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## GOVERNMENT NOTICE

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### DEPARTMENT OF LABOUR

No. R. 1295

14 December 2001

### OCCUPATIONAL HEALTH AND SAFETY ACT, 1993

#### DRAFT EXPLOSIVES REGULATIONS

The Minister of Labour, after consultation with the Advisory Council for Occupational Health and Safety, under section 43 of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), hereby publishes for general information and comment the draft regulations in the schedule.

Any comments or representations on these regulations should be submitted in writing to the Director-General: Department of Labour, Private Bag X117, Pretoria, 0001, within 90 days of the date of publication of this notice.

## SCHEDULE

### Definitions

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

**"ammonium nitrate"** as defined in the Explosives Act, 1956, as amended;

**"authorized explosives"** means an explosive as defined in the Explosives Act, 1956, as amended;

**"blaster"** means a person referred to in regulation 12(6);

**"burning grounds"** means a fenced-in area with a guarded entrance where explosives may be exposed to a naked flame under safe controlled conditions;

**"certificated person"** means any person to whom a certificate of competency has been granted by an approved inspection authority, accredited by the explosives council or any other organization acceptable to the chief inspector and approved by the chief inspector;

**"chief inspector of explosives"** means the chief inspector as defined in the Explosives Act, 1956, as amended;

**"class 1.1"** means a class of explosives as defined in the Explosives Act, 1956, as amended;

**"class. 1.2"** means a class of explosives as defined in the Explosives Act, 1956, as amended;

**"class 1.3"** means a class of explosives as defined in the Explosives Act, 1956, as amended;

**"class 1.4"** means a class of explosives as defined in the Explosives Act, 1956, as amended;

**"class 1.5"** means a class of explosives as defined in the Explosives Act, 1956, as amended;

**"class 1.6"** means a class of explosives as defined in the Explosives Act, 1956, as amended;

**"competent person"** means a person with training, and experience in and knowledge of the health and safety aspects of explosives deemed appropriate by the explosive council or any other organization acceptable to the chief inspector and approved by the chief inspector;

**"complex"** means a group of danger buildings in the same danger area;

**"danger area"** means an area surrounded by a fence provided with a guarded entrance in which are situated the explosives testing-, manufacturing- and storage buildings, and as much of the land surrounding them as is shown on the official explosives workplace site plan;

**"danger building or room"** means any building or room used as an explosives workplace or explosives magazine;

**"danger zone"** means the region inside the area encompassed by the larger safety distance applicable to a danger building in terms of the safety distances stipulated in Annexure 1;

**“explosives”** means any substance classified as an explosive as defined in the Explosives Act, 1956, as amended;

**“explosives council”** means a council referred to in regulation 17;

**“explosives groups”** means explosives grouped together for their safe storage and transportation as stipulated in the Explosives Act, 1956, as amended;

**“explosives manager”** means a person appointed in terms of sub regulation 11(1);

**“explosives workplace”** means any workplace licensed under these regulations for the manufacture, test, use and storage of explosives, together with every mound, building and work therein or thereon for whatever purpose used;

**“explosives workplace licence”** means a valid licence in terms of sub regulations 4(2) or (3) in respect of an explosives workplace for the manufacture, test, use and storage of explosives;

**“from magazines”** means from one danger building where explosives are stored to another danger building where explosives are stored;

**“guarded entrance”** means an entrance where no person, equipment or material can pass through without the approval of the explosives manager and the monitoring off a guard or guarding system approved by the safety manager;

**“loose article”** means any tool, furniture, cleaning material, handling equipment or stationery which may be used in a danger building where explosives are present;

**“loose article list”** means a list approved by the explosives manager and posted in a conspicuous position in a building or room specifying the number and types of loose articles allowed and used in that building or room;

**"magazine"** any building under these regulations for the storage of explosives;

**"magazine licence"** means a valid license issued in terms of sub regulations 4(2) or (3) in respect of a magazine for the storage of explosives;

**"manufacture"** means the making or processing of any explosive including the division of any explosive from or into its component parts by any process, the conversion of an explosive to another kind, including the alteration, fitting for use, testing, on-site manufacture, repair or destruction of any explosive, and "manufacturing" has a corresponding meaning;

**"non-danger building or room"** means any building or room within the danger area which is used in connection with the manufacture, test or storage of explosives but in which no explosives are kept, used, test or manufactured;

**"non-detonable explosive"** means an explosive that needs extreme conditions to initiate;

**"non-explosives worker"** means an employee in an explosives workplace who normally performs his or her duties outside a danger area;

**"non-sensitised explosive"** means a non-detonable explosive which is not sensitised by the addition of a gassing agent, gas bubbles or micro balloons;

**"operating instruction"** means a document approved by the explosives manager setting out in detail the methods, materials, equipment, tools, handling and precautions to be used in a given operation;

**"plant office"** means an office for the exclusive use of immediate supervisors for the direct control of the process in the danger area;



**“plant workshop”** means a workshop for the exclusive use to maintain equipment and buildings in the danger area;

**“private use”** means the legal use of explosives by individuals for a casual purpose not connected with any other person, trade or business;

**“process building”** means a danger building where activities on explosives take place;

**“professional engineer”** means an engineer who has received professional status from the Engineering Council of South Africa;

**“public building”** means a structure beyond the danger zone to which members of the public would have access and in which non-explosives workers would be stationed;

**“schedule licence”** means a licence categorised as -

- (a) a schedule I explosives workplace licence that is a schedule of the explosive workplace licence, in a format acceptable to the chief inspector, certified by the explosives manager and approved by the chief inspector, in which a description is given of all explosives that may be manufactured, test, stored or used in a danger area specifying nominal formula with tolerances, components, construction and packaging;
- (b) a schedule II explosives workplace licence that is a schedule to the explosives workplace licence pertaining to each danger building or room in the danger area in a format acceptable to the chief inspector, certified by the explosives manager and approved by the chief inspector, specifying the name and number of the building or room, the maximum number of persons and the maximum mass of explosives



allowed in the building or room, the authorized operations and which of these operations may be carried out simultaneously;

- (c) a schedule III explosives workplace licence that is a schedule to the explosives workplace licence for a non-danger building or room in a danger area in a format acceptable to the chief inspector, certified by the explosives manager and approved by the chief inspector, specifying the name and number of the building or room, the purpose of the building or room and the number of persons allowed therein;

**"the Act"** means the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993);

**"to magazines"** means from an explosives process building to any danger building where explosives are stored;

**"to public buildings"** means from a danger building to public buildings as defined in these regulations, and includes main offices, main workshops and dwelling houses other than those defined under "to railways roads etc";

**"to railways roads etc."** means from a danger building to railways and roads and open sports grounds, or to dwelling houses under the same ownership as the explosives factory and occupied by the owner or an employee;

**"unauthorized explosive"** means any substance or mixture that has the properties of an explosive but is not approved and published as an authorized explosive.

#### **Scope of application**

2. (1) Subject to sub regulation (2), these regulations shall be applicable to employers, self-employed persons and users who operate an explosives

workplace for the purpose of manufacturing, test, store or use of explosives.

- (2) These regulations shall not apply to explosives workplaces where the loading or reloading of cartridges for small arms is being carried out for private personal use and is not offered for sale, trade or any other use: Provided that the requirements of the Arms and Ammunition Act, 1969 (Act No. 57 of 1969), as amended, shall be complied with.

### **Classification of explosives for manufacturing**

3. (1) The chief inspector of explosives shall classify all explosives and make this classification available to the Department of Labour.
- (2) The chief inspector may classify any chemical combination as an explosive or reclassify any explosive for the purposes of these regulations.
- (3) No person shall manufacture or use any explosives that are not classified as referred to in subregulations (1) and (2).

### **Licensing of explosives workplaces**

4. (1) Any person who desires to erect or operate an explosives workplace for the manufacture, test, use or storage of explosives shall apply in writing to the chief inspector for a licence.
- (2) The licence of any explosives workplace which is in force at the promulgation of these regulations shall be deemed valid: Provided that the licensing conditions as stipulated by these regulations shall be complied with within six months of promulgation of these regulations.

(3) The chief inspector -

- (a) may issue a licence subject to compliance with the regulations and after consultation with the employer, self-employed person, user and the local authority: Provided that such licence shall lapse after twelve months, if the erection of the building has not been completed within that period;
- (b) may attach any conditions to the licence he or she may deem necessary;
- (c) may alter the condition of an existing licence after consultation with the employer, self-employed person, user and employees;
- (d) shall not issue a licence where a competent explosives manager has not been appointed in terms of sub regulation 11(1) or where the prescribed requirements have not been met;
- (e) may upon application in writing transfer a licence into the name of another person: Provided that the application shall be made not less than 30 days prior to the transfer and the transferee shall appoint a competent explosives manager; and
- (f) may revoke any licence issued in terms of this regulation if the prescribed conditions are no longer being complied with or where no competent explosives manager is appointed.

(4) Any person applying for a magazine or explosives workplace licence to the chief inspector shall attach to such application-

- (a) Written authorization from the relevant local authority for the proposed magazine or workplace;
  - (b) Written approval concerning security aspects from the chief inspector of explosives for the area and buildings of the proposed workplace or magazine;
  - (c) The letter of appointment of the competent explosives manager, including the acceptance of the appointment;
  - (d) The physical address of the explosives workplace or magazine;
  - (e) Documentary proof of the explosives manager's competency; and
  - (f) A full written report on the risk assessment.
- (5) Any person applying to manufacture, use, test or store explosives in the proposed explosives workplace or magazine shall submit draft schedule licences, certified by the explosives manager, and drawings in duplicate setting forth the following:
- (a) An area plan of the proposed site indicating the danger zone;
  - (b) a site plan which is drawn to a scale that is easily readable and which clearly indicates the complete layout of the site and the danger zone;
  - (c) the safety distances which are to be maintained between danger buildings, and between danger buildings and other buildings or works used in connection with the explosives workplace;

- (d) the compatibility of materials to be used in the construction of danger buildings;
  - (e) building plans for all danger buildings or works as designed and approved by a professional engineer;
  - (f) the nature of the process to be used in the workplace and the place at or in which he or she intends to implement each process of manufacture, activity and described type of work;
  - (g) the places at or in which he or she proposes to store or test –
    - (i) any ingredient of explosives;
    - (ii) other articles or substances which are liable to spontaneous ignition;
    - (iii) articles which are otherwise dangerous;
  - (h) the quantity of explosives, or any other partly or wholly mixed ingredients thereof, which he or she intends to use simultaneously in any danger room, danger building or complex;
  - (i) the maximum number of persons which he or she intends to employ in each danger room, danger building or complex; and
  - (j) such additional information as may be required by the chief inspector.
- (6) Any person who desires to erect or operate a magazine for the storage of explosives shall apply in writing to the chief inspector for written approval.

- (7) No person shall erect burning grounds within or near a danger area without an appropriate safe separation.
- (8) Any person who desires to use explosives for any purpose shall apply in writing to the chief inspector for written approval.

#### **Non-detonable and non-sensitised explosives**

- 5. (1) The ammonium nitrate fertilizers shall be manufactured in such a way that the constituents cannot be separated mechanically from one another.
- (2) Mixtures of ammonium nitrate with calcium carbonate and/or dolomite shall be manufactured in such a way that the calcium carbonate/dolomite is incorporated in the prills or granules of the mixture approved, in writing, by the chief inspector.
- (3) Every person or concern manufacturing non-detonable or non-sensitised explosives may apply to the chief inspector for exemption from regulations.
- (4) Application for exemption from regulations is subject to the conditions the chief inspector may stipulate with respect to the basis for the safe manufacture, storage, testing and handling of non-detonable or non-sensitised explosives being adhered to: Provided that the basis for the safe manufacture of non-detonable or non-sensitised explosives includes provision for the following safety measures –
- (5) (a) Access control measures and equipment into the work place area where the non-detonable or non-sensitised explosives are

manufactured, test or stored to provide for only authorised access of persons to the manufacturing, testing and storage areas;

(b) Unauthorized access into manufacturing operations will not be allowed and measures and equipment to prevent access into potentially hazardous areas where injuries may occur shall be provided;

(c) The following controls shall be in place at the separator stage in non-detonable or non-sensitised explosives manufacture-

(i) Temperature control;

(ii) pH control;

(iii) An inventory dumping system;

(iv) Control of process steam temperature and pressure; and

(v) Procedures to prevent unsafe confinement of non-detonable or non-sensitised explosives during operation or cleaning activities.

(d) The following controls shall be in place at the storage and pumping stage in non-detonable or non-sensitised explosives manufacture-

(i) Interlocks to trip;

(ii) Temperature control in heated storage tanks; and

(iii) Tank level control.



- (e) The following controls shall be in place during evaporation and heating of non-detonable or non-sensitised explosives for prilling and granulation-
  - (i) Temperature control;
  - (ii) pH control;
  - (iii) An inventory dumping system; and
  - (iv) Control of process steam temperature and pressure.
- (f) Procedures to manage unsafe confinement of non-detonable or non-sensitised explosives during operation or cleaning activities shall be in place;
- (g) Control of contaminants and additives and unsafe accumulation of such substances shall be prevented;
- (h) Controls of contaminates shall be in place during prilling or granulation;
- (i) Control of reducing components in the drying air shall be in place;

(j) The construction materials in all processes shall be checked for compatibility with non-detonable or non-sensitised explosives with respect to corrosion and potential sensitising effects in the process;

(k) The following controls during the storage and packing stages of non-detonable or non-sensitised explosives shall be in place:

(i) Control use of combustible materials inside and close to storage areas;

(ii) Control use of liquid fuels and vehicles in storage areas;

(iii) Control of mechanical condition of non-detonable or non-sensitised explosives transport and storage equipment;

(iv) Control of potential contamination in non-detonable or non-sensitised explosives transport containers;

(v) Controls for appropriate fire fighting equipment;

(vi) Control of pH in solution storage; and

(vii) Prevention of unsafe confinement of non-detonable or non-sensitised explosives

#### **Danger area**

6. (1) An employer, self employed person or user shall ensure that entry and exit from danger areas is only permitted –

- (a) at the authorized point of entry or exit: Provided that entry or exit at any other point shall be authorized by the explosives manager and that the authorized gatekeeper shall have been informed thereof;
  - (b) for persons and vehicles authorized thereto by the explosives manager; and
  - (c) to visitors under escort by a designated person who is aware of the hazards attached to the danger area.
- (2) An employer shall keep a register of the entries and exits contemplated in subregulation (1) and such register shall be available on the premises for inspection by an inspector.
- (3) No person shall –
- (a) enter or exit the danger area through an unauthorized point of entry or exit;
  - (b) enter or exit the danger area without first submitting themselves to a search by the gatekeeper;
  - (c) enter the danger area with –
    - (i) tobacco;
    - (ii) matches, cigarette lighters or other similar devices generating heat or spark sources;
    - (iii) intoxicating liquor or narcotics;

(iv) food, medicine or drinkable fluids: Provided that authorization to enter with such articles may be granted by the explosives manager for purposes of consumption in licensed mess rooms and smoking areas: Provided that special rules for the control of such consumption and smoking, approved by the chief inspector shall be made in writing and shall be enforced by the employer, self employed person or user;

(v) radios or cell phones; and

(d) perform any act or deed that will increase the risk attached to work being performed in a danger area.

(4) An employer, self employed person or user shall not erect any buildings in the danger zone without first obtaining written approval from the chief inspector and providing the details required in terms of sub regulation 4(5).

(5) An employer, self employed person or user shall fence in the danger area in accordance with South African Police Code of Practice SAP 412: Fencing specifications.

(6) An employer, self employed person or user shall ensure that hazard warning signs are clearly displayed at the entrance to any danger area, magazines and in workplaces.

#### **Danger buildings**

7. (1) An employer, self employed person or user shall ensure without derogating from the requirements of the Fire Brigade Services Act, 1987 (Act No. 99 of 1987), that all fire fighting appliances and

emergency equipment provided in the danger building or room are so placed and kept that they are readily visible, accessible and available for use when required.

(2) No person shall discharge any fire extinguisher or tamper with any equipment without thereafter informing the explosives manager: Provided that there shall be no malicious tampering with equipment.

(3) An employer, self employed person or user shall ensure that no danger building is operated unless the ambient temperature and relative humidity inside the building and the temperature of the explosives in the building are within the limits prescribed by the explosives manager.

(4) An employer, self employed person or user shall –

(a) take all reasonable precautions to prevent foreign materials such as grit, stones or similar objects from entering danger buildings;

(b) ensure that no charcoal, whether ground or otherwise, oily rags or any article which is susceptible to spontaneous ignition is taken into any danger building, unless any such article is required for immediate use in such a building and, upon cessation of such use, is removed forthwith; and

(c) not permit any articles not listed on the loose article list to be used or to be present in a danger building.

(5) An employer, self employed person or user shall cause –

- (a) every danger building to be protected against lightning in accordance with South African Bureau of Standards Code of Practice;
  - (b) every lightning protection system to be examined and tested by a person with sufficient knowledge, training and experience in lightning protection;
  - (c) the examination and testing as contemplated in paragraph (b)
    - (i) to be carried out at least every 12 months in the month of September; and
    - (ii) the results must be recorded in a register and must be available on the premises for inspection by an inspector;
  - (d) all danger buildings consisting of metal walls or roofs, including all plant and machinery in such buildings to be adequately earthed in accordance with South African Bureau of Standards Code of Practice.
- (6) An employer, self employed person or user shall cause –
- (a) the official number of the building to be affixed on the outer wall near the main door to every building within the danger area;
  - (b) a copy of the schedule licence to be permanently affixed in a conspicuous position inside every building in the danger area; and

- (c) a loose article list, approved by the explosives manager, to be permanently affixed in a conspicuous position inside every danger building : Provided that all such numbering and documentation shall be printed or typed.
- (7) An employer, self employed person or user shall cause -
- (a) all danger buildings to be maintained in good order and the interior of every such building in which any manufacturing process takes place or which may, at any stage of the process of manufacture, contain explosives or any ingredients thereof, either mixed or partially mixed, including the benches, shelves and fittings, to be kept clean and free from foreign materials to the extent that is reasonably practicable;
  - (b) before any maintenance, repairs or new installations are done to or in any danger building, such building to be cleaned to the extent that is reasonably practicable, by the removal of all explosives and ingredients thereof, whether mixed or otherwise, and, if necessary, by the thorough washing out of the building or part of the building to or in which such maintenance, repairs or new installations are required;
  - (c) a work permit, approved by the explosives manager to be issued prescribing the procedures to be followed for maintenance, repairs or new installations:
  - (d) all the doors of the danger building to remain open while persons are present during operations;
  - (e) steps to be taken to ensure that doors to danger buildings do not slam; and



- (f) all machinery and fittings to be maintained and operated in accordance with the design specifications of the manufacturer and any other specifications prescribed by the explosives manager.

### **Safeguarding of an explosives workplace**

8. (1) An employer, self employed person or user shall ensure that an explosives workplace is established, erected, operated and maintained in such a manner as to prevent the exposure of persons to hazardous or potentially hazardous conditions or circumstances.

(2) An employer, self employed person or user shall ensure that no part of the explosives workplace is used for any other purpose not authorized by the explosives workplace licence.

(3) An employer, self employed person or user shall ensure that all materials used in the construction of a danger building are of a design approved by a professional engineer and acceptable to the chief inspector, and shall make due provision for –

(a) the provision of escape routes;

(b) the prevention of confined spaces;

(c) the safety of electrical appliances;

(d) the provision of lightning protectors; and

(e) vertical clearance between buildings and overhead power lines of not less than 30 meters.

- (4) An employer, self employed person or user shall, in the event of any abnormal conditions being discovered or any unusual occurrence taking place, cause operations to be stopped immediately: Provided that where this is not possible, owing to the nature of the process, procedures shall be laid down and immediate action taken in terms of these procedures.
- (5) An employer, self employed person or user shall, notwithstanding authorized licence limits, reduce the quantity of explosives, raw materials or the number of persons at any one workplace whenever this is reasonably practicable.
- (6) No person shall manufacture explosives in any manner not provided for in these regulations: Provided that written permission may be obtained from the chief inspector for such manufacture.
- (7) An employer, self employed person or user shall cause to be made readily available to all employees within the danger area a copy of the special rules, regulations and operating instructions.
- (8) An employer, self employed person or user shall ensure that a maintenance and inspection schedule is prepared and implemented by the explosives manager in respect of all danger buildings, fittings, plant and machinery in use in the danger area.

#### **Design, construction and manufacture**

9. (1) No employer shall use or require or permit the use of any building, installation, room, machine or equipment unless –

- (a) it has been designed and constructed in accordance with health and safety standards incorporated in these regulations in terms of section 44 of the Act;
- (b) it has been approved by an approved inspection authority referred to in regulation 18 or any other inspection authority outside South Africa recognized by the chief inspector; and
- (c) the employer, self employed person or user is in possession of a certificate issued by the manufacturer: Provided that such certificate shall be countersigned by an approved inspection authority aforesaid.

#### **Importation of explosives**

10. Any person intending to import explosives **to be used in manufacturing or testing** shall obtain permission from the chief inspector in writing specifying the kinds and quantities thereof prior to importation.

#### **Safety distances**

11. (1) An employer, self employed person or user shall –
- (a) apply the safety distances for the respective categories of explosives as stipulated in Annexure 1 to these regulations;
  - (b) where less than five kilograms of explosives is used, apply to the chief inspector for a determination of a safety distance which the employer shall implement;

- (c) in the case of explosives in classes 1.1 and 1.5 for quantities exceeding five kilograms ensure that the structures or areas where they are manufactured, stored, test or handled in any manner are mounded: Provided that where, with the permission of the chief inspector, mounds are dispensed with, the distances given in columns (1), (2) and (3) of Annexure 1 shall be doubled.
- (2) An employer, self employed person or user may reduce the distances in column (1) of Annexure 1 where ground covered magazines are used in explosives workplace magazine areas -
  - (a) between magazines: by half the distance; or
  - (b) magazines behind each other: by three-quarters of the distance.

### **Supervision of explosives workplace**

- 12. (1) In order to ensure that the provisions of the Act and these regulations in relation to explosives workplaces are complied with, an employer, self employed person or user shall, subject to this regulation, in writing appoint a competent and certificated person in a full-time capacity to be explosives manager in respect of every workplace where explosives are being used, test, stored or manufactured: Provided that the appointment of an explosives manager shall not exempt the employer, self employed person or user from any liabilities or responsibilities contemplated in section 16 of the Act.
- (2) The chief inspector may, subject to such conditions as he or she may impose, permit an employer or user to appoint more than one person in terms of subregulation (1).

- (3) An employer or user shall appoint one or more persons, who are suitably qualified and experienced, as supervising officials to assist the explosives manager appointed in terms of subregulation (1).
- (4) An employer, self employed person or user shall ensure that the explosives manager, without derogating from any other duties imposed on him or her by the Act and these regulations –
  - (a) approves in writing the rules, methods, materials, equipment and tools to be used in the danger area;
  - (b) ensures that all persons under his or her control are informed of the hazards related to their tasks and are thoroughly trained in safe work procedures, in particular with respect to shock, friction or risk of fire, and are familiar with the requirements of these regulations;
  - (c) prescribes all protective clothing and equipment to be used in the danger area; and
  - (d) ensures that the processes and equipment specified in schedule licences are safe and appropriate for the manufacturing processes envisaged for the workplace.
- (5) An employer, self employed person or user shall ensure that the supervising official, without derogating from any other duties imposed on him or her by the Act and these regulations –
  - (a) is at all times in a position to exercise control over the operations in the danger building;

- (b) reports without delay to the explosives manager any plant or equipment under his or her control that has or may have posed a risk;
- (c) ensures that all rules implemented in the interest of health and safety are at all times complied with; and
- (d) stops all explosives manufacturing or any work involving explosives if he or she becomes aware of any risk posed to the health and safety of persons.

#### **Safe handling of explosives**

13. (1) An employer, self employed person or user shall ensure that –

- (a) all explosives or ingredients thereof are at all times free of foreign material;
- (b) all reasonable precautions are taken to prevent the spillage of explosives;
- (c) cleaning procedures in the case of a spillage of explosives are prescribed in writing by the explosives manager: Provided that all persons shall report immediately to the supervising official any unusual spillage of explosives and where no cleaning procedures have been prescribed;
- (d) all waste, paper, timber, rags, cotton waste and similar materials which have been in contact with explosives are disposed of in a manner prescribed in writing by the explosives manager: Provided that at the end of the day all

waste and floor sweepings from danger buildings shall be deposited in the designated places;

(e) the explosives or partly mixed explosives are conveyed as soon and as carefully as possible and taking such precautions and in such a manner as will effectively guard against any accidental ignition or explosion;

(f) only containers provided for the conveyance of explosives are used for the transporting of explosives or partly mixed explosives and that such containers are at all times kept clean, free from grit and in a good state of repair;

(g) vehicles containing explosives are left unattended only in designated places;

(h) explosives are not exposed to direct rays of the sun or to rain, whether being transported or not; and

(i) manufactured explosives are removed as soon as is reasonably possible from the process building to an explosives workplace magazine or that they are immediately dispatched;

(2) An employer, self employed person or user shall ensure that –

(a) all material, equipment, tools or similar articles used in an explosive contaminated area are decontaminated after such use, and no person shall make use of any such article that has not been decontaminated after use in a contaminated area; and



- (b) the certification of the decontamination process contemplated in paragraph (a) shall be approved by the explosives manager or a person authorized by the explosives manager.
- (3) No person shall use –
  - (a) explosives in workplaces other than explosives workplaces approved by the chief inspector; and
  - (b) any explosives for which no provision is made in these regulations: Provided that permission may be granted by the chief inspector for such use.
- (4) An employer, self employed person or user shall ensure that –
  - (a) explosives are transported and stored together or separately in the explosives workplace only as listed in the United Nations compatibility groups; and
  - (b) when explosives can be categorized in more than one group they are deemed to belong exclusively to the group with the higher risk as stipulated in the United Nations compatibility groups.
- (5) No person shall –
  - (a) by leaving explosives unattended allow unauthorized access to unattended explosives; and
  - (b) bury, dump, hide or abandon any explosives.

(6) No person shall use any explosive material for blasting purposes unless –

- (a) he or she is in possession of a written permission issued by or under the authority of the chief inspector ; or
- (b) he or she is undergoing training while using such blasting material under the immediate and constant supervision of a person who is in possession of such a permission; and
- (c) if the blasting material is used in a workplace other than a manufacturing or testing workplaces–
  - (i) inform the provincial director not less than 24 hours prior to such use; and
  - (ii) be in possession of a written permission issued by or under the authority of the chief inspector of explosives.

(7) No person shall permit any other person who is not in possession of such a permission to use any blasting material unless such other person is, while using such blasting material, under the immediate and constant supervision of a person who is in possession of such a permission.

(8) Any explosives for the use of which provision is not made in the preceding regulations, shall be used only in such manner and under such conditions as may be prescribed, in writing, by the chief inspector.

(9) Any permission issued prior to the date of promulgation of these regulations shall be deemed valid: Provided that the conditions for obtaining a permission as stipulated by these regulations shall be complied with within six months of promulgation of these regulations.

**Emergencies**

14. (1) An employer, self employed person or user shall cause –
- (a) an emergency plan to be established and implemented; and
  - (b) the emergency plan to be tested in practice at least once every 12 months;
  - (c) in the event of a dangerous gas escaping or being emitted all persons to immediately evacuate the area; and
  - (d) any person who has inhaled or may have inhaled fumes, oxides of nitrogen or any other poisonous gas to be examined by a medical practitioner.

**Incidents**

15. (1) An employer, self employed person or user shall, notwithstanding the requirements of section 24 of the Act, whenever an incident involving explosives occurs inform forthwith the explosives manager and by means of telephone, facsimile or any other method the chief inspector and shall confirm this report in writing stating full particulars of the incident within seven days of the incident.
- (2) An employer, self employed person or user shall, where there was a possibility of risk to the health and safety of persons, whether or not persons or property sustained injury or damage as a result, inform the chief inspector in writing every month of incidents involving the accidental ignition or detonation of explosives or a danger of such accidental ignition or detonation.

**Closure of explosives workplaces**

16. (1) An employer, self employed person or user shall -
- (a) whenever an explosives workplace closes for an indefinite period, or permanently, where reasonably practicable give at least three months notice of such intention to the chief inspector, together with a return of all explosives and ingredients thereof in the explosives workplace;
  - (b) ensure that such explosives and ingredients are disposed of in a manner approved by the explosives manager;
  - (d) submit a decontamination and safety certificate to the chief inspector prior to the delicensing of the building and danger area; and
  - (e) ensure that no explosives or ingredients of explosives are kept on the premises of an explosives workplace after delicensing.

**Council for explosives**

17. (1) The chief inspector shall establish a council for explosives consisting of -
- (a) a person who shall be the chairperson;
  - (b) two persons from the Department of Labour;
  - (c) one person to represent the Department of Minerals and Energy;

- (d) two persons to represent employers;
- (e) one person to represent the South African Police Service;
- (f) two persons to represent the mine houses;
- (g) one person to represent the South African Defense Force; and
- (h) two persons to represent employees:

Provided that the chief inspector may authorize the council to co-opt persons who are knowledgeable about the matters to be dealt with by the council.

- (2) The chief inspector shall appoint the members of the council for such a period as he or she may determine at the time of appointment: Provided that the chief inspector may discharge a member at any time and appoint a new member in his or her place.

- (3) The council shall –

- (a) advise the chief inspector on explosives codes, standards and raining requirements;
- (b) designate persons to examine explosives managers and workers: Provided that any accredited or approved training shall be in accordance with the South African Qualifications Authority's standards and levels;
- (c) make recommendations and submit reports to the chief inspector regarding any matter to which these regulations relate;

- (d) advise the chief inspector regarding any matter referred to the council by him or her;
  - (e) perform such other functions as may be requested by the chief inspector;
  - (f) refer appeals against decisions of the council to the chief inspector; and
  - (g) conduct its work in accordance with the instructions and rules of conduct framed by the chief inspector.
- (4) A person affected by any decision of the council may appeal against such decision to the chief inspector.

#### **Approved inspection authorities**

18. (1) The chief inspector may approve as an inspection authority any organization that has been accredited in terms of the provisions of the Act and these Regulations.
- (2) The chief inspector may at any time withdraw any approval of an approved inspection authority, subject to the provisions of section 35 of the Act.

#### **Offences and penalties**

19. Any person who contravenes or fails to comply with the provisions of regulation 3(3), 4(1), 5, 6, 7, 8, 9(1), 10, 11, 12, 13 14,15 or 16 shall be guilty of an offence and liable, on conviction, to a fine or to imprisonment for a period not exceeding 12 months and, in the case of a continuous offence, to an additional fine of R200 for each day on

which the offence continues or to additional imprisonment of one day for each day the offence continues. Provided that the period of such imprisonment shall in no case exceed 90 days.

#### **Repeal of regulations**

20. The Draft Explosives Regulations published under Government Notice No. R. 227 of 24 February 1999, as Government Notice No. 19779 of 24 February 1999, are hereby repealed.

#### **Short title**

21. These regulations shall be known as the Explosives Regulations, 2002



## ANNEXURE 1

## EXPLOSIVES REGULATIONS

Table of safety distances (in metres)

(a) Classes 1.1 and 1.5

| explosives<br>quantity<br>(kg) | From<br>magazines<br>(1) | To process<br>buildings<br>and<br>magazines<br>(2) | To railways,<br>roads, etc.*<br>(3) | To public<br>buildings<br>(4) |
|--------------------------------|--------------------------|--|-------------------------------------|-------------------------------|
| 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                       | 46   | 62                                  | 124                           |
| 1000                           | 24                       | 56   | 75                                  | 150                           |
| 1500                           | 27                       | 72   | 95                                  | 190                           |
| 2000                           | 30                       | 85   | 115                                 | 230                           |
| 2500                           | 32                       | 96   | 130                                 | 260                           |
| 3000                           | 35                       | 106  | 140                                 | 280                           |
| 4000                           | 38                       | 121  | 160                                 | 320                           |
| 5000                           | 40                       | 135  | 180                                 | 360                           |
| 7500                           | 45                       | 155  | 210                                 | 420                           |
| 10000                          | 50                       | 175  | 235                                 | 470                           |
| 15000                          | 58                       | 200  | 270                                 | 540                           |
| 20000                          | 65                       | 225  | 300                                 | 600                           |
| 25000                          | 70                       | 240  | 320                                 | 640                           |
| 30000                          | 75                       | 255  | 345                                 | 690                           |
| 40000                          | 80                       | 285  | 380                                 | 760                           |
| 50000                          | 85                       | 305  | 400                                 | 800                           |
| 75000                          | 100                      | 350  | 470                                 | 940                           |
| 100000                         | 110                      | 380  | 510                                 | 1020                          |
| 150000                         | 125                      | 440  | 590                                 | 1180                          |
| 200000                         | 140                      | 480  | 640                                 | 1280                          |
| 250000                         | 150                      | 520  | 700                                 | 1400                          |

\* Applicable for magazines only.

Table of safety distances (in meters)

## (b) Class 1.3

| explosives<br>quantity<br>(kg) | From<br>magazines<br>(1) | To process<br>buildings<br>and<br>magazines<br>(2) | To railways,<br>roads, * etc.<br>(3) | To public<br>buildings<br>(4) |
|--------------------------------|--------------------------|--|--------------------------------------|-------------------------------|
| 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                            |
| 1000                           | 14                       | 32   | 32                                   | 63                            |
| 1500                           | 15                       | 36   | 36                                   | 72                            |
| 2000                           | 17                       | 40   | 40                                   | 80                            |
| 2500                           | 18                       | 43   | 43                                   | 86                            |
| 3000                           | 19                       | 46   | 46                                   | 91                            |
| 4000                           | 20                       | 50   | 50                                   | 100                           |
| 5000                           | 21                       | 54   | 54                                   | 108                           |
| 7500                           | 25                       | 61   | 61                                   | 122                           |
| 10000                          | 28                       | 68   | 68                                   | 136                           |
| 15000                          | 33                       | 78   | 78                                   | 156                           |
| 20000                          | 27                       | 85   | 85                                   | 170                           |
| 25000                          | 40                       | 90   | 90                                   | 180                           |
| 30000                          | 45                       | 100  | 100                                  | 200                           |
| 40000                          | 50                       | 110  | 110                                  | 220                           |
| 50000                          | 55                       | 115  | 115                                  | 230                           |
| 75000                          | 65                       | 135  | 135                                  | 270                           |
| 100000                         | 75                       | 15   | 145                                  | 290                           |
| 150000                         | 90                       | 170  | 170                                  | 340                           |
| 200000                         | 95                       | 180  | 180                                  | 360                           |
| 250000                         | 105                      | 200  | 200                                  | 400                           |

\* Applicable for magazines only.

Table of safety distances (in meters)

## (c) Classes 1.2 and 1.4

| explosives<br>quantity<br>(kg) | From<br>magazines<br>(1) | To process<br>buildings<br>and<br>magazines<br>(2) | To railways,<br>roads, * etc.<br>(3) | To public<br>buildings<br>(4) |
|--------------------------------|--------------------------|--|--------------------------------------|-------------------------------|
| 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                            |
| 1000                           | 9                        | 10   | 18                                   | 36                            |
| 1500                           | 11                       | 16   | 19                                   | 38                            |
| 2000                           | 12                       | 19   | 20                                   | 40                            |
| 2500                           | 13                       | 21   | 21                                   | 42                            |
| 3000                           | 14                       | 22   | 22                                   | 43                            |
| 4000                           | 16                       | 24   | 23                                   | 45                            |
| 5000                           | 17                       | 25   | 23                                   | 46                            |
| 7500                           | 19                       | 26   | 24                                   | 48                            |
| 10000                          | 21                       | 27   | 25                                   | 50                            |
| 15000                          | 23                       | 27   | 27                                   | 54                            |
| 20000                          | 25                       | 27   | 28                                   | 55                            |
| 25000                          | 26                       | 27   | 29                                   | 57                            |
| 30000                          | 27                       | 27   | 30                                   | 60                            |
| 40000                          | 27                       | 27   | 30                                   | 60                            |
| 50000                          | 27                       | 27   | 30                                   | 60                            |
| 75000                          | 27                       | 27   | 32                                   | 65                            |
| 100000                         | 27                       | 27   | 33                                   | 65                            |
| 150000                         | 27                       | 27   | 35                                   | 70                            |
| 200000                         | 27                       | 27   | 35                                   | 70                            |
| 250000                         | 27                       | 27   | 35                                   | 70                            |

\* Applicable for magazines only.

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