechanically propelled vehicle other than a passenger vehicle: Provided that -
- (a) the construction of the body of the vehicle or trailer complies with the specifications contained in Annexure "E" to these Regulations;
 - (b) the mass carried, does not exceed the limits prescribed in the National Road Traffic Act, 1996 (Act No. 93 of 1996);
 - (c) no wood, hardboard or other combustible materials are used inside the loading bin and no combustible material, organic or otherwise, is transported with ammonium nitrate; and
 - (d) the vehicle is licensed in terms of regulation 32(1) to transport ammonium nitrate by the Chief Inspector.
- (4) Bulk packaged ammonium nitrate must be transported by road in accordance with the requirements of sub-regulation (3): Provided that there is proper access to the container, and handling equipment of sufficient capacity needed for easy loading and unloading is available.
- (5) Ammonium nitrate in bulk, may only be transported in vehicles constructed as specified in Annexure "E", and must be licensed in terms of regulation 32(1) by the Chief Inspector.

Storage of ammonium nitrate

- 102.** (1) Ammonium nitrate may be stored only on premises licensed in terms of section 12(2) of the Act.
- (2) (a) The construction and location of the ammonium nitrate storage facility depend on the quantities involved and the method of packaging of the ammonium nitrate, and are subject to the approval of the Chief Inspector.
- (b) Ammonium nitrate in a quantity not exceeding 250 kilograms net mass and packed in accordance with regulation 98(1) may be stored on any premises: Provided that -

- (i) the owner of the ammonium nitrate must ensure that no unauthorised persons have access thereto;
 - (ii) smoking is not allowed within five metres of the ammonium nitrate; and
 - (iii) no combustible material may be kept within five metres from the ammonium nitrate except where the ammonium nitrate is stored in properly closed glass bottles.
 - (c) Packaged ammonium nitrate must be stored in magazines constructed in accordance with specifications contained in Annexure "X"
 - (d) Ammonium nitrate in bulk may be stored in specially constructed stores or silos, and when kept in silos, the net mass may not exceed 50 tons per silo.
 - (e) Ammonium nitrate solutions containing less than 40% water must be stored in a tank of which the construction is approved by the Chief Inspector.
- (3) A register must be kept as prescribed in Annexure "Q" Part 1 Form F.

Application to erect storage facilities

- 103.** (1) Any person who intends to erect an ammonium nitrate store, silo or tank required in terms of regulation 102(3)(c), 102(3)(d) or 102(3)(e) must apply for permission to do so to an inspector and the application must be accompanied by -
- (a) a statement setting out the net mass of ammonium nitrate to be stored and whether it is to be stored in bags, bulk or solution; and
 - (b) a plan or plans in triplicate, drawn to a scale of 1:25, 1:50 or 1:100 showing the design and specifications of the proposed ammonium nitrate storage facility.
- (2) The Chief Inspector must determine minimum distances to be maintained from an ammonium nitrate storage facility to public buildings, residential areas and other public places and for this purpose the plans showing the position of the structure in relation to other structures, must be submitted.
- (3) Where ammonium nitrate is used for manufacturing blasting explosives at a place other than an explosives manufacturing workplace, the structure used for the storage of ammonium nitrate must be erected in the explosives magazine area: Provided that the explosives magazine distances specified in Annexure "G" are maintained.

- (4) Where ammonium nitrate is used for other manufacturing purposes, the structure used for storage of the ammonium nitrate, must be situated within the security area of the factory.
- (5)
 - (a) The inspector must be advised by the applicant immediately after the erection of an ammonium nitrate storage facility has been completed.
 - (b) Before a licence is issued in terms of section 12(2) of the Act, the ammonium nitrate explosives storage facility contemplated in sub-regulation (1) may not be used.

Maintenance of storage facilities

- 104.** (1) The manager of a company, his or her delegate, or the person to whom a licence is issued in terms of section 12(2) of the Act must ensure that at all times the structure, including the drainage system and fence, is kept in a condition approved by an inspector and that the lightning protection system is maintained in accordance with SANS 10313.
- (2)
 - (a) The holder of a licence for an ammonium nitrate storage facility, in bulk, must ensure that any bulk handling equipment is constructed and protected in such a way that it is unable to -
 - (i) contaminate the ammonium nitrate through spillage of any fuel or lubricant; and
 - (ii) damage the floor or walls of the ammonium nitrate storage facility.
 - (b) Any spillage contemplated in paragraph (a)(i) must be cleaned immediately by the owner of the ammonium nitrate storage facility and the used cleaning material must be removed from the premises for disposal.
- (3) Solidified ammonium nitrate may only be broken up by mechanical means and no explosives may be used in this process.

CHAPTER 19

TERTIARY EDUCATIONAL INSTITUTIONS AND REGISTERED LABORATORIES

Tertiary educational institutions

- 105.** (1) The Chief Inspector may grant written permission, on written application, to a tertiary educational institution to manufacture explosives in accordance with the conditions of such written permission.

- (2) The written application contemplated in sub-regulation (1) must be made to the Chief Inspector by the departmental head of the tertiary educational institution and must contain the following information -
- (a) the name and address of the tertiary educational institution;
 - (b) the site and description of the specific building and laboratory or laboratories where the explosives are to be manufactured;
 - (c) the type and quantities of explosives to be manufactured;
 - (d) the restrictions to be placed on the number of persons -
 - (i) present during the manufacturing of explosives; and
 - (ii) while the explosives are kept in a specific laboratory;
 - (e) the details of safety precautions to be taken;
 - (f) where storage is required, the maximum period for which and the place where the explosives are to be stored;
 - (g) the safe methods of disposing of the explosives;
 - (h) the security measures to be taken to prevent any unauthorised entry by persons to explosives manufactured and stored on the premises of the institution;
 - (i) the name, address, occupation, qualifications and identity number of the person in charge of the laboratory who will be responsible for ensuring compliance with these Regulations and the conditions attached to the permission; and
 - (j) the reasons for manufacturing the explosives.

Registered laboratories

106. (1) The Chief Inspector may grant written permission, on written application, to a laboratory, to manufacture explosives in accordance with the conditions of such written permission.
- (2) The written application contemplated in sub-regulation (1) must be made to the Chief Inspector by the manager of the laboratory, and must contain the following information -
- (a) the name under which the laboratory will operate;
 - (b) the physical address of the laboratory;
 - (c) the nature of the work carried out in the laboratory;

- (d) the name, address, occupation, qualifications and identity number of the person in charge of the laboratory, who will be responsible for ensuring compliance with these Regulations and the conditions attached to the permission contemplated in sub-regulation (1), and
- (e) the information required in regulation 105(2)(c) to (h).

Inspection of tertiary educational institutions and registered laboratories

107. (1) Before the Chief Inspector considers the applications contemplated in regulations 105 and 106, the applicant must arrange with the Chief Inspector for an inspection of the premises to determine its suitability with regards to safety and security.
- (2) The Chief Inspector, an inspector or an official of the Forensic Science Laboratory of the South African Police Service designated by the Chief Inspector, may inspect a tertiary educational institution or laboratory contemplated in regulations 105 and 106 at any reasonable time after registration.

CHAPTER 20

MISCELLANEOUS REGULATIONS

Monomethylamine nitrate (MMAN)

108. (1) For the purpose of this Regulation "**monomethylamine nitrate**" means monomethylamine nitrate and solutions thereof in water, containing less than 31% water, classified as UN Number 0475, Class 1.1D.
- (2) No person may store, be in possession of, or use monomethylamine nitrate in any place other than a place contemplated in regulation 2(2) of these Regulations.
- (3) (a) Monomethylamine nitrate containing less than 21% water may be packaged and conveyed only in accordance with a permit issued by the Chief Inspector.
- (b) Monomethylamine nitrate containing 21% water or more, but less than 31% water may only be conveyed under a permit issued by an inspector: Provided that -
- (i) it is packed in plastic drums, type code 1H2 as specified in SANS 10229 with maximum bursting strength of 2000 kPa;
 - (ii) the loading bin of the vehicle on which the packaged monomethylamine nitrate is transported, is completely enclosed and constructed of metal without any exposed wood, hardboard or similar material being used on the inside of the loading bin; and

- (iii) the vehicle is licensed in terms of regulation 32(1).
- (c) The Chief Inspector may approve, in writing, the use of steel drums, type code 1A2 as specified in SANS 10229, for packing monomethylamine nitrate imported into or exported from the Republic.

Power device, blank and industrial cartridges

Dealers in power device, blank and industrial cartridges

- 109.** (1) Any person who intends to deal in cartridges for power devices, blank or industrial cartridges must apply to the Chief Inspector for a dealer's licence issued in terms of section 13(1) of the Act.
- (2) The application for a licence to deal in power device, blank and industrial cartridges must be done on Annexure "N".
- (3) The power device, blank or industrial cartridges referred to in sub-regulation (1) must be kept in a strongroom, safe or other approved storage facility on the licensed premises.
- (4) A licensed dealer in power device, blank or industrial cartridges must comply with all the requirements of Chapter 10 of these Regulations.

Acquisition and storage of power device, blank and industrial cartridges

- 110.** (1) Any person who is in possession of an industrial tool, fire extinguisher or apparatus, activated by means of power device, blank and industrial cartridges, must apply to the Chief Inspector for a permit to acquire, transport and store such cartridges.
- (2) The cartridges contemplated in sub-regulation (1) must be kept in a strongroom safe or other approved storage facility and a register must be kept as specified in Annexure "Q" Part 1 Form G.
- (3) A permit holder may supply cartridges for use only to an employee or person who is acting on his or her behalf.
- (4) Cartridges may only be issued to persons who are trained to use it according to the manufacturer's instructions.

Railway track signals

Acquisition and storage of railway track signals

- 111.** (1) A carrier which intends to acquire, transport, store and distribute railway track signals for emergency use by its employees, must be registered with the Chief Inspector in terms of regulations 3 and 4.

- (2) The application must in addition to the information required by regulations 3 and 4, include the following -
 - (a) a detailed description of the construction of the storage facility;
 - (b) a floor plan of the premises indicating the position of the storage facility;
 - (c) a letter from the local fire prevention officer stating that the premises complies with minimum fire prevention standards;
 - (d) an inspection report issued by the inspector of explosives for the specific area, stating that the storage facility is suitable for the quantity of railway track signals to be stored; and
 - (e) application for a continuous transport permit from the supplier to place of storage on the form as per Annexure "D".
- (3) Railway track signals must be kept in a lockable freight container, steel cabinet or safe in its original outer packaging, by a suitable person appointed by the carrier.
- (4) The suitable person contemplated in sub-regulation (3) must keep a register as specified in Annexure "Q" Part 1 Form H(a).

Use of railway track signals

- 112.**
- (1)
 - (a) The manager of every station, train control office, yard or other place where railway track signals are issued for possible use, must appoint a person who will be responsible for the safe keeping, issuing and receiving of the railway track signals.
 - (b) The manager contemplated in paragraph (a) must keep registers as specified in Annexure "Q" Part 1 Form H(b) and (c), in which full particulars of all issues and receipts of railway track signals are recorded.
 - (2) Not more than ten railway track signals in its original inner packaging may be issued to a train driver, rail track worker, or other person authorised by the manager.
 - (3) Railway track signals may only be issued to persons who have received training in the safe use of the railway track signals.
 - (4) A person to whom railway track signals are issued in terms of sub-regulation (2) must -
 - (a) be in possession of a valid identity card issued by the carrier authorising him or her to be in possession of railway track signals;

- (b) take reasonable measures to safeguard the railway track signals issued to him or her against theft or unauthorised use;
- (c) keep the railway track signals in a safe, dry place;
- (d) return any expired, damaged or deteriorated railway track signals to the responsible person contemplated in sub-regulation (1); and
- (e) only use it for the purpose it has been issued to him or her by the carrier.

Transport of railway track signals

113. (1) A person who is authorised to be in control or possession of railway track signals as contemplated in regulation 111(3), 112(1) or 112(2), is exempt from a transport permit required by regulation 28(1) or from a vehicle licence required by regulation 32(1), for the quantities contained in Annexure "F".
- (2) Any misfires or malfunctioning of railway track signals must immediately be reported to the Chief Inspector.

Distress signals

Dealers in distress signals

114. (1) Any person who intends to deal in distress signals, must apply to the Chief Inspector for a dealer's licence issued in terms of section 13(1) of the Act.
- (2) The application for a licence to deal in distress signals must be done on Annexure "N".
- (3) Distress signals in its original packaging as received from the supplier, may be stored in quantities not exceeding 1000 kg gross mass, in a strongroom, safe or other approved storage facility on the licensed premises.
- (4) A dealer in distress signals may supply approved distress signals to *bona fide* end-users such as boat owners, outdoor enthusiasts, mountaineers and hikers, on condition that a sales register is kept in a format specified in Annexure "Q".

Use of distress signals

115. (1) No permit is required by persons referred to in regulation 114(4) to purchase, possess, store and use distress signals: Provided that -
- (a) it may only be obtained from dealers licensed in terms of section 13(1) of the Act;

- (b) complete personal details such as identity number, full names, physical address and intended purpose of use must be stated in the register kept in terms of regulation 114(4);
 - (c) only signals free from any visible defects, and within the shelf life date, may be used; and
 - (d) signals may only be used during emergencies according to the manufacturer's specifications.
- (2) No distress signals may be fired for testing or practice purposes, without the written permission of an inspector.

Inert, replica or deactivated explosives

- 116.** (1) Any person who intends to possess, use, transport, import or export inert, replica or deactivated explosives, must be registered with the Chief Inspector and must have a permit.
- (2) Application for a permit referred to in sub-regulation (1) must be in accordance with regulations 3 and 4, accompanied with the following additional information -
- (a) proof of origin of the inert, replica or deactivated explosives;
 - (b) description thereof;
 - (c) any applicable research to support the application; and
 - (d) the purpose for which the inert or replica explosives is required.
- (3) An inspector must, as soon as the application is received, inspect the premises where the inert, replica or deactivated explosives will be kept to determine its suitability with regards to safety and security, as well as the inert, replica or deactivated explosives to determine if they are free from explosives.
- (4) The Chief Inspector may refuse the issuing of the permit and an inspector must confiscate the inert, replica or deactivated explosives if the article poses a threat to safety and security.

Rock breaking cartridges (RBC)

Use of rock breaking cartridges

- 117.** (1) Rock breaking cartridges may only be used in accordance with the provisions of Chapter 11, except for regulations 55 (1), 55(6), 56(9), 56(11)(a) (i) and (ii), 56(12), 56(13), 56(14) and 60 which do not apply.
- (2) Misfires must be dealt with as prescribed by the manufacturer.

Transport of rock breaking cartridges

- 118.** (1) Rock breaking cartridges classified as Class 1.4S articles may only be transported in accordance with the provisions of Chapter 7, except for regulations 32(1), 32(2), 32(5), 32(6) and 32(17) which do not apply.
- (2) Motor vehicles used for the transportation of rock breaking cartridges must comply with the provisions of the National Road Traffic Act, 1996 (Act No. 93 of 1996) and Regulations thereto, and specifically with the requirements pertaining to the transport of dangerous goods by road.
- (3) Rock breaking cartridges may only be transported in their original packaging as received from the manufacturer or supplier.

Rock breaking cartridge storage

- 119.** (1) Any person who intends to store rock breaking cartridges must apply in writing for a magazine licence in terms of section 12 of the Act and such application must be accompanied by the following -
- (a) a detailed description of the storage facility;
 - (b) three copies of a floor plan of the premises showing the location of the storage facility;
 - (c) a letter from the local fire safety officer, stating that the premises complies with minimum fire prevention standards, if such premises is situated within the boundaries of a municipality;
 - (d) an inspection report issued by the inspector of explosives for the specific area, stating that the storage facility is suitable with regards to safety and security for the quantity of rock breaking cartridges to be stored; and
 - (e) application for a continuous transport permit from the supplier to place of storage on the form as per Annexure "D".
- (2) Rock breaking cartridges, classified as Class 1.4S articles, may be stored in maximum quantities of -
- (a) 30 kilograms gross mass on any licensed premises;
 - (b) 200 kilograms gross mass on a licensed business premises; and
 - (c) 1500 kilograms gross mass on a licensed construction site or industrial premises.
- (3) Application to store more than 1500 kilograms must be submitted in terms of Chapter 8.

Special provisions

- 120.** Any authorised explosives for which provision is not made in these Regulations, may only be used, transported or stored in such a manner and under such conditions as may be determined, in writing, by the Chief Inspector.

CLASSIFICATION OF EXPLOSIVES

Regulation 2(3)

1. Definitions

Certain words or expressions which appear in the Compatibility Group table, are not defined elsewhere in the Explosives Regulations, and will have the following meanings for the purpose of explosives classification -

"hypergolic liquid" means a liquid which can ignite spontaneously on contact and consists of combinations of fuels and oxidisers which can be utilised as a rocket fuel or propellant;

"primary explosive" means an explosive substance manufactured to explode, which is very sensitive to heat, impact or friction and which, even in very small quantities, either detonates or deflagrates and is able to transmit detonation or deflagration to secondary explosives close to it;

"pyrophoric substance" means a substance capable of spontaneous ignition when exposed to air, but excludes a substance containing white phosphorus;

"secondary explosive" means a relatively insensitive explosive substance, which is usually initiated by primary explosives with or without the aid of boosters or supplementary charges and may react as deflagration or detonation.

2. For the purpose of classification, explosives are listed in terms of SANS 10228 as Class 1 Dangerous Goods, which is subdivided into the following six Hazard Divisions -

- (1) Division 1.1 - Substances and articles which present a mass explosion hazard;
- (2) Division 1.2 - Substances and articles which present a projection hazard but not a mass explosion hazard;
- (3) Division 1.3 - Substances and articles which -
 - (a) present a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard;
 - (b) give rise to considerable radiation heat; or
 - (c) burn one after another, producing minor blast or projection effects, or both;

- (4) Division 1.4 - Substances and articles -
- (a) which present no significant hazard;
 - (b) which present only a small hazard in the event of ignition or initiation during transportation;
 - (c) of which the effect is largely confined within the package and no projection of fragments of appreciable size or range is to be expected, and
 - (d) to which an external fire will not cause almost instantaneous explosion of virtually the entire contents of the package.
- (5) Division 1.5 - Very insensitive substances which -
- (a) present a mass explosion hazard; and
 - (b) are so insensitive that there is very little probability of initiation or of transition from burning to detonation under normal conditions of transport.
- (6) Division 1.6 - Extremely insensitive articles which -
- (a) do not have a mass explosion hazard; and
 - (b) contain only extremely insensitive detonating substances and which demonstrate a negligible probability of accidental initiation or propagation.

3. Explosives are assigned to one of thirteen Compatibility Groups as follows -

Compatibility Group	Hazard Division	Article or substance to be classified
A	1.1	Primary explosive substance
B	1.1; 1.2; 1.4	Article containing a primary explosive substance and not containing two or more effective protective features. Some articles, such as detonators for blasting, detonator assemblies for blasting and primers, cap type, are included, even though they do not contain primary explosives
C	1.1; 1.2; 1.3; 1.4	Propellant explosive substance or other deflagrating explosive substance or article containing such explosive substance

Compatibility Group	Hazard Division	Article or substance to be classified
D	1.1; 1.2; 1.4; 1.5	Secondary detonating explosive substance or black powder or article containing a secondary detonating explosive substance, in each case without means of initiation and without a propelling charge, or article containing a primary explosive substance and containing two or more effective protective features
E	1.1; 1.2; 1.4	Article containing a secondary detonating explosive substance, without the means of initiation, with a propelling charge (other than one containing a flammable liquid or gel or hypergolic liquids)
F	1.1; 1.2; 1.3; 1.4	Article containing a secondary detonating explosive substance, with its own means of initiation, with a propelling charge (other than one containing a flammable liquid or gel or hypergolic liquids) or without a propelling charge
G	1.1; 1.2; 1.3; 1.4	Pyrotechnic substance, or article containing a pyrotechnic substance, or article containing both an explosive substance and an illuminating, incendiary, tear- or smoke-producing substance (other than a water-activated article or one containing white phosphorus, phosphides, a pyrophoric substance, a flammable liquid or gel or hypergolic liquids)
H	1.2; 1.3	Article containing both an explosive substance and white phosphorus
J	1.1; 1.2; 1.3	Article containing both an explosive substance and a flammable liquid or gel
K	1.2; 1.3	Article containing both an explosive substance and a toxic chemical agent
L	1.1; 1.2; 1.3	Explosive substance or article containing an explosive substance and presenting a special risk (e.g. due to water activation, or the presence of hypergolic liquids, phosphides or a pyrophoric substance) and needing isolation of each type
N	1.6	Articles containing only extremely insensitive detonating substances
S	1.4	Substance or article so packed or designed that any hazardous effects arising from accidental functioning are confined within the package unless the package has been degraded by fire, in which case all blast or projection effects are limited to the extent that they do not significantly hinder or prohibit fire fighting or other emergency response efforts in the immediate vicinity of the package

4. Where explosives of similar Compatibility Groups, but different Divisions are handled together, they must be treated as belonging to the Division having the smallest number.

Annexure "B"

METHODS FOR THE DESTRUCTION OF BLASTING EXPLOSIVES

Regulation 9(6)(b)

1. INTRODUCTION

This document is written for the guidance of persons who have been trained in the safe handling of explosives and who are authorised in terms of the Explosives Act and Regulations to destroy limited quantities of explosives.

This methods described in this pamphlet are aimed at blasters who have to destroy explosives under the following circumstances:

- small quantities of surplus explosives at a blast site which can't be returned for storage to a licensed explosives magazine;
- misfired, unexploded or damaged explosives recovered from charged boreholes or found among the debris after a blast which are too dangerous to transport; and
- limited quantities of unserviceable explosives in a licensed magazine which have passed their use by date.

Blasting explosives and accessories should be destroyed by one of the following ways:

- burning; or
- detonation.

The best destruction method will be determined by the suitability of the destruction site.

The destruction of explosives is a potentially hazardous operation and caution must always be exercised.

Blasting explosives not referred to in this pamphlet require special methods for their destruction, which may be obtained from the manufacturer.

This pamphlet does not make provision for the following:

- regular destruction of waste explosives at explosives manufacturing workplaces;
- the mass destruction of waste, old or redundant explosives at dedicated destruction sites approved by the Chief Inspector; or
- the destruction of old or redundant explosives at dedicated destruction sites on operational mines.

Regular explosives destruction operations at dedicated sites pose specific safety, health and environmental risks which require additional guidelines and legal compliance.

2. WHO MAY DESTROY EXPLOSIVES

The destruction of explosives may be carried out only by a blaster as defined in regulation 1 of the Explosives Regulations, or by a person specially authorised, in writing, by an inspector to do so.

Such blaster or authorised person will be in overall control of the destruction site and its operations, and may be assisted by not more than two persons with the preparation of explosives for destruction.

The destruction of blasting explosives may be carried out only during the hours between sunrise and sunset.

Since the destruction of blasting explosives, whether by burning or detonation, is equivalent to blasting, the provisions of regulations 9, 54(1), 55(2), 55(4)(b), 57, 58, 59(1), 59(3) and 61 of the Explosives Regulations must be complied with, with the necessary changes, where applicable.

3. TRANSPORTATION

Explosives for destruction may only be transported in vehicles that are licensed in terms of regulation 32(1) of the Explosives Regulations. A blaster who is unable to destroy surplus, unexploded or damaged explosives at a blasting site, must contact the inspector for the specific area for advice to obtain authorisation to transport explosives for destruction to another site.

4. THE SITE

The best sites for the destruction of blasting explosives are slime dams or open sandy veld. Stony sites should be avoided, as explosions will cause stones to be scattered, which will inevitably extend the danger zone. Dry grasslands or bush, which might be ignited by burning fragments from a blast, should also be avoided.

The destruction of blasting explosives may be undertaken only at a safe distance from buildings, roads, railways and power lines. Possible danger from air blast, which may damage windows and roofs of buildings, even at considerable distances, must be considered, as well as danger from flying debris. Even in the case of open burning, it is possible for blasting explosives to detonate, and adequate safety distances must be maintained accordingly.

On a clear, windless day, five kilogrammes of blasting explosives may be detonated at a distance of not less than 150 metres from any building or structure, on a site which is free from stones or any other potential projectiles. Smaller quantities of blasting explosives may be destroyed at distances determined by using recognised formulae.

5. SAFETY PRECAUTIONS

Always bear in mind that blasting explosives can detonate during burning if the heat becomes excessive, or if they become confined in any way.

Never add explosives to a fire that is already burning or approach a fire upon which explosives are being burned.

The maximum quantity of blasting explosives dealt with at one time must be limited to the following:

TYPE OF BLASTING EXPLOSIVES	QUANTITY
Blasting cartridges	5 kilograms
Boosters	5 kilograms
Detonators	500 units
Detonating cord	1 reel
Detonating relays	500 units
Igniter cord	1 reel

If the total quantity of blasting explosives is more than can be dealt with at one time, the bulk must be stacked, under guard, at a safe distance from the destruction point. Only sufficient blasting explosives for one treatment should be taken to the destruction point at a time. As explosives may easily be detonated sympathetically by concussion, or by a blow from flying debris, the stack must be at such a distance to avoid either of these possibilities.

Guards must be placed so as to prevent unauthorised persons from entering the danger area. After the work is completed, a thorough search must be carried out for blasting explosives which may have escaped destruction.

Old or damaged blasting explosives should never be "used up" by charging them into boreholes.

Explosives should never be burned with detonating cord and accessories, as the higher risk of detonation of detonating cord or detonators will increase to overall risk of detonation during burning.

Blasting explosives should never be buried in the ground in the hope that they will break down naturally and be rendered safe by the elements. Most blasting explosives remain unaltered in the ground for many years and therefore constitute an ever-present source of danger. For the same reason submersion of blasting materials in deep water or at sea is forbidden.

6. DESTRUCTION OF BLASTING EXPLOSIVES BY BURNING

6.1 Blasting cartridges

It is not possible to be sure that blasting explosives will not detonate during burning, regardless of how carefully the work is carried out. Consequently all precautions against danger in the event of detonation must be taken. The possibility of detonation limits the amount which can be dealt with at one spot, and five kilograms may not be exceeded. If more than one lot of five kilograms is being burnt at one time, the sites must be at least ten metres apart to avoid the possibility of sympathetic detonation in the event of one lot exploding.

There must be no detonators amongst the blasting cartridges to be burnt. If there is any possibility of these being present - for example in cartridges which may have been made into primers - a careful search must be made, and any that are found must be removed and dealt with separately.

Cartridged explosives are normally destroyed by burning on a bed of combustible material such as sawdust, wood shavings or well-crumpled newspaper. The combustible material used in the bed must burn for long enough to fully destroy the explosives, but not too long or burning will continue after the cartridges have been consumed, significantly delaying operations. Cartridges should be removed from their original fibreboard packing and laid lengthwise in a single layer on the bed, not touching one another.

The wrappings of cartridges over 32 mm in diameter must be removed and the cartridges cut into smaller sizes, prior to placing them on the bed. The wrapping must be destroyed with other empty packaging separately from explosives.

The bed on which burning will take place should be about 200 mm wide, about 25 to 50 mm thick, and as long as is needed for the blasting explosives to be destroyed (five kilograms of 22 mm x 200 mm blasting cartridges will cover a bed of about 2,5 metres long; the same mass of 25 mm x 200 mm or 32 mm x 200 mm cartridges will cover beds of about 2,0 metres and 1,5 metres long, respectively).

The long axis of the bed must lie parallel to the direction in which the wind is blowing, and the work should not be attempted if the wind is exceptionally strong or very gusty.

The bed and blasting cartridges are then well saturated with illuminating paraffin, (power paraffin, diesoline and petrol may not be used), by sprinkling the whole bed, using a watering can or specially prepared tin to give even distribution of paraffin over the whole bed.

Illuminating paraffin at the rate of about one litre per bed metre will be sufficient to cover and effectively destroy wet watergel, emulsion or slurry blasting cartridges.

When the guards have been set and everybody has moved to a safe distance, the blaster may light the bed of combustible material at the downwind end by means of a train of newspaper long enough to give him or her time to walk to safety before the cartridges start burning. It is important to light only the downwind end of the bed of combustible material, otherwise burning will proceed more rapidly and the excessive heat may cause detonation of the blasting cartridges.

After the fire has become extinguished the blaster must approach the site to ascertain whether any cartridges have remained unburned. Should an explosion occur during burning, a thorough search must be made for unexploded cartridges, which may have been projected over a wide area. No other fire may be prepared on the same spot until the ground has thoroughly cooled off.

NB-All permitted blasting explosives contain relatively high proportions of inert salts which are not combustible at all. The presence of these salts makes it difficult to burn permitted blasting explosives and they are likely to explode when attempts are made to burn them. All permitted blasting explosives must therefore be destroyed by detonation.

6.2 Detonating cord

Detonating cord can be destroyed by burning. It may, however, detonate during burning - especially if confined in any way - so the same precautions must be observed as in burning blasting cartridges. The detonating cord is removed from the reel and cut into three metre lengths, and not more than 20 lengths (strands) of three metres each are laid lightly, without touching, on a bed of combustible material which is then lit in the manner described for blasting cartridges.

6.3 Safety fuse / shock tube without detonator

Safety fuse and shock tube can be destroyed by burning in the same manner as that described for detonating cord.

6.4 Ammonium nitrate blasting agents and gunpowder

Ammonium nitrate blasting agents and gunpowder can be destroyed separately by burning on a bed of wood shavings, as described above. They should be poured on the shavings in a thin layer of not more than 6 mm thick.

6.5 Fuse igniters

Fuse igniters may be destroyed by placing them in a row and lighting them individually by means of another fuse igniter, and leaving them to burn away. (If the fuse igniters are in poor condition, they may disintegrate and burning fragments be scattered).

6.6 Igniter cord

Place one reel of igniter cord at a time on vegetation free ground (so that veld fires will not be started) on the spot where burning will take place, and prepare an ignition train by unreeling at least 20 metres of igniter cord in a straight line out and away from the reel.

The remote free end of this ignition train can then be lit and allowed to burn through to the reel of igniter cord which will blaze fiercely as it burns. When a full reel of igniter cord burns, the flames and incandescent gases can spread out over a radius of three to six metres or more, so the vegetation free area must be fairly large.

The blaster should, after lighting the end, move still further away from the reel.

6.7 Delay igniter cord igniters

Destroy like safety fuse as described above, without removing the igniter cord and containing capsule from the length of safety fuse.

6.8 Electric igniter cord igniters (electric starters for igniter cord), including shock tube delay assemblies and fuse heads

Scatter loosely and individually on the bed of wood-shavings in a single layer and ignite as prescribed above.

6.9 Detonators

Small quantities of detonators (not more than ten at a time) may be destroyed by burning in the following manner:

Dig a shallow trench in the ground about 75 mm deep by 75 mm wide, and fill it with dry sawdust or wood shavings. The detonators are placed on this bed singly and at least 225 mm apart. The bed is then sprinkled with illuminating paraffin and lit by means of a paper train at the downwind end after all the normal safety precautions have been taken. The blaster should then retire to a safe place and not re-approach the site until there is no longer any sign of fire.

7. DESTRUCTION OF BLASTING EXPLOSIVES BY DETONATION

7.1 Blasting cartridges

Detonation should be done in a pit made in the ground in order to restrict the scattering of debris. The pit should be about 600 mm deep. Not more than five kilograms of blasting cartridges should be detonated at a time. If more than five kilograms have to be destroyed, separate charges of five kilograms each must be prepared and detonated in succession and not simultaneously.

A fresh blasting cartridge is primed with a capped fuse or electric detonator, and the blasting cartridges for destruction are made into a compact bundle with this primer at the centre. The bundle should be firmly bound with string to keep the cartridges together, and it is then placed at the bottom of the pit, covered with loose soil or sand, and detonated.

Concussion and air-blast are reduced considerably by covering the blasting cartridges with 300 mm to 600 mm of sand or soil. There must be no stones amongst the filling material. Care should be taken not to disturb the position of the primer, or of the blasting cartridges in the stack, during the filling process, otherwise a misfire may result. Blasting cartridges which have become at all insensitive should always be confined by a thick covering of sand or soil, and a fairly larger primer should be used, as this will assist their complete detonation.

When blasting materials are to be destroyed by detonation it is a wise precaution to duplicate the capped fuse or electric detonator used for this purpose.

As considerable heat is emitted by the detonation of large quantities of blasting cartridges, a further quantity should not be prepared for destruction on the same spot until the ground has thoroughly cooled off.

The detonation should be carried out only after all safety precautions have been taken and proper warnings given.

7.2 Boosters

Boosters may be destroyed in the same manner as that described for blasting cartridges.

7.3 Detonating cord

The detonating cord, which need not be removed from the reel on which it is wound, is placed in the bottom of a pit and detonated by a detonator inserted between adjacent turns of detonating cord. It is better not to attach the detonator to a free end of the detonating cord, as this portion may have become insensitive to initiation by a detonator owing to end-creep of moisture. The insensitive portion will however, detonate satisfactorily provided the fuse is detonated at any point in the reel.

The remarks under blasting cartridges concerning air-blast, concussion, double-priming and heating of pits, also apply in the paragraph.

7.4 Detonators - electric and non-electric

Before destruction is attempted, leading wires should be removed from electric detonators by cutting the individual wires one at a time and not both in one cut, and safety fuse or shock tube from detonators. The wires, fuse, or shock tube should be cut off approximately 50 mm from the crimp of the detonator tube.

The detonators to be destroyed are wrapped in strong paper or hessian and made up into a compact parcel, to contain not more than 100 detonators, together with a non-electric or electric detonator which is known to be in good condition. If the detonators are suspected of being insensitive, as might be the case if they have ever become wet, the non-electric or electric detonator should be made into a "primer cartridge". The bundle must be bound up tightly with all detonators in close contact with one another, allowing the end of the fuse or leading wires to extend from the centre. There should be no sand or earth in the parcel, as this might lead to some of the detonators failing to explode.

The bundle of detonators is placed in a hole in the ground and detonated by means of the non-electric or electric detonator after everyone has moved away to safety. Placing the detonators in a hole in the ground and covering them with sand will limit the scattering of debris and facilitate the search for unexploded detonators.

7.5 Detonating relays

Detonating relays ("dog-bones") may only be destroyed by means of detonation.

No more than 100 detonating relays may be destroyed at a time, using the following method:

A length of detonating cord, of sufficient length but not longer than five meters, must be cut off from the reel.

A loop must be made by threading the cord first through the one hole of all the relays to be destroyed and then back through the hole on the other side of all the relays.

A single detonator must be connected to both ends of the loop and must be detonated when all safety precautions have been taken.

The remarks under blasting cartridges concerning air-blast, concussion, and heating of pits also apply in this paragraph.

8. INDEMNITY

The above-mentioned methods of destroying blasting materials, are approved methods within the meaning of regulation 9(6)(b): Provided that-

- every precaution is taken to prevent injury to persons and/or damage to property in terms of section 22 of the Explosives Act, 2003 (Act No. 15 of 2003);
- the grantee of the permit, the State and/or its employees, will in no way be liable for damage, loss or injury sustained by any person or persons which may in any way be attributable to the destruction of explosives in accordance with this pamphlet or otherwise.

Annexure 'C'
Part 1**CONDITIONS FOR THE ACQUISITION, TRANSPORT, STORAGE
AND USE OF BLACK POWDER FOR PRIVATE PURPOSES**

Regulation 19

The purpose of this document is to provide conditions for the acquisition, transport, storage and use of black powder for private purposes as propellant in muzzle loading firearms, licensed black powder firearms, licensed muzzle loading cannons or devices.

1. DEFINITIONS

The following definitions will apply:

"black powder" means an explosive substance consisting of an intimate mixture of charcoal or other carbon and either potassium nitrate or sodium nitrate, with or without sulphur, and gunpowder has a similar meaning. Such black powder is limited to those grades approved for sporting use only, and must be packed in containers approved by the Chief Inspector of Explosives. Black powder substitutes such as 'Pyrodex' and 'Sannadex' are included;

"black powder permit" (BPP) means a continuous permit issued to registered black powder users, to acquire, transport, store and use black powder for personal use;

"competency certificate" means a competency certificate contemplated in chapter 5 of the Firearms Control Act, 2000 (Act No. 60 of 2000);

"licensed black powder firearm" means a firearm excluding a muzzle loading firearm which is loaded with black powder or of which the ammunition is loaded with black powder, and for which a licence is issued in terms of section 11 of the Firearms Control Act, 2000;

"licensed muzzle loading cannon" means a prohibited firearm as contemplated in section 4 of the Firearms Control Act, 2000 and for which a licence is issued in terms of sections 17, 19 or 20 of the Firearms Control Act, 2000;

"muzzle loading firearm" means a barrelled, portable weapon that can fire only a single shot per barrel and which requires, after every shot fired, individual reloading through the crown of the barrel with separate components consisting of -

- (a) a measured black powder charge, primed with a flintlock or percussion cap;
- (b) a wad: and
- (c) a pure lead ball functioning as a projectile.

"private purposes" means the use of black powder in a muzzle loading firearm, black powder firearm or muzzle loading cannon by a registered black powder user, or under his or her direct supervision, and includes the reloading of black powder cartridges.

"registered black powder user" means a person of 21 years and older, registered by the Chief Inspector to acquire, transport, store and use black powder and who is in possession of a valid permit.

2. REGISTRATION OF BLACK POWDER USERS

Any person who intends to acquire, transport, store and use black powder for private purposes, must be registered as a black powder user by the Chief Inspector.

The following documentation must be submitted:

- (1) original completed application form for registration (attached as "Annexure C - Form A");
- (2) certified copy of the first page of the applicant's identity document or passport (latest issue);
- (3) two recent passport photos;
- (4) certified copy of muzzle loading firearm status certificate, issued by a gunsmith (**not a dealer**) registered in terms of the Firearms Control Act, stating the following information:
 - ▶ make or model;
 - ▶ serial number;
 - ▶ calibre;
 - ▶ type, and
 - ▶ country of origin.
- (5) certified copy of black powder firearm competency certificate;
- (6) certified copies of licences for black powder firearms, muzzle loading

cannons or other devices; and

- (7) certified copy of a criminal record clearance certificate issued by the Criminal Record Centre of the South African Police Service within six months preceding the date of application.

Black powder firearms, muzzle loading firearms and other devices are not controlled in terms of the Explosives Act, but details of such firearms are required for record purposes and to support the necessity to use black powder.

Applications may be submitted to the Chief Inspector in the following ways:

- by post: The Chief Inspector of Explosives, Private Bag X624, Pretoria, 0001; or
- by hand: Annex Building, Department of Land Affairs, 184 Jacob Maré Street, Pretoria.

NB: No faxed documents will be processed - only originals and certified copies.

Applications for registration will normally be processed within eight (8) working days after receiving the original application at the Chief Inspector's office.

Upon registration, a permit will be issued which will allow the applicant to acquire, transport, store and use black powder and percussion caps in quantities specified on such permit. This permit will be returned by standard post to the applicant, but may be collected by hand if pre-arranged.

3. ACQUISITION

Registered users may only obtain black powder and percussion caps from dealers licensed in terms of section 13 of the Explosives Act, 2003 (Act No. 15 of 2003) and/or in terms of section 34 of the Firearms Control Act, 2000.

The following must be submitted to the licensed dealer with every purchase -

- duplicate black powder permit (BPP);
- proof of identification (identity document, driver's licence or passport); and
- completed "Record of purchase of black powder" (attached as "Annexure C Form B").

Every dealer in black powder and percussion caps, must keep proper record of sales as prescribed in regulation 18(8) and must provide every buyer with an invoice, stating the black powder permit number and name of the purchaser on such invoice.

4. TRANSPORT (Regulation 32(3)(c))

Registered users may acquire and transport not more than the stipulated quantity of black powder and percussion caps from the nearest licensed supplier to his or her specified physical address or place of use.

Black powder must be separated at least one (1) metre from percussion caps during transport (eg percussion caps in cubby-hole and black powder in back of vehicle).

Registered users must keep a copy of their black powder permits together with a copy of these conditions at hand, for perusal by any law enforcement official if required.

Black powder must be transported in its original container when being transported from the supplier to the registered premises for storage.

Black powder may be transported in smaller suitable containers such as non-sparking horns, flasks and powder measures, between the place of storage and place of use.

All reasonable steps must be taken to prevent theft or unauthorised access during transport.

A maximum of five (5) kilograms of black powder may be transported in a private vehicle where more than one black powder user travel together. Such a vehicle is exempt from the Chief Inspector of Explosives' licensing requirements and the dangerous goods road transport requirements in terms of the National Road Traffic Act, 1996 (Act No. 93 of 1996) and Regulations.

5. STORAGE (Regulation 19(3))

Black powder not being used, must be stored in its original container, in a locked safe, strongroom, lockable steel cabinet or sturdy cupboard at the specified address.

The original black powder permit must be kept in or near the storage facility.

A maximum of three (3) kilograms of black powder may be stored together where more than one registered black powder user intends to store their powder on the same premises.

All reasonable steps must be taken to prevent unauthorised access to black powder or percussion caps.

Percussion caps must be stored separate from black powder, in another lockable facility.

6. USE

Black powder obtained in terms of these conditions may only be utilised for private purposes and in accordance with the firearm and powder manufacturers' specifications.

NB: Black powder is an explosive and pose certain hazards. Users are advised to join professional black powder associations and clubs which will provide them with guidelines and procedures to use black powder safely.

7. DESTRUCTION AND DISPOSAL OF REDUNDANT BLACK POWDER

Black powder may only be destroyed as prescribed by the manufacturer. The local inspector of explosives must be contacted for advice whenever the destruction is impractical or if no destruction method is available to a registered user.

8. GENERAL

The local inspector must be notified immediately of any of the following:

- ▶ when black powder or percussion caps are lost or stolen; or
- ▶ when an accident occurred during the transport, storage or use of black powder.

The Chief Inspector must be notified in terms of regulation 5 in writing when there is a change of information of registered users, eg address, new black powder firearms obtained, etc.

It is the responsibility of every black powder user to comply with these conditions and the conditions on the black powder permit. Failure to do so may result in the suspension of the permit and criminal prosecution.

Written requests for any deviation from these conditions must be properly motivated and submitted to the Chief Inspector for consideration.

The Chief Inspector, the State and/or its employees shall in no way be liable for the damage, loss or injury sustained by any person or persons which in any way, may be attributable to the use of explosives in accordance with these conditions or otherwise.

Annexure "C"
Form A**APPLICATION FOR REGISTRATION TO ACQUIRE, TRANSPORT, STORE AND USE
BLACK POWDER FOR PRIVATE PURPOSES**

Regulation 19

INSTRUCTIONS FOR COMPLETING THIS FORM

1. Use black ink and complete in clearly legible block letters.
2. Only originally completed applications, and no faxes, will be accepted.
3. This application must be posted or delivered to the Office of the Chief Inspector of Explosives for processing.
4. Black powder permits are only issued by the Office of the Chief Inspector and applications will be processed within eight (8) working days after receipt of correctly completed applications.
5. Incomplete applications will not be processed.

A. PARTICULARS OF APPLICANT

Surname											Initials				
Full Names															
Identity number															
Passport number															
Residential address															
											Postal Code				
Postal address															
											Postal Code				
Telephone number	Home	()				Work	()								
Cellphone number						Fax	()								
E-mail address															

B. PARTICULARS OF PREMISES WHERE BLACK POWDER AND PERCUSSION CAPS ARE TO BE STORED

Number															
Street name															
Name of building/farm/plot/place															
Suburb/extension/area															
City/town															
Province															
Nearest SAPS Community Service Centre															
TYPE OF PREMISES (Indicate with an X)															
Private residence on own stand						Business									
Townhouse/security complex						Industrial									

[illegible]

D. DECLARATION BY APPLICANT

I am aware that it is an offence in terms of section 28(2)(d) of the Explosives Act, 2003 (Act No. 15 of 2003) to wilfully give false information to an inspector.

I am aware of all relevant sections and/or regulations of the Explosives Act, 2003 (Act No. 15 of 2003) pertaining to this application

The following documents are attached to this application, where applicable:		Yes	No
(1) Certified copy of first page of identity document or passport as contemplated in regulation 3 of the Explosives Regulations.			
(2) Certified copy of a clearance certificate issued by the Criminal Record Centre of the South African Police Service as contemplated in regulation 3 of the Explosives Regulations.			
(3) Two recent passport photos (See note marked *).			
(4) Certified copy of black powder firearm competency certificate.			
(5) Certified copies of muzzle loading firearm status certificates issued by a registered gunsmith, black powder firearm licences, muzzle loading cannon or other licences issued in terms of the Firearms Control Act, 2000 (Act No. 60 of 2000), as amended.			
I certify that the information given on this form is true to the best of my knowledge.			
Signature of applicant		Initials and surname	
		Date	
* REQUIREMENTS FOR PHOTOS Photos must be in colour and must be the size of a standard passport photograph. Photos must be a full front view of the head and shoulders of the applicant, who may not be wearing a hat or sunglasses. The applicant's name and identity number must be written on the back of both photos and placed in a similarly marked envelope attached to this application.			
E. FOR OFFICIAL USE BY THE OFFICE OF CHIEF INSPECTOR			
Date received		BPP number	
Date finalised		CES reference	
Remarks			
Disposal of original permit	Posted	Collected	Date
Persal number		Initials and surname	
Signature of inspector of explosives		Official date stamp	

Annexure "C"
Form B**RECORD OF PURCHASE OF BLACK POWDER**
Regulation 18(7)

A. DETAILS OF LICENSED DEALER					
Name of dealer					
Dealer's licence number					
B. DETAILS OF BLACK POWDER PERMIT HOLDER					
Black powder permit number					
Initials and surname					
Identity number					
Residential address					
Office telephone number					
Home telephone number					
Cellphone number					
C. DETAILS OF BLACK POWDER AND/OR PERCUSSION CAPS PURCHASED					
Number of percussion caps					
Quantity and granulation (grams) of black powder					
1F FG	2F FFg	3F FFFg	4F FFFFg	5F FFFFFg	Other (Specify)
D. SIGNATURE OF PERMIT HOLDER					
Date					Signature
Initials					
Surname					
E. SIGNATURE OF DEALER					
I certify that I have personally perused the permit and identity details of the above-mentioned black powder user, and that the quantity(ies) provided is (are) properly recorded as required in terms of regulation 18(8).					
Date					Signature
Initials					
Surname					

This original document must be kept for inspection purposes and handed to an inspector of explosives for submission to the Chief Inspector. Information on this form must correspond with relevant information in the register prescribed in terms of regulation 18(8). (Annexure "Q")

Annexure "D"

APPLICATION FOR BLASTING AND TRANSPORT PERMIT

Regulation 29(2)

Name of applicant			
	Reference number		
Address			
	Telephone number		
Name of blaster	Reference number		
Telephone number	Cellphone number		
Supplier of explosives and/or numbers and location of magazines			
Exact destination of explosives (physical address of place of use or storage)			
Nearest SAPS Community Service Centre			
Owner of vehicle(s) to be used			
Registration number(s) of vehicles			
Distance by road to destination			
Estimated period needed to complete work (in days)			
Estimated number of days on which blasting will be done			
Purpose for which explosives are to be used			
Maximum quantities and types of explosives required per day			
Maximum quantity	Type of explosives		
Number of consignments required to complete work			
NB: A contingency plan as required in terms of regulation 54(2) of the Explosives Regulations, must be submitted with this application if blasting is to be done within 500m from any structure or service. I/we certify that I am/we are fully aware of the requirements of Chapters 7,9 and 11 of the Explosives Regulations.			
Signature of applicant	Designation		

Name of company*		Date	
<p>*In the case of a registered company, the questionnaire must be submitted under cover of a letter reflecting the name, registered address and names of the directors of the company. The signatory must be either the manager appointed in terms of regulation 50(2)(a) or some other senior official of the company. In the case of a partnership, the full names of all the partners must be given and the name or type of the partnership.</p> <p>NB-Any person who wilfully gives false information to an inspector is guilty of an offence in terms of section 28(2)(d) of the Explosives Act, 2003 (Act No 15 of 2003), and liable on conviction to a fine and/or imprisonment.</p>			
FOR OFFICIAL USE			
Blasting permit No.		Issued on	Expiry date
Transport permit No(s)		Issued on	
Previous permits submitted for cancellation			
Authorisation for long distance transport obtained from (name)			
on (date)			
Persal number			Initials
Surname			
Signature of inspector of explosives		Official date stamp	

Annexure "E"
Part 1

**SPECIFICATIONS FOR THE CONSTRUCTION AND LICENSING OF
VEHICLES FOR PUBLIC ROAD TRANSPORTATION OF EXPLOSIVES**

Regulation 32(1)

A. GENERAL INFORMATION

1. No mechanically propelled vehicle may be used for the transportation of explosives unless specially licensed for the purpose by the Chief Inspector.
2. When selecting a vehicle, the owner should take into consideration the size of the consignment of explosives which he or she would require to convey either from the suppliers, or from the railhead, to his or her magazines or places of use. The vehicle should be large enough to take this quantity in one consignment, because more than one trip per day may be allowed only in exceptional circumstances after referring the matter to the Chief Inspector.
3. (1) Only those vehicles in which the body and cab form two separate units, connected by the chassis members, can be considered for conversion to carry explosives. Motor cars, station wagons, and panel vans are therefore excluded from the above-mentioned specification. Similarly, tipper trucks cannot be considered for the conveyance of explosives.

(2) (a) Petrol- driven vehicles must all have normal control.

(b) Compression ignition vehicles (diesels) may have forward or semi-forward control; that is, the engine may be under the cab of the vehicle. Under no circumstances may the engine be situated under the body of the vehicle.
4. When a vehicle is used for distribution of explosives from magazines to places of use in less than full case lots as received from the supplier, special receptacles as prescribed in paragraph F of this Annexure are required.

**B. SPECIFICATIONS APPLICABLE TO ALL MECHANICALLY PROPELLED
VEHICLES**

1. The overhang of the body beyond the end of the chassis may not exceed 300 mm. The chassis as supplied by the manufacturers may not be altered in any way without the written approval of the Chief Inspector.
2. Vehicles must comply with the provisions of the National Road Traffic Act, 1996 (Act No. 93 of 1996) and the National Road Traffic Regulations (2000), as amended, and specifically with the requirements pertaining to the transport of dangerous goods by road.
3. Every vehicle must have two rear vision mirrors fitted, one on each side of the cab.

4. (1) An all-purpose (ABC) fire extinguisher of the dry chemical (dry powder) type with a minimum capacity of 9 kilograms dry chemical powder, in good working order, must be fitted to all explosives-carrying vehicles.
- (2) The fire extinguisher must comply in all respects with the South African National Standards SANS 1910: *Portable refillable fire extinguishers - dry chemical type extinguishers*.
- (3) The fire extinguisher must be carried in or adjacent to the cab. If carried outside the cab on petrol driven vehicles, it must not be on the same side of the vehicle as the fuel tank filling neck. The extinguisher must be fitted to the vehicle with a suitable quick-release device to enable the driver to remove the extinguisher immediately in the event of an emergency. The extinguisher must be sealed and fitted with an extension hose and nozzle.
- (4) (a) If the fire extinguisher does bear the SABS mark, the owner of the vehicle must furnish the following information on Form B -
- (i) that the extinguisher does bear the SABS mark;
 - (ii) the capacity of the extinguisher in kilogram; and
 - (iii) that it is an all-purpose dry chemical fire extinguisher.
- (b) If the extinguisher does not bear the SABS mark, a certificate from the manufacturer/representative/supplier must be submitted, stating -
- (i) that the extinguisher does comply with SANS 1910;
 - (ii) the capacity of the extinguisher in kilogram; and
 - (iii) that the extinguisher is an all-purpose dry chemical fire extinguisher.

Pro forma certificate to be completed on company letterhead and submitted with Form B

I/We, the undersigned, for and on behalf of, the manufacturers/representatives/ suppliers, do hereby certify that the(state brand, type of extinguisher and supplier's reference) complies in all respects with SANS 1910: *Portable refillable fire extinguishers - dry chemical type extinguishers*, and that the extinguisher is filled with kg of grade all-purpose dry chemical powder.

Designation

Date

Initials and surname

Signature

- (5) No other type of fire extinguisher will be allowed.
- 5. The licence must be carried in the designated space as provided for in the National Road Traffic Regulations, (2000), as amended.
- 6. The underside of the petrol tank must be sufficiently protected to prevent damage.
- 7. Every vehicle must be fitted with a single four-point battery master switch of a design to suit the electrical system of the vehicle. The switch must be so designed that -
 - (1) the power supply from both terminals is cut off when the circuit is broken; and
 - (2) it is completely safe for the maximum voltage and starter loads which it must carry. The switch must be in an easily accessible position.
- 8. Every vehicle must be fitted with a satellite tracking or stolen vehicle recovery system as approved by the Chief Inspector.

C. SPECIFICATIONS FOR EXPLOSIVES VEHICLES TRANSPORTING MORE THAN 400 KILOGRAMS EXPLOSIVES

- 1. For the transport of more than 400 kilograms explosives (16 cartons blasting cartridges), roadworthy chassis must be converted and be fitted with totally enclosed bodies.
- 2. The back of the cab must be of metal and there must be a free space of at least 150 mm between the cab and the front of the body.
- 3. The vehicle may be fitted with -
 - (1) an all steel body lined with wood or hardboard at least 1 250 mm above floor level, in which case the floor should be covered with 15 mm hardboard and an aluminium or brass wearing strip fitted at the door;
 - (2) an all aluminium or aluminium alloy body; or
 - (3) a glass reinforced plastic body of a design approved by the Chief Inspector.
- 4. Ventilators must be provided on all totally enclosed bodies.
- 5. If desired, heavy shatterproof glass windows may be fitted in the back of the cab and in the body.
- 6. The door must be fitted with an external three way locking device.
- 7. The silencer and outlet of the exhaust must be situated in such a way that the load is protected from excess heat and sparks emitted from the exhaust.

8. When calculating the size of the body to be fitted to a truck, the average size of a case of blasting cartridges may be deemed to be 600 mm x 260 mm x 260 mm and it must be borne in mind that cases may not stand upright.
9. Before a vehicle is purchased or any alterations are effected, completed application Form A with the vehicle's construction plan in duplicate, must be submitted to the Chief Inspector of Explosives, Private Bag X624, Pretoria, 0001.

Unless prior approval has been obtained, the issue of a licence cannot be guaranteed, and the purchase of a chassis and any work that may have been done thereon will be at the owner's risk.

10. After conversion, the following documents must be submitted to the Chief Inspector of Explosives, Private Bag X624, Pretoria, 0001 -
 - (1) Completed application Form B;
 - (2) Completed inspection report (to be completed by an inspector);
 - (3) Three weighbridge tickets (front wheels, rear wheels and total vehicle);
 - (4) Completed calculation sheet (to be completed by an inspector of explosives);
 - (5) Certified copy of the vehicle's registration certificate;
 - (6) Certified copy of the motor vehicle licence, licence and roadworthy certificate disc, and operator card;
 - (7) Certified copy of the satellite tracking or stolen vehicle recovery system installation certificate; and
 - (8) Fire extinguisher certificate as required in terms of paragraph B4(4) of this Annexure (if applicable).
11. **NB** - A vehicle may not be used to transport explosives until the explosives-carrying licence has been issued and the original is carried in the designated space provided for that purpose in the cab. The conditions of the licence should be carefully studied for compliance, otherwise the licence may be forfeited.

D. SPECIFICATIONS FOR VEHICLES TRANSPORTING AMMONIUM NITRATE

1. Ammonium nitrate may be transported with the following vehicles, licensed for that purpose by the Chief Inspector -
 - (1) vehicles and trailers with drop sides – all types of bags up to one point two (1.2) ton in mass;
 - (2) trailers without drop sides - one (1) and one point two (1.2) ton bags; or
 - (3) tankers - bulk prills.
2. The body of the vehicle, trailer or tanker must be of metal and may not be lined or

covered with wood, rubber or other combustible material.

3. (1) Drop-sides and tail-boards fitted to open vehicles or trailer bodies must be of sufficient height to contain the whole load.
- (2) Trailers without drop-sides may be used to transport bulk bags in excess of one (1) ton.
- (3) A wraparound tarpaulin and suitable strapping must be fitted tightly over the load to protect and secure it during transport.
- (4) Tankers constructed for the transport of more than 16 000 kg of ammonium nitrate must be fitted with bursting disks with a venting area of at least 300 cm² per ton of ammonium nitrate.
- (5) Before a vehicle is purchased or any alterations are effected, completed application Form A, with the vehicle's construction plan in duplicate, must be submitted to the Chief Inspector of Explosives, Private Bag X624, Pretoria, 0001.

Unless prior approval has been obtained, the issue of a licence cannot be guaranteed, and the purchase of a chassis and any work that may have been done thereon will be at the owner's risk.

- (6) After conversion, the following documents must be submitted to the Chief Inspector of Explosives, Private Bag X624, Pretoria, 0001 -
 - (a) Completed application Form B;
 - (b) Completed inspection report (to be completed by an inspector);
 - (c) Three weighbridge tickets (front wheels, rear wheels and total vehicle);
 - (d) Certified copy of the vehicle's registration certificate;
 - (e) Certified copy of the motor vehicle licence, licence and roadworthy certificate disc, and operator card;
 - (f) Certified copy of the satellite tracking or stolen vehicle recovery system installation certificate; and
 - (g) Fire extinguisher certificate as required in terms of paragraph B4(4) of this Annexure (if applicable).

E. SPECIFICATIONS FOR EXPLOSIVES VEHICLES TRANSPORTING UP TO 400 KILOGRAMS EXPLOSIVES

1. Roadworthy vehicles with an internal body length not exceeding three metres, may be used for the transport of up to a net mass of 400 kilogram explosives (equivalent to 16 cartons blasting cartridges).
2. The vehicle must be fitted with tailboard and fixed sides.
3. Only special receptacles approved by the Chief Inspector and prescribed in paragraph F of this Annexure may be used to transport explosives.
4. Runners, a frame, or other suitable means to prevent the receptacles from sliding around, must be bolted to the floor or attached to the body in a way acceptable to the Chief Inspector.
5. Application Form A must be completed and forwarded to the Chief Inspector before the vehicle is purchased or any alterations are effected.

Unless prior approval has been obtained, the issue of a licence cannot be guaranteed and the purchase of a vehicle and any work that may have been done thereon will be at the owner's risk.

6. After conversion, the following documents must be submitted to the Chief Inspector of Explosives, Private Bag X624, Pretoria, 0001 -
 - (1) Completed application Form B;
 - (2) Completed inspection report (to be completed by an inspector of explosives);
 - (3) Certified copy of the vehicle's registration certificate;
 - (4) Certified copy of the motor vehicle licence, licence and roadworthy certificate disk and operator card;
 - (5) Certified copy of the satellite tracking or stolen vehicle recovery system installation certificate; and
 - (6) Fire extinguisher certificate as required in terms of paragraph B4(4) of this Annexure (if applicable).
7. **NB** - A vehicle may not be used to transport explosives until the explosives-carrying licence has been issued and the original is carried in the designated space provided for that purpose in the cab. The conditions of the licence should be carefully studied for compliance, otherwise the licence may be forfeited.

F. SPECIFICATIONS FOR REMOVABLE EXPLOSIVES TRANSPORT RECEPTACLES

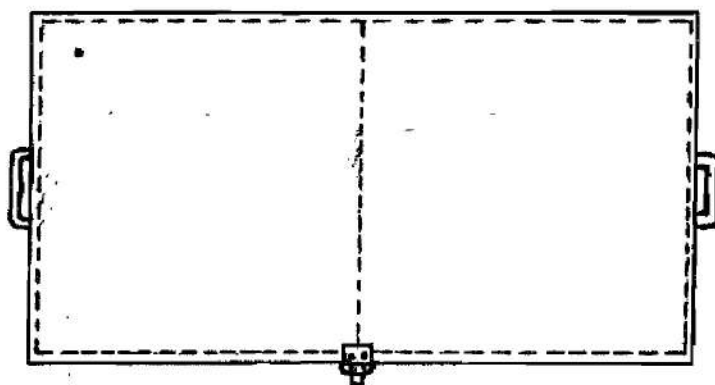
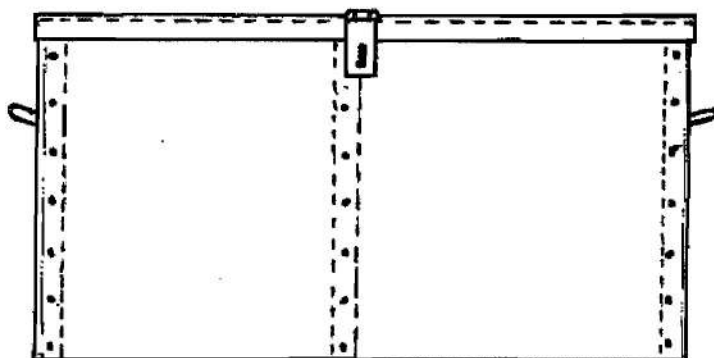
1. The following types of removable receptacles may be used to transport explosives on licensed vehicles:

Type	Internal dimensions	Purpose
8 Case explosives box	Two compartments of 650 mm (L) x 650 mm (W) x 650 mm (H) per compartment.	To carry up to 8 cartons or bags of blasting explosives. Maximum of 4 cartons or bags allowed per compartment.
16 Case explosives box	Two compartments of 1400 mm (L) x 655 mm (W) x 700 mm (H) per compartment.	To carry up to 16 cartons or bags of blasting explosives. Maximum of 8 cartons or bags allowed per compartment.
Detonator box	Single compartment of 300 mm (L) x 300 mm (W) x 200 mm (H). Completely lined with numnah (at least 10 mm thick).	To carry less than full cartons of detonators and explosives accessories. Box is normally transported in cab of vehicle during the simultaneous transport of detonators and blasting explosives.
Small single compartment explosives box	Single compartment of 300 mm (L) x 300 mm (W) x 200 mm (H).	To carry one reel of detonating cord, or a limited quantity of boosters or blasting cartridges. May only be transported inside the 8 or 16 case explosive boxes.
Compartmented box for blasting cartridges or/and detonating cord	Four compartments of 130 mm (L) x 230 mm (W) x 250 mm (H). The width of the box may be amended up to 300mm to take larger blasting cartridges.	To carry packets of blasting cartridges or detonating cord where less than full cartons are required. May only be transported inside the 8 or 16 case explosives boxes.
Single compartment explosives box	Single compartment of 600mm (L) x 300mm (W) x 250mm (H)	To carry large blasting cartridges where less than full cartons are required.

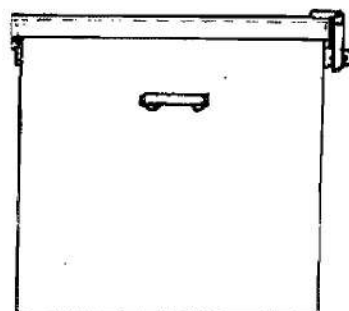
2. Construction

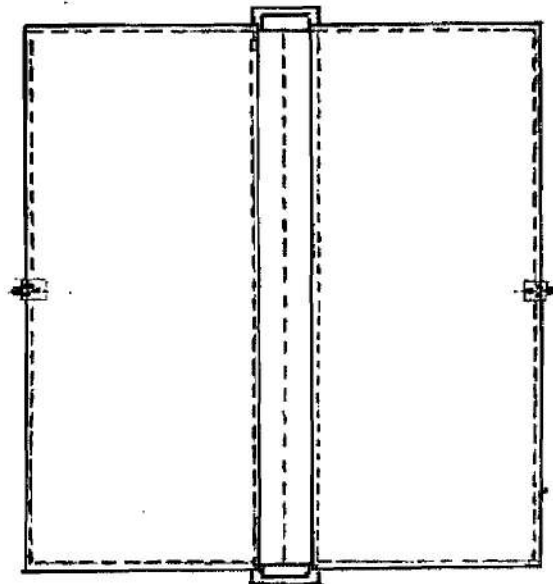
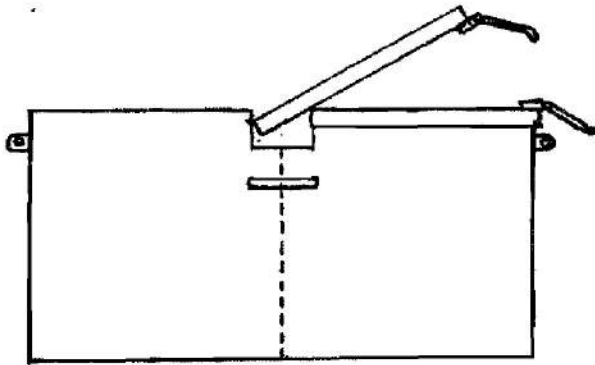
- (1) (a) Boxes may be constructed from wood with minimum thickness 31 mm for the sides, lid and base, and 20 mm for the partitions. Alternatively the boxes be constructed with three (3) mm aluminum or aluminum alloy.
- (b) With the exception of eight (8) and sixteen (16) case explosives boxes, boxes may also be constructed from plastic with antistatic properties if approved by the Chief Inspector.
- (2) Detonator boxes must be completely numnah-lined (at least 10 mm thick).

- (3) All receptacles must have lockable lids.
 - (4) Wooden boxes must have dovetailed joints, with bases, brass hinges, brass hasp and staples fixed with countersunk brass or stainless steel screws.
 - (5) If other types of joints are used, non-sparking corner supports specifically approved by the Chief Inspector, may be used to strengthen the construction of wooden boxes.
 - (6) Aluminum or aluminum alloy boxes must be spot-welded, riveted and waterproofed at corners.
 - (7) Brass piano hinges or three evenly spaced 75 mm brass hinges (for large boxes) at the back, and brass hasps and staples in the centre at the front of the boxes, must be fixed with countersunk brass or stainless steel screws in the case of wooden boxes, or riveted in the case of aluminum or aluminum alloy boxes.
3. Diagrams of explosives receptacles made from three (3) mm aluminium sheets

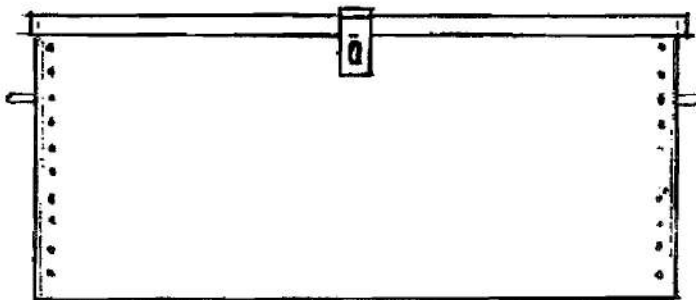
8 CASE EXPLOSIVES BOX

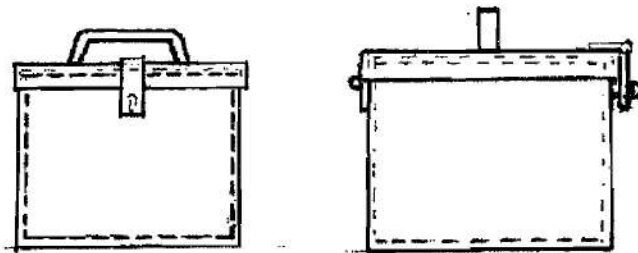
Internal dimensions:
Two compartments of 650 mm
(L) x 650 mm (W) x 650 mm (H)
per compartment.



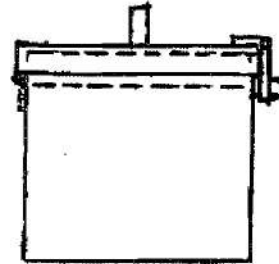
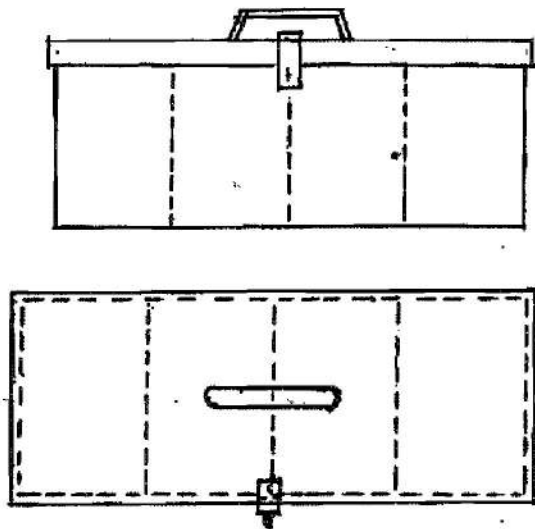
16 CASE EXPLOSIVES BOX**Internal dimensions:**

Two compartments of 1400 mm (L) x 655 mm (W) x 700 mm (H) per compartment.



SINGLE COMPARTMENT DETONATOR OR EXPLOSIVES BOX**Internal dimensions:**

Single compartment of 300 mm (L)
x 300 mm (W) x 200 mm (H).
Detonator boxes must be numnah-
lined.

FOUR (4) COMPARTMENT BOX FOR BLASTING EXPLOSIVES**Internal dimensions:**

Four compartments of 130 mm (L) x 230 mm
(W) x 250 mm (H)

This box may also be manufactured without
the internal partitions, for use within larger
cartridges

OLD EXPLOSIVES BOXES

The size of old explosives boxes will be determined by the type of explosives used at a blasting site. A hole must be provided in the lid of each old explosives box to allow for the easy insertion of explosives.

4. Markings

- (1) All receptacles must be painted signal red unless exempt by the Chief Inspector.

- (2) Small boxes must be clearly marked with the words 'EXPLOSIVES' or 'BLASTING ACCESSORIES' in white letters of at least 15 mm in size.
- (3) Old explosives boxes must be clearly marked with the words 'OLD EXPLOSIVES' and 'BLASTING EXPLOSIVES' or 'BLASTING ACCESSORIES' in English and another official language, in white letters, of at least 15 mm in size.
- (4) Larger boxes such as the 8 and 16 case explosives boxes, must be marked with removable dangerous goods placards on at least two sides, as prescribed in SANS 10232-1, and required by the National Road Traffic Act, (1996) and Regulations (2000), as amended.
- (5) Lettering on boxes must be in English and another official language, in white letters, of at least 15 mm in size.

Annexure "E"
Form A**APPLICATION FOR APPROVAL TO CONVERT A VEHICLE FOR THE TRANSPORTATION OF
EXPLOSIVES BY ROAD**

Regulation 32(1)

(This form must be completed and submitted to the Chief Inspector of Explosives, Private Bag X624, Pretoria, 0001 before any alterations are effected to a vehicle for the transportation of explosives by road. When completing this form, please refer to specifications Annexure "E".)

If the vehicle will be used for the conveyance of less than 400 kg explosives, complete questions 1,2,3,4 and 8 only -	
1. GENERAL	
Manufacturer's model number, name or other description	
Year of manufacture	
With or without factory- built cab?	
2. FUEL TANK	
Petrol or diesel driven?	
If petrol driven, where is the petrol tank situated?	
If under the seat, does the filling neck protrude through side of cab?	
3. CHASSIS	
Nominal carrying capacity of chassis according to manufacturer's specifications	
Gross loaded weight of truck (Manufacturer's pamphlet confirming this figure must be attached hereto)	
Chassis weight on weighbridge (three weighbridge tickets containing the following information must be attached) -	
Total (kg)	
Front wheels on weighbridge (kg)	
Rear wheels (2 or 4) on weighbridge (kg)	
Make of chassis.	
Wheelbase of two-axled chassis (mm)	
Three axled chassis:	
Centre of front axle to centre of middle axle (mm)	
Centre of middle axle to centre of rear axle (mm)	
4. TYRES	
Make of tyres fitted	
Size and ply of front tyres	
Dual or single rear tyres (Specify)	
Size and ply of rear tyres	

5. VEHICLE BODY			
Proposed internal length of body			
Proposed height above floor			
Description of body to be built (Refer to Annexure E and describe in detail, or submit drawing of proposed body):			
Signature of applicant		Initials	
		Surname	
		Designation	
Name of company*		Date	
<p>*In the case of registered company, this form must be submitted under cover of a letter reflecting the name, registered address and names of the directors of the company. The signatory must be either the manager or some other senior official of the company. In the case of a partnership, the full names of all the partners must be given and the name or title of the partnership.</p> <p>NB- Any person who wilfully gives false information to an inspector is guilty of an offence in terms of section 28(2)(d) of the Explosives Act, 2003 (Act No 15 of 2003) and liable on conviction to a fine, or imprisonment, or both.</p>			

Annexure "E"
Form B**APPLICATION FOR A VEHICLE LICENCE TO TRANSPORT
EXPLOSIVES BY ROAD**

Regulation 32(1)

(To be completed and submitted to The Chief Inspector of Explosives, Private Bag X624, Pretoria, 0001. When completing this form please refer to specifications Annexure "E".)

A. GENERAL DETAILS APPLICABLE TO ALL VEHICLES	
Name and address of vehicle owner	
Make and model of vehicle	
Year of manufacture	
Registration number	
Engine number	
Chassis number	
Location of designated space in the cab for the licence and other documents required in terms of the National Road Traffic Act (1996) and Regulations (2000) as amended	
Have dangerous goods transport markings and discs required in terms of the National Road Traffic Act (1993) and Regulations (2000) as amended, and 10232-1, been obtained?	
Have two rear view mirrors been fitted?	
Fire extinguisher fitted:	
Make	
Type of powder	
Capacity (kg)	
Fitted with extension hose and nozzle?	
Carried inside or outside cab?	
If outside, which side?	
Does the fire extinguisher bear the SABS mark? (If not, attach the certificate requested in Annexure "E".)	
Petrol or diesel driven (Specify)	
In a petrol-driven vehicle:	
Where is the petrol tank situated? (Describe fully)	

On which side does the petrol-filling neck protrude?							
Tyres (Complete or mark with "X")							
Tyres Fitted	Size	Ply rating	Number		Dual	Single	
Front			2	4			
Rear			2	4	8		
Battery master switch fitted							
Type and serial number							
Where fitted?							
Is the driver of the vehicle in possession of a copy of Chapter 7 of the Explosives Regulations?							
B. COMPLETE THE FOLLOWING FOR TOTALLY ENCLOSED BODIES							
Finished vehicle mass (Attach three weighbridge tickets containing the following information)							
Total mass (kg)							
Front wheels on centre of platform scale (kg)							
Back wheels on centre of platform scale (kg)							
Actual internal length of body (mm)							
Actual internal width of body (mm)							
Actual internal height of body (mm)							
Distance of centre front hub to centre rear hub (mm)							
Horizontal distance from centre rear hub to end of body (mm)							
Horizontal distance from centre rear hub to front of body (mm)							
Type of body fitted (Submit two copies of drawing if not previously submitted with Form A)							
Position of silencer and outlet of the exhaust							
Gross vehicle mass of vehicle (kg)							
(The manufacturer's pamphlet confirming this figure must be attached, if not previously submitted with Form A).							
C. COMPLETE THE FOLLOWING FOR UP TO 16-CASE VEHICLES							
Does the vehicle have normal control, forward control or semi-forward control?							
Description of body of vehicle (describe fully)							

Explosives receptacles available (See paragraph F of Annexure "E")		
For full case loads		
Type	Number available	Internal dimensions of each compartment
8-Case		
16-Case		
For less than full case loads		
Detonator box		
Single compartment small explosives box		
Compartmented box for blasting cartridges		
Other (describe)		
.....		
.....		
.....		
.....		
Nominal carrying capacity of chassis according to manufacturer's specifications:		
Gross vehicle mass of vehicle		
(The manufacturer's pamphlet confirming this figure must be attached, if available and not previously submitted with Form A).		
Internal length of body (mm)		
Internal width of body (mm)		
Internal height of body (mm)		
D. DECLARATION BY APPLICANT		
I undertake to keep the vehicle and all equipment in good condition.		
I certify that the above information is correct.		
Signature of applicant	Initials and surname	
	Designation	
Name of Company*		Date
<p>*In the case of registered company, this form must be submitted under cover of a letter reflecting the name, registered address and names of the directors of the company. The signatory must be either the manager or some other senior official of the company. In the case of a partnership, the full names of all the partners must be given and the name or title of the partnership.</p> <p>NB- Any person who wilfully gives false information to an inspector is guilty of an offence in terms of section 28(2)(d) of the Explosives Act, 2003 (Act No. 15 of 2003) and liable on conviction to a fine, or imprisonment, or both</p>		

Annexure "F"

LIMITED QUANTITIES OF EXPLOSIVES EXEMPT FROM EXPLOSIVES VEHICLE LICENSING REQUIREMENTS FOR ROAD TRANSPORT

Regulation 32(3)(c)

The following limited quantities of explosives are exempt from the licensing requirements for road transport, as contemplated in Regulation 32(1):

Type of explosive	Type of use	Maximum quantity	Additional permits or licences required *
Distress signals (Such as road flares, marine pyrotechnics and hand flares)	Private	5kg	None
	Retail / Distribution	100kg	DL / CTP
Nitrocellulose propellant for reloading of ammunition	Private	10kg	FAL / None
	Retail / Distribution	100kg	DL
Black powder	Private	5kg	BPP
	Retail / Distribution	20kg	DL / CTP
Consumer fireworks	Private with public transport	5kg	None
	Private	10kg	None
	Retail / Distribution	1000kg	DL
Railway track signals	Issued for use	Single tin (10 units)	Control register
	Distribution	50kg	CTP
The following 1.4S items in its original packaging: - Igniters - Rock breaking cartridges (RBC) - Power device, blank or industrial cartridges	Industry use Retail / Distribution	250kg	TTP / CTP
Ammonium nitrate	Industry use	250kg	Certificate TTP / CTP

Samples of explosives or blasting accessories for tests and analysis	Registered explosives manufacturers and distributors	5 kg of explosives 1 kg of blasting accessories	CTP
* Meanings of abbreviations: BPP - black powder permit, CTP - continuous transport permit, DL - dealer's licence, FAL - firearm licence, TTP - temporary transport permit.			

Annexure "G"
Part 1**STANDARD EXPLOSIVES MAGAZINE SAFETY DISTANCES**

Regulation 34(1)(a)

The following tables of distances must form the basis on which applications for explosives magazine licences will be considered -

1. Table of distance (in metres) for explosives in Divisions 1 and 5 of Class 1

Donor net explosives quantity (kg)	To explosives magazines, mounded (1)	To process buildings, mounded (2)	To railways, roads, etc* (3)	To public buildings
>5 - 50	9	18	20	24
100	11	22	24	32
200	14	27	29	50
300	16	30	34	68
400	18	33	41	82
500	19	36	47	94
750	22	48	62	124
1000	24	56	75	150
1500	27	72	95	190
2 000	30	85	115	230
2 500	32	96	130	260
3000	35	106	140	280
4 000	38	121	160	320
5 000	40	135	180	360
7 500	45	155	210	420
10 000	50	175	235	470
15 000	58	200	270	540
20 000	65	225	300	600
25 000	70	240	320	640
30 000	75	255	345	690
40 000	80	285	380	760
50 000	85	305	400	800
75 000	100	350	470	940
100 000	110	380	510	1 020
150 000	125	440	590	1 180
200 000	140	480	640	1 280
250 000	150	520	700	1 400

Note: If the donor magazine is not mounded, the distances in columns (1), (2) and (3) must be doubled.

* Refer to regulation 34(4)

2. Table of distance (in metres) for explosives in Division 3 of Class 1

Donor net quantity of explosives (kg)	To explosives magazines	To process buildings	To railways, roads, etc*	To public buildings
>5-50	9	10	12	23
100	9	15	16	30
200	9	18	19	37
300	10	21	22	42
400	11	23	24	47
500	13	25	25	50
750	14	29	29	57
1 000	14	32	32	63
1 500	15	36	36	72
2 000	17	40	40	80
2 500	18	43	43	86
3 000	19	46	46	91
4 000	20	50	50	100
5 000	21	54	54	108
7 500	25	61	61	122
10 000	28	68	68	136
15 000	33	78	78	156
20 000	37	85	85	170
25 000	40	90	90	180
30 000	45	100	100	200
40 000	50	110	110	220
50 000	55	115	115	230
75 000	65	135	135	270
100 000	75	145	145	290
150 000	90	170	170	340
200 000	95	180	180	360
250 000	105	200	200	400

* Refer to regulation 34(4)

3. Table of distance (in metres) for explosives in Division 4 of Class 1

Donor net explosives quantity (kg)	To explosives magazines	To process buildings	To railways, roads etc*	To public buildings
>5-50	9	9	9	15
100	9	9	9	18
200	9	9	11	22
300	9	9	13	25
400	9	9	15	29
500	9	9	15	31
750	9	9	17	33
1 000	9	10	18	36
1 500	11	16	19	38
2 000	12	19	20	40
2 500	13	21	21	42
3 000	14	22	22	43
4 000	16	24	23	45
5 000	17	25	23	46
7 500	19	26	24	48
10 000	21	27	25	50
15 000	23	27	27	54
20 000	25	27	28	55
25 000	26	27	29	57
30 000	27	27	30	60
40 000	27	27	30	60
50 000	27	27	30	60
75 000	27	27	32	65
100 000	27	27	33	64
150 000	27	27	35	70
200 000	27	27	35	70
250 000	27	27	35	70

* Refer to regulation 34(4)

REDUCED SAFETY DISTANCES FOR MOVABLE EXPLOSIVES MAGAZINES

Regulation 34(1)

The following table of distances must form the basis on which applications for movable steel explosives magazine licences will be considered -

Type of explosives magazines	Type of blasting accessories magazine	Distance between magazines (m)	Distance to railways, roads etc* (m)	Distance to public buildings (m)	Permissible time of use	Purpose of explosives storage	Mounded or unmounded
All "M" numbered magazines							
1 x TS3	1 x TS3	3	100	200	Permanent	Mining or construction	Unmounded
1 x TS3	1 x TS3	3	50	100	Permanent	Mining or construction	Mounded
2 x TS3	1 or 2 x TS3	10	150	300	Permanent	Mining or construction	Unmounded
2 x TS3	1 or 2 x TS3	10	75	150	Permanent	Mining or construction	Mounded
All "W" numbered magazines							
1 x 60 case	1 or 2 x TS3	10	95	190	Permanent	Mining or construction	Mounded / Unmounded
1 x 60 case	1 or 2 x TS3	10	190	380	Permanent	Mining or construction	Mounded / Unmounded
1 x 200 case	1 or 2 x TS3	20	360	720	Permanent	Mining or construction	Unmounded

Annexure "G"
Part 2

1 x 200 case	1 or 2 x TS3	20	180	360	Permanent	Mining or construction	Mounded
2 x 200 case	2 x TS3 or 200 case	20/40	470	940	Permanent	Mining or construction	Unmounded
2 x 200 case	2 x TS3 or 200 case	20/40	235	470	Permanent	Mining or construction	Mounded
3 x 200 case	2 x TS3 or 1 x 60 case	20	540	1080	Temporary (maximum of 6 months)	Mining or construction	Unmounded
3 x 200 case	2 x TS3 or 1 x 60 case	20	270	540	Temporary (maximum of 6 months)	Mining or construction	Mounded
2 x 300 case	1 x 200 or 300 case	40	540	1080	Temporary (maximum of 6 months)	Mining or construction	Unmounded
2 x 300 case	1 x 200 or 30 case	40	270	540	Temporary (maximum of 6 months)	Mining or construction	Mounded

General:

1. 2 or 3 x 200 case magazines, or 2 x 300 case magazines can be placed next to each other, which can be licensed as a 400 or 600 case magazine.
2. A maximum of 2 x TS3 type magazines can be placed back-to-back for the storage of explosives or explosives accessories.
3. The distance between the mound of the magazine to the fence must not be less than 5 metres.

* Refer to regulation 34(4)

Annexure "H"

**MINIMUM SPECIFICATIONS FOR THE FENCING OF EXPLOSIVES
MAGAZINES**

Regulation 33(4)

In terms of the Regulations, magazines must be surrounded by a security fence, which must comply with the following minimum specifications:

1. Fencing

The fencing must consist of 50 mm diamond mesh fencing, constructed of 2,5 mm diameter wire. The height of the fencing must be 2400 mm, except that in the case of portable magazines it may be not less than 1800 mm. The fencing must be attached on the outside of the posts and standards by means of binding wire to five strands of stranding wire of 4 mm diameter. One strand must be positioned at ground level and one at the top of the fencing and the remaining three equally spaced. For portable magazines the fence may be made in sections, which can be bolted together on site.

2. Posts

The corner, gate and intermediate post must be of steel tube, 3650 mm long and not less than 100 mm in diameter, and must be planted vertically in the ground to a depth of 750 mm and set in concrete of at least 600 mm depth and 450 mm width and breadth. All posts must be suitably braced with 50 mm diameter tubular struts. The struts must be bolted to the posts at a height of at least 1200 mm, planted in the ground for at least 500 mm of their length at an angle of 45°, and set in concrete of at least 450 mm depth and 450 mm width and breadth. The struts must be placed inside the enclosure. In the case of portable magazines it is not necessary to concrete the posts, struts and standards.

3. Standards

The standards must be of steel tube, 3500 mm long and not less than 50 mm in diameter and must be planted vertically in the ground to a depth of 600 mm. The distance between centres of the standards may not exceed 3600 mm. Every fourth standard must be set in concrete of at least 450 mm depth and 300 mm width and breadth.

4. Overhang

The posts and standards must be cut and welded to form a 450 mm overhang (apron) to protrude over the outside of the enclosure and set at an angle of 45°. Five (5) strands of barbed wire with 4 point barbs at 150 mm centres must be securely attached to the apron at approximately 90 mm centres, with the last strand at the tip of the pole.

5. Gate

The gate must be constructed of 450 mm diameter piping square cornered and suitably braced covered with 50 mm 2,5 mm thick diamond mesh wire, with locking chain and drop bolts. The overhang of the gate must be similar to that of the fencing.

6. Distances

The fence may not approach closer than 5 metres to the foot of the mound around a magazine or, in the case of an unmounded magazine, not closer than 10 metres to the magazine itself. In the case of a set of unmounded Mag. T.S. 3-type magazines, an enclosure measuring at least 10 x 15 metres will be acceptable.

7. One enclosure

At places where several magazines are situated in one area all the magazines must be in one enclosure.

8. Guarding

When magazines must be guarded, the guard must have sufficient protection against the elements and may be inside the fence which will afford him or her a certain amount of protection against unexpected attack.

9. Deviations

Application to deviate from these specifications due to unique situations, such as weather conditions which cause corrosion of fencing, must be made in writing to the Chief Inspector for consideration.

Annexure "I"

**PRO FORMA CERTIFICATE OF CONDITION FOR EXPLOSIVES
MAGAZINES**

Regulation 37(9)

CERTIFICATE

"I,, hereby certify that explosives magazine(s) numbered....., stocked under continuous transport permit number is/are still in good condition and that no new structures, roads and railways, have come into existence within the danger zones of the explosives magazines, as shown on the site plans mentioned on the licence(s) of the relevant explosives magazine(s).

Date.....

Place.....

Signature.....

Name of company.....

Designation.....

Annexure "J"

APPLICATION FOR AUTHORISATION OF AN EXPLOSIVE

Regulation 71(3) and 85(1)(b)

(Information given in and supplied with this application will be treated confidentially)

Please consult the explanatory notes at the back before completing this form.

1. GENERAL DETAILS AND CLASSIFICATION (Mark with an X)

New authorisation	<input type="checkbox"/>	Interim authorisation	<input type="checkbox"/>	Amend existing authorisation	<input type="checkbox"/>
Name of applicant (Natural or juristic person)					
Name of responsible person					
Postal address					
					Postal Code
Physical address					
					Postal Code
Nearest SAPS Community Service Centre				Province	
Telephone		Fascimile		Cellphone	
E-mail					
Trade name of explosives					
Proper shipping name / Description					
				Class	UN no.
Proof of classification					
Type of explosive				If detonator, list type	
Primary use				Means of initiation	
Manufacturer					

2. EXPLOSIVES FORMULATION AND CHARACTERISTICS

Chemical composition	Content and tolerances (% M/M)

Net explosive quantity			
Characteristics			
3. CONSTRUCTION OF EXPLOSIVE ARTICLES			
Construction			
Outer covering			
Labelling/markings on item			
4. PACKAGING, DESCRIPTION AND CERTIFICATION			
Outer package description			
		Dimensions	
Contents			
		Gross mass	
Inner package description			
Contents			
UN marking			
5. PACKAGE LABELLING AND MARKING			
Outer package			
Item	Tick if shown	Item	Tick if shown
Trade name		Name and address of manufacturer	
Proper shipping name		Date of manufacture	
UN Number		Date of issue	

Class label		UN packaging certification	
Subsidiary label		Word 'EXPLOSIVE'	
Other marking(describe)			
Inner package			
Item	Tick if shown	Item	Tick if shown
Trade name		Name and address of manufacturer	
Proper shipping name		Date of manufacture	
UN Number		Date of issue	
Class label		UN packaging certification	
Subsidiary label		Word 'EXPLOSIVE'	
Other markings (describe)			
6. SAFETY			
Shelf life			
Potential hazards			
Nature of deterioration			
Method of disposal			
Special precautions in use			
Any other relevant information			
7. SUPPORTING DOCUMENTS REQUIRED (Tick if attached)			
The following documents must be attached in printed and electronic format to all new applications for authorisation, and applications for interim or amended authorisation where applicable:			
Proof of foreign classification			
Technical information			
Test reports			
Detailed sketch, diagram and/or clear image of article or substance			
UN packaging certification			
Detailed package labeling and marking specification or template			
MSDS			

8. DECLARATION

I certify that the information given in this application is true and correct.

Signature of applicant

*Name of
person
signing*

Date

FOR OFFICE USE

Date received: CES reference no:
Inspector: Document registration no:
Additional documents / items required? Yes No

Application recommended

Application not recommendedDate

Signature of inspector of explosives Persal number
Initials and surname
Application approved

Application not approvedDate

Chief Inspector of Explosives Persal number
Initials and surname
Authorisation certificate issued Yes No Date Authorisation number:

Annexure "K"

LIBRARY OF TESTS AND STANDARDS

Purpose

There is an obligation to ensure that the latest revision is perused.

To provide for a general list of published tests and standards applicable to explosives classification, on site manufacture, storage, transport, use, destruction, contamination and safety.

Direct reference to any of the listed publications in the Regulations may imply a legal obligation, while others listed may indicate acceptable explosives practices.

South African publications:

Reference number	Title
SANS 6141	Permitted explosives: Gallery test
SANS 6142	Permitted explosives: Continuity of detonation
SANS 6144	Permitted explosives: Velocity of detonation
SANS 6146	Permitted explosives: Water resistance
SANS 6147	Permitted explosives: Gap sensitivity
SANS 6148	Permitted explosives: Low temperature sensitivity
SANS 6149	Permitted explosives: Density
SANS 6146	Permitted explosives: Water resistance
SANS 9001	Quality management systems - Requirements
SANS 10228	The identification and classification of dangerous goods for transport
SANS 10229-1	Transport of dangerous goods - Packaging and large packaging for road and rail transport Part 1: Packaging
SANS 10229-2	Transport of dangerous goods - Packaging and large packaging for road and rail transport Part 2: Large Packaging
SANS 10232-1	Transport of dangerous goods - Emergency information systems Part 1: Emergency information system for road transport
SANS 10232-2	Transport of dangerous goods - Emergency information systems, Part 2: Emergency information system for rail transport
SANS 10233	Transport of dangerous goods - Intermedia the bulk containers
SANS 10313	The protection of structures against lightning
SANS 10325 -1	The safe application of detonator systems for use in mining and civil blasting applications Part 1: Electronic detonator systems
SANS 10325-2	The safe application of detonator systems for use in mining and civil blasting applications, Part 2: Electric detonator systems - Shot exploder based
SANS 1600	Permitted electric detonators
SANS 17025	General requirements for the competence of testing and calibration laboratories

SANS 1717-1	Part 1 : Electronic initiation systems. The design of detonator initiation systems for use in mining and civil blasting applications
SANS 1717-2	The design and approval of detonator initiation systems for use in mining and civil blasting applications - Part 2: Electric initiation systems - Shot exploder based
SANS 53763 - 16	Explosives for civil uses - Detonators and relays Part 16: Determination of delay accuracy
SANS 53763 - 18	Explosives for civil uses - Detonators and relays Part 18: Determination of series firing current of electric detonators
SANS 53763 - 20	Explosives for civil uses - Detonators and relays Part 20: Determination of total electrical resistance of electric detonators

International publications:

ICAO Instructions	Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code	International Maritime Dangerous Goods Code
UN Recommendations	Recommendations on the Transport of Dangerous Goods - Model Regulations
UN Test Manual	Recommendations on the Transport of Dangerous Goods - Manual of Tests and Criteria
UN Default list	Default list for the classification of fireworks

European Standards

EN 13763-1	Explosives for civil uses - Detonators and relays - Part 1: Requirements
CEN/TC 321/WG 4 N 478 (N 431) EN 13763-2	Explosives for civil uses - Detonators and relays Part 2 : Determination of thermal stability
CEN/TC 321/WG 4 N 479 (N 432) EN 13763-3	Explosives for civil uses - Detonators and relays Part 3 : Determination of sensitiveness to impact
CEN/TC 321/WG 4 N 502 (N 471) EN 13763-4	Explosives for civil uses - Detonators and relays Part 4 : Determination of resistance to abrasion of leading wires and shock tubes
CEN/TC 321 N 384 EN 13763-5	Explosives for civil uses - Detonators and relays Part 5 : Determination of resistance to cutting damage of leading wires and shock tubes
CEN/TC 321/WG 4 N 453 (N 374) EN 13763-6	Explosives for civil uses - Detonators and relays Part 6 : Determination of resistance to cracking in low temperatures of leading wires
CEN/TC 321/WG 4 N 454 (N 361) EN 13763-7	Explosives for civil uses - Detonators and relays Part 7 : Determination of the mechanical strength of leading wires, shock tubes, connections, crimps and closures

CEN/TC 321/WG 4 N 455 (N 370) EN 13763-8	Explosives for civil uses - Detonators and relays Part 8 : Determination of the resistance to vibration of plain detonators
CEN/TC 321/WG 4 N 477 EN 13763-9	Explosives for civil uses - Detonators and relays Part 9 : Determination of resistance to bending of detonators
CEN/TC 321/WG 4 N 458 (N 364) EN 13763-11	Explosives for civil uses - Detonators and relays Part 11 : Determination of resistance to damage by dropping of detonators and relays
CEN/TC 321/WG 4 N 450 (N 296) EN 13763-12	Explosives for civil uses - Detonators and relays Part 12 : Determination of resistance to hydrostatic pressure
EN 13763-13	Explosives for civil uses - Detonators and relays Part 13 : Determination of resistance of electric detonators to electrostatic discharge
EN 13763-17	Explosives for civil uses - Detonators and relays Part 17 : Determination of no fire current of electric detonators
EN 13763-26	Explosives for civil uses - Detonators and relays Part 26 : Definitions, methods and requirements for devices and accessories for reliable and safe function of detonators and relays.
EN 13763-27	Explosives for civil uses - Detonators and relays Part 27: Definitions, methods and requirements for electronic initiation systems

Other publications

MIL- STD- 331 B Superseding MIL- STD- 331 A	Environmental and performance tests for fuze and fuze components
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LICE SERVICE
EXPLOSIVES UNIT

CHIEF INSPECTOR OF EXPLOSIVES

EXPLOSIVES AUTHORISATION CERTIFICATE

CERTIFICATE NUMBER

ZA-X

Product Name:
Proper Shipping Name:
SIN/UN Number:
UN Classification Code:
Packaging Certification:
Manufacturer:
References:
Date Issued:

.....
CHIEF INSPECTOR OF EXPLOSIVES

.....
* Denotes: Year the packaging is manufactured

Classification of an article or substance is based on the guidelines provided in terms of the following:

South African documents:

- Explosives Act, 2003 (Act No. 15 of 2003) and Regulations
- SANS 10228: The identification and classification of dangerous substances and goods

International documents:

- United Nations Recommendations on the Transport of Dangerous Goods - Manual of Tests and Criteria
- United Nations Recommendations on the Transport of Dangerous Goods - Model Regulations
- International Air Transport Association - Dangerous Goods Regulations
- International Maritime Dangerous Goods Code

Annexure "M"

LIST OF AUTHORISED EXPLOSIVES

1. The list of authorised explosives is compiled in terms of section 1 of the Act and regulations 2(1) and 73 of the Explosives Regulations.
2. The list is organised in alphabetical order per manufacturer.
3. An updated list will be published in a Government Gazette quarterly, if new additions were made.
4. The current list is inclusive but not limited to the products listed.
5. An 'A' after the ZA-X number indicates an amendment to a previous authorisation.

Product name	Proper shipping name	UN number	Class and Division	ZA-X number
African Explosives Limited, Modderfontein				
Booster <ul style="list-style-type: none"> • Booster 30 g • Booster 60 g • Booster 150 g • Booster 175 g for Smartdet • Booster 250 g • Booster 400 g • Booster 400 g for Smartdet • Booster 800 g for Smartdet 	Boosters without detonator	UN 0042	1.1D	193
Carrick Statsafe <ul style="list-style-type: none"> • Delay 0 • Delay 2 • Delay 3 • Delay 4 • Delay 5 • Delay 6 • Delay 7 • Delay 8 	Detonators, electric for blasting	UN 0030	1.1B	194
Detonators non-electric <ul style="list-style-type: none"> • Handimaster • T & D - Detonator • Downhole - Short Period Delay • Downhole - Long Period Delay 	Detonators, non-electric for blasting	UN 0029	1.1B	196
Detonating Relays <ul style="list-style-type: none"> • Relay 12ms - Blue • Relay 25ms - Green • Relay 40ms - Red 	Detonators, non-electric for blasting	UN 0029	1.1B	195
Ezicord™ 5 g/m	Cord, detonating flexible	UN 0065	1.1D	143
Ezicord™ 6 g/m	Cord, detonating flexible	UN 0065	1.1D	124
Ezicord™ 10 g/m	Cord, detonating flexible	UN 0065	1.1D	125
Ezicord, Cobracord, Powercord, Cordtex <ul style="list-style-type: none"> • Ezicord 5 - 5 g/m Green • Cobracord - 6 g/m Orange • Powercord - 8 g/m Blue • Cordtex 10 - 10 g/m Yellow • Ezicord 10 - 10 g/m Blue • Cordtex 40 - 40 g/m Yellow 	Cord, detonating flexible	UN 0065	1.1D	144
Fuse Igniters	Igniters	UN 0315	1.3G	148A
Hotshot™ and SmartShot Electronic Detonators (with cable length 15 metre and longer)	Detonator, electric for blasting	UN 0456	1.4S	213A
Hotshot™ Electronic Detonator	Detonator, electric for blasting	UN 0030	1.1B	229
QuickShot - NetStart	Igniters	UN 0325	1.4S	237

Igniters <ul style="list-style-type: none"> • Blasting Current Indicator • Shurstart • Vulcan Fusehead Assemblies • 3G Fusehead 	Igniters	UN 0454	1.4S	235A
Igniters <ul style="list-style-type: none"> • Blasting Current Indicators • Shurstart • Vulcan Fusehead assemblies (with wire lengths of 1,8m; 3,0m; 3,6m 5,0m) 	Igniters	UN 0454	1.4S	300
Igniter cord <ul style="list-style-type: none"> • Stopeline 9 (Purple color) • Stopeline (Red color) • Duraline (Green color) • Slowline (Ivory color) 	Cord, igniter	UN 0066	1.4G	301A
Instantaneous Electric Detonator	Detonators, electric for blasting	UN 0030	1.1B	198
Megaprime™ 185 g	Boosters, without detonator	UN 0042	1.1D	96
Megaprime™ 420 g	Boosters, without detonator	UN 0042	1.1D	97
Shock Tube Detonator Assembly <ul style="list-style-type: none"> • Benchmaster • Handimaster Surface • Handimaster Underground • Handimaster Trunkline Delay • Tunnelmaster Assembly • Stopemaster Assembly • Noisemaster Trunkline Delay • Noisemaster Lead-in • Reefmaster Assembly 	Detonator assemblies, non-electric for blasting	UN 0360	1.1B	197A
StopePac™ (Capped fuse and igniter cord in single pack)	Detonator assemblies, electric for blasting	UN 0360	1.1B	212
Boekool A, t/a Pyrobat Products, Pretoria				
Granitex and Sannadex	Black powder granular or as a meal	UN 0027	1.1 D	231A
Bulk Mining Explosives (Pty) Ltd, Bryanston				
Deltadet ® (27 metres and longer)	Detonators, electric for blasting	UN 0456	1.4S	151
Delta Booster	Boosters without detonator	UN 0042	1.1D	176
Maxfuse™ Capped Fuse Assemblies	Detonators assemblies, non-electric for blasting	UN 0360	1.1B	247
Maxline™ Igniter Cord	Cord, igniter	UN 0066	1.4G	248
Seismic Star II, Aluminum Electric Detonator	Detonators, electric for blasting	UN 0030	1.1B	266
Denel (Pty) Ltd, Aerospace Systems, Irene				

Fuze Air Force M813M2	Fuzes, Detonating with protective features	UN 0408	1.1D	257
Missile 127mm <ul style="list-style-type: none"> • HEAT (Ingwe) • Telemetry (Ingwe) • Prac (Ingwe) 	Rockets with bursting charge	UN 0181	1.1E	252
Solid Fuel Motor for Raptor	Rocket motors	UN 0186	1.3C	297
Umkhonto IR SAM (Frag)	Rockets with bursting charge	UN 0081	1.1E	220
Umkhonto IR SAM (Launch Prac)	Rockets with inert head	UN 0183	1.3C	271
Umkhonto IR SAM (Tel)	Rockets with bursting charge	UN 0181	1.1E	221
Warhead Penetration/-Fragmentation (Glide Bomb)	Bombs with bursting charge	UN 0034	1.1D	253
Denel (Pty) Ltd, Denel Land Systems Lyttelton, Centurion				
Pyro Gas Generator	Cartridges, power device	UN 0323	1.4S	292
Denel (Pty) Ltd, Denel Land Systems - Western Cape				
60mm Mortar Bomb Coloured Smoke M0429A1 (Yellow, Red, Orange, Blue, Green)	Ammunition, smoke with or without burster, expelling charge or propelling charge	UN 0016	1.3G	245
60mm Mortar Bomb Illuminating M2007A2	Ammunition, illuminating with or without burster, expelling charge or propelling charge	UN 0254	1.3G	246
155mm Velocity-Enhanced Long Range Artillery Projectile (VLAP)	Articles, explosive, n.o.s. (Velocity-Enhanced Projectile)	UN 0464	1.1E	116
Boron Potassium Nitrate Igniter Pellets (BKNO ₃)	Igniters	UN 0315	1.3G	159
Boulder Buster Cartridge Rimfire Boulder Buster Booster Cartridge	Cartridges, power device	UN 0323	1.4S	239
Cartridge 7,62 x 51mm M5A for Rifle Grenade M791, M811, M8518 and M1	Cartridges for weapons, blank	UN 0327	1.3C	230
Cartridge 8-gauge Kiln Solid Slug <ul style="list-style-type: none"> • Zinc • Lead 	Cartridges, small arms	UN 0012	1.4S	145
Cartridge 37mm Aerial Sonic 70m & 140m	Cartridges, flash	UN 0050	1.3G	201
Cartridge 37mm Anti-Riot Plastic Shot	Cartridges for weapons, inert projectile	UN 0417	1.3C	200
Cartridge 37mm Baton Reduced Charge M2A1	Cartridges for weapons, inert projectile	UN 0339	1.4C	133
Cartridge 37mm Practice M9913A1	Cartridges for weapons, inert projectile	UN 0339	1.4C	132

Cartridge 60mm Mortar Bomb Illuminating M2007A1	Ammunition, illuminating with or without burster, expelling charge or propelling charge	UN 0254	1.3G	139
Cartridge 81mm Mortar Illuminating M9769A2	Ammunition, illuminating with or without burster, expelling charge or propelling charge	UN 0254	1.3G	138
Cartridge Irritant 37mm Anti-Riot	Ammunition, tear producing with burster, expelling charge or propelling charge	UN 0018	1.2G	199
Cartridge Shotgun 12 Gauge <ul style="list-style-type: none"> • Shot Sizes 1 - 9 • Super 24g Shot Size 7, 7.5, 8 & 9 • Super 32g Shot Size 7, 7.5, 8 & 9 • AAA • SSG • SG • LG • Single Ball Baton • Double Ball Baton • Rifled Slug (Penetrator) 	Cartridges, small arms	UN 0012	1.4S	146A
Charge Propelling 105mm High Charge XM24A#	Charges, propelling, for cannon	UN 0242	1.3C	209
Charge Propelling 105mm Top Charge XM21A#	Charges, propelling, for cannon	UN 0242	1.3C	182
Composition C4	Explosive, blasting, type D	UN 0084	1.1D	154
Detonator M563A1	Detonators for ammunition	UN 0366	1.4S	282
Explosive Reactive Armour (ERA)	Articles, explosive, n.o.s (Explosive reactive armour)	UN 0463	1.1D	205
Flare, Hand Held Signal White	Signal device, hand	UN 0191	1.4G	131
Flare Trip Surface MK2	Flares surface	UN 0092	1.3G	284
Fuze Grenade Percussion M8524-A4; -A12 & -A2	Fuzes, detonating	UN 0316	1.3G	250A
Fusehead Electric M15A1	Igniters	UN 0315	1.3G	158
Grenade Hand Coloured Smoke	Ammunition, smoke with or without burster, expelling charge or propelling charge	UN 0303	1.4G	157
Grenade Hand HE M26	Grenades hand, with bursting charge	UN 0284	1.1D	156
Grenade Hand Illuminating M9143A2	Ammunition, illuminating with or without burster, expelling charge or propelling charge	UN 0254	1.3G	136
Grenade Hand Practice M26	Grenades, practice hand or rifle	UN 0318	1.3G	244A

Grenade Hand Red Phosphorous M849A2 Grenade Hand Smoke M0251A1	Ammunition, smoke with or without burster, expelling charge or propelling charge	UN 0016	1.3G	208A
Grenade Hand Stun M1 A3	Articles, pyrotechnic for technical purposes	UN 0430	1.3G	149
Generator Smoke Cloud Seeding	Articles, pyrotechnic for technical purposes	UN 0430	1.3G	251
Generator Smoke Electric Red Flat Pack	Signals, smoke	UN 0197	1.4G	206
Generator Smoke Electric Red Type-E	Signals, smoke	UN 0197	1.4G	207
Ground Maroon 75mm	Articles, pyrotechnic for technical purposes	UN 0430	1.3G	129
Igniter M693A1 for Base Bleed Motor	Igniters	UN 0325	1.4G	135
Illuminating IR XM0236A3 Candle Assembly	Articles, pyrotechnic for technical purposes	UN 0430	1.3G	203
Initiator M48A1 & M636A1	Igniters	UN 0454	1.4S	285A
Pellet Tracer 20mm • Pellet tracer 20mm type APCT. • Pellet tracer 20mm type 820A	Tracers for ammunition	UN 0212	1.3G	160
Plastic Explosive No. 4	Explosive, blasting, type D	UN 0084	1.1D	202
Plofadder 70AP Minefield Breaching System	Articles, explosive, n.o.s. (Mine breaching system)	UN 0464	1.1E	236
Propellant Grain S0181 With BKNO ₃ Pellet Propellant Grain S0181	Articles, explosive, n.o.s. (Propellant grain S0181 with BKNO ₃ Pellet) or (Propellant grain S0181)	UN 0349	1.4S	258A
Propellant SCB 16 & 21	Charges, propelling	UN 0272	1.3C	263
Railway Detonators	Signals, railway track, explosive	UN 0193	1.4S	281
Red Hand Flare MK IV	Signal devices, hand	UN 0191	1.4G	134
Relay Transfer Tube and Pellet Relay	Charges, bursting, plastics bonded	UN 0460	1.4S	283
Round 40mm • Target Marker M8410A4 Orange - LV • Smoke White - LV • Smoke Orange - LV • Smoke Green - LV • Smoke Red - LV	Ammunition, smoke with or without burster, expelling charge or propelling charge	UN 0016	1.3G	217
Round 40mm • Practice M8902A2 HV • Practice Tracer M9914A1 HV • Target Practice M9426A2 HV	Cartridges for weapons, inert projectile	UN 0328	1.2C	161A

Round 40mm A/riot Irritant Smoke Commercial	Ammunition, smoke with or without burster, expelling charge or propelling charge	UN 0016	1.3G	165
Round 40mm Baton (Commercial)	Cartridges for weapons, inert projectile	UN 0417	1.3C	162
Round 40mm HE DP M9115A1	Cartridges for weapons with bursting charge	UN 0006	1.1E	164
Round 40mm HE M848A4	Cartridges for weapons with bursting charge	UN 0006	1.1E	163
Round 40mm HE M8842A2 HV	Cartridges for weapons with bursting charge	UN 0006	1.1E	167
Round 40mm HE M9219A2 HV	Cartridges for weapons with bursting charge	UN 0006	1.1E	166
Round 40mm Practice (Commercial)	Cartridges for weapons, inert projectile	UN 0417	1.3C	170
Round 40mm Practice Tracer M9914A1 HV	Cartridges for weapons, inert projectile	UN 0417	1.3C	174
Screening Smoke XM2002A2 Payload Assembly	Signals, smoke	UN 0487	1.3G	204
Shell 155mm Illuminating <ul style="list-style-type: none"> • Illuminating M2003A1 • Illuminating M9606A1 • Illuminating BE XM2003A2 with boat-tail • Illuminating Infrared BE XM0236A4 with boat-tail • Illuminating M2003A1 with motor, base bleed 155mm, XM0248A1 	Ammunition, illuminating with or without bursters, expelling charge or propelling charge	UN 0254	1.3G	178A
Shell 105mm Illuminating BE M0102A1	Ammunition, illuminating with or without burster, expelling charge or propelling charge	UN 0254	1.3G	175
Shell 155mm Red Phosphorous <ul style="list-style-type: none"> • Red Phosphorus XM9605A1 • Red Phosphorus XM2004A1 • Red Phosphorus BE XM2004A2 with boat-tail 	Ammunition, smoke with or without burster, expelling charge or propelling charge	UN 0016	1.3G	181A
Shell 155mm Screening Smoke <ul style="list-style-type: none"> • Screening Smoke XM2002A2 with motor, Base Bleed XM0248 • Screening Smoke BE M9755A1 • Screening Smoke BE M9607A1 • Screening Smoke M2002A1 • Screening Smoke Practice XM2002A3 with motor, Base Bleed XM0248 	Ammunition, smoke with or without burster, expelling charge or propelling charge	UN 0016	1.3G	179A
Shell 105mm Screening Smoke BE XM0101A	Ammunition, smoke with or without burster, expelling charge or propelling charge	UN 0016	1.3G	177

Shell 155mm Screening Smoke Practice	Ammunition, smoke with or without burster, expelling charge or propelling charge	UN 0016	1.3G	180
Simulator Battle Noise M9819A1	Articles, pyrotechnic for technical purposes	UN 0430	1.3G	291
Solid Rocket Propellant	Charges, propelling	UN 0272	1.3C	290
SPX-1	Cyclotrimethylenetrinitramine (Cyclonite; Hexogen; RDX), desensitized	UN 0483	1.1D	286
STE Propellant	Powder, smokeless	UN 0161	1.3C	214
Tandem Anti-Tank Warhead Model XM 9901A1	Warheads, rocket with bursting charge	UN 0286	1.1D	117
Trip-Wire Infrared Illumination M0233 A1	Flares, surface	UN 0092	1.3G	128
Denel (Pty) Ltd, Naschem, Potchefstroom				
60 mm Primary Cartridge	Cartridges for weapons, blank	UN 0327	1.3C	289
81mm Primary Cartridge	Cartridges for weapons, blank	UN 0327	1.3C	267
Adaptor, Exploder, Bomb, Nose M148 Adaptor, Exploder, Bomb, Tail M150	Charges, supplementary, explosive	UN 0060	1.1D	293
Bomb A/C 120kg HE MC LD M1A1 Bomb A/C 120kg HE Shrapnel LD M8837	Bombs with bursting charge	UN 0034	1.1D	295
Bomb A/C 250kg HE MC LD Bomb A/C 250kg HE Shrapnel LD M8828	Bombs with bursting charge	UN 0034	1.1D	296
Booster M641A*	Charges, supplementary, explosive	UN 0060	1.1D	308

Booster MK352	Boosters without detonator	UN 0042	1.1D	262
Booster Pellet V9	Charges, supplementary, explosive	UN 0060	1.1D	314
Booster Relay V9/V19P	Boosters without detonator	UN 0042	1.1D	313
Cartridge 60mm Mortar - HE	Cartridges for weapons with bursting charge	UN 0006	1.1E	173
Cartridge 81mm Mortar HE <ul style="list-style-type: none"> • M0231 A1 Fuzed Prox M9815 A2 • M0221 A1 Fuzed M935 	Cartridges for weapons with bursting charge	UN 0321	1.2E	153
Cartridge 81mm Mortar - HE	Cartridges for weapons with bursting charge	UN 0006	1.1E	171
Cartridge 60mm Mortar Smoke	Ammunition, smoke with or without burster, expelling or propelling charge	UN 0015	1.2G	172
Cartridge 81mm Mortar Smoke Bursting WP	Ammunition, smoke, white phosphorus with burster, expelling charge or propelling charge	UN 0245	1.2H	152
Cartridge 88mm Blank	Cartridges for weapons, blank	UN 0326	1.1C	269
Cartridge Disrupter IED 9g M8965A2	Cartridges, power device	UN 0323	1.4S	315
Charges Secondary 81MM, AR2205	Charges, propelling, for canon	UN 0242	1.3C	268
Delay Element M589 A1 (For Air Transport)	Detonators for ammunition	UN 0366	1.4S	113

Detonators <ul style="list-style-type: none"> • Detonator M519A* (Electrical) • Detonator M520A* (Electrical) • Detonator M518A* (Stab Sensitive) • Detonator MK59 Mod. 0 • Primer M104 (Stab Sensitive) 	Detonators for ammunition	UN 0366	1.4S	211
Detonator 29A (Intermediate)	Detonators for ammunition	UN 0073	1.1B	312
Detonator 103 (Stab sensitive)	Detonators for ammunition	UN 0073	1.1B	311
Detonators No 103 (For Air Transport)	Detonators for ammunition	UN 0366	1.4S	112
Detonators M518A1, M519A2 and MK 59 MOD 0 Primer M104	Detonators for ammunition	UN 0366	1.4S	260
DPX-2 Type I and II	HMX, desensitized	UN 0484	1.1D	277
Fuze A/C Bomb Nose SA771 M3 & M4	Fuzes, detonating with protective features	UN 0408	1.1D	294
Fuze A/C Bomb Tail SA772 M3 & M4	Fuzes detonating	UN 0367	1.4S	305
Fuze PD M9119A1	Fuzes, detonating with protective features	UN 0408	1.1D	184
Fuze V19-P	Fuzes, detonating with protective features	UN 0408	1.1D	114
Grenade Mortar 120mm M0310A1	Cartridges for weapons with bursting charge	UN 0006	1.1E	259

Non-Electric Detonator and delay Detonator <ul style="list-style-type: none"> • Non-Electric Detonator SA770 M1A1 Non-Delay • Non-Electric Delay Detonator SA770 Delay R1M1 (0.010sec.) • Non-Electric Delay Detonator SA770 Delay R1M1 (0.025sec.) • Non-Electric Delay Detonator SA770 Delay R1M1 (0.160sec.) • Non-Electric Delay Detonator SA770 Delay R1M1 (0.250sec.) 	Detonators for ammunition	UN 0366	1.4S	304
Shell 105mm <ul style="list-style-type: none"> • 105mm IHE PFF ZM0125A* BT • 105mm HE XM2019A1 BT • 105mm HE PFF XM2020A* BT 	Projectiles with bursting charge	UN 0168	1.1D	224
Shell 105mm <ul style="list-style-type: none"> • 105mm IHE PFF XM0125A* BB • 105mm HE XM2019A1 BB 	Articles, explosive, n.o.s. (Projectiles with bursting charge and propelling charge)	UN 0464	1.1E	225
Shell 105mm XM0125A1 PFF Prac Inert, Base Bleed	Articles, explosive, n.o.s. (Projectiles, inert, with base bleed)	UN 0470	1.3C	186
Shell 155mm <ul style="list-style-type: none"> • 155mm IHE SM0121A* BT • Warhead 155mm IHE V-LAP PFF XM0256A* (no motor) 	Projectiles with bursting charge	UN 0168	1.1D	223
Shell 155mm <ul style="list-style-type: none"> • Cluster HE HC M9604A*(BT) • Cluster HE HC M9604A*(BB) • Cluster Prac M9604A*(BT) • Cluster Prac M9604A*(BB) 	Projectiles with bursting or expelling charge	UN 0346	1.2D	303
Shell 155mm IHE XM0121A* BB	Articles, explosive, n.o.s. (Projectiles with bursting charge and propelling charge)	UN 0464	1.1E	222
Shell 155mm XM0121A* Prac BT	Projectiles with bursting charge	UN 0169	1.2D	310

Shell 155mm XM 2000 Practice Boattail	Projectiles with bursting charge	UN 0169	1.2D	188
Shell 105mm XM2019A2 Prac, Base Bleed	Articles, explosive, n.o.s. (Projectiles, inert, with base bleed)	UN 0470	1.3C	187
Shell 155mm XM 2000 A4 Prac Base Bleed	Articles, explosive, n.o.s. (Projectiles with bursting charge and base bleed)	UN 0468	1.2E	192
Shell 155mm XM 0121 A15 Prac Base Bleed	Articles, explosive, n.o.s. (Projectiles with bursting charge and base bleed)	UN 0468	1.2E	191
Shell 155mm XM 2000 Prac with Inert Base Bleed	Projectiles with bursting charge	UN 0169	1.2D	189
Shell 155mm XM 0121 A17 Prac Inert, Base Bleed	Articles, explosive, n.o.s. (Projectiles inert with base bleed)	UN 0470	1.3C	190
Shell 105mm XM2019A2 Prac Inert, Base Bleed	Articles, explosive, n.o.s. (Projectiles, inert, with base bleed)	UN 0470	1.3C	185
TNH	Trinitrotoluene and hexanitrostilbene mixture	UN 0388	1.1D	307
Tube Percussion M82A2	Primers, tubular	UN 0319	1.3G	183
Denel (Pty) Ltd, PMP (Pretoria Metal Pressings), Pretoria				
30mm HEI Ammunition	Cartridges for weapons with bursting charge	UN 0007	1.2F	155
30mm Projectiles with Hexal P30	Projectiles with burster or expelling charge	UN 0426	1.2F	168
Cartridges <ul style="list-style-type: none"> • Round 20 x 139mm TP-T (RRR) M2015A1 • Round 30mm Prac M0242A1 • Round 35 x 228mm Practice 	Cartridges for weapons, inert projectile	UN 0339	1.4C	227A
Cartridge Case 20 x 139mm with Primer DM64	Cases, cartridge, empty, with primer	UN 0055	1.4S	302

Cartridges, Small Arms <ul style="list-style-type: none"> • .375 H&H Magnum • .223 Remington • .222 Remington • 7.65mm (.32 ACP) • .357 Magnum semi-jacket • 270 Winchester • 30-60 Springfield • 7 x 64 mm • .303 British • 7 x 57 Mauser • .38 Special semi-jacket • .300 Win. Mag. • 7mm Rem. Magnum • .458 Win. Mag. • 9.3 x 62mm • .22-250 Remington • 9mm Short • 6.35mm (.25 ACP) • .44 Rem. Mag. • .40 Smith & Wesson • .38 Special Shot • .308 Win • 6mm Musgrave • .243 Winchester 	Cartridges, small arms	UN 0012	1.4S	272
Cartridge Stores Release ARD 446 & ARD 863	Cartridges, power device	UN 0276	1.4C	241
DDNP	Diazodinitrophenol, wetted with not less than 40% water or mixture of alcohol and water, by weight	UN 0074	1.1A	288
Detonating Cord	Cord, detonating, mild effect metal clad	UN 0104	1.4D	210
Detonator M612A1	Detonators, non electric for blasting	UN 0455	1.4S	243
Explosive Bolts Long, Short and Mopsow	Cartridges, power device	UN 0381	1.2C	256
Fire Extinguisher Cartridges <ul style="list-style-type: none"> • B1A • A716 / A718 / A719 • BK117 	Cartridges, power device	UN 0323	1.4S	274
Percussion caps (all types)	Primers, cap type	UN 0044	1.4S	99
Primer DM64	Primer, tubular	UN 0376	1.4S	273
Primer Percussion M551A1	Primers, cap type	UN 0378	1.4B	215
Re-Arming Cartridge	Cartridges for weapons, blank	UN 0014	1.4S	255
Rocket Motor	Rocket motors	UN 0186	1.3C	275

Round 12,7 x 99mm • Ball M1A8 (Boxer) • Ball (Boxer) • Tracer M2A6 (Boxer M33) • Tracer (Boxer) • Pele	Cartridges, small arms	UN 0012	1.4S	118A
Round 12,7 x 99mm Tracer M2A6 (Boxer M33) Round 12,7 x 99mm Tracer (Boxer)	Cartridges, small arms	UN 0012	1.4S	119
Round 20X139mm HEI-T	Cartridges for weapons with bursting charge	UN 0007	1.2F	169
Round 20 x 139mm TP-T (RRF) M2015A1	Ammunition, practice	UN 0362	1.4G	123
TLX - Transmission Lines	Substances, Explosive, n.o.s. (TLX - Transmission Line)	UN 0481	1.4S	287
Seat Ejection System Cartridges	Cartridges, power device	UN 0276	1.4C	240
Detnet South Africa (Pty) Ltd, Modderfontein				
QuickShot™ Electronic Detonator	Detonators, electric for blasting	UN 0456	1.4S	270
QuickShot - NetShock	Detonators, electric for blasting	UN 0030	1.1B	254
Eco-Break (Pty) Ltd, Rustenburg				
Eco-Break Cartridge with Electric Igniter • 15mm - 16g • 27.5mm - 30g, 60g, 90g • 33mm - 140g • 42mm - 220g with Non Electric Shock Tube Igniter • 42mm - 220g	Articles, pyrotechnic for technical purposes	UN 0432	1.4S	265
Ensign-Bickford (Pty) Ltd, Bronkhorstspuit				
Primadet ® MS Delay and NTD (A-box)	Detonator assemblies, non-electric for blasting	UN 0500	1.4S	106
EZ™ Trunkline (B-box)	Detonator assemblies, non-electric for blasting	UN 0500	1.4S	107
EZ™ Trunkline (A-box)	Detonator assemblies, non-electric for blasting	UN 0500	1.4S	108
Primadet MS Delay and NTD (A-box)	Detonator assemblies, non-electric for blasting	UN 0361	1.4B	126
Fuchs Electronic (Pty) Ltd, Alberton				
Fuzes, Detonating for Mortars	Fuzes, detonating with protective features	UN 0409	1.2D	219

Industrial Cartridge (Pty) Ltd, Cape Town				
Boulder Buster Cartridge Rimfire and Booster	Cartridges, power device	UN 0323	1.4S	278
imPafa Technologies (Pty) Ltd, Boksburg				
Gift™ Safety Cartridge	Articles, pyrotechnic for technical purposes	UN 0432	1.4S	238
Lakho Mining Services, Westonaria				
LK™ Stoper Shock Tube Detonator Assemblies	Detonator assemblies, non-electric for blasting	UN 0360	1.1B	249
Yunnan Shock Tube Detonator Assemblies (SK Stoppers)	Detonator assemblies, non-electric for blasting	UN 0360	1.1B	280
Loulen Manufacturing Enterprises CC, Turffontein, Johannesburg				
Pyro Gas Generator	Cartridges, power device	UN 0323	1.4S	309
MAXPLO (Pty) Ltd, Kelvin				
Maxibooster	Boosters without detonator	UN 0042	1.1D	141
Nobleteq Arms and Ammunition (Pty) Ltd, Centurion				
Ro-bust™ Cartridge	Cartridges, power device	UN 0323	1.4S	233
Northern Explosives CC, Nelspruit				
Maxnel™ Detonator Steel and Aluminium	Detonator assemblies, non-electric for blasting	UN 0360	1.1B	216A
Maxpan	Explosive, blasting, type B	UN 0082	1.1D	261

<i>NXCO Mining Technologies (Pty) Ltd, Pelindaba</i>				
Nonex • 28mm diameter cartridge range: • 2028 - 20 g • 4028 - 40 g • 6028 - 60 g • 8028 - 80 g • 10028 - 100 g • 12028 - 120 g • 34mm diameter cartridge range: • 2034 - 20 g • 4034 - 40 g • 6034 - 60 g • 8034 - 80 g • 10034 - 100 g • 12034 - 120 g • 14034 - 140 g • 16034 - 160 g • 18034 - 180 g • 60mm diameter cartridge range: • 20060 - 200 g • 25060 - 250 g • 30060 - 300 g • 35060 - 350 g • 40060 - 400 g • 45060 - 450 g • 50060 - 500 g	Articles, pyrotechnic for technical purposes	UN 0432	1.4S	137
Maxfire™ Shock Tube Delay Igniter	Igniters	UN 0454	1.4S	279
<i>Orica South Africa (Pty) Ltd, Bronkhorstspuit</i>				
Subassembly of UNI Tronic™ Detonator	Igniters	UN 0325	1.4G	276
UNI Tronic™	Detonators, electric for blasting	UN 0030	1.1B	242
UNI Tronic™	Detonators, electric for blasting	UN 0456	1.4S	234A
<i>Pyrotech Mining Systems, Centurion</i>				
Cobex 101-A	Articles, pyrotechnic for technical purposes	UN 0430	1.3G	110
<i>Rekdal Dienste CC, Centurion</i>				
Dalex	Articles, pyrotechnic for technical purposes	UN 0430	1.3G	111
<i>Sasol Mining Initiators (Pty) Ltd, Randburg</i>				
UNI Tronic Electronic Detonators (longer than 6 metre cable)	Detonators, electric for blasting	UN 0456	1.4S	130
<i>Sasol Nitro (Pty) Ltd, Bronkhorstspuit</i>				
V-Coal / Explocoal	Explosive, blasting, type B	UN 0241	1.1D	264

Sasol Nitro (Pty) Ltd, Secunda				
Matrix™	Ammonium nitrate emulsion or suspension or gel, intermediate for blasting explosives	UN 3375	5.1E	142
DDS™ Emulsion	Ammonium Nitrate Emulsion or Suspension or Gel, intermediate for blasting explosives	UN 3375	5.1E	147
Truvelo Manufactures (Pty) Ltd, Midrand				
TRVM 12,7 x 99mm	Cartridges, small arms	UN 0012	1.4S	306
TRW Occupant Restraint South Africa Inc., Atlantis				
Passenger Airbag Module Thorax Airbag Module	Articles, pyrotechnic for technical purposes	UN 0432	1.4S	298A
Passenger Airbag Module Thorax Airbag Module	Air bag modules	UN 3268	9	299A
UEE - Dantex Explosives (Pty) Ltd, Roodepoort				
Firesplit	Explosive, blasting, type E	UN 0241	1.1D	109
Rioflex Matrix	Ammonium nitrate emulsion or suspension or gel, intermediate for blasting explosives	UN 3375	5.1E	150
Rio Boosters	Boosters without detonator	UN 0042	1.1D	218
Rioflex EXP	Ammonium nitrate suspension or gel, intermediate for blasting explosives	UN 3375	5.1E	228
Rio booster	Boosters without detonator	UN 0042	1.1D	232

Type of identification (Indicate with an x)	South African Identity Document		Passport	
Identity number of responsible person				
Passport number of responsible person				
Cellphone number				
Physical address				
	Postal code			
Business address				
	Postal code			
B. PARTICULARS OF PREMISES WHERE EXPLOSIVES ARE TO BE STORED AT AND SOLD FROM				
B1. PHYSICAL ADDRESS				
Number				
Street name				
Name of building/farm/plot/place				
Suburb/extension/area				
Town/City				
Province				
Nearest SAPS Community Service Centre				
B2. TYPE OF PREMISES (Indicate with an X)				
Business	Industrial	Plot/Farm	Other (Specify)	
B3. TYPE OF STORAGE FACILITY (Indicate with an X)				
Store	Movable magazine	Strongroom		
Lockable steel cabinet	Built magazine	Lockable glass counter		
Safe	Other (Specify below)			

B4. DESCRIPTION OF STORAGE FACILITY (eg. size, construction material)					
B5. ADDITIONAL SECURITY MEASURES TO PREVENT THEFT OF, OR UNAUTHORISED ACCESS TO EXPLOSIVES ON PREMISES (Indicate with an X)					
Alarm system with sensors		Armed response			
Burglar proofing at windows		Guards			
Security gates at doors		Electric fencing			
Other (Specify)					
A floor plan of the premises must be submitted in triplicate where explosives will be stored at business or industrial premises in terms of regulations 16, 18, 86, 96(2), 109 or 114. Magazine plans must be submitted in terms of regulation 33 for larger quantities than those specifically provided for in the Regulations.					
C. PARTICULARS OF EXPLOSIVES					
TYPE OF EXPLOSIVES (Indicate with an X)	UN CLASS	QUANTITY			
		Units	Cartons/Boxes	Gross Mass (kg)	Net explosives quantity (NEQ) (kg)
Consumer fireworks					
Display fireworks					
Stage/special effect pyrotechnics					
Model rocket motors					
Pyrotechnic signals					
Blank cartridges					
Industrial cartridges					
Smokeless powder					
Black powder					
Blasting explosives					
Blasting accessories					
Ammonium nitrate					

Igniters					
Air bag modules/inflators Seat-belt pretensioners					
Rock breaking cartridges (RBC)					
Other (Specify below)					

D. PARTICULARS OF SUPPLIER(S)

Registered name of supplier	
Physical address	
Explosives dealer's licence number	
Registered name of supplier	
Physical address	
Explosives dealer's licence number	
Registered name of supplier	
Physical address	
Explosives dealer's licence number	

E. DECLARATION BY APPLICANT

I am aware that it is an offence in terms of section 28(2)(d) of the Explosives Act, 2003 (Act No. 15 of 2003) to wilfully give false information to an inspector. I am further aware of all relevant sections and/or regulations of the Explosives Act, 2003 (Act No. 15 of 2003) pertaining to the explosives mentioned in this application.

The following documents are attached to this application where applicable and if not previously submitted for registration:
(Indicate with an X)

(1) Certified copy of the identity document of the responsible person as contemplated in regulations 3 and 4 of the Explosives Regulations.	Yes	No
(2) Certified copy of criminal record clearance certificate of the responsible person as contemplated in regulations 3 and 4 of the Explosives Regulations.	Yes	No
(3) Original letter of appointment of the responsible person on a letterhead of the juristic person and signed by both the responsible person and the manager/senior official of the juristic person.	Yes	No
(4) Certified copy of close corporation or company registration certificate.	Yes	No
(5) Certified copy to deal in firearms and ammunition issued in terms of the Firearms Control Act, 2000.	Yes	No
(6) Floor plan of premises indicating all entrances, exits, fire extinguishers, storage and retail areas (in triplicate).	Yes	No
(7) Original report from the local fire department in which compliance with applicable fire safety measures is certified.	Yes	No
(8) Inspection report from the local inspector of explosives (part of this form)	Yes	No

I certify that the information given on this form is true to the best of my knowledge.
I undertake to obtain a copy of all relevant sections and/or regulations of the Explosives Act, 2003 (Act No. 15 of 2003) as soon as a licence is granted and to furnish each employee engaged in selling explosives with a copy and of the conditions of the licence to deal.

Signature	Designation	
	Date	

F. FOR OFFICIAL USE BY THE LOCAL INSPECTOR OF EXPLOSIVES									
Physical address of business according to own observation:									
How many entrances and exits?									
Total floor space					m ²				
Facilities available for the safe storage of explosives (Indicate with an X)								Yes	No
Description of facilities									
Recommendation of application (Indicate with an X)					Recommended	Not recommended			
Comment									
Signature of inspector				Persal number					
				Rank, initials and surname					
Place:				Date:					
G. FOR OFFICIAL USE BY THE OFFICE OF THE CHIEF INSPECTOR									
Date received:				Date finalised					
Licence number:				Date issued:					
Disposal of original licence		Posted		Collected:		Date:			
Rank					Persal number				
Initial				Surname					
Signature of inspector					Official date stamp				

Annexure "O"

CERTIFICATION AND TRAINING OF PYROTECHNICIANS

Regulation 88(1)

1. Definitions

For the purpose of registration as a pyrotechnician, the following will mean-

"apprentice pyrotechnician" means a suitable person registered by the Chief Inspector to assist and work under the direct supervision and control of a pyrotechnician at an authorised fireworks display, theatrical performance or special effects production;

"fireworks pyrotechnician" means a suitable person registered by the Chief Inspector to conduct a public fireworks display and who is in possession of a valid permit to acquire, transport and use display fireworks;

"theatrical or stage effects pyrotechnician" means a suitable person registered by the Chief Inspector to use theatrical or stage pyrotechnics in close proximity of an audience during live performances;

"special effects pyrotechnician" means a suitable person registered by the Chief Inspector to use pyrotechnics and explosives at special effects productions.

2. Any person who intends to become a pyrotechnician must -

- (1) apply to the Chief Inspector for registration as an apprentice pyrotechnician and submit information required in terms of Regulation 3;
- (2) submit to an evaluation on his or her theoretical knowledge, relevant to explosives legislation and the type of pyrotechnics he or she intends to specialise in, as required by the Chief Inspector;
- (3) after being registered as an apprentice pyrotechnician, arrange to obtain sufficient practical experience in the use of pyrotechnics under the supervision of a registered pyrotechnician;
- (4) produce verifiable proof of such experience in a format contemplated in regulation 88(2) and submit to a further evaluation before being registered as a pyrotechnician.

3. Different types of pyrotechnicians and minimum requirements

FIREWORKS PYROTECHNICIANS	
Apprentice	<ul style="list-style-type: none"> ■ Must be at least 18 years old. ■ Must assist a Fireworks Pyrotechnician: Level 2, with all practical aspects regarding public fireworks displays at least 25 displays.
Fireworks Pyrotechnician: Level 1	<ul style="list-style-type: none"> ■ Must be at least 18 years old. ■ Authorised to be in charge of public fireworks displays where the services of not more than two assistants are required. ■ Authorised to acquire, transport and use display fireworks, with the following restrictions: <ul style="list-style-type: none"> - shells must not exceed 155mm diameter. ■ Must be in possession of a valid permit for every display. ■ Must conduct at least two (2) fireworks displays per year.
Fireworks Pyrotechnician: Level 2	<ul style="list-style-type: none"> ■ Must be at least 21 years old with a minimum of two years suitable experience on level 1. ■ Authorised to be in charge of public firework displays where the services of more than two pyrotechnicians are required. ■ Authorised to acquire, transport and use display fireworks without restriction. ■ Must be in possession of a valid permit for every display. ■ Authorised to supervise and train apprentice pyrotechnicians. ■ Must conduct at least five (5) fireworks displays per year.
THEATRICAL OR STAGE EFFECTS PYROTECHNICIANS	
Apprentice	<ul style="list-style-type: none"> ■ Must be at least 18 years old. ■ Must assist a Theatrical/Stage Effects Pyrotechnician: Level 2, with at least 25 performances if he or she intends to obtain Level 1 status. ■ Must assist a Theatrical/Stage Effects Pyrotechnician: Level 2, with at least five (5) performances if he or she intends to obtain Occasional Pyrotechnician status.

Theatrical/Stage Effects Pyrotechnician: Occasional	<ul style="list-style-type: none"> ■ Must be at least 18 years old. ■ Authorised to be in charge of theatrical/stage effects, fixed for a specific performance which runs continuously for a specific period. ■ Authorised to acquire, transport and use theatrical/stage effects with the following restrictions: <ul style="list-style-type: none"> - Firing pots or devices are situated at fixed locations on stage. - Only smoke puffs and stage gerbs may be used. ■ Must be in possession of a valid permit for every performance.
Theatrical/Stage Effects Pyrotechnician: Level 1	<ul style="list-style-type: none"> ■ Must be at least 18 years old. ■ Authorised to be in charge of theatrical/stage effects performances where pyrotechnics are used in close proximity of audiences or performers during live performances. ■ Must be in possession of a valid permit for every performance.
Theatrical/Stage Effects Pyrotechnician: Level 2	<ul style="list-style-type: none"> ■ Must be at least 21 years old with at a minimum of two years suitable experience on Level 1. ■ Authorised to be in charge of theatrical/stage effects performances as for Level 1. ■ Authorised to supervise and train apprentice pyrotechnicians. ■ Must be in possession of a valid permit for every performance.
SPECIAL EFFECTS PYROTECHNICIANS	
Apprentice	<ul style="list-style-type: none"> ■ Must be at least 18 years old. ■ Must assist a Special Effects Pyrotechnician: Level 2, with at least 50 productions if he or she intends to obtain Level 1 status.
Special Effects Pyrotechnician: Level 1	<ul style="list-style-type: none"> ■ Must be at least 18 years old. ■ Authorised to be in charge of special effects productions where the videotaping, audiotaping, filming, or digital recording of any television, radio or movie production takes place in close proximity of an audience with approved pyrotechnics. ■ Must be in possession of a valid permit for every performance.

Special Effects Pyrotechnician: Level 2	<ul style="list-style-type: none">■ Must be at least 21 years old with a minimum of two years suitable experience on Level 1.■ Authorised to be in charge of special effects productions where the videotaping, audiotaping, filming, or digital recording of any television, radio or movie production, involves the use of pyrotechnics with other dangerous goods.■ Authorised to supervise and train apprentice pyrotechnicians.■ Must be in possession of a valid permit for every performance.
Special Effects Pyrotechnician: Level 3	<ul style="list-style-type: none">■ Must be at least 25 years old with a minimum of five years experience as a registered blaster and Special Effects Pyrotechnician: Level 2.■ Authorised to use high explosives such as detonating cord with or without other dangerous goods, if approved by the Chief Inspector.

GUIDELINES FOR THE APPROVAL OF EXPLOSIVES DELIVERIES AT MINES

Regulation 42(2)

1. Purpose

The purpose of this document is to provide guidelines to mine managers to obtain continuous transport permits for the direct delivery of explosives by suppliers or manufacturers at -

- shaft delivery bays at underground mines; and
- benches, down-the-hole services and rapid reloading systems at opencast mines.

The mine manager must determine a dedicated area for explosives deliveries at each shaft or bench. When determining this area, it should be borne in mind that the supplier or manufacturer's explosives vehicle may contain deliveries for more than one mine, shaft or bench. Such consignments may be in excess of 30 000 kilograms of explosives, which pose a significant risk.

2. Applications for approval

A mine manager who intends to have explosives delivered directly to a shaft, bench, or as part of a down-the-hole service or rapid reloading system from an explosives supplier or manufacturer, must apply in writing for a continuous transport permit to the Chief Inspector.

2.1 Applications for explosives deliveries at shaft delivery bays by suppliers or manufacturers

The following documents must be submitted for approval of explosives deliveries at shaft delivery bays -

- (a) motivated application on the mine's letterhead, stating whether the shaft is within a 150 kilometres radius from the supplier or manufacturer, or if back-up explosives magazine facilities, licensed to the mine and maintained in accordance with chapters 8 and 9 of the Explosives Regulations, are available;
- (b) letter from the supplier or manufacturer, confirming that explosives magazines are available as back-up facilities to return undelivered explosives consignments from the mine to the supplier or manufacturer in the case of unplanned incidents such as labour unrest, accidents or disasters;
- (c) completed form as contained in Annexure "D";
- (d) site, construction and layout plans in triplicate as specified in regulation 34(1);
- (e) explosives delivery and lowering schedule;

- (f) written proof of risk assessment based security measures taken to prevent the unauthorised access to and possession or removal of explosives from the mine, as required in terms of regulation 4.1 of the Regulations issued under the Mine Health and Safety Act, 1996 (Act No. 29 of 1996);
- (g) written proof of procedures implemented and measures taken to ensure the safe and secure receipt, storage, issuing, transportation, use and destruction of explosives, as required in terms of regulation 4.2 of the Regulations issued under the Mine Health and Safety Act, 1996 (Act No. 29 of 1996); and
- (h) written consent by the Department of Minerals and Energy that it has no objection to the delivery of explosives at a shaft delivery bay on the specific mine.

2.2 Applications for bench deliveries, down-the-hole services or rapid reloading systems by explosives suppliers or manufacturers

The following documents must be submitted for approval of explosives deliveries at benches, for down-the-hole services or rapid reloading systems -

- (a) motivated application on the mine's letterhead, stating whether the opencast mine is within a 150 kilometres radius from the supplier or manufacturer, or if back-up explosives magazine facilities, licensed to the mine and maintained in accordance with chapters 8 and 9 of the Explosives Regulations, are available;
- (b) letter from the supplier or manufacturer, confirming that explosives magazines are available as back-up facilities to return undelivered explosives consignments from the mine to the supplier or manufacturer, in the case of unplanned incidents such as labour unrest, accidents or disasters;
- (c) completed form as contained in Annexure "D";
- (d) in the case of rapid reloading systems, site and layout plans in triplicate as specified in regulation 34(1);
- (e) written proof of risk assessment based security measures taken to prevent the unauthorised access to and possession or removal of explosives from the mine, as required in terms of regulation 4.1 of the Regulations issued under Mine Health and Safety Act, 1996 (Act No. 29 of 1996);
- (f) written proof of procedures implemented and measures taken to ensure the safe and secure receipt, storage, issuing, transportation, use and destruction of explosives, as required in terms of regulation 4.2 of the Regulations issued under the Mine Health and Safety Act, 1996 (Act No. 29 of 1996); and
- (g) written consent by the Department of Minerals and Energy that it has no objection to the delivery of explosives at the bench, for down-the-hole services, or rapid reloading systems at the specific mine.

3. **Specifications of and minimum requirements for a shaft delivery bay**

A dedicated shaft delivery bay must comply with the following requirements -

- (a) It must consist of a sheltered platform with sufficient drainage, to protect explosives against weather elements such as rain and direct sunlight;
- (b) The shelter must be of sufficient height to allow the covered unloading of delivery vehicles and loading of explosives carts;
- (c) Fencing as specified in Annexure "H" must be erected around the shaft delivery bay at least 10 metres from the corners of the shelter;
- (d) At least one SABS approved 9 kilogram capacity dry chemical powder fire extinguisher in good working order, must be attached to a corner post of the shelter;
- (e) At least one floodlight must be attached to one of the corner posts of the fence to provide sufficient light to the sheltered area during loading operations conducted between sunset and sunrise;
- (f) The structure must be adequately protected against lightning in accordance with SANS 10313;
- (g) Clear signs indicating items prohibited in terms of regulations 40(4) and 40(5) must be posted at the gates of the fenced area;
- (h) The words "EXPLOSIVES DELIVERY BAY" in English and another official language in block letters not less than 100 millimetres in height, must be marked in contrasting colours on a weather resistant sign and posted at the gates of the fenced area;
- (i) Two lockable gates must be installed with the fence at two opposite sides of the delivery area, one for the entrance of the vehicle and the other for the exit thereof; and
- (j) No "old explosives boxes" are allowed to be placed or stored inside the fenced area, but must be placed in a secure place at least 10 metres away from the fence of the shaft delivery bay.

4. **Specifications of and minimum requirements for bench deliveries, down-the-hole services and rapid reloading systems**

As bench deliveries and down-the-hole services are not of a static nature, no specifications are applicable. Rapid reloading may only take place from the dedicated area indicated on plans approved by the Chief Inspector.

5. **Delivery schedules**

The mine manager must compile a delivery schedule after consultation with the explosives manufacturer or supplier for each shaft stating -

- (a) the delivery day and time of explosives in Compatibility Groups C, D and E, such as blasting cartridges, boosters and ammonium nitrate blasting agents and their time of lowering into the shaft; and

- (b) the delivery day and time of explosives in Compatibility Group B and Classes 1.4S and 1.4G such as detonators and igniter cord, and their time of lowering into the shaft.

Explosives in these two categories must be separately transported, delivered and lowered into shafts on separate days, except if prior written permission has been obtained from the Chief Inspector.

The period between time of delivery and time of lowering or charging must be kept to the minimum.

6. Duties of the authorised person at the shaft delivery bay, bench, down-the-hole service or rapid reloading system

The mine manager must appoint a suitable person for every shaft or bench in terms of regulation 36 to be responsible for the following duties:

- (a) ensure that the correct types and quantities of explosives are ordered in writing for delivery;
- (b) personally accept receipt of every consignment of explosives by signing the consignment note after ensuring that the correct types and quantities were delivered;
- (c) ensure that only one vehicle at a time enters the fenced or secure area and that the vehicle delivering the explosives departs without delay;
- (d) ensure that the approved delivery schedule is complied with;
- (e) keep proper written record of explosives delivered and lowered; and
- (f) ensure that all explosives carts used to take explosives underground are free from "old explosives" before entering the fenced shaft delivery bay.

MINIMUM REQUIREMENTS FOR THE KEEPING OF REGISTERS

Regulation 7

The following minimum requirements for the keeping of registers, must be complied with:

- All pages in a register must be numbered consecutively.
- Pages of a register must be of at least A4 size.
- All pages of a register must be bound with a hard outer cover.
- No pages may be removed from a register.
- All entries into a register must be made in permanent ink. Entries for explosives received must be in red ink and entries for explosives issued must be made in black ink.
- If an error has to be corrected, a single line must be neatly drawn through the relevant word or figure in such a way that the original entry is still legible. The correction must be reflected above the error or in the margin, dated and initialled.
- All entries into registers must be made immediately after explosives have been received or issued, or any other legally imposed action which has been conducted.
- Registers must be reasonably available for inspection by an inspector.
- Registers must be kept for at least three years from the date of the last entry.
- Written permission must be obtained from the Chief Inspector to deviate from any of the above minimum requirements.

The following *pro forma* registers must be used as indicated:

Number	Description	User
Part 1 Form A	Dealer's register for smokeless powder	Dealers in smokeless powder
Part 1 Form B	Dealer's register for black powder and percussion caps	Dealers in black powder
Part 1 Form C	Explosives magazine register	Licensees of explosives magazines Dealers in explosives
Part 1 Form D	Blasting accessories magazine register	Licensees of blasting accessories magazines
Part 1 Form E	Register for wholesale consumer fireworks sales to licensed retail dealers	Wholesale dealers in fireworks

Part 1 Form F	Ammonium nitrate magazine register	Licensees of ammonium nitrate magazines
Part 1 Form G	Dealer's register for blank cartridges	Dealers in blank cartridges
Part 1 Form H(a)	Register for railway track signals at distribution depots	Railway operators/carriers
Part 1 Form H(b)	Register for railway track signals at place of use	Railway operators/carriers
Part 1 Form H(c)	Register for railway track signals for use to employees	Railway operators/carriers

[illegible]

NOTES:

1. Provision must be made for all types of black powder kept by the dealer, including black powder substitutes.
2. An application form as provided for in Annexure "C" Form B must be completed by the purchaser and the original kept for inspection by an inspector.

STAATSKOERANT, 18 APRIL 2007

EXPLOSIVES MAGAZINE REGISTER: MAGAZINE NUMBER:.....									
DATE	TO WHOM ISSUED OR FROM WHOM RECEIVED	PERMIT NUMBER	PLACE OF USE OR PLACE OF ISSUE	(SEE NOTES)			(SEE NOTES)		
				CARTONS	PACKETS	UNITS	CARTONS	REELS	METRES
STOCK									
STOCK									
STOCK									
STOCK									

NOTES:

1. Insert type, grade and size of blasting cartridges, boosters, blasting accessories, display fireworks, igniters, etc eg. "Magnum Buster - 25 x 200", "Pentolite Boosters - 400g", "Display Shells - 75 mm"
2. As many columns as required, must be provided. The register must be adapted to suit each licensee's unique requirements.
3. Types of explosives may differ from magazine to magazine, and user to user.
4. Dealers in explosives may use this register to control the supply of explosives to customers.

Annexure "Q"
Part 1
Form C

DEALER'S REGISTER FOR THE CONTROL OF DISTRESS SIGNALS

Date	Personal details of purchaser				Intended purpose of use	Invoice number	Signature of purchaser	Signature of dealer
	ID number	Full name and surname	Physical address	Contact number				

Annexure "Q"
Part 1 Form D

**REGISTER FOR THE CONTROL OF WHOLESALE CONSUMER
FIREWORKS SALES TO LICENSED RETAIL DEALERS**

NAME OF WHOLESALE DEALER:			
DEALER'S LICENCE NUMBER:			
REGISTERED NAME AND PHYSICAL ADDRESS OF RETAIL DEALER	DEALER'S LICENCE NUMBER	INVOICE NUMBER	SIGNATURE OF RETAIL DEALER OR AUTHORISED REPRESENTATIVE

NOTE:

1. The name of the wholesale dealer and dealer's licence number may be shown once on the front cover of the register.
2. The wholesale dealer must keep a copy of the dealer's licence of every retail dealer to whom fireworks are being sold for inspection purposes by an inspector of explosives.

 Annexure "Q"
Part 1 From E

AMMONIUM NITRATE MAGAZINE REGISTER: MAGAZINE NUMBER:.....						
DATE	TO WHOM ISSUED OR FROM WHOM RECEIVED	PERMIT NUMBER	PLACE OF USE OR PLACE OF ISSUE	AMMONIUM NITRATE		
				22 KG BAGS	25 KG BAGS	50 KG BAGS
STOCK						
STOCK						
STOCK						
STOCK						

NOTES:

1. Provision must be made for all different sizes of packaging to be stored at each magazine.
2. As many columns as required, must be provided.

Annexure "Q"
Part 1 Form F

REGISTER FOR THE CONTROL OF POWER DEVICE BLANK AND INDUSTRIAL CARTRIDGES

Regulation 110(2)

REGISTERED NAME OF BLANK CARTRIDGE USER:						
NAME OF STOCK CONTROLLER:						
DATE	CARTRIDGES RECEIVED	CARTRIDGES ISSUED	PURPOSE OF USE	PLACE OF USE	ISSUED TO	SIGNATURE OF RECIPIENT

Note:

1. Registered power device, blank and industrial cartridge users are issued with continuous transport permits to obtain cartridges from supplier.
2. The names of the blank cartridge user and controlling official may be shown once on the front cover of the register.

Annexure "Q"
Part 1 Form G

REGISTER FOR THE CONTROL OF EXPLOSIVE RAILWAY TRACK SIGNALS AT DISTRIBUTION DEPOTS

DEPOT:			NAME OF CONTROLLER:							
EXPLOSIVES SIGNALS RECEIVED			EXPLOSIVE SIGNALS ISSUED				EXPLOSIVES SIGNALS RETURNED TO SUPPLIER			
QUANTITY	MONTH/YEAR OF MANUFACTURE	DATE	QUANTITY	MONTH/YEAR OF MANUFACTURE	ISSUED TO	SIGNATURE	DATE	QUANTITY	MONTH/YEAR OF MANUFACTURE	DATE

Annexure "Q"
Part 1 From H(a)

REGISTER FOR THE CONTROL OF EXPLOSIVE RAILWAY TRACK SIGNALS AT PLACES OF USE

DEPOT:				NAME OF CONTROLLER:				
EXPLOSIVES SIGNALS RECEIVED FROM SUPPLIER				EXPLOSIVE SIGNALS USED OR RETURNED TO SUPPLIER				
QUANTITY RECEIVED	DATE	MONTH/YEAR OF MANUFACTURE	SIGNATURE OF CONTROLLER	QUANTITY RETURNED	QUANTITY USED	DATE	MONTH/YEAR OF MANUFACTURE	SIGNATURE OF SUPPLIER OR USER

Annexure "Q"
Part 1 Form H(b)

**REGISTER FOR THE CONTROL OF EXPLOSIVE RAILWAY TRACK SIGNALS
ISSUED FOR USE TO EMPLOYEES**

DEPOT:					NAME OF CONTROLLER:						
EXPLOSIVES SIGNALS RECEIVED FROM SUPPLIER					EXPLOSIVE SIGNALS USED OR RETURNED TO SUPPLIER						
QUANTITY	MONTH/YEAR OF MANUFACTURE	ISSUED TO	SIGNATURE OF CONTROLLER	DATE	QUANTITY RETURNED	QUANTITY USED	MONTH/YEAR OF MANUFACTURE	RETURNED BY	SIGNATURE	DATE OF RETURN	SIGNATURE OF CONTROLLER

Employee acknowledges the receipt of the number of explosive signals and a set of rules regarding the safe custody and use of official purposes.
The employee furthermore acknowledges that he/she has received the necessary training in the use of the signals.
The controller undertakes not to issue explosive signals to employees who have not received the necessary training in the use of the signals.

Annexure "Q"
Part 1 Form H(c)

Annexure "Q"
Part 2**REQUIREMENTS FOR THE KEEPING OF CERTAIN FORMS IN SUPPORT OF
PRESCRIBED REGISTERS**

Regulation 7

The following forms must be kept by dealers as indicated:

Number	Description	User
Part 2 Form A	Application to purchase smokeless powder	Smokeless powder users

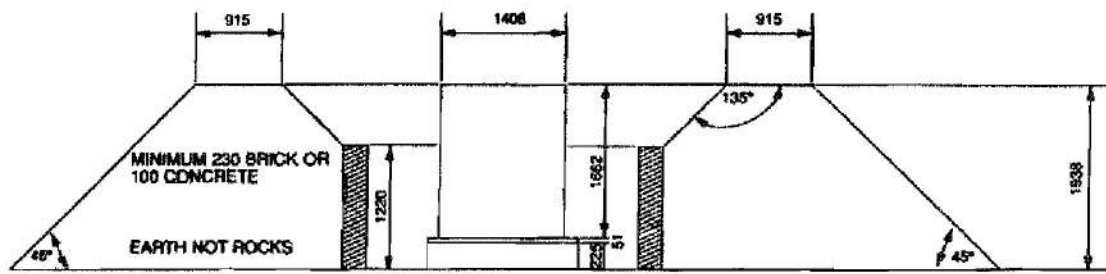
- Dealers in smokeless powder must keep a sufficient quantity of forms available for completion by clients;
- Original completed application forms must be kept for inspection purposes and handed to an inspector of explosives for submission to the Chief Inspector; and
- Information on application forms must correspond with the relevant information in prescribed registers.

Annexure "Q"
Part 2
Form A

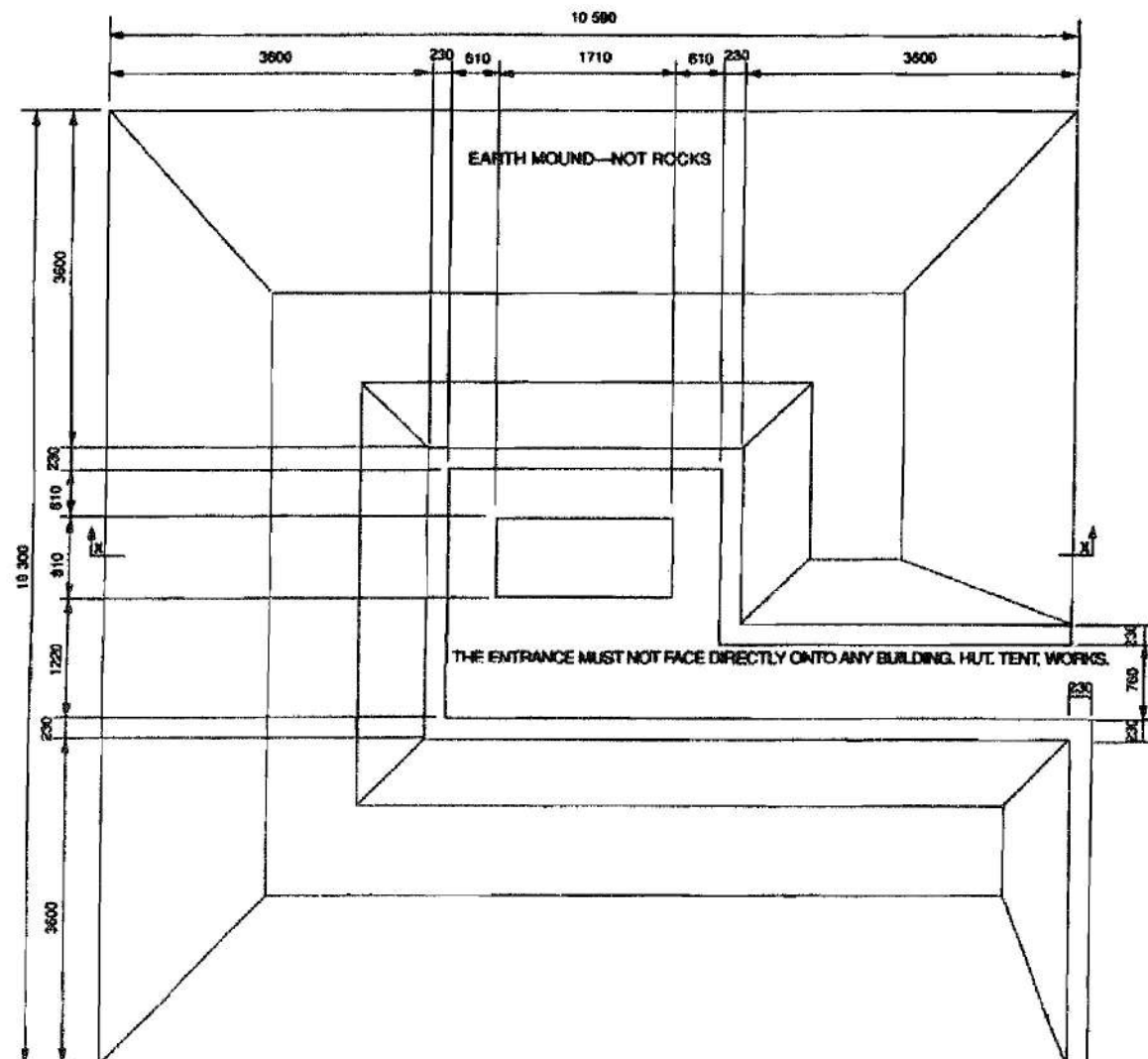
					No:			
APPLICATION TO PURCHASE SMOKELESS POWDER FOR RELOADING OF AMMUNITION Regulation 17(7)								
Full names and surname								
Identity number							-	
Physical address where smokeless powder will be kept								
Nearest s a police service community service centre to the above mentioned address								
Make of firearm and firearm number			Calibre	Type of smokeless powder		Quantity (500g tins)		Date of issue
Registered name and physical address of supplier								
Dealer's licence number [issued in terms of section 13(1) of the act]								
I, the purchaser hereby certify that I am fully aware of the contents of regulation 17 of the explosives regulations, and that all the information provided on this application are true and correct to the best of my knowledge. I am aware that I will be prosecuted in terms of section 28(2)(b) if I wilfully give false information on this application.								
Signature of purchaser			Date:				Time:	
			Place:					
Signature of supplier or authorised representative								

MAG TS3 TYPE SPECIFICATIONS

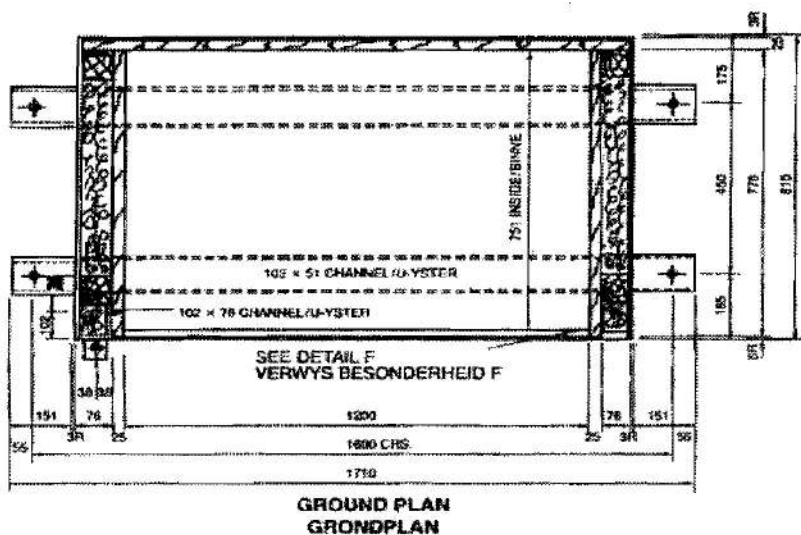
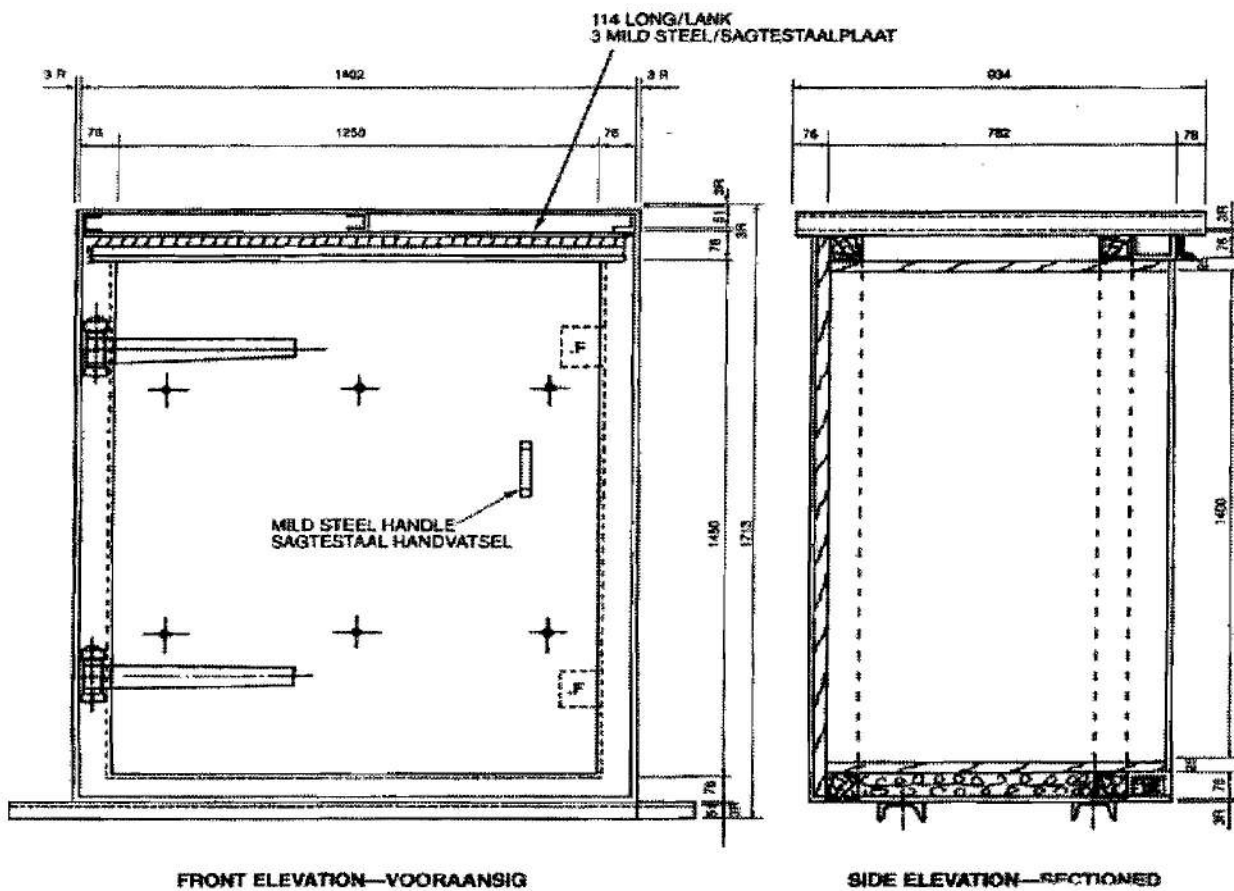
1. The door must-
 - (i) be made of 6 mm mild steel plate;
 - (ii) fit inside a welded 102 x 76 mm channel-iron frame;
 - (iii) be a good fit to be as waterproof as possible;
 - (iv) be hung on two hinges as shown;
 - (v) be fitted with two symmetrically placed six-lever mortice locks (to pass different keys);
 - (vi) be lined with 25 mm tongued and grooved wooden board fitted with six countersunk coach bolts; and
 - (vii) be fitted with a handle.
2. The wood lining must-
 - (i) be made of 25 mm tongued and grooved boards; and
 - (ii) be fitted to the 75 x 75 mm wood frame with countersunk screws puttied over and the grain of the wood must run from the front to the back of the magazine.
3. The 75 x 75 mm wood frames-
 - (i) must be dovetailed and bolted at the corners; and
 - (ii) the wood frame adjoining the channel-iron frame, must be bolted thereto.
4. The exterior covering-
 - (i) must be made of 3 mm mild steel plate;
 - (ii) must be welded together and to the channel-iron frame; and
 - (iii) at the back of the magazine must be bolted to the wood lining with countersunk coach bolts
5. The cavity between the exterior 3 mm mild steel covering and the 25 mm wood lining must be filled with polystyrene or polyurethane.
6. Three 57 x 51 mm channel-irons must be welded to the top of the magazine. A 3 mm mild steel plate must be welded to the channel-irons to form a double roof.
7. Two 102 x 51 mm rolled steel channel-irons must be welded to the base of the magazine.
8. The magazine must be rustproofed and painted white.
9. The magazine must be bolted to-
 - (i) a 225 mm thick concrete foundation; or
 - (ii) a 225 mm high channel-iron frame.



SECTION X-X OF MAGAZINE AND MOUND



PLAN OF MAGAZINE AND MOUND



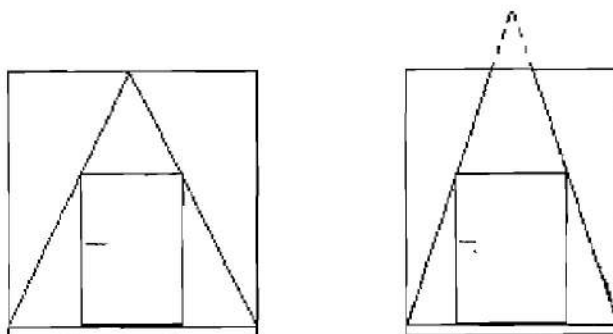
MAG TS3
TYPE MAGAZINE
TYPES MAGASYN

Annexure "R"
Part 2**SPECIFICATIONS FOR MOVABLE STEEL MAGAZINES
CAPABLE OF STORING 200/300 CARTONS OF EXPLOSIVES****1. CONSTRUCTION OF THE BODY**

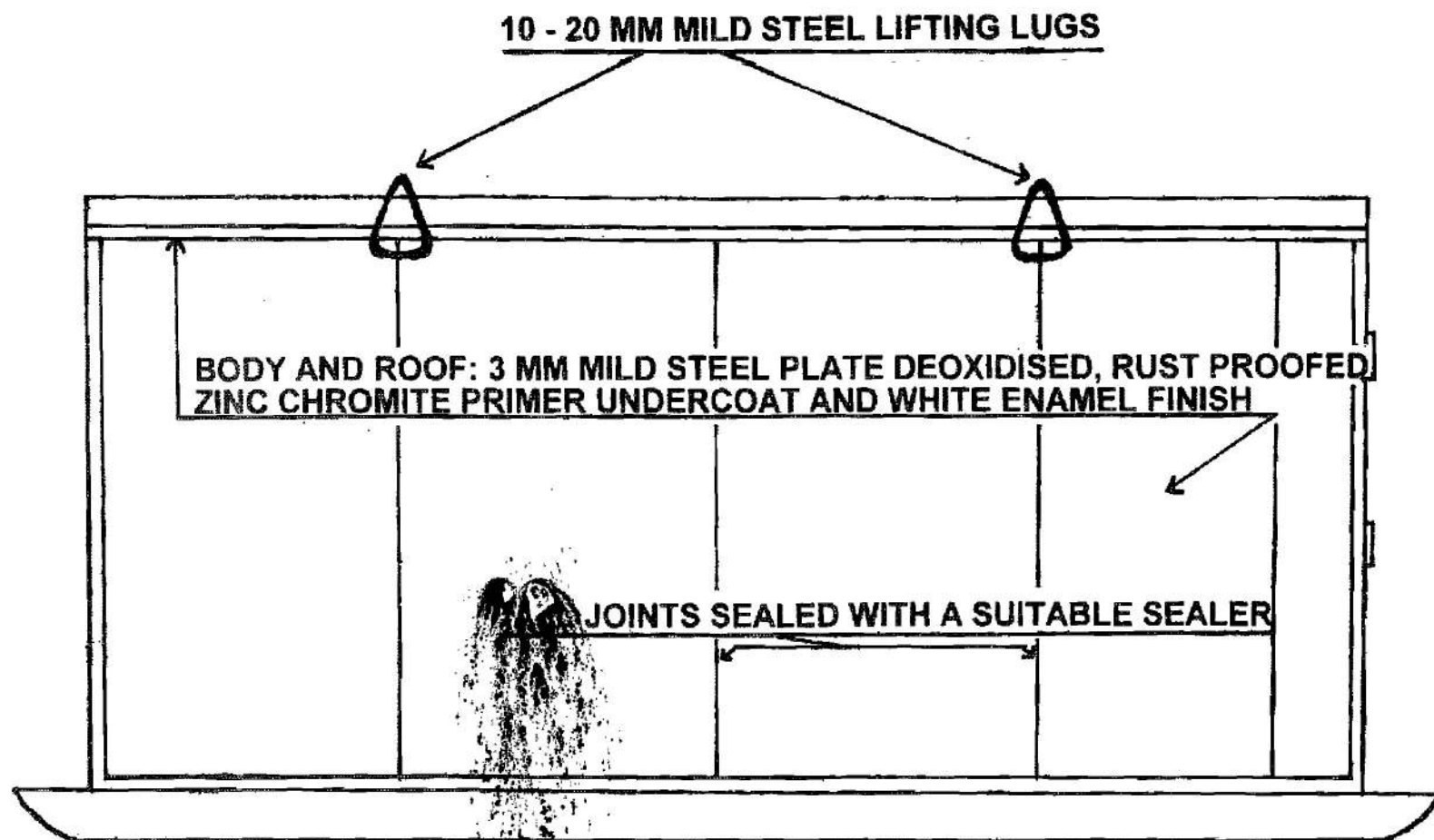
- 1.1 The roof, walls and floor must be manufactured of 3mm mild steel plate, welded together. Full details of the method of construction and of ensuring rigidity must be shown on the construction plans.
- 1.2 The 3 mm mild steel floor of the magazine must be overlaid by 38 mm thick tongued and grooved hardwood, attached by countersunk brass bolts which must be puttied over. The hardwood may be substituted by 22mm thick marine plywood.
- 1.3 Six 50 mm x 19 mm x 4 500 mm hardwood strips equally spaced must be fitted to the floor along each side wall, with brass screws countersunk and puttied over, to form a platform 600 mm wide x 4 500 mm long on each side on which the cartons can be placed (See sketch D).
- 1.4 The inside of the walls and roof must be covered with 6 mm hardboard spaced approximately 50 mm away from the mild steel wall, thus forming a gap which must be insulated with 36 mm polystyrene, polyurethane or similar material to reduce temperature fluctuations (See sketch B).
- 1.5 The interior of a 200 carton magazine must be 4 500 mm long and 2 150 mm wide. The roof height must be between 1 900 mm and 2 300 mm above floor level. A 300 carton magazine must be 6 800 mm long.
- 1.6 The body must be rustproofed and painted white.
- 1.7 Six chrome plated ventilators of approximately 200 mm x 100 mm must be fitted in the roof. The ventilators must be fitted in two rows of three and symmetrically spaced above the two 600 mm wide hardwood platforms on the floor (See sketch "E"). The ventilators must be of the type which can only be operated from inside the magazine. When opened, the opening must be automatically covered with a perforated plate. Each ventilator must be spring-loaded to ensure that it is either fully open or shut and must be vermin and leakproof. If larger ventilators of approximately 200 mm x 200 mm are used, four will be sufficient for a 200 carton magazine.
- 1.8 A 2 mm mild steel tropical roof (double roof) must be fitted about 50 to 80 mm above the normal roof of the magazine (See sketch D).

2 CONSTRUCTION OF THE DOOR:

- 2.1 A door 915 mm wide x 1 850 mm high must be centrally fitted in one of the 2 150 mm walls of the magazine. The door must be hung on three substantial hinges. There must be three moving bolts at the front edge of the door and three fixed bolts at the rear edge of the door, the same as on a safe or vault door. The mechanism must be locked by a six lever lock. The construction of the door and body must be so rigid that the movement during transport of the magazine will not damage and/or impair the ease and efficiency of the operation of the lock.
- 2.2 The door must be fitted in an "A" -frame type of structure in either one of the following ways:

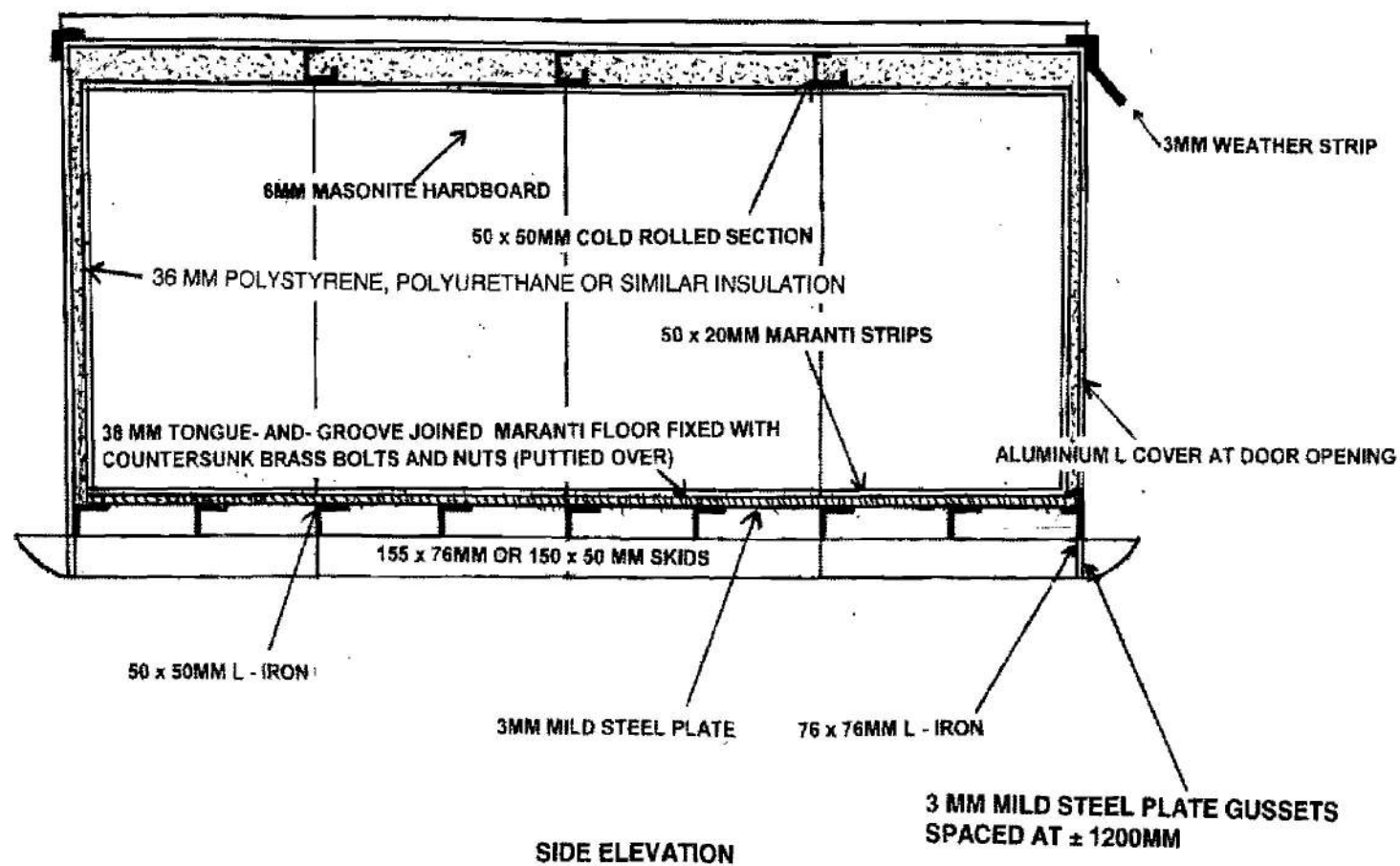


- 2.3 Non-ferrous metal must be used to line the door opening and the edges of the door. An aluminium or brass wearing strip must be fitted over the edge of the floor.
- 2.4 The door must be of a good fit and as waterproof as possible. There must be a drip channel above the door.
- 2.5 The cross section of the door must be the same as the walls. That is 3 mm mild steel, approximately 50 mm polystyrene, polyurethane or similar material and 6 mm hardboard.
- 2.6 The door must have no edges so as to prevent forcing.
- 2.7 The magazine may be fitted with four or six mild steel lifting lugs.
- 2.8 The magazine must be fitted with two 150 mm x 50 mm or 176 x 55 mm rolled steel channel skids (See sketch B).

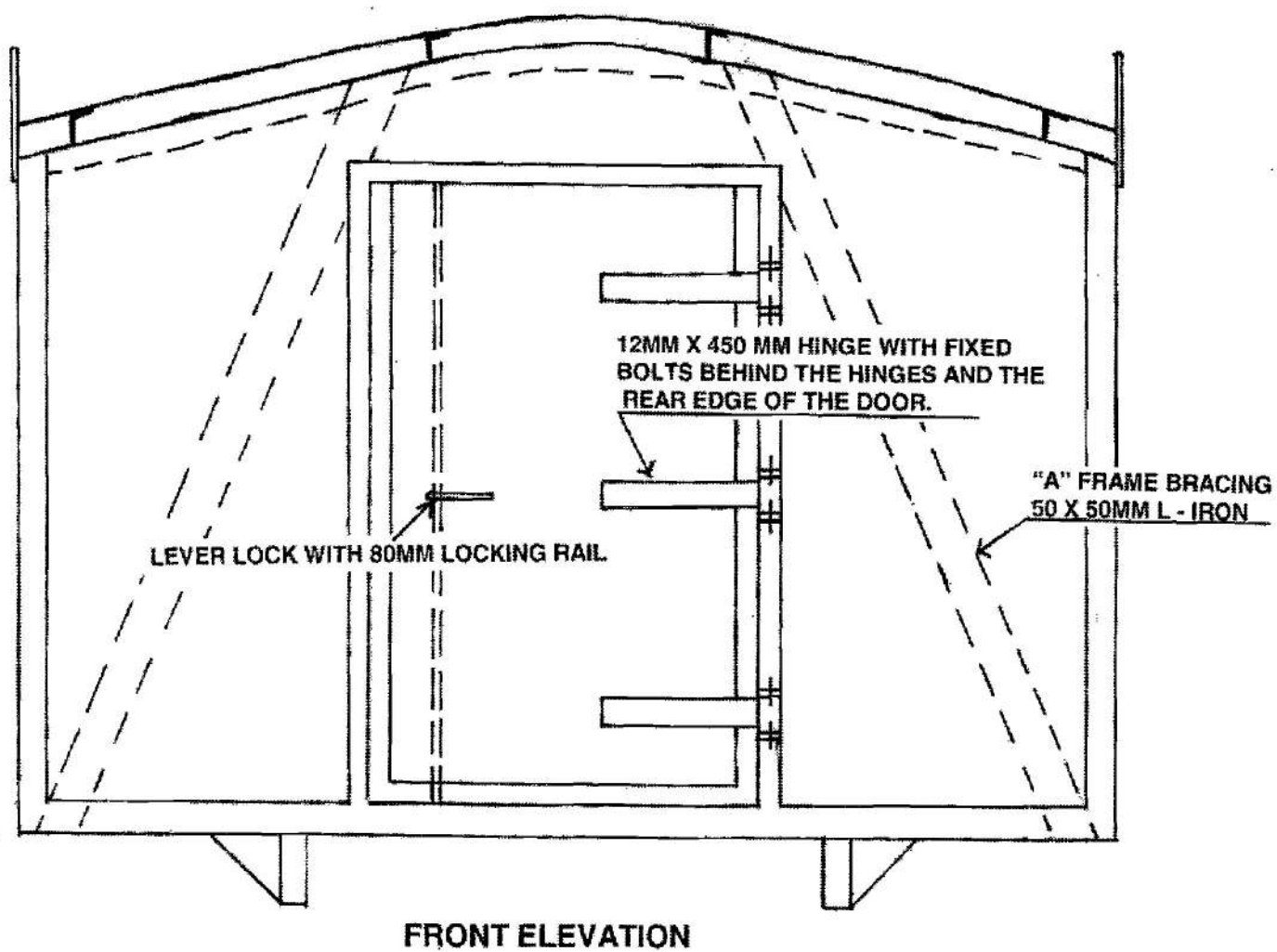


SIDE ELEVATION

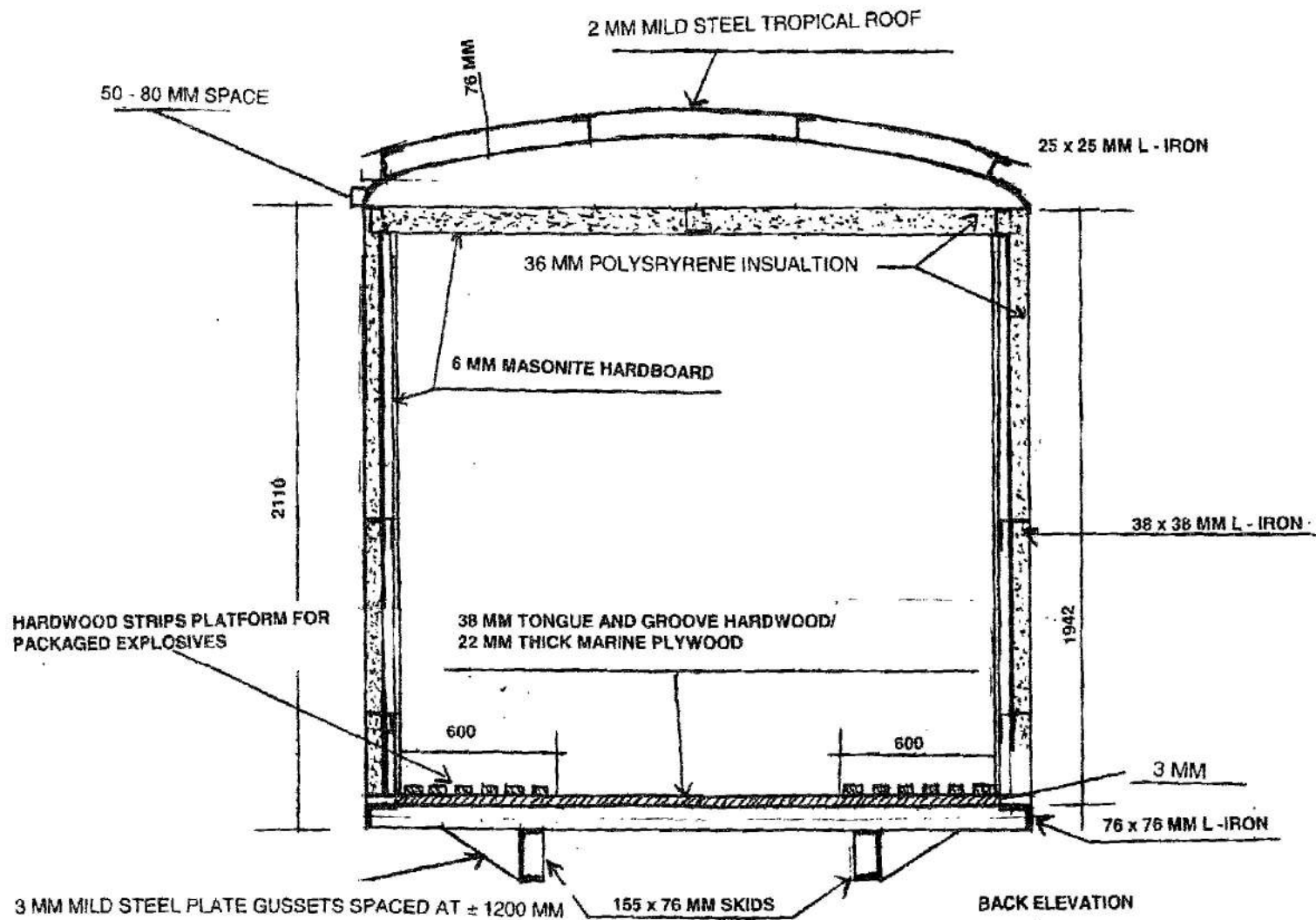
Sketch "A"



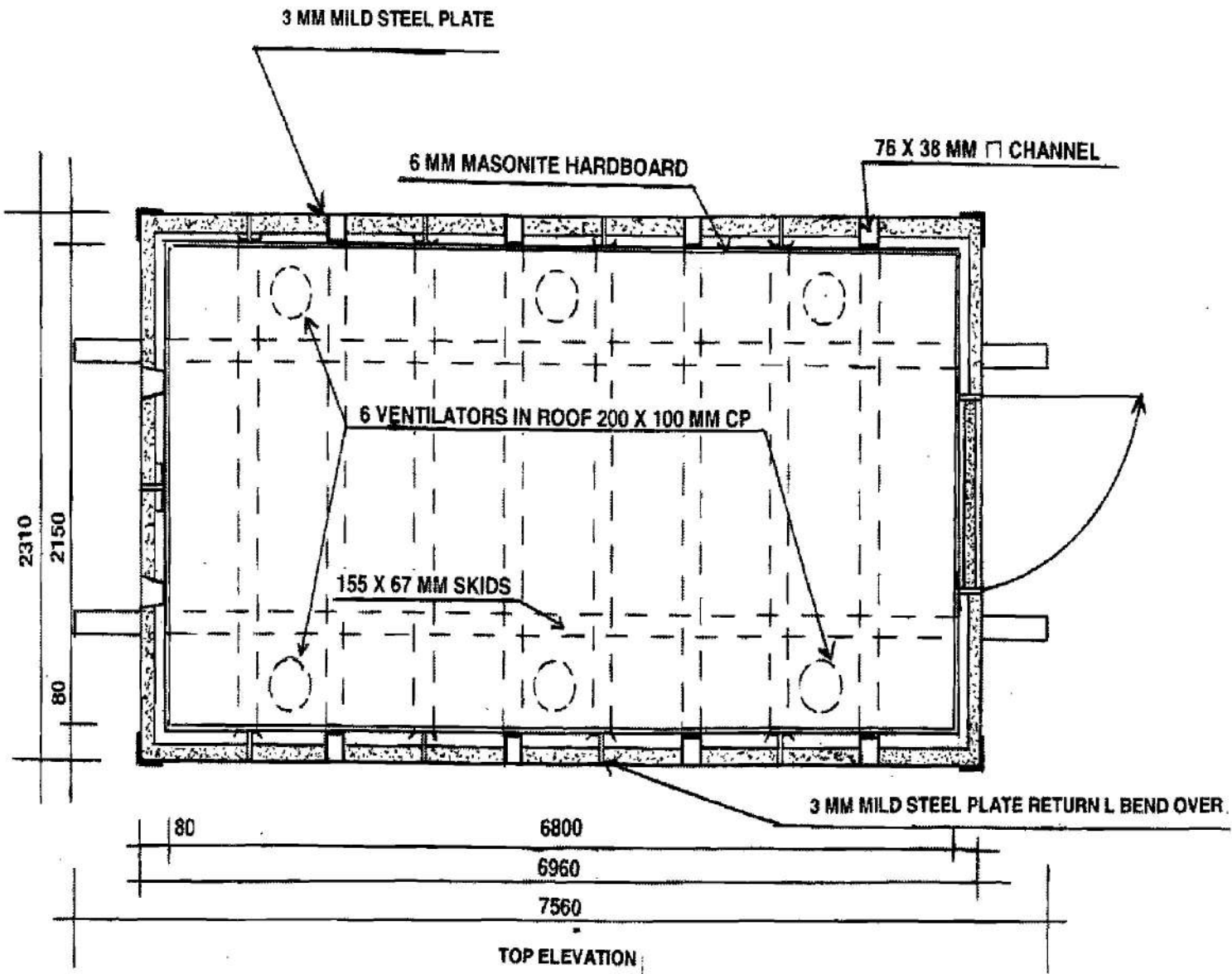
Sketch "B"



Sketch "C"



Sketch "D"



Sketch "E"

Annexure "S"

APPLICATION FOR PERMISSION TO CONSTRUCT EXPLOSIVES MAGAZINES Regulation 34	
Name and address of applicant	
Exact location of the proposed magazines (e.g. farm and number, magisterial district and province)	
Nearest South African Police Service Community Service Centre from the proposed magazines	
Purpose for which the explosives are required	
Anticipated maximum monthly requirements of:-	
Blasting cartridges	
Boosters	
Detonating cord	
Shock tube assemblies	
Capped fuse	
Electric detonators	
Igniter cord	
Other (Specify)	
Details of proposed magazines (type, construction, size, mounded or unmounded, etc):	
Blasting explosives magazine	
Blasting accessories magazine	

Other (Specify)		
Transport details		
Name of railway station/supplier and address from where the explosives will be obtained		
Approximate distance from the railway station/supplier to the proposed magazines		
Method of transport of explosives from the railway station/supplier to the magazine		
Method of transport of explosives from the magazines to the place of use		
If a vehicle(s) already licensed in terms of the Explosives Regulations will be used, state registration number(s).		
The distance from the magazines to the place of use		
Anticipated duration of the work for which the explosives are required		
Magazine plans prescribed in regulation 34(1) are attached to this application		
Signature of applicant	Designation	
	Date	
Name of company*		
<small>*In the case of registered company, this form must be submitted under cover of a letter reflecting the name, registered address and names of the directors of the company. The signatory must be either the manager or some other senior official of the company. In the case of a partnership, the full names of all the partners must be given and the name or title of the partnership. NB- Any person who wilfully gives false information to an Inspector is guilty of an offence in terms of section 28(2)(d) of the Explosives Act, 2003 (Act No. 15 of 2003) and liable on conviction to a fine, or imprisonment, or both.</small>		

Annexure "T"

REQUIREMENTS FOR APPOINTMENT AS A MAGAZINE MASTER

Regulation 36

Any person to be appointed as a magazine master by the licensee of an explosives magazine, must meet the following requirements:

- must be a suitable person as defined in section 1 of the Act;
- must submit information as contemplated in regulations 3 and 4; and
- must submit to an evaluation on his or her theoretical knowledge relevant to the following chapters of the Explosives Act, 2003 and Regulations (where applicable):

REGULATIONS	RELATED INDUSTRY FIELD
Chapter 4: Packaging, marking and labelling of explosives	All
Chapter 5: Import and export of explosives	Importers and exporters
Chapter 6: Harbour and airport regulations	Importers and exporters
Chapter 8: Licensing and construction of explosives magazines	All
Chapter 9: Storage of explosives	All
Chapter 10: Storage and sale of explosives by licensed dealers	Dealers
Chapter 12: Accidents and incidents	All
Chapter 13: Trespass	All
Chapter 18: Ammonium nitrate	Users of ammonium nitrate

Annexure "U"

DAILY BLASTING RECORD Regulation 54 (1)										
Date										
Name of contractor										
Exact place of work										
Purpose for which blasting materials were used										
Name of blaster										
Blasting permit number				Transport permit number						
Name of manager (Regulation 50(2)(a))										
Name of supplier (or official number of magazine/s)										
Registration numbers of own explosives vehicles										
Registration numbers of supplier's explosives vehicles										
Types and quantities of blasting materials acquired										
Blasting cartridges	ANBA	Detonating cord	Detonators	Detonating relays	Igniter cord	Other (specify)				
Details of each individual blast. -										
Time of blast	Depth of holes	No. of holes charged and fired	Burden (mm)	Spacing (mm)	Number of blasting cartridges /ANFO (g) per hole	Size and grade of blasting cartridges	Length of detonating cord used	Number of detonators used	Number of detonating relays used	Number of boosters used
Quantity and type of blasting materials destroyed at end of day, and method of destruction										
Signature of blaster						Signature of manager				
Date										
NB. A sketch showing the position of the holes, when multiple rows of holes are charged and fired, must be kept with this return. The sketch must also show the detonating cord or shock tube trunk lines and the positions of all detonators and detonating relays.										
Note: This blasting record must be kept for at least three (3) years.										

Annexure "V"
Form A

APPLICATION FOR IMPORT PERMIT									
Regulations 22(7) and 23									
Name of applicant				Reference number					
Physical address of applicant									
Name and address of manufacturer of explosives									
Exact end-destination of explosives consignment									
Method of transport		Road		Rail		Air		Sea	
Name of port of entry									
Vessel's name and voyage number if by sea									
Details of explosives consignment (Classification must be clearly reflected on attached import documents required by regulation 23(5))									
Proper shipping name or description	ZA-X number	UN number			Quantity	Unit of measure	Container number		
Direct contact details of applicant									
Office telephone		Fax		Cellphone number					
I/we am/are fully aware of the relevant Chapters of the Explosives Regulations, but in particular Chapters 5, 6 and 7. The prescribed documents to support this application are attached. I/we will comply with all conditions stated on the Import permit.									
Signature of applicant		Designation							
		Date							
Name of company*									
*In the case of registered company, the questionnaire must be submitted under cover of a letter reflecting the name, registered address and names of the directors of the company. The signatory must be either the manager appointed or some other senior official of the company. In the case of a syndicate and a partnership, the full names of all the partners must be given and the name or style of the partnership. NB- Any person who gives false information to an inspector will, in terms of section 28(2)(d) of the Explosives Act, 2003 (Act No 15 of 2003), be guilty of an offence and liable on conviction to a fine or imprisonment.									
FOR OFFICIAL USE									
Import permit no.		Issued on		Expiry date					
Persal number		Initials and surname							
Signature of inspector of explosives					Official date stamp				

Annexure "V"
Form B

APPLICATION FOR EXPORT PERMIT									
Regulations 22(7) and 24									
Name of applicant				Reference number					
Physical address of applicant									
Supplier of explosives or number of magazines									
Exact end-destination of explosives consignment									
Method of transport		Road		Rail		Air		Sea	
Name of port									
Details of explosives consignment (Classification must be clearly reflected on attached export documents required by regulation 24(2))									
Proper shipping name or description			ZA-X number	UN number	Quantity	Unit of measure	Container number		
Direct contact details of applicant									
Office telephone		Fax		Cellphone number					
I/we am/are fully aware of the relevant Chapters of the Explosives Regulations, but in particular Chapters 5, 6 and 7. I/we will comply with all conditions stated on the export permit.									
Signature of applicant			Designation						
			Date						
Name of company*									
*In the case of registered company, the questionnaire must be submitted under cover of a letter reflecting the name, registered address and names of the directors of the company. The signatory must be either the manager appointed or some other senior official of the company. In the case of a syndicate and a partnership, the full names of all the partners must be given and the name or style of the partnership. NB- Any person who gives false information to an inspector will, in terms of section 28(2)(d) of the Explosives Act, 2003 (Act No. 15 of 2003), be guilty of an offence and liable on conviction to a fine or imprisonment.									
FOR OFFICIAL USE									
Export permit no		Issued on		Expiry date					
Persal number				Initials and surname					
Signature of inspector of explosives					Official date stamp				

Annexure "V"
Form C

APPLICATION FOR TRANSIT PERMIT					
Regulation 22(7)					
Name of applicant			Reference number		
Physical address of applicant					
Supplier of explosives					
Exact end-destination of explosives consignment					
Method of transport					
Import			Export		
Road		Road			
Rail		Rail			
Air		Air			
Sea		Sea			
Name of port (entry)		Name of port (exit)			
Vessel's name and voyage number (only for entry by sea)					
Details of explosives consignment (Classification must be clearly reflected on attached import documents)					
Proper shipping name or description	ZA-X number	UN number	Quantity	Unit of measure	Container number
Direct contact details of applicant					
Office telephone		Fax		Cellphone number	
I/we am/are fully aware of the relevant Chapters of the Explosives Regulations, but in particular Chapters 5, 6 and 7. The prescribed documents to support this application are attached. I/we will comply with all conditions stated on the transit permit.					
Signature of applicant	Designation				
	Date				
Name of company*					
<p>*In the case of registered company, the questionnaire must be submitted under cover of a letter reflecting the name, registered address and names of the directors of the company. The signatory must be either the manager appointed or some other senior official of the company. In the case of a syndicate and a partnership, the full names of all the partners must be given and the name or style of the partnership. NB- Any person who gives false information to an inspector will, in terms of section 28(2)(d) of the Explosives Act, 2003 (Act No 15 of 2003), be guilty of an offence and liable on conviction to a fine or imprisonment.</p>					

FOR OFFICIAL USE									
Transit permit no					Issued on			Expiry date	
Persal number							Initials and surname		
Signature of inspector of explosives							Official date stamp		

ASSESSMENT CRITERIA FOR THE REGISTRATION OF BLASTERS

Regulation 46

1. Assessment criteria for the registration of learner blasters

Any person who intends to apply for registration as a learner blaster must prepare him or herself to be assessed on his or her theoretical knowledge relevant to the following:

TOPIC	SOURCE
Section A: General knowledge of explosives <ul style="list-style-type: none">– Safe handling and use of explosives– Classification and types– Identification of explosives and blasting accessories– General use of different types available in South Africa	South African Police Service Explosives Unit Explosives manufacturer catalogues
Section B: Legal knowledge <ul style="list-style-type: none">– Sections 1, 5, 6, 8, 9, 10, 12, 14, 15, 22, 23, 24, 25, 28, 29, 30 and 32 of the Explosives Act, 2003– Chapters 1, 2, 4, 7, 8, 9, 11 and 12 of the Explosives Regulations, 2007 and related Annexures	Explosives Act and Regulations
Section C: Methods of Destruction of blasting materials	Annexure "B" of the Explosives Regulations

Assessment will take place at the South African Police Service Explosives Unit nearest to the applicant, and will consist of a three hour examination. All three sections must be passed before an applicant will be registered as a learner blaster.

2. Assessment criteria for the registration of blasters

Any person who intend to apply for registration as a blaster, must prepare him or herself to be assessed on his or her theoretical and practical knowledge relevant to the following:

TOPIC	SOURCE
Section A: Blasting Dynamics (Theory) <ul style="list-style-type: none"> – Blasting plans – Risk assessments – Drilling and charging – Calculation of quantities 	Various manufacturers and service providers
Section B: Legal knowledge (Scenario based) <ul style="list-style-type: none"> – Sections 1, 5, 6, 8, 9, 10, 12, 14, 15, 22, 23, 24, 25, 28, 29, 30 and 32 of the Explosives Act, 2003 – Chapters 1, 2, 4, 7, 8, 9, 11 and 12 of the Explosives Regulations, 2007 and related Annexures 	Explosives Act and Regulations
Section C: Destruction of blasting materials (Practical assessment)	Inspector with assistance of supervisor blaster
Section D: Managing a blast site (Practical assessment)	Inspector with assistance of supervisor blaster

3. General

- 3.1 The Chief Inspector may determine the requirements of a unit standard based qualification for blasters registered with the South African Qualification Authority (SAQA) in consultation with the explosives industry.
- 3.2 An applicant who has failed a particular section during assessment may be re-assessed after 14 days.

Annexure "X"**SPECIFICATIONS FOR THE STORAGE OF PACKAGED AMMONIUM NITRATE**

Regulation 102(2)(c)

A magazine for the storage of packaged ammonium nitrate must comply with the following minimum specifications:

1. CONSTRUCTION OF MAGAZINE

- 1.1 The magazine must have a smooth concrete floor, and no drainage nor ventilation opening, may be provided at floor level.
- 1.2 The walls must be of brick or concrete construction and at least 215mm thick.
- 1.3 The floor and the walls must be treated with a suitable epoxy to counteract corrosion to a height of at least 1000 mm.
- 1.4 The roof must be constructed of lightweight non-combustible material such as corrugated iron or fibre cement sheets on metal supports.
- 1.5 There may be no ceiling in the magazine.
- 1.6 The door and doorframe must be of metal. Steel tip-up or roll-up type garage doors are acceptable.
- 1.7 All metal parts must be rustproofed and painted.
- 1.8 There may be no windows in the walls of the magazine, but translucent roof sheets may be fitted in the roof.
- 1.9 No timber or other combustible material may be used in the construction of the magazine.
- 1.10 The magazine must be clean, dry and well ventilated.
- 1.11 The magazine must be fenced in accordance with the specifications contained in annexure "H".
- 1.12 Three copies of a detailed construction plan must be submitted to the Chief Inspector for approval before construction may be commenced with.

2. STACKING OF PACKAGED AMMONIUM NITRATE

- 2.1 The bags of ammonium nitrate must be stacked in the magazine according to the stacking plan. The borders of the stacks must be painted with highly visible paint in 50 mm wide lines on the magazine floor.

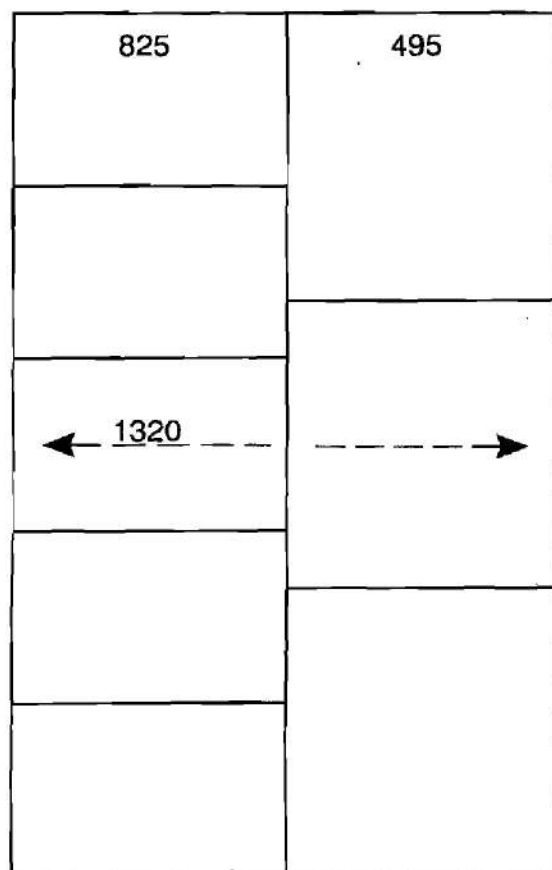
- 2.2 An open space of at least 1000 mm must be maintained between the top of a stack of packaged ammonium nitrate and the roof rafters.
- 2.3 The distance between the floor and roof must be at least 2500 mm.
- 2.4 Packaged ammonium nitrate may not be stacked more than 1,9 m high.

STACKING PLAN FOR AMMONIUM NITRATE MAGAZINE

STACK

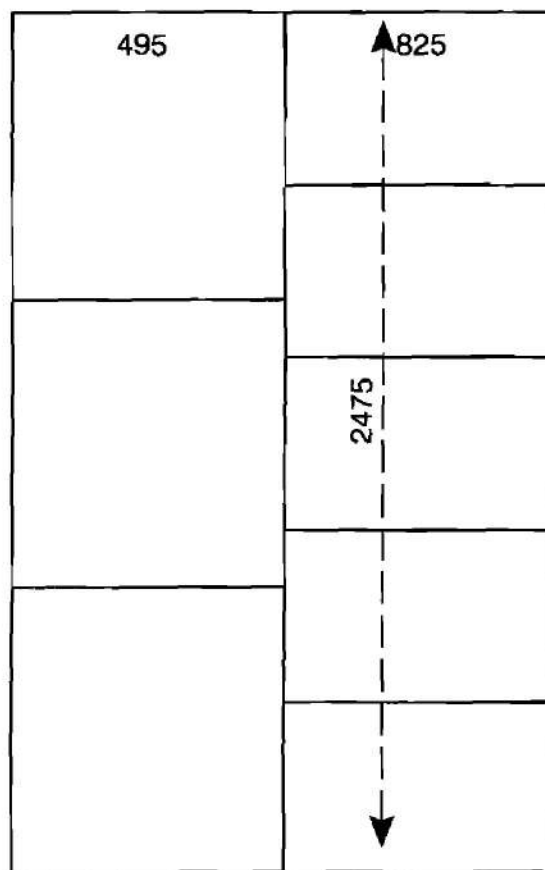
(All dimensions in millimetres)

"A"



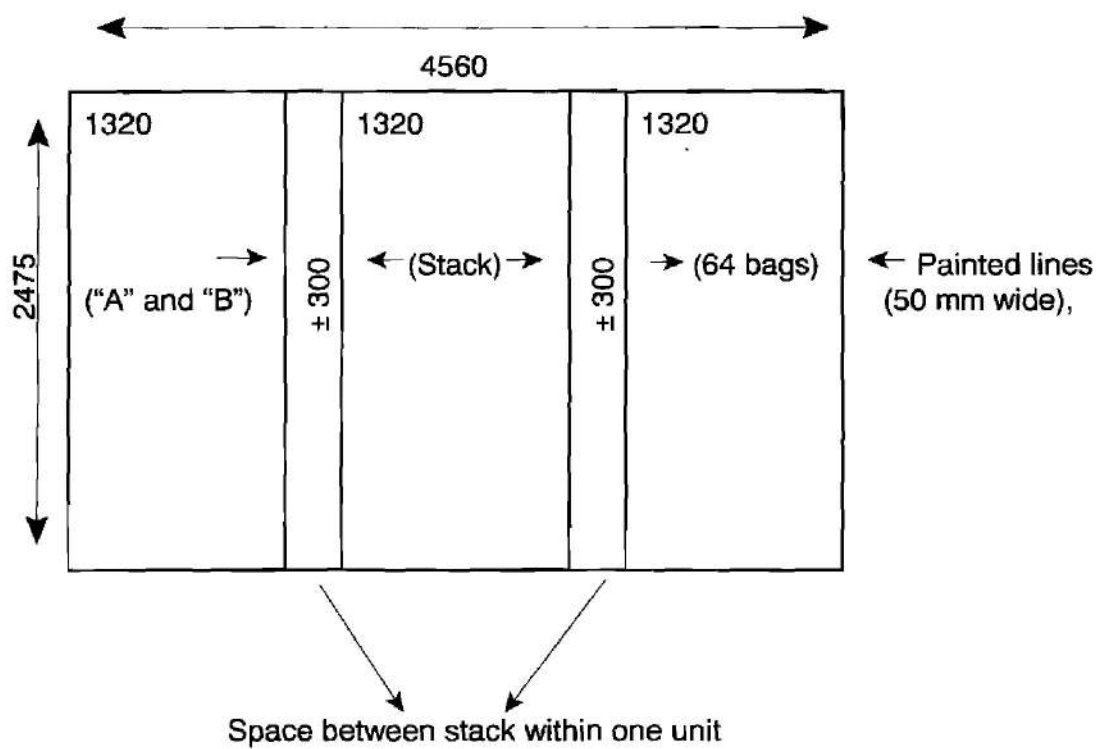
1st, 3rd, 5th and 7th layer.

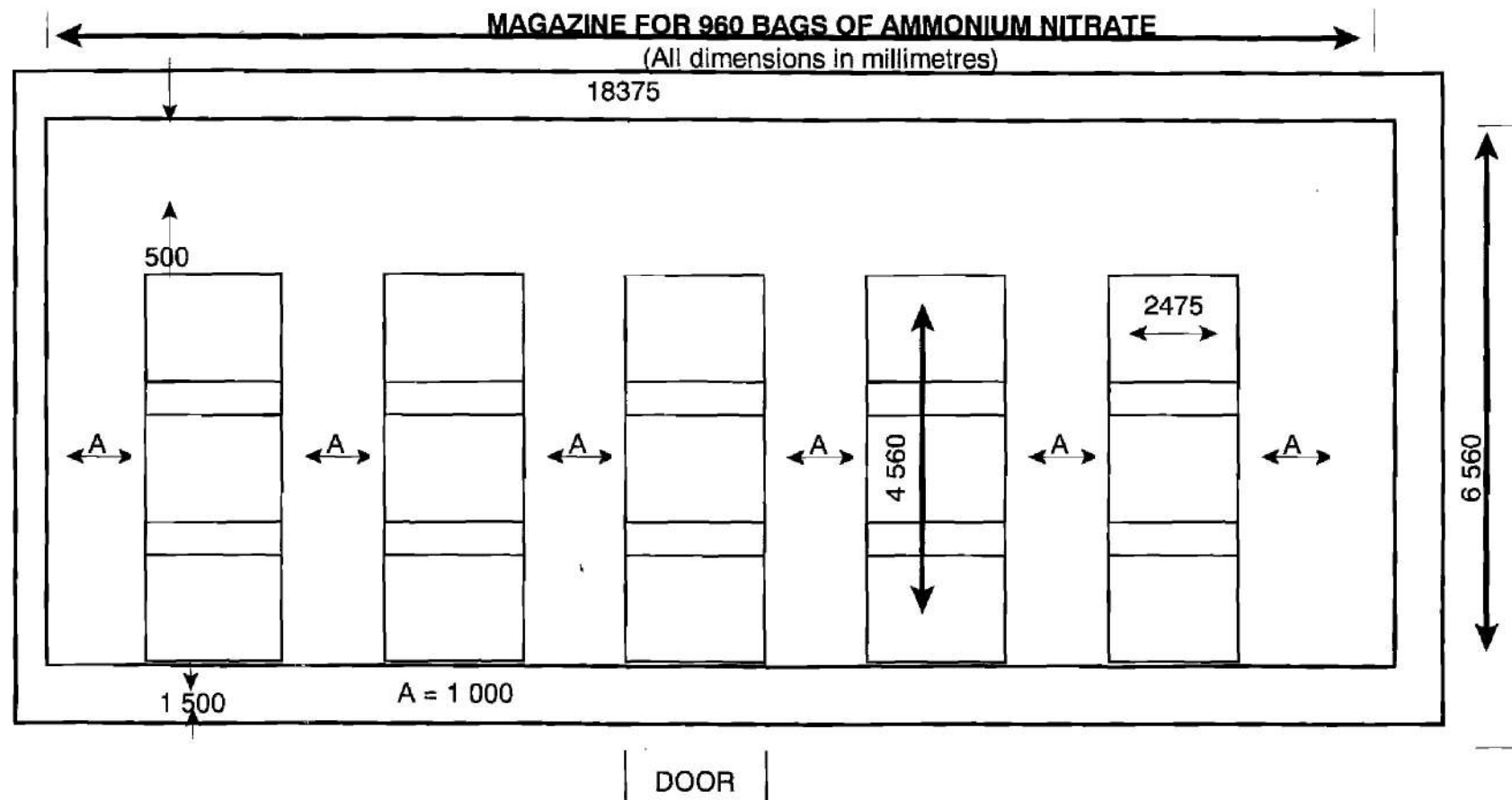
"B"



2nd, 4th, 6th and 8th layer.

UNIT
(All dimensions in millimetres)





All distances between walls, stacks and aisles are the minimum distances

Bag size - 825 x 495 x 180

Mass per bag - 50 kg

64 bags per stack

192 bags per unit