

EMERGENCY EVACUATION PLANS

21. (1) The owner or occupier of designated premises must -

(a) within 30 days after the premises have been designated by the Service, prepare a comprehensive emergency evacuation plan for that premises, in triplicate, and have it ready for inspection and approval by the Service, in accordance with the guidelines prescribed in Annexure III to these by-laws;

(b) constitute an internal fire protection committee from among the internal staff and occupiers to assist with the planning and organisation of a fire protection programme, which programme includes regular, scheduled fire evacuation drills on the premises;

(c) ensure that -

(i) The emergency evacuation plan is revised and updated whenever the floor layout changes or whenever the Service requires revision or updating, but in any case at least every twelve months;

(ii) updated records of revised emergency evacuation plans, fire protection programmes, evacuation drills and related documents are kept and maintained at all times; and

(iii) the emergency evacuation plan and relevant documents are at all times available in a control room for inspection by the Service; and

(d) identify a predetermined place of safety outside, but in the vicinity of, the designated premises, where occupiers may gather during an emergency situation for the purpose of compiling a list of survivors.

(2) The Service may from time to time -

(a) provide directives for updating and/or amending an emergency evacuation plan;

(b) instruct the owner or occupier of designated premises in writing to implement such fire protection programmes that, in the opinion of the Chief Fire Officer, are necessary to ensure the safety of the occupiers of the designated premises; and

(c) require the owner or occupier of designated premises to furnish the Service with a certified copy of any emergency evacuation plan and/or relevant documents on such day and at such time and place as the Service may determine.

(3) Any person who fails to comply with the provisions of this section is guilty of an offence.

CERTIFICATES OF FITNESS FOR ALL PUBLIC BUILDINGS

22. (1) The owner of any public building, or of any temporary structure which is erected or intended for holding public gatherings, must apply in writing to the Service for the issuing of a certificate of fitness for every type of gathering or for the proceedings envisaged in the premises or structure, and must pay the fees, as determined in Annexure I to these by-laws, when submitting the application form (the design guidelines appear in Annexure II to these by-laws).

(2) No certificate of fitness will be issued for a public building unless the relevant provisions of these by-laws have been complied with.

(3) A certificate of fitness issued to the owner of a public building will be endorsed with the following information, where applicable:

(a) The trade name and street address of each occupier

(b) The type of activity of each occupier

(c) The name of the persons on the executive

(d) The permissible number of people in proportion to the usable floor area

(e) The number of emergency exits and their widths

(f) A cancellation clause in the event of any applicable provision of these by-laws being disregarded

(g) An obligation on the part of the holder of the certificate to -

(i) display the certificate prominently on the premises at all times; and

(ii) maintain the certificate in a legible condition at all times (h) A date, year and serial number (i) The date of expiry of the certificate.

(4) Subject to the provisions of section 24 of these by-laws, a certificate of fitness is not required for a public building, which has been legally erected on commencement of these by-laws.

(5) If the trade name of a public building changes, the holder of the certificate of fitness must ensure that the change is brought to the attention of the Service immediately and in writing.

(6) No certificate of fitness will be issued or renewed, as the case may be, unless and until the controlling authority -

(a) is in possession of a set of plans approved by the Service as referred to in section 25; and

(b) has received the prescribed application form defined in Annexure II to these by-laws, which form has been completed in full and correctly.

(7) The holder of a certificate of fitness must ensure that he/she is at all times in possession of a valid certificate of fitness.

(8) (a) Any expansion or removal of or change in anything relating to or in connection with premises for which a certificate of fitness has been issued will result *ipso facto* in the cancellation of the certificate of fitness, including any other authorisation granted in terms of these by-laws.

(b) The provisions of this subsection are not applicable to any action, which results in the temporary removal of something for the purpose of effecting repairs or replacements in respect of the premises.

(9) (a) The owner must submit, on or before the first working day of December of each year, together with the prescribed fees determined in Annexure I to these by-laws, an application for the renewal of the certificate of fitness to the Service on the prescribed form: Provided that if the

Service for some reason requires plans of the premises in question for the purposes of the renewal application, the plans must accompany the application.

(b) The Service may send a reminder in respect of the renewal.

(10) Any person who fails to comply with the provisions of this section or who alters or attempts to alter a certificate of fitness, or knowingly allows the certificate to be altered, is guilty of an offence.

WATER SUPPLY FOR FIRE-FIGHTING

23. (1) In any township development, a township developer must provide as follows for water supply for fire-fighting purposes:

(a) Double supply mains from the supply source to the distribution reservoirs and double pumps for delivery of the water supply: Provided that if the system has more than one reservoir and the reservoirs are supplied with water via separate supply mains and pumps, the mains and pumps may be regarded as double if the reservoirs are connected to each other.

(b) The water supply from reservoirs must be reticulated so as to ensure that the supply to the same area can be provided from more than one direction.

(c) The storage capacity of reservoirs and the rate of replenishment must be taken into account when calculating the water supply potential of that particular area.

(2) The extinguishing stream and the duration of the stream must at least be equivalent to the requirements set out below for the various risk categories: Provided that the stream may be regarded as the total simultaneous delivery from all fire hydrants within a radius of 270 m of any of the hydrants.

REQUIRED EXTINGUISHING STREAM

PER FIRE RISK CATEGORY

1	2	3
FIRE CATEGORY	RISK EXTINGUISHING (LITRES PER (MINIMUM)	DURATION OF STREAM (HOURS) (MINIMUM)
High risk	11 500	6
Moderate risk	5 750	4
Low risk	2 300	2

(3) The required extinguishing stream must be available to the fire-fighting team immediately on arrival at a fire or any other emergency situation.

(4) Direct liaison between the Service and the Chief Engineer: Water Supply of the controlling authority is required to enable the Chief Engineer to increase the water supply to the emergency situation if an emergency situation occurs during peak times for domestic water consumption or if there is any other factor that may contribute to a diminished water supply.

(5) (a) The minimum stream from each fire hydrant and the maximum distance between fire hydrants for the various risk areas are, subject to subsection (5)(b), as follows:

STREET FIRE HYDRANTS: DELIVERY AND DISTANCES

1	2	3
FIRE CATEGORY	RISK REQUIRED DELIVERY FROM EACH FIRE HYDRANT, DURING COMMUNITY'S PEAK CONSUMPTION (LITRES PER MINUTE)	MAXIMUM DISTANCE BETWEEN FIRE HYDRANTS IN ALL TRAFFIC ROUTES (METRES)
High risk	1 600	120
Moderate risk	1 150	180
Low risk	900	240

(b) Even if a street or road is shorter than provided for in the above table, a fire hydrant must be placed in the road or street reserve in question, after consultation with the Service.

(6) Fire hydrants must be inspected by the Service at least once a year, and a flow and pressure test must be conducted on the stream to determine whether the stream complies with the provisions of subsection (5).

(7) The position of all fire hydrants must be properly plotted for operational use by the Service.

(8) The distribution system must be equipped with control valves positioned so that, if the pipe system (excluding the branches) is damaged or needs to be repaired, it will not be necessary to close off a branch or a portion of any pipe for more than 150 m in high-risk areas or more than 300 m in moderate- and low-risk areas.

(9) If any risk area is developed or redeveloped in such a manner that the risk area falls into the high-risk category, the water reticulation must be adapted accordingly without delay.

(10) Any building developer who requires a water connection to the water reticulation system of the controlling authority must submit a complete set of approved fire protection plans for the premises to the Service, as contemplated in Regulation A9 of the National Building Regulations, to obtain a water connection form, as set out in Annexure II to these by-laws, from the Service for submission to the Chief Engineer: Water Supply of the controlling authority: Provided that -

(a) if the premises are protected by a sprinkler installation, a water connection must be calculated and designed for each sprinkler installation in accordance with appropriate design criteria, and the size, delivery pressure and flow of the water connection must be calculated in advance by the engineer responsible;

(b) if the Service requires a larger water connection for the premises to ensure that fire-fighting equipment functions in accordance with the appropriate design requirements as set out in Part W of SABS 0400, the owner of the premises must provide the required water connection; and

(c) the size, work pressure and delivery flow of any water connection, excluding a water connection as contemplated in subsection (10)(a), must be calculated and designed according to the provisions of Part W of SABS 0400.

REGISTRATION APPLICATIONS FOR EXISTING PREMISES

24. (1) If an owner rebuilds, alters, extends or changes the floor layout of an existing public building that has been legally erected and used, or if

ownership or control of the premises changes, no existing certificate of fitness, certificate of registration or spraying permit, as defined in Annexure II to these by-laws, will be renewed, unless and until all the appropriate provisions of these by-laws regarding an original application have been complied with.

(2) No additions or alterations may be made to any existing registered premises unless and until the owner of such premises has submitted a plan, as determined in section 25 of these by-laws, of the existing premises and of the proposed work to the Director and the Chief Fire Officer and they have approved the plan.

(3) Any person who fails to comply with the provisions of this section is guilty of an offence.

PART IV

HAZARDOUS SUBSTANCES APPLICATION FOR APPROVAL OF PLANS

25. (1) Subject to the provisions of the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977), every owner of

premises on which is a building in respect of which a floor layout change, addition, alteration, upgrading and/or renovation is envisaged, or premises on which bulk, above-ground and underground installations and any other structures are to be erected for the use, storage or handling of hazardous substances or connected with such use, storage or handling, must submit plans in triplicate on the prescribed form (obtainable from the office of the Building Control Officer) to the Director of the controlling authority: Provided that gas manifold installations of which the capacity does not exceed 1 130 l and which the Building Control Officer regards as "minor building work" for approval and registration purposes in terms of section 13 of the National Building Regulations and Building Standards Act, 1977, are subject only to an audit inspection by the Service as defined in the checklist in Annexure VI to these by-laws.

(2) Every application for the approval of a plan in respect of premises for which a certificate of registration and/or spraying permit is required must be accompanied by a set of plans in triplicate, which plans must include the following:

(a) Site plans on a scale of 1:500 on which the following is indicated concerning the premises: (i) The Erf number

(ii) The street(s) on which the premises border and the street number

(iii) The adjacent erven and the Erf numbers

(iv) The suburb in which the premises are situated

(v) The north point

(vi) Any relevant information with regard to building lines and servitudes declared under the town-planning scheme in question.

(b) Detailed layout and elevation drawings in triplicate on a scale of 1:100 or 1:50, as the case may be, on which the following particulars are indicated:

(i) Adjacent buildings or structures, or buildings or structures above or below the ground

(ii) The inside and outside dimensions (expressed as figures) of any room, building, structure or gas installation, or of any tank in which hazardous substances are stored, used or handled

(iii) The position of fire-fighting equipment and/or any other applicable service installations, as the case may be

(iv) A full description of the materials of which such room, building, structure, gas installation or storage tank has been or is to be constructed or has been or is to be enclosed, as the case may be

(v) The locality on the site of any pump, storage tank (whether above or below the ground), storeroom, pipeline (whether above or below the ground), gas installation, storage area, filling area, spraying room or spraying booth

(vi) Mechanical ventilation equipment, with specific reference to the inlets and outlets

(vii) Any electrical devices in terms of subsection (2)(b)(vi) (viii) The position of any main sewer pipes on the premises (ix) Fire installation diagrams.

(3) All plans must -

(a) be signed by the owner of the premises or the person authorised to do so by him/her; and

(b) be coloured as follows:

New masonry	Red
New concrete	Green
New iron or steel	Blue
New wood	Yellow
All existing materials	Grey
	New glass Black

NB: All other new materials must be clearly indicated in colours other than those stipulated above.

Colours for site plans:

Proposed work on site plan	Red
Existing work	Not coloured

Work to be demolished	Black dotted lines
Main sewer pipes	Brown
Storm water drains	Not coloured

(4) The prescribed fees payable to the Service for the approval of plans are determined in Annexure I to these by-laws, but these fees do not include the fees charged by the Director for the approval of plans.

(5) The Service will not accept any plan (except for a plan regarded by the Building Control Officer as "minor building work") unless the official certification of submission of the Director appears on it.

(6) No construction work may be started with on any premises unless the building contractor is in possession of the relevant plans that have been officially certified as approved by the Plan Analysis Section and/or the Hazardous Substances Section of the Service, as the case may be. For the duration of construction work on the premises the plans in question must be available for inspection by the Service.

(7) The provisions of section 23 of the National Building Regulations and Building Standards Act, 1977, are applicable to the approval of plans as regulated in this section.

(8) The approval of any plan by the controlling authority will be null and void if, within one year of the date of such approval, the buildings or constructions have not been erected in accordance with the approved plans.

(9) Any owner of premises or any person who on behalf of the owner is involved in any activity contemplated in this section who fails to comply with the provisions of this section is guilty of an offence.

ISSUING OF CERTIFICATES OF REGISTRATION

26. (1) No person may on any premises use, handle or store quantities of hazardous substances in excess of the quantities mentioned below or permit them to be used, handled or stored, unless and until the person is in possession of a certificate of registration as defined in Annexure II to these by-laws, issued in respect of the specific quantities and appropriate devices on approved premises: Provided that if only one of the groupings mentioned below is present on the premises and the applicable maximum permissible quantity is not exceeded, the provisions of this section are not applicable:

Group I:	Explosives	
Fireworks		No exemption
Group II:	Gases	
	2.1 Flammable gases	Total cylinder capacity may not exceed 48 kg
	2.2 Non-flammable gases	Total cylinder capacity may not exceed 333 kg
	2.3 Toxic gases	No exemption
Group III:	Flammable liquids	
	3.1 With flash points < 18 °C	Total quantity may not exceed 100 l
	3.2 With flash points > 18 °C but < -23°C	Total quantity may not exceed 420 l

	3.3 With flash points > 23 °C but < -61 °C	Total quantity may not exceed 1 100 l	may	not
	3.4 With flash points > 61 °C but < -5 100 °C	Total quantity may not exceed 1 100 l	may	not
Group IV:	Flammable solids			
	4.1 Flammable solids	Total quantity may not exceed 250 kg		
	4.2 Pyrophoric substances	No exemption		
	4.3 Water-reactive substances	No exemption		
Group V:	Oxidising agents and organic peroxides			
	5.1 Oxidising agents	Total quantity may not exceed 200 kg		
	5.2 Group I organic	No exemption peroxides in packets		
	5.3 Group II organic peroxides in packets	Total quantity may not exceed 200 kg		
Group VI:	Toxic/Infective substances			
	6.1 Group I toxic substances in packets	Total quantity may not exceed 5 kg		
	6.2 Group II toxic substances in packets	Total quantity may not exceed 50 kg		
	6.3 Group III toxic substances in packets	Total quantity may not exceed 500 kg		
	6.4 Infective substances	No exemption		
Group VII:	Radioactive materials	No exemption		
Group VIII:	Corrosive/Caustic substances			
	8.1 Group I acids in packets	Total quantity may not exceed 50 kg		
	8.2 Group II acids in packets	Total quantity may not exceed 200 kg		
	8.3 Group III acids in packets	Total quantity may not exceed 1 000 kg		
	8.4 Group I alkaline substances in packets	Total quantity may not exceed 50 kg		
	8.5 Group II alkaline substances in packets	Total quantity may not exceed 200 kg		
	8.6 Group III alkaline substances in packets	Total quantity may not exceed 1 000 kg		
Group IX:	Miscellaneous substances			
	9.1 Liquids	Total quantity may not exceed 210 l		
	9.2 Solids	Total quantity may not exceed 210 kg		

(2) No person may, on any unregistered premises, store, use or handle any of the hazardous substances referred to in subsection (1), or have them stored, used or handled, or permit them to be stored, used or handled, unless the hazardous substances are stored, used or handled in such place or in such manner as to ensure that -

(a) no hazardous substance or fumes of the substance come into contact or are likely to come into contact with any fire, flame, naked light or other source of ignition that may cause the hazardous substance or fumes to catch fire;

(b) the escape of human beings or animals is not hindered or obstructed in the event of a fire or an emergency situation.

(3) No person may, on any unregistered premises, use or handle hazardous substances, or have them used or handled or permit them to be used or handled on the premises, except in a suitable place out of doors to ensure that any fumes can escape freely, or in a properly and naturally

ventilated room to ensure that any fumes or gas does not collect in the room but is effectively disposed of.

(4) Hazardous substances may be stored on unregistered premises only if the hazardous substances are stored in strong, labelled containers that seal tightly when not in use.

(5) No certificate of registration will be issued in respect of premises for the use, handling or storage of hazardous substances, unless all the applicable provisions of these by-laws have been complied with and a written application for registration, on the prescribed form, as described in Annexure II to these by-laws, has been submitted to the Service, together with the fees prescribed in Annexure I to these bylaws.

(6) When a certificate of registration is issued, the certificate must be endorsed with the following conditions, namely that the certificate -

(a) must at all times be displayed in a weatherproof container in a conspicuous place on the premises designated by a member of the Service;

(b) must be maintained in a legible condition at all times;

(c) must reflect the groups and the quantities of hazardous substances for which the premises have been registered;

(d) must reflect the number of aboveground and/or underground storage tanks or storage facilities, and the capacity of each such storage tank or storage facility;

(e) must reflect the number of storerooms and the total capacity of each storeroom;

(f) must reflect the number of gas installations, the type of gas installation and the total volume and/or delivery capacity of each installation;

(g) must specify the number of storage facilities for other hazardous substances, and reflect the volumes intended for each facility;

(h) must reflect a serial number;

(i) must indicate whether the issue of such certificate is permanent or temporary;

(j) must reflect the period of validity and the expiry date of the certificate: Provided that the period of validity will be only twelve calendar months, calculated from the date of issue, and written application for renewal of the certificate reaches the Service at least one calendar month prior to the expiry date;

(k) will not be transferable from premises to premises;

(l) must, subject to the provisions of section 24 of these by-laws, be transferable from owner to owner and/or from control to control on the same premises: Provided that -

(i) application for such transfer is made to the Service on the prescribed form; and

(ii) if the trade name of the premises changes, the holder of the spraying permit and/or certificate of registration must ensure that the change is immediately brought to the attention of the Service;

(m) will not be issued unless the Service is in possession of a set of approved plans as required by section 25 of these by-laws; and

(n) will not be issued or renewed unless the prescribed application form has been completed in full and has been submitted.

(7) (a) Any person who has a legal certificate of registration in his/her possession may apply in writing on the prescribed form to have the total quantity of flammable liquids and number of underground tanks, storerooms, gas installations and other storage areas amended, according to need, and the form must be accompanied by the prescribed fee.

(b) The Service will approve an application only if the proposed amendments comply with the provisions of these by-laws.

(c) If the application is approved, the applicant must submit his/her certificate of registration to the Service for amendment.

(8) The Service may send a holder of a certificate of registration a reminder for renewal of registration.

(9) The holder of a certificate of registration must ensure that he/she is at all times in possession of a valid certificate of registration.

(10) Any person who fails to comply with the provisions of this section, or who alters a certificate of registration or who attempts to alter the certificate or permits the certificate to be altered is guilty of an offence.

SUPPLY OF HAZARDOUS SUBSTANCES

27. (1) No person may -

(a) supply more hazardous substances than the quantities referred to in section 26(1) of these by-laws to any unregistered premises, or have them supplied or permit them to be supplied;

(b) deliver or supply more hazardous substances than the quantity specified in the applicable certificate of registration, or hazardous substances of a group other than that specified in such certificate of registration to any premises or person, or have them delivered or supplied or permit them to be delivered or supplied.

(2) No person may handle any container containing a hazardous substance in such a manner that will damage or may damage that container, or permit the container to be damaged.

(3) Any person who fails to comply with the provisions of this section is guilty of an offence.

EXEMPTIONS

28. (1) Notwithstanding anything to the contrary in these by-laws -

(a) flammable liquids will not be deemed to be stored, handled or transported whenever the liquids are in the fuel tank of a motor vehicle for normal use;

(b) flammable liquids will not be deemed to be stored, handled or transported if the liquids are in the fuel tank of a stationary engine: Provided that the volume of the fuel tank does not exceed 1 100 l and the fuel tank is surrounded by a liquid-proof retaining wall filled with -

(i) granite ballast with a nominal diameter of at least 40 mm; or (ii) quartzite ballast with a nominal diameter of at least 50 mm;

Provided further that the fuel tank must be capable of containing the maximum proposed quantity of liquid, plus 10% of the volume of the tank.

(2) Any person who fails to comply with the provisions of this section is guilty of an offence.

RENEWAL OF SPRAYING PERMITS AND/OR CERTIFICATES OF REGISTRATION

29. (1) Any holder of a certificate of registration or spraying permit must, before the first working day of December each year, submit an application for renewal of the certificate or permit to the Service on the prescribed form, which form must be accompanied by the fees prescribed in Annexure I to these by-laws: Provided that the Service may require further, additional and/or amended plans of the premises in question for the purposes of renewal.

(2) Any person who fails to comply with the provisions of this section is guilty of an offence.

TEMPORARY STORAGE OF HAZARDOUS SUBSTANCES

30. (1) The Service may grant a temporary certificate of registration for a period of not more than one calendar year to any person who, for bona fide reasons, requires more hazardous substances on the premises than the quantities contemplated in section 26(2) of these by-laws; Provided that -

(a) if the hazardous substances are required -

(i) for, or in connection with, excavations, construction work and road construction, the quantity must be limited to 14 000 l; and

(ii) for, or in connection with, bona fide small fleet maintenance, retail trade or research purposes, the quantity must be limited to 4 400 l; and

(b) an application is submitted on the prescribed form, accompanied by the fees prescribed in Annexure I to these by-laws, together with the plans required by section 25 of these by-laws.

(2) Any person whose application for a temporary storage tank is approved must ensure that -

(a) the storage tank is surrounded by a liquid-proof retaining wall filled with -

(i) granite ballast with a nominal diameter of at least 40 mm; or

(ii) quartzite ballast with a nominal diameter of at least 50 mm;

Provided that the storage tank must be capable of containing the maximum proposed quantity of liquid, plus 10% of the volume of the tank;

(4) No person may transfer any hazardous substance to a motor vehicle, aircraft, vessel, ship or boat while the power source thereof is in operation or permit it to be transferred.

(5) No person may transfer a hazardous substance to an aircraft unless and until the aircraft has been earthed with the transferral device by means of an earth cable.

(6) Any person who fails to comply with the provisions of this section is guilty of an offence.

PROHIBITION OF CERTAIN ACTIONS

32. (1) Any person who stores, uses or handles hazardous substances on premises or has them stored, used or handled or permits them to be stored, used or handled on the premises may not -

(a) perform any act or action, or have any act or action performed or permit any act or action to be performed that may reasonably result in or cause a fire or an explosion; and

(b) perform any act or action, or have any act or action performed or permit any act or action to be performed that may reasonably obstruct the escape to safety of any human being or animal during an emergency situation.

(2) No person may dump any hazardous substance in or spill any hazardous substance into any borehole, pit, sewer, drain system or surface water, or permit any hazardous substance to be dumped in or spilled into any borehole, pit, sewer, drain system or surface water.

(3) No person may discard hazardous substances in any manner other than by having the substances removed or permitting the substances to be removed by an organisation, which is fully equipped to do so.

(4) No person may light, bring or use any braai fire or anything else that produces or is capable of producing an open flame, within 5 m of any area where, to his/her knowledge, hazardous substances are stored, used or handled, or permit the fire to be lit, brought or used within 5 m of such area.

(5) No person may use any device in connection with hazardous substances in any basement level in a building, excluding a gas welding device and/or gas cutting device for the sole purpose of welding and/or cutting in connection with the maintenance of that building, or have the device used or permit the device to be used in any basement level.

(6) No person may, while there is another person in or on a bus (except for the driver of the bus, or any other person in charge of the bus), fill the fuel tank of that bus, or have it filled or permit it to be filled, or transport any hazardous substances in or on such bus, except in the fuel tank, or have it transported or permit it to be transported.

(7) Any person who fails to comply with the provisions of this section is guilty of an offence.

"NO SMOKING" SIGNS

33. (1) The owner of a building must in areas where flammable and/or explosive hazardous substances are used, stored and handled, display symbolic signs prohibiting smoking and open flames, as the case may be. These signs must be the appropriate size as specified by the Service and be displayed prominently in appropriate places.

(2) Any owner who fails to comply with the provisions of subsection (1) is guilty of an offence.

(3) Any person who disregards the prohibition in terms of subsection (1) or permits the prohibition to be disregarded is guilty of an offence.

FIRE-FIGHTING EQUIPMENT

34. (1) Notwithstanding anything to the contrary in these by-laws, the person to whom the certificate of registration in terms of section 26 of these by-laws and/or spraying permit in terms of section 50(1) of these by-laws has been issued must ensure that all premises to which such certificate of registration and/or spraying permit applies are equipped with -

(a) portable fire extinguishers, as specified in SABS 1567 (carbon dioxide type), SABS 810 (dry chemical type), SABS 1573 (foam type) and SABS 1571 (transportable type), of a minimum capacity of 9 kg or 9 l, as the case may be, in a ratio of one fire extinguisher to every 100 m² or part of it: Provided that the Service may specify the type of fire extinguisher to be provided and, if the Service is of the opinion that exceptional hazards or risks necessitate a larger number of fire extinguishers, the Service may require that more fire extinguishers, in a consequential smaller ratio than the ratio stated above, be installed;

(b) hose reels, as specified in SABS 543 (hose reels), connected to a water supply as reflected in Part W of SABS 0400, enabling each hose reel to maintain a flow of 0,5 l per second at a work pressure of 300 kPa;

(c) fire hydrants, with couplings as specified in SABS 1128, Part II (Fire fighting equipment - Couplings), in a ratio of at least one to every 1 000 m² or part of it; and

(d) approved sprinkler systems in any above-ground facility, of which the capacity is 9 m³ or larger, with the exception of temporary storage facilities as referred to in section 30 of these by-laws, and installed in positions indicated on the plans referred to in section 25 of these by-laws.

(2) Fire-fighting equipment must be inspected and maintained by a registered tradesman in accordance with the provisions of SABS 0105 and SABS 1475 at least once every twelve months to the satisfaction of the Service.

(3) If fire-fighting equipment is not positioned prominently, the position of the equipment must be indicated by symbolic safety signs in accordance with the specifications of SABS 1186 and to the satisfaction of the Service.

(4) Any person who fails to comply with the provisions of this section is guilty of an offence.

REPORTING OF FIRES, ACCIDENTS AND DUMPING

35. (1) The occupier of any premises must immediately report any fire, accident or dumping involving hazardous substances on the premises in question that has caused damage to property, the ecology of the environment or injury to human beings or animals to the Service. (2) Any person who fails to comply with the provisions of this section is guilty of an offence.

SAMPLING

36. (1) Whenever a member of the Service inspects any premises and suspects that a substance on the premises is hazardous, the member may take a sample of any relevant substance for analysis: Provided that -

(a) any sample so taken must be taken in the presence of the owner, occupier or other responsible person, as well as another member of the Service;

(b) any sample must be divided into two equal parts of at least 1 000 ml or 1 000 g, as the case may be, and be sealed in similar containers with the following information on the containers:

(i) The address and the location of the premises

(ii) The trade name of the premises or concern

(iii) The name and signature of the persons who are present, as contemplated in subsection (1)(a)

(iv) The date on which and time at which the sample was taken

(v) A description of the exact location on the premises where the sample was taken; and

(c) any sample so taken must, at the expense of the owner of the premises in question, be taken immediately to an accredited institution as determined by the Service for an analysis and a report: Provided further that the results of the analysis may, subject to the rules of the law of evidence, be used as evidence in any potential legal steps that the Service may consider and/or deem necessary, as the case may be.

STORAGE TANKS AND DEVICES THAT HAVE BECOME OBSOLETE

37. (1) The owner or user of any storage tank and/or related device that has become obsolete must, in accordance with the provisions of section 39 of these by-laws, remove the tank or device or have the tank or device removed.

(2) Any person who fails to comply with the provisions of this section is guilty of an offence.

ACCESS TO STORAGE TANKS FOR REPAIRS AND MAINTENANCE

38. (1) No person may enter or permit any other person to enter any storage tank which contained Group III hazardous substances, unless that person is wearing an effective self-supporting breathing apparatus or until such tank has been de-aerated and made free of gas and fumes, as provided for in SABS 089, Part I.

(2) No person may enter any storage tank which contained Group III hazardous substances unless that person is attached to a rescue rope controlled by a responsible person who is at all times taking appropriate measures to ensure the safety and welfare of all persons involved.

(3) Any person who fails to comply with the provisions of this section is guilty of an offence.

INSTALLATION, ERECTION, REMOVAL AND DEMOLITION

39. (1) In addition to any other applicable legislation, any person who intends to erect, install, remove, demolish, extend or change any delivery pump, storage tank, storeroom, spraying room, gas installation, storage facility, fire protection arrangement and floor layout in respect of the premises or anything connected with the premises, or have any of the above erected, installed, removed, demolished, extended or changed, must notify the Service of his/her intentions at least

three working days prior to the commencement date and estimated completion date, and this notification must be made on the form described in Annexure II to these by-laws.

(2) Any failure to act as contemplated in subsection (1) will *ipso facto* cancel the certificate of registration and/or spraying permit, as the case may be, insofar as such failure is connected with the matter, as well as any other authorisation, including an exemption granted in terms of these by-laws: Provided that the provisions of this section are not applicable whenever -

- (a) anything is removed temporarily for carrying out repairs thereto or in connection therewith;
 - (b) any above-ground or underground equipment and/or parts of the equipment are replaced; and
 - (c) any aboveground or underground storage tanks are replaced with tanks of the same capacity.
- (3) (a) No structure, installation or building may, after completion of the action referred to in subsection (1), be erected again on the premises in question, unless application for the approval of plans, as contemplated in section 25 of these by-laws, is made again.
- (b) After completion of the structure, building or installation, application must be made again for a certificate of fitness, spraying permit and/or certificate of registration in accordance with the provisions of PART IV, HAZARDOUS SUBSTANCES, of these by-laws.
- (4) Any person who fails to comply with the provisions of this section is guilty of an offence.

GROUP I

HAZARDOUS SUBSTANCES

40. (1) All Group I hazardous substances (explosives) must be handled, used, stored and transported in accordance with the provisions of SABS 0228, 0229, 0232 and 0263, the Explosives Act, 1956 (Act No. 26 of 1956), and the Hazardous Substances Act, 1973 (Act No. 15 of 1973), and any regulations made under these acts, as the case may be.

(2) (a) No person may use or explode any Group I hazardous substance within the area unless the Service has been notified of this in writing at least 24 hours prior to its commencement.

(b) The Service may impose any fire protection measures it deems necessary according to the circumstances in question.

DEALER IN FIREWORKS

(3) (a) No person may deal in fireworks within the area unless he/she is in possession of a licence to trade in fireworks as contemplated in section 7 of the Explosives Act, 1956.

(b) (i) Any retail dealer in fireworks may not keep fireworks of a gross mass exceeding 500 kg on his/her premises: Provided that the said dealer complies at all times with the conditions of Chapter 9 of the regulations under the Explosives Act, 1956, published under Government Notice 1604 of 8 September 1972, as well as any fire protection measures laid down by the Service for the premises.

(ii) Any wholesale dealer in fireworks may at no time have fireworks of a gross mass exceeding 1 000 kg on his/her premises, which fireworks must be enclosed in the original inner packaging as

received from the manufacturer or other supply magazine: Provided that the said dealer complies at all times with the conditions of Chapter 9 of the regulations under the Explosives Act, 1956, as well as any fire protection measures prescribed by the Service for the premises.

(iii) No person may deal in fireworks within the area unless he/she is in possession of a valid wholesale dealer's licence and/or retail dealer's licence, as the case may be, as contemplated in Chapter 9 of the regulations under the Explosives Act, 1956, as well as a written authority from the Service.

(iv) The Service will not issue any written authority to deal in fireworks within the area unless and until all the applicable provisions of these by-laws have been complied with. The person who wishes to deal in fireworks must apply to the Service in writing for the authority to do so, as provided for in Annexure VII to these by-laws.

(v) The application referred to in subsection (3)(b)(iv) must reach the Service for processing at least one calendar month before the authority is required. The application must be made on the prescribed form, as provided for in Annexure VII to these by-laws, and be completed correctly and in full.

DISCHARGE OF FIREWORKS

(c) (i) No person may discharge any fireworks within the area unless the person is in possession of a written authority in accordance with the requirements of Annexure VIII to these by-laws.

(ii) The Service will not issue any written authority to discharge fireworks within the area unless and until all the applicable provisions of these by-laws have been complied with. The person who wishes to discharge fireworks must apply to the Service in writing for the authority to do so, as provided for in Annexure VIII to these by-laws.

(iii) The application referred to in subsection (3)(c)(ii) must reach the Service for processing at least one calendar month before the authority is required. The application must be made on the prescribed form, as provided for in Annexure VIII, and be completed correctly and in full.

(4) Whenever a member of the Service inspects any premises and finds that the occupier of the premises or person in charge of the sale of fireworks is not in possession of a valid licence as contemplated in Chapter 9 of the regulations under the Explosives Act, 1956, and/or if the occupier or person in charge discharges fireworks without a valid written authority as contemplated in subsection (3)(c)(i), the member may immediately seize all fireworks on the premises: Provided that if fireworks are seized -

(a) they be seized in the presence of the owner, occupier or other responsible person, as well as another member of the Service;

(b) they be taken in their original packaging or, alternatively, placed in any other suitable sturdy containers which must be sealed, and the following information must be affixed to the packaging or container, as the case may be:

(i) The street address of the premises, in full, and the location

(ii) The trade name of the premises or concern

(iii) The identity number, name and signature of the persons concerned

(iv) The date and time of the seizure of the fireworks, and the name of the person who seized the fireworks

(v) A description of the exact place on the premises, or whatever other place, where the fireworks were seized; and

(c) they be taken immediately, at the expense of the owner of the fireworks, to an accredited magazine as contemplated in Chapter 8 of the regulations under the Explosives Act, 1956, for safe custody until a court judgment has been delivered: Provided further that the fireworks held in safe custody will be destroyed by the Service in a responsible manner if the court instructs the Service to do so.

(5) Any person who fails to comply With any of the provisions of this section is guilty of an offence and is on conviction liable to a fine not exceeding R5 000,00 or to imprisonment for a period not exceeding six months.

GROUP II

HAZARDOUS SUBSTANCES

PORTABLE CONTAINERS

41. (1) All portable metal containers and related devices for Group II hazardous substances must be manufactured, marked, maintained, filled and stored in accordance with the provisions of SABS 019, SABS 0228, SABS 0229 and SABS 0238, as the case may be.

(2) All portable metal containers for liquid petroleum gas must be stored, filled and/or installed in accordance with the provisions of SABS 0228, SABS 0229, SABS 0238, SABS 019 and SABS 087, Parts I to VIII, as the case may be.

(3) All portable containers for Group II hazardous substances must at all times be transported, stored and/or installed in a vertical position

BULK CONTAINERS

(4) All bulk containers for Group II hazardous substances must be designed, manufactured, maintained and installed in terms of the provisions of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), and any regulations made under the act; SABS 019; SABS 087, Part III; and the provisions of the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977), and any regulations made under the act, as the case may be.

MANIFOLD INSTALLATIONS

(5) (a) No Group II hazardous substance may, for any reason whatsoever, be used, stored, handled or installed indoors in any manifold installation or otherwise on any premises.

(b) The provisions of this section are not applicable to the storage, use, handling or installation of a portable liquid petroleum gas container of a maximum water capacity of 45 l inside a detached private dwelling-house (H4 occupancy classification in terms of Regulation A20 of the National Building Regulations), on condition that the container is used solely for bona fide residential purposes: Provided that liquid petroleum gas will only be permitted indoors on condition that the prospective user is capable of furnishing the Service with scientifically based proof that there is sufficient natural ventilation from the room to the outdoors to ensure that any gas concentration in

the room that may be caused by a leakage or potential leakage of the gas and/or by a negligent action in respect of the use of the gas, will be so neutralised as not to be within the recognised explosive limits for the gas.

(i) Any person who furnishes proof of certification, as contemplated in subsection (5)(b), must be an approved professional engineer or other registered competent person and, in terms of Regulation A19 of the National Building Regulations, be appointed by the owner or occupier of the building in question.

(ii) Scientifically based detailed calculations and tests must be the basis of such proof of certification.

(6) (a) No person may, without the permission of the Service, use, handle, display or apply any hydrogen-filled portable containers, hydrogen devices and/or hydrogen balloons indoors, for whatever purpose.

(b) In enforcing this subsection, the concept of "hydrogen gas" includes any gas compound containing hydrogen gas, unless the non-flammable nature and/or non-explosiveness of the gas compound can be certified scientifically.

(c) The provisions of section 41 (5)(b) of these by-laws are applicable *mutatis mutandis* to this subsection.

(7) Whenever any person uses acetylene welding devices and/or cutting devices indoors, the devices must be used strictly in accordance with the requirements of SABS 0238: Provided that the Service may prescribe fire protection requirements concerning the installation, storage and use of the devices.

(8) The installation within the area of underground pipelines for any Group II hazardous substance, and branches or manifolds of pipelines, as the case may be, is *mutatis mutandis* subject to the provisions of sections 24, 25, 26, 27, 29, 31 and 33 of these by-laws.

UNDERGROUND PIPELINES

(9) (a) Any underground pipeline for a Group II hazardous substance must comply with the following requirements:

(i) The owner of the pipeline must provide a road, at least 5 m wide and parallel to the pipeline, and maintain the road in a negotiable condition at all times.

(ii) The owner of the pipeline must provide fire hydrants, of which the required delivery of each individual fire hydrant must be at least 1 600 l per minute at a work pressure of 300 kPa, and these fire hydrants must be parallel to the pipeline at intervals of at least 1 km. The owner must maintain the fire hydrants in a working condition at all times.

(iii) The owner of the pipeline must provide sufficient cathodic protection for the pipeline and maintain the cathodic protection in a working condition at all times.

(iv) The pipeline must be marked with markers approved by the Service and must be maintained in a functional condition at all times by the owner of the pipeline.