

OCCUPATIONAL HEALTH AND SAFETY ACT

Act 85 of 1993.

GENERAL SAFETY REGULATIONS

[Updated to 18 July 2003]

GoN R1031, G. 10252 (c.i.o 30 May 1986),
GoN R433, G. 10282 (c.i.o 20 June 1986),
GoN R1791, G. 11497 (c.i.o 9 September 1988),
GoN R2245, G. 14192 (corrected by GoN R3167, G. 14410), (c.i.o 7 August 1992),
GoN R928, G. 25128 (c.i.o 25 June 2003),
GoN R1010, G. 25207 (c.i.o 18 July 2003).

[**Editor note:** These regulations were published in terms of the Machinery and Occupational Safety Act, 1983 (Act 6 of 1983) and are now in force in terms of the Occupational Health and Safety Act 85 of 1993.]

The Minister of Manpower has, under section 35 of the Machinery and Occupational Safety Act, 1983 (Act 6 of 1983), made the regulations contained in the Schedule hereto.

ARRANGEMENT OF REGULATIONS

1. Definitions
2. Personal safety equipment and facilities
- 2A. Intoxication
- 2B. Display of substituted notices and signs
- 2C. Admittance of persons
3. First aid, emergency equipment and procedures
4. Use and storage of flammable liquids
5. **Work in confined spaces**
6. Work in elevated positions
7. Working in danger of engulfment
8. Stacking of articles
9. Welding, flame cutting, soldering and similar operations
10. Operating trains
11. ...
12. ...
13. ...
- 13A. Ladders
- 13B. Ramps
- 13C. ...
- 13D. ...
- 13E. ...

- 13F. ...
 - 13G. ...
 - 14. Offences and penalties
 - 15. Withdrawal of regulations
 - 16. Short title
- Annexure

1. Definitions

In these regulations “**the Act**” means the Machinery and Occupational Safety Act, 1983 (Act 6 of 1983), and any expression to which a meaning has been assigned in the Act shall have the meaning so assigned and, unless the context indicates otherwise—

“**boatswain's chair**” means a suspended platform seat intended for supporting one person in an elevated position;

[“boatswain’s chair” ins by reg 2 of GoN R1791 in G. 11497.]

“**building work**” means building work as defined in the General Administrative Regulations published under Government Notice R.2206 of 5 October 1984;

“**confined space**” means an enclosed, restricted or limited space in which, because of its construction, location or contents, or any work activity carried on therein, a hazardous substance may accumulate or an oxygen-deficient atmosphere may occur, and includes any chamber, tunnel, pipe, pit, sewer, container, valve, pump, sump, or similar construction, equipment, machinery or object in which a dangerous liquid or a dangerous concentration of gas, vapour, dust or fumes may be present;

“**fire-resistance**” means the minimum period for which a building element or component will comply with the requirements for stability, integrity and insulation when tested in accordance with SABS 0177: Part II;

“**flammable liquid**” means any liquid which produces a vapour that forms an explosive mixture with air, and includes any liquid with a closed-cup flash-point of less than 55°C;

“**high-risk substance**” means a substance listed in the Schedule to the General Administrative Regulations published under Government Notice R.2206 of 5 October 1984, as amended from time to time;

“**putlog scaffold**” means a scaffold supported by a single row of standards and the structure in connection with which it is being used;

[“putlog scaffold” ins by reg 2 of GoN R1791 in G. 11497.]

“SABS 0177: Part II” means the South African Bureau of Standards' code of practice entitled *Fire Resistance Test For Building Elements*, SABS 0177: Part II - 1981.

“scaffold” means any temporary elevated platform and supporting structure used for supporting workmen or materials or both;

[“scaffold” ins by reg 2 of GoN R1791 in G. 11497.]

“Suspended scaffold” means a working platform suspended from supports by means of one or more separate suspensions from each support;

[“Suspended scaffold” ins by reg 2 of GoN R1791 in G. 11497.]

“trestle scaffold” means a working platform supported on trestles, stepladders, tripods and the like;

[trestle scaffold” ins by reg 2 of GoN R1791 in G. 11497.]

2. Personal safety equipment and facilities

- (1) Subject to the provisions of paragraphs (f), (g), (h) and (i) of regulation 5 of the General Administrative Regulations published under Government Notice R.2206 of 5 October 1984, every employer and every user of machinery shall make an evaluation of the risk attached to any condition or situation which may arise from the activities of such employer or user, as the case may be, and to which persons at a workplace or in the course of their employment or in connection with the use of machinery are exposed, and he shall take such steps as may under the circumstances be necessary to make such condition or situation safe.
- (2) Where it is not practicable to safeguard the condition or situation contemplated in subregulation (1), the employer or user of machinery, as the case may be, shall take steps to reduce the risk as much as is practicable, and shall provide free of charge and maintain in a good and clean condition such safety equipment and facilities as may be necessary to ensure that any person exposed to any such condition or situation at a workplace or in the course of his employment or on premises where machinery is used is rendered safe,
- (3) Taking into account the nature of the hazard that is to be countered, and without derogating from the general duties imposed on employers and users of machinery by subregulations (1) and (2), the safety equipment and facilities contemplated in subregulation (2) shall include, as may be necessary—
 - (a) suitable goggles, spectacles, face shields, welding shields, visors, hard hats, protective helmets, caps, gloves, gauntlets, aprons, jackets, capes, sleeves, leggings, spats, gaiters, protective footwear, protective overalls, or any similar safety equipment or facility of a type that will effectively prevent bodily injury;

- (b) waterproof clothing, high-visibility clothing, chemical-resistant clothing, low temperature clothing, chain mail garments, waders, fire retardant or flameproof clothing, ice-jackets, or any similar safety equipment of a type that will effectively protect the wearer thereof against harm;
 - (c) belts, harnesses, nets, fall arresters, life lines, safety hooks, or any similar equipment of a type that will effectively protect persons against falls;
 - (d) mats, barriers, locking-out devices, safety signs, or any similar facility that will effectively prevent slipping, unsafe entry or unsafe conditions;
 - (e) protective ointments, ear-muffs, ear-plugs, respirators, breathing apparatus, masks, air lines, hoods, helmets, or any similar safety equipment or facility of a type that will effectively protect against harm;
 - (f) suitable insulating material underfoot where persons work on a floor made of metal, stone, concrete or other similar material; and
 - (g) generally, such safety equipment or facilities as may be necessary to render the persons concerned safe.
- (4) An employer or a user of machinery, as the case may be, shall take steps to ensure that no safety equipment or facility provided as required by this or any other regulation is removed from a workplace or from premises where machinery is used, except for purposes of cleaning, repair, maintenance, modification, mending or replacement, and no person shall remove any such safety equipment or facility from a workplace or premises where machinery is used, except for the aforesaid purposes.
- (5) An employer shall instruct his employees in the proper use, maintenance and limitations of the safety equipment and facilities provided.
- (6) An employer shall not require or permit any employee to work unless such an employee uses the required safety equipment or facility provided in terms of this or any other regulation.
- (7) The provisions of this regulation shall not be construed as derogating from the provisions of any specific regulation prescribing specific safety equipment or facilities.

2A. Intoxication

- (1) Subject to the provisions of subregulation (3), an employer or a user, as the case may be, shall not permit any person who is or who appears to be under the influence of intoxicating liquor or drugs, to enter or remain at a workplace.

- (2) Subject to the provisions of subregulation (3), no person at a workplace shall be under the influence of or have in his or her possession or partake of or offer any other person intoxicating liquor or drugs.
- (3) An employer or a user, as the case may be, shall, in the case where a person is taking medicines, only allow such person to perform duties at the workplace if the side effects of such medicine do not constitute a threat to the health or safety of the person concerned or other persons at such workplace.

[Reg 2A ins by reg 2 of GoN R928 in G. 25128.]

2B. Display of substituted notices and signs

If the provisions of any regulation prescribe a particular notice or sign to be displayed by an employer or by a user at a workplace, the employer or user may, in lieu thereof, display a corresponding symbolic sign, as contained in a safety standard incorporated for this purpose into these regulations under section 44 of the Act, in which case the employer or user shall be deemed to have complied with such provisions.

[Reg 2B ins by reg 2 of GoN R928 in G. 25128.]

2C. Admittance of persons

- (1) Subject to section 8 of the Act, an employer or user, as the case may be, shall not permit a person to enter a workplace where the health or safety of such person is at risk or may be at risk, unless such person enters such workplace with the express or implied permission of and subject to the conditions laid down by such employer or user: Provided that such express or implied permission shall not apply in respect of a person entitled by law to enter such workplace or premises.
- (2) An employer or a user, as the case may be, shall, if he deems it necessary in the interests of health and safety, post up a notice at every entrance to a workplace prohibiting the entry of unauthorised persons to such workplace and no person shall enter or remain at such workplace without the permission of the employer or user, as the case may be.

[Reg 2C ins by reg 2 of GoN R928 in G. 25128.]

3. First aid, emergency equipment and procedures

- (1) An employer shall take all reasonable steps that are necessary under the circumstances, to ensure that persons at work receive prompt first aid treatment in case of injury or emergency.
- (2) Where more than five employees are employed at a workplace, the employer of such employees shall provide a first aid box or boxes at or near the workplace which shall be available and accessible for the treatment of injured persons at that workplace.

(3)

- (a) Taking into account the type of injuries that are likely to occur at a workplace, the nature of the activities performed and the number of employees employed at such workplace, the employer shall make sure that the first aid box or boxes contemplated in subregulation (2) contain suitable first aid equipment which include at least the equipment listed in the Annexure hereto.
 - (b) Such an employer shall make sure that only articles and equipment contemplated in subregulation (a) or other similar equipment or medicine is kept in the first aid box or boxes.
- (4) Where more than 10 employees are employed at a workplace, the employer of such employees shall take steps to ensure that for every group of up to 50 employees at that workplace, or in the case of a shop or an office as contemplated in the Basic Conditions of Employment Act, 1983 (Act 3 of 1983), for every group of up to 100 employees, at least one person is readily available during normal working hours, who is in possession of a valid certificate of competency in first aid, issued by—
- (a) the SA Red Cross Society;
 - (b) the St. John's Ambulance;
 - (c) the SA First Aid League; or
 - (d) a person or organisation approved by the chief inspector for this purpose.
- (5) An employer shall at a workplace where a high-risk substance or toxic, corrosive or similar hazardous substances are used, handled, processed or manufactured, ensure that the first aid worker contemplated in subregulation (4) is trained in the first aid procedures that are necessary for the treatment of injuries that may result from such activities, including the acute detrimental effects of exposure to such substances, and in the emergency procedures which are necessary in the case of accidental leakage or dumping of such substances.
- (6) An employer shall affix a prominent notice or sign in a conspicuous place at a workplace, indicating where the first aid box or boxes are kept as well as the name of the person in charge of such first aid box or boxes.
- (7) An employee with an open wound, cut, sore or any similar injury, who works in a workplace where a substance contemplated in subregulation 5 is used, handled, processed or manufactured, shall report such injury to his employer forthwith. The employer may not permit such employee to continue working before the injury has been cleaned with soap and water or with a diluted disinfectant.
- (8) Where an employee is exposed or can be exposed to a potential hazard of injury to the eye through contact with a biological or chemical substance, the employer concerned shall make sure that there is an eye-wash fountain, or any similar facilities, in the immediate vicinity of the workplace of such an employee and that the employee is trained in the use thereof.

[Reg 3(8) subs by GoN R3167 in G. 14410.]

- (9) Where an employee at a workplace is exposed or can be exposed to a potential hazard of injury to or absorption through the skin as a result of sudden contact with a large amount of toxic, corrosive, high risk or similar hazardous substance, the employer concerned shall make sure that there is a fast-reacting deluge-shower with clean water or a similar facility in the immediate vicinity of the workplace of such employee and that the employee is trained in the use thereof.

[Reg 3 subs by reg 2 of GoN R2245 in G. 14192.]

4. Use and storage of flammable liquids

- (1) No employer shall require or permit any person to work in a place where the vapour of any flammable liquid is generated to such an extent that it constitutes an actual or potential fire or explosion hazard or endangers the safety of any person, unless the provisions of subregulations (2) to (12) of this regulation are complied with.
- (2) No employer shall require or permit a flammable liquid to be used or applied other than in a room, cabinet or other enclosure specially constructed for this purpose of fire-resisting material, or in a place which, owing to its situation or construction or any other feature or circumstance, is of such a nature that—
- (a) no fire or explosion hazard is, can or may be created thereat;
 - (b) any vapour resulting from such use or application is efficiently dispersed and diluted into the atmosphere subject to the provisions of the Air Pollution Prevention Act, 1965 (Act 45 of 1965); and
 - (c) no other workplace can or may be contaminated by such vapour.

[Reg 4(2) am by reg 3 of GoN R1791 in G. 11497.]

- (3) An employer shall cause every room, cabinet or enclosure contemplated in subregulation (2) to be fitted with an efficient intake and exhaust ventilation system to remove any vapour therefrom and to prevent its re-circulation in a manner which may lead to the contamination of any other workplace or the creation of a fire or explosion hazard: Provided that, notwithstanding any other provision of this regulation, an employer shall provide every employee doing spraying with a respirator, mask or breathing apparatus of a type approved by the chief inspector, and that any such employee shall while spraying use such apparatus provided to him.
- (4) Where spraying is done in any room the employer concerned shall cause the ventilation system contemplated in subregulation (3) to conform to the following requirements—

- (a) If the air supply and extraction is horizontal, the average air speed measured at a level of 1,5 metres above the floor, or at the level of the platform on which persons stand to work, shall not be less than 0,5 metres per second;
 - (b) if the air supply is vertical and the extraction thereof is done through slits or a grill along the side walls at floor level, the average air speed measured at a level of 1,5 metres above the floor, or at the level of the platform on which persons stand to work, shall not be less than 0,4 metres per second; or
 - (c) if the air supply is vertical and the extraction thereof is done through a grill over the whole of the floor area, the average air speed measured at a level of 1,5 metres above the floor, or at the level of the platform on which persons stand to work, shall not be less than 0,3 metres per second.
- (5) Where spraying is done into any cabinet or enclosure as contemplated in subregulation (2), the employer concerned shall cause the ventilation system contemplated in subregulation (3) to comply with the following requirements—
- (a) Where the area of the open face of the cabinet is not more than one square metre, the average speed of air movement through the said face shall not be less than one metre per second;
 - (b) where the area of the open face is more than one square metre but less than two square metres, the average speed of air movement through the said face shall not be less than 0,75 metres per second; or
 - (c) where the area of the open face is equal to or exceeds two square metres, the average speed of air movement through the said face shall not be less than 0,5 metres per second.
- (6) With regard to the ventilation system contemplated in subregulation (3) the employer shall cause—
- (a) all ducts, trunks and enclosures of the system to be of fire-resistant material with a smooth interior finish and to be constructed in such a manner as to facilitate the cleaning thereof;
 - (b) the system to be kept in operation during working hours as well as for at least the period of time thereafter that may be necessary to clear the vapour from the atmosphere of the room, cabinet or enclosure to below 25 per cent of the lower explosive limit of that vapour; and
 - (c) the work to be so organised that the flow of air towards the intake of such ventilation system is not obstructed and draws the spray or vapour of the flammable liquid away from any employee operating the equipment.

- (7) With regard to any room contemplated in subregulation (2) the employer shall cause every such room—
- (a) with a floor area exceeding 20 square metres to have at least two separate entrances at opposite ends of the room, which shall be fitted with doors opening outwards that cannot be locked; and
 - (b) to be fitted with an inspection window of strengthened and shatterproof glass that cannot be opened.
- (8)
- (a) An employer shall not permit—
 - (i) any fire, flame or naked light or anything which may generate static electricity or any other thing which may ignite a flammable liquid or its vapour, to be used in or taken into any room, cabinet or enclosure contemplated in subregulation (2) in which any such flammable liquid is used, sprayed or stored, and shall affix a suitable and conspicuous sign prohibiting any such act at all the entrances to any such room, cabinet or enclosure;
 - (ii) any person to, and no person shall, smoke in any place in which flammable liquid is used or stored, and such employer shall affix a suitable and conspicuous notice prohibiting such smoking at all the entrances to any such place; and
 - (iii) any process capable of causing sparks or fire, or the application of any heat for the drying of sprayed or treated articles, to take place in any room, cabinet or enclosure used for spraying, before the space or atmosphere has been cleared of all vapour,
 - (b) No person shall contravene any prohibition made known as contemplated in subparagraph (i) or (ii) of paragraph (a).
- (9) With respect to any room, cabinet or enclosure contemplated in subregulation (2), the employer concerned shall cause—
- (a) discarded cotton waste, cleaning rags or similar material to be removed daily and safely disposed of;
 - (b) only that quantity of flammable liquid needed for work on one day to be taken into or kept in such room, cabinet or enclosure: Provided that partially consumed stock may be stored in a properly marked, fireproof wall cabinet inside the workplace;

- (c) all drums, cans, canisters or similar containers holding flammable liquids to be kept tightly closed when not in actual use and, after their contents have been used up, to be removed from the workplace and safely disposed of daily; and
 - (d) every such room, cabinet or enclosure to be kept clean and all fans, ducts, trunks and enclosures of the ventilation system contemplated in subregulation (3) to be kept clean and in good working order: Provided that any cleaning, scraping or scouring shall be done with implements that cannot cause sparking if the concentration of the vapour exceeds 25 per cent of the lower explosive limit of that vapour.
- (10) An employer shall cause every flammable liquid store to be—
- (a) separated by means of fire-resisting material with a fire-resistance of two hours from any room, cabinet or enclosure contemplated in subregulation (2);
 - (b) constructed of fire-resisting material with a fire-resistance of two hours;
 - (c) constructed in such a way that, in case of spillage, a volume of the flammable liquid in question equal to the quantity of flammable liquid ordinarily kept in store plus 10 per cent of that quantity, can be contained;
 - (d) ventilated to the open air in such a manner that vapour cannot accumulate inside the store; and
 - (e) clearly marked with a sign indicating that it is such a store and also indicating the amount of flammable liquid which may be stored therein.
- (11) Taking into account the construction and location of the premises in question and the quantity and types of flammable liquids involved, an employer shall install an adequate amount of efficient fire-fighting equipment in suitable locations in and around every building in which such substances are used, handled or stored, or as may be recommended by the fire chief of the local authority concerned.
- (12) The provisions of this regulation shall not be construed as applying to the use of flammable liquids in the course of or in connection with building work: Provided that every employer engaged in building work shall ensure that, where flammable liquids are used or applied at the workplace concerned, this is done in such a manner that no fire or explosion hazard is created, and that the workplace is effectively ventilated: Provided further that where the workplace cannot be ventilated effectively the employer shall provide every employee involved with a respirator, mask or breathing apparatus of a type approved by the chief inspector, and shall take steps to ensure that every such employee, while using or applying flammable liquid, uses the apparatus supplied to him.

5. **Work in confined spaces**

- (1) An employer or a user of machinery shall take steps to ensure that a confined space is entered by an employee or other person only after the air therein has been tested and evaluated by a person who is competent to pronounce on the safety thereof, and who has certified in writing that the confined space is safe and will remain safe while any person is in the confined space, taking into account the nature and duration of the work to be performed therein.

- (2) Where the provisions of subregulation (1) cannot be complied with the employer or user of machinery, as the case may be, shall take steps to ensure that any confined space in which there exists or is likely to exist a hazardous gas, vapour, dust or fumes, or which has or is likely to have, an oxygen content of less than 20 per cent by volume, is entered by an employee or other person only when—
 - (a) subject to the provisions of subregulation (3), the confined space is purged and ventilated to provide a safe atmosphere therein and measures necessary to maintain a safe atmosphere therein have been taken; and
 - (b) the confined space has been isolated from all pipes, ducts and other communicating openings by means of effective blanking other than the shutting or locking of a valve or a cock, or, if this is not practicable, only when all valves and cocks which are a potential source of danger have been locked and securely fastened by means of chains and padlocks.

- (3) Where the provisions of subregulation (2)(a) cannot be complied with, the employer or user of machinery shall take steps to ensure that the confined space in question is entered only when the employee or person entering is using breathing apparatus of a type approved by the chief inspector and, further, that—
 - (a) the provisions of subregulation (2)(b) are complied with;
 - (b) any employee or person entering the confined space is using a safety harness or other similar equipment, to which a rope is securely attached which reaches beyond the access to the confined space, and the free end of which is attended to by a person referred to in paragraph (c);
 - (c) at least one other person trained in resuscitation is and remains in attendance immediately outside the entrance of the confined space in order to assist or remove any person or persons from the confined space, if necessary; and
 - (d) effective apparatus for breathing and resuscitation of a type approved by the chief inspector is available immediately outside the confined space.

- (4) An employer or user of machinery shall take steps to ensure that all persons vacate a confined space on completion of any work therein.

- (5) Where the hazardous gas, vapour, dust or fumes contemplated in subregulation (2) are of an explosive or flammable nature, an employer or user of machinery shall further take steps to ensure that such a confined space is entered only if—
- (a) the concentration of the gas, vapour, dust or fumes does not exceed 25 per cent of the lower explosive limit of the gas, vapour, dust or fumes concerned where the work to be performed is of such a nature that it does not create a source of ignition; or
 - (b) such concentration does not exceed 10 per cent of the lower explosive limit of the gas, vapour, dust or fumes where other work is performed.
- (6) The provisions of this regulation shall *mutatis mutandis* also apply, in so far as they can be so applied, to any work which is performed in any place or space on the outside of and bordering on or in the immediate vicinity of, any confined space, and in which place or space, owing to its proximity to the confined space, any hazardous article, oxygen-deficient atmosphere or dangerous concentration of gas, vapour, dust or fumes may occur or be present.

6. Work in elevated positions

No employer shall require or permit any person to work in an elevated position, and no person shall work in an elevated position, unless such work is performed safely from a ladder or scaffolding, or from a position where such person has been made as safe as if he were working from scaffolding.

7. Working in danger of engulfment

No employer shall require or permit any person to, and no person shall, enter any place from or into which solid or particulate material is being discharged where a danger exists of a person being engulfed by such solid or particulate material, unless—

- (a) such a person is provided with and properly uses a safety belt and rope;
- (b) at least one other person who has been properly instructed is and remains in attendance outside such place to keep the persons therein under continuous observation in order to render assistance in case of emergency; and
- (c) the precautions prescribed by regulation 5 of these regulations are taken if dangerous gas, fumes, dust or vapour maybe present in such a place.

8. Stacking of articles

- (1) No employer shall require or permit the building of stacks which consist of successive tiers, one on top of another, unless—

- (a) the stacking operation is executed by or under the personal supervision of a person with specific knowledge and experience of this type of work;
 - (b) the base is level and capable of sustaining the weight exerted on it by the stack;
 - (c) the articles in the lower tiers are capable of sustaining the weight exerted, on them by the articles stacked above them;
 - (d) all the articles which make up any single tier are consistently of the same size, shape and mass;
 - (e) pallets and containers are in good condition; and
 - (f) any support structure used for the stacking of articles is structurally sound and can support the articles to be stacked on it.
- (2) An employer shall not permit—
- (a) articles to be removed from a stack except from the topmost tier or part of that tier; and
 - (b) anybody to climb onto or from a stack, except if the stack is stable and the climbing is done with the aid of a ladder or other safe facility or means.
- (3) An employer shall take steps to ensure that—
- (a) persons engaged in stacking operations do not come within reach of machinery which may endanger their safety;
 - (b) stacks that are in danger of collapsing are dismantled immediately in a safe manner; and
 - (c) the stability of stacks is not endangered by vehicles or other machinery or persons moving past them.
- (4) Unless a stack is otherwise supported an employer shall take steps to ensure that tiers of stacked material consisting of sacks, cases, cartons, tins or similar containers—
- (a) are secured by laying up articles in a header and stretcher fashion and that corners are securely bonded; and
 - (b) are stepped back half the depth of a single container at least every fifth tier or that, alternatively, successive tiers are stepped back by a lesser amount: Provided that at least the same average angle of inclination to the vertical is achieved: Provided further that where the containers are of

a regular shape and their nature and size are such that the stack will be stable, they may be stacked with the sides of the stack vertical if the total height of the stack does not exceed three times the smaller dimension of the underlying base of the stack.

- (5) Notwithstanding the provisions of subregulation (4), free-standing stacks that are built with the aid of machinery may, with the approval of an inspector, be built to a height and in a manner permitted by the nature of the containers being stacked: Provided that—
- (a) the stacks are stable and do not overhang; and
 - (b) the operator of the stacking machinery is rendered safe as regards falling articles.

9. Welding, flame cutting, soldering and similar operations

- (1) No employer or user of machinery shall require or permit welding or flame cutting operations to be undertaken, unless—
- (a) the person operating the equipment has been fully instructed in the safe operation and use of such equipment and in the hazards which may arise from its use;
 - (b) effective protection is provided and used for the eyes and respiratory system and, where necessary, for the face, hands, feet, legs, body and clothing of persons performing such operations, as well as against heat, incandescent or flying particles or dangerous radiation;
 - (c) leads and electrode holders are effectively insulated; and
 - (d) the workplace is effectively partitioned off where practicable and where not practicable all other persons exposed to the hazards contemplated in paragraph (b) are warned and provided with suitable protective equipment.
- (2) No employer or user of machinery shall require or permit welding or flame cutting operations to be undertaken in a confined space, unless—
- (a) effective ventilation is provided and maintained; or
 - (b) masks or hoods maintaining a supply of safe air for breathing are provided and used by the persons performing such operations.
- (3) No employer or user of machinery shall require or permit electric welding to be undertaken in wet or damp places, inside metal vessels or in contact with large masses of metal, unless—
- (a) the insulation of the electrical leads is in a sound condition;

- (b) the electrode holder is completely insulated to prevent accidental contact with current-carrying parts;
 - (c) the welder is completely insulated by means of boots, gloves or rubber mats; and
 - (d) at least one other person who has been properly instructed to assist the welder in case of an emergency is and remains in attendance during operations: Provided that the provisions of this subregulation shall not apply to a welding process where the maximum voltage to earth does not exceed 50 volts.
- (4) No employer or user of machinery shall require or permit welding, flame cutting, grinding, soldering or similar work to be undertaken in respect of any tube, tank, drum, vessel or similar object or container where such object or container—
- (a) is completely closed, unless a rise in internal pressure cannot render it dangerous; or
 - (b) contains any substance which, under the action of heat, may—
 - (i) ignite or explode; or
 - (ii) react to form dangerous or poisonous substances,unless a person who is competent to pronounce on the safety thereof has, after examination, certified in writing that any such danger has been removed by opening, ventilating or purging with water or steam, or by any other effective means.
- (5) Where hot work involving welding, cutting, brazing or soldering operations is carried out at places, other than workplaces which have been specifically designated and equipped for such work, the employer shall take steps to ensure that proper and adequate fire precautions are taken.

10. Operating trains

- (1) An employer or a user of machinery who operates a train or a train of tramway-trucks, as the case may be, shall cause a signaller carrying a red flag or red light to be stationed at every level crossing where a railway line or tramway crosses or joins a railway or a road, or shall provide other adequate means at such crossing to warn—
- (a) the driver of the train or the train of tramway-trucks of the approach of a train; and
 - (b) traffic on the road of the approach of the train or train of tramway-trucks.

- (2) An employer or a user of machinery shall not permit a train or a train of tramway-trucks to be run over a level crossing contemplated in subregulation (1) at a speed in excess of 10 kilometres per hour, and the driver thereof shall not exceed such speed.
- (3) No person shall drive or permit any other person to drive a locomotive, unless authorised to do so by his employer or the user of machinery, as the case may be.
- (4) An employer or a user of machinery shall not, except as provided for in subregulation (5), authorise any person to drive a locomotive while it is being used for the conveyance of persons other than those required for the working of the locomotive or train, unless such person is the holder of a locomotive engine driver's certificate issued by the South African Transport Services or in terms of regulations made under the Mines and Works Act, 1956 (Act 27 of 1956).
- (5) In the case of a locomotive other than a steam locomotive, having a design speed not exceeding 20 kilometres per hour, an employer or user of machinery, as the case may be, may authorise a person who has attained the age of 18 years to drive such a locomotive while it is being used for the conveyance of persons: Provided that—
 - (a) the employer or user of machinery is satisfied that the sight and hearing of any such person are not defective and that he does not suffer from any other physical or mental infirmity which is likely to interfere with the efficient and safe performance of his duties; and
 - (b) the person so authorised is competent to carry out the duties assigned to him.
- (6) The provisions of this regulation shall not apply to trains operated by the South African Transport Services.

11. ...

[Reg 11 rep by reg 31 of GoN R1010 in G. 25207.]

12. ...

[Reg 12 rep by reg 31 of GoN R1010 in G. 25207.]

13. ...

[Reg 13 rep by reg 31 of GoN R1010 in G. 25207.]

13A. Ladders

- (1) An employer shall ensure that every ladder is constructed of sound material and is suitable for the purpose for which it is used, and—

- (a) is fitted with non-skid devices at the bottom ends and hooks or similar devices at the upper ends of the stiles which shall ensure the stability of the ladder during normal use; or
 - (b) is so lashed, held or secured whilst being used as to ensure the stability of the ladder under all conditions and at all times.
- (2) No employer shall use a ladder, or permit it to be used, if it—
- (a)
 - (i) has rungs fastened to the stiles only by means of nails, screws, spikes or in like manner; or
 - (ii) has rungs which have not been properly let into the stiles: Provided that in the case of welded ladders or ladders of which the rungs are bolted or rivetted to the stiles, the rungs need not be let into the stiles; or
 - (b) has damaged stiles, or damaged or missing rungs.
- (3) No employer may permit that—
- (a) a ladder which is required to be leaned against an object for support be used which is longer than 9 m; and
 - (b) except with the approval of an inspector, the reach of a ladder be extended by fastening together two or more ladders:
- Provided that the provisions of this subregulation shall not apply to extension or free-standing ladders.
- (4) In the case of wooden ladders the employer shall ensure that—
- (a) the ladders are constructed of straight grained wood, free from defects, and with the grain running in the length of the stiles and rungs; and
 - (b) the ladders are not painted or covered in any manner, unless it has been established that there are no cracks or other inherent weaknesses: Provided that ladders may be treated with oil or covered with clear varnish or wood preservative.
- (5) When work is done from a ladder, the employer shall—
- (a) take special precautionary measures to prevent articles from falling off; and
 - (b) provide suitable sheaths or receptacles in which handtools shall be kept when not being used.

- (6) An employer shall ensure that a fixed ladder which exceeds 5 m in length and is attached to a vertical structure with an inclination to the horizontal level of 75° or more—
- (a) has its rungs at least 150 mm away from the structure to which the ladder is attached; and
 - (b) is provided with a cage which—
 - (i) extends from a point not exceeding 2,5 m from the lower level to a height of at least 900 mm above the top level served by the ladder; and
 - (ii) shall afford firm support along its whole length for the back of the person climbing the ladder, and for which purpose no part of the cage shall be more than 700 mm away from the level of the rungs:

Provided that the foregoing provisions of paragraph (b) shall not apply if platforms, which are spaced not more than 8 m apart and suitable for persons to rest on, are provided.

[Reg 13A ins by reg 4 of GoN R1791 in G. 11497.]

13B. Ramps

- (1) An employer shall ensure that every ramp—
- (a) is constructed in accordance with accepted technical standards;
 - (b) has a safety factor of at least two with respect to the load it is expected to carry: Provided that the design makes sufficient provision for the load on the ramp as a result of the turning, braking and acceleration of vehicles, if the ramp is used for vehicles; and
 - (c) has an inclination to the horizontal level of not more than 34° or one vertical to one and one half horizontal.
- (2) An employer shall ensure that every ramp—
- (a) the inclination of which renders additional foothold necessary, but in every case where the inclination is more than 14° or one vertical to four horizontal, is provided with stepping laths which-
 - (i) are placed at suitable intervals; and
 - (ii) extend the full width of the ramp: Provided that the stepping laths may be interrupted over a width not exceeding 230 mm to facilitate the movement of barrows; and

- (b) which is higher than 2 m and is provided on both sides with—
- (i) substantial guard rails which are at least 900 mm and not exceeding 1 000 mm in height, and
 - (ii) toe-boards which are at least 150 mm high and so affixed that no open space exists between the toe-board and the ramp.

[Reg 13B ins by reg 4 of GoN R1791 in G. 11497.]

13C. ...

[Reg 13C ins by reg 4 of GoN R1791 in G. 11497; rep by reg 31 of GoN R1010 in G. 25207.]

13D. ...

[Reg 13D ins by reg 4 of GoN R1791 in G. 11497; rep by reg 31 of GoN R1010 in G. 25207.]

13E. ...

[Reg 13E ins by reg 4 of GoN R1791 in G. 11497; rep by reg 31 of GoN R1010 in G. 25207.]

13F. ...

[Reg 13F ins by reg 4 of GoN R1791 in G. 11497; rep by reg 31 of GoN R1010 in G. 25207.]

13G. ...

[Reg 13G by reg 4 of GoN R1791 in G. 11497; rep by reg 31 of GoN R1010 in G. 25207.]

14. Offences and penalties

Any person who contravenes or fails to comply with any provision of regulation 2(1), 2(2) [read with 2(3)], 2(4), 2(5), 2(6), 2A, 2C, 3, 4, 5, 6, 7, 8(1), 8(2), 8(3), 8(4), 9, 10(1), 10(2), 10(3), 10(4), 11(1), 12, 13A, 13B, 13C, 13D, 13E, 13F, or 13G shall be guilty of an offence and liable, on conviction to a fine or to imprisonment for a period not exceeding six 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 on which the offence continues: Provided that the period of such additional imprisonment shall in no case exceed 90 days.

[Reg 14 am by reg 5 of GoN R1791 in G. 11497, reg 2 of GoN R928 in G. 25128.]

15. Withdrawal of regulations

The following regulations are hereby repealed—

- (a) Regulations B.6, B.12 and B.14, published under Government Notice R.929 of 28 June 1963;

(b) regulations C.13, C.13B, C.13C, C.13D, C.13E, C.13F, C.14, C.16, C.17, C.20, C.47, C.48 and C.50, published under Government Notice R.929 of 28 June 1963, as amended by Government Notices R.3475 of 9 October 1969 and R.109 of 26 January 1973;

[Reg 15(b) am by GoN R433 in G. 10282.]

(c) regulation C.13A, published under Government Notice R.109 of 26 January 1973; and

(d) regulations D.1, D.3, D.5, D.6, D.7, D.8, D.9, D.10, D.11, D.12, D.13, D.14, D.16, D.21 and D.22, published under Government Notice R.1934 of 13 December 1963, as amended by Government Notices R.3475 of 9 October 1969, R.1336 of 21 August 1970 and R.109 of 26 January 1973.

[Reg 15(d) am by GoN R433 in G. 10282.]

16. Short title

These regulations shall be called the General Safety Regulations.

ANNEXURE

(Regulation 3)

MINIMUM CONTENTS OF A FIRST-AID BOX

In the case of shops and offices, the quantities stated under items 1, 8, 9, 10, 14, 15, 17 and 18 may be reduced by half.

Item 1: Wound cleaner / antiseptic (100 ml).

Item 2: Swabs for cleaning wounds.

Item 3: Cotton wool for padding (100 g).

Item 4: Sterile gauze (minimum quantity 10).

Item 5: 1 Pair of forceps (for splinters).

Item 6: 1 Pair of scissors (minimum size 100 mm).

Item 7: 1 Set of safety pins.

Item 8: 4 Triangular bandages.

Item 9: 4 Roller bandages (75 mm x 5 m).

Item 10: 4 Roller bandages (100 mm x 5 m).

Item 11: 1 Roll of elastic adhesive (25 mm x 3 m).

Item 12: 1 Non-allergenic adhesive strip (25 mm x 3 m).

Item 13: 1 Packet of adhesive dressing strips (minimum quantity, 10 assorted sizes).

Item 14: 4 First aid dressings (75 mm x 100 mm).

Item 15: 4 First aid dressings (150 mm x 200 mm).

Item 16: 2 Straight splints.

Item 17: 2 Pairs large and 2 pairs medium disposable latex gloves.

Item 18: 2 CPR mouth pieces or similar devices.

[Annex subs by reg 2 of GoN R2245 in G. 14192.]