

Mbizana, South Africa

Flammable Liquids and other Substances

Legislation as at 27 February 2009

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Mbizana South Africa

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1. Definitions

For the purpose of this chapter, unless the context otherwise indicates-

"**above ground storage tank**" means a tank situated above or partly above ground and used or intended to be used for the storage of flammable liquid;

"authorized official" means an official of the Council who has been authorized by the Council;

"boundary line" means the perimeter of any premises in or on which flammable liquid is stored or used;

"**bulk depot**" means any premises used or intended to be used for storage in bulk of flammable liquids where flammable liquids are to be distributed mainly by road tank wagon or otherwise;

"**bulk store**" means any building or structure, or part of a building or structure which is used or intended to be used for the storage of flammable liquids in portable containers;

"carbide" means calcium or carbide;

"certificate of registration" means a certificate issued by the Council, authorizing any person to use the premises specified for the storage, use or handling of flammable liquids, or for the storage of carbide, as the case may be;

"Chief officer" means any Chief officer as referred by subsection (2) of section 2;

"**container**" means any case, tin, barrel, drum or other vessel used or intended to be used for the holding of flammable liquids, but does not include the fuel tank of a motor vehicle or stationary engine in normal use as such;

"**dry cleaning machinery**" means any machinery used or intended to be used for the cleaning or the treatment of garments or textiles with the aid of flammable liquids;

"**dry cleaning room**" means any premises used or intended to be used for the cleaning or treatment of garments or textiles with the aid of flammable liquids for gain or reward;

"class A flammable liquid" means any flammable liquid having a true flash point of 23 degrees Celsius and lower;

"class B flammable liquid" means any flammable liquid having a true flash-point over 23 degrees Celsius up to and including 55 degrees Celsius;

"class C flammable liquid" means any liquid, oil or other similar substance having a true flash point of more than 55 degrees Celsius but less than 90 degrees Celsius;

For the purposes of the definition of "flammable liquids" flash-point is determined in accordance with the definition contained in the Code of practice for the Petroleum Industry SABS 089: Part I - 1996;

"habitable room" means a room constructed or adapted to be used as a living room or workroom including shops, workshops and offices and the term "habitable" has a like meaning;

"**liquid petroleum gas**" means a gas, being a petroleum by-product which, when stored under pressure in cylinders, assumes a liquid state until the pressure has been reduced;

"**mixing room**" means any room or structure used or intended to be used for the manufacturing or preparation of any product involving the use of a flammable liquid;

"person" includes any individual, company, corporate body, partnership or other associated of person;

"**protected works**" means any house, building or other structure used or intended to be used for human habitation or public assembly including schools, clubs and similar institutions which also includes any animal stable, but excludes any administrative offices, change rooms or mess rooms in a bulk depot;

"**pump**" means any pump used or intended to be used for the supply, delivery, proposition or pumping of flammable liquids or substances and includes all apparatus, pipes and appliances used for or in connection therewith, but does not include pumps in bulk depots;

"**registered premises**" means premises registered by the Council in terms of these By-laws for storage of carbide;

"**road tank wagon**" means a vehicle constructed and intended for conveying flammable liquids for distribution principally or solely in a tank constructed as part of and firmly attached to such vehicle;

"**spray booth**" means any subdivision or separate compartment or any spray room, when such subdivision or compartment is used or intended to be used for the purpose of spraying vehicles or articles with flammable liquids, and purposes incidental thereto;

"**spray room**" means any room, building or structure used or intended to be used solely for the purpose of spraying vehicles or articles with flammable liquid and purposes incidental thereto;

"**store**" means any building or structure other than a bulk store which is used or intended to be used for the storage of flammable liquids;

"**transfer under seal**" means the transfer of flammable liquid from or to a road tank wagon in such a manner as to prevent the escape of flammable liquids or its vapour at any point in the system except at such points where the vapour necessarily expelled, is discharged through a vent pipe;

"**transport permit**" means a tank used or intended to be used for the storage of flammable liquids, wholly sunk in and surrounded by earth or solid rock or any such tank situated in a basement below ground level and totally enclosed by a liquid-tight concrete or brick structure, and wholly surrounded by a sand filling;

"**vent pipe**" means a pipe constructed and installed to allow the escape of flammable liquid vapour into the atmosphere.

2. Provision of other by-laws to apply

The provisions of this Chapter must not apply to any land or premises situated outside a township or residential area to which the general public has no right of access and on which the owner or occupier stores or keeps flammable liquids or substances for his own use in agricultural activities.

3. Application of this chapter to existing premises

The provisions of section 70, 72, 74, 77, 78, 81, 93, 99, 102 (a), paragraphs 9 (a), (b), (c), (e), (f) and (g) of section 133, paragraphs (a) and (c) of section 136 and paragraphs (a) and (d) of section 140 must not apply to any premises now unlawful use for the storage, use or handling of flammable liquids so as to require such premises to be reconstructed, altered or added to, to conform to the provisions of the said section, but where any such premises or part thereof are constructed, altered or added to , such work must be carried out in conformity with the provisions of this Chapter: Provided that on change of control of ownership of any premises in lawful sue for the storage, use or handling of flammable liquids, no renewal of any certificate or registration issued in connection therewith must be made unless and until the provisions of the sections hereinbefore mentioned have been complied with, and the provisions of such section must thereafter apply to such premises.

4. Application for the approval of plans

- (1) Every application for the approval of plans or premises in respect of which a certificate of registration is required in terms of <u>section 42</u>, must be made in writing to the Council.
- (2) Every application in terms of subsection (1) not relating to premises in respect of which a certificate of registration has previously been issued, must be accompanied by a plan of such premises drawn to a scale of not less than 1:100 which must specify:-
 - (a) the premises including their elevation with regard to adjacent buildings or structure above or below the ground, the inside dimensions shown in figures of any room, building, structure or storage tank in which flammable liquid is to be stored, used or handled, and the material shown in writing with which such room, building, structure or storage tank is or is proposed to be constructed;
 - (b) full particulars, including position of any pump, storage tank, store, pipeline dry-cleaning machinery, spray room, spray booth or ventilating exhaust equipment.
- (3) Every such application must also be accompanied by a block of such premises drawn to a scale of not less than 1:500, which must specify:-
 - (a) the premises and all open spaces with stand number thereof and the material of which such premises are constructed or are to be constructed;
 - (b) stand with numbers thereof immediately adjoining;
 - (c) names of ay streets on which the site abuts and the township or residential area in which situated;
 - (d) the north point
- (4) Every application in terms of subsection (l) relating to existing premises in respect of which a certificate of registration has been issued and wherein it is proposed to make alterations or additions to any apparatus lawfully used or intended to be used thereon for the storage and handling of flammable liquid must be accompanied by a ground plan only, such ground plan must be drawn to a scale of not less than 1:100, and must show such additions or additions or alterations in relation to such existing premises of apparatus.
- (5) All plans must be-
 - (a) signed by the owner or his agent;
 - (b) drawn in Indian ink on tracing linen or clear prints on cloth with while ground;
 - (c) coloured with fast colours as follows:-
 - (i) Block plan: Proposed premises; red; other existing buildings: grey or neutral tint; open spaces; uncoloured;
 - (ii) Other plans: Ventilation ducts, pipes or exhausts: blue; storage tanks, pumps, pipelines, dry cleaning machinery and spray booths: red building in which flammable liquid is to be stored, used or handled: uncoloured; other existing buildings where required: grey or neutral tint.
- (6) A prescribed amount for every application for the approval of a plan or plans must be paid on submission thereof, and on approval, such plan or plans must become the property of the Council. On approval of such plans written notice must be issued with such conditions endorse thereon as are deemed necessary in accordance with these By-laws.
- (7) The approval of plans of premises must in no way imply the acceptance of any responsibility on the part of the Council in regard to such premises.

5. Certificate of registration for storage

- (1) No person must store, use or handle flammable liquid on any premises in excess of the under mentioned quantities.
 - (a) Class A and class B flammable tint a total of quantity of 50/;
 - (b) Class C flammable liquid a total quantity of 200/,

unless such person is in possession of a certificate of registration in respect of such premises.

- (2) No certificate of registration must be issued in respect of any premises for the storage use or handling of flammable liquids, unless application is made in writing to the Council, and accompanied by the prescribed fee as set out in Schedule iii hereto until the provisions of this Chapter have been complied with in respect of such premises.
- (3) Such certificate may be issued subject to such conditions as are deemed necessary by the Council having regard to the circumstance pertaining to each application.
- (4) Such certificate must state the maximum amount of each class of flammable liquid permitted to be stored, used or handled, the manner in which such liquid must be stored, used or handled and the number of pumps, storage tanks and stores permitted on the premises.
- (5) Every such certificate must only be valid for the period terminating on the next succeeding thirtyfirst day of December.
- (6) No certificate of registration other than a renewed thereof must be issued in respect of any premises until the provisions of <u>section 41</u> have been complied with and the Council therefore has approved the application.

6. Supply of flammable liquids

No person must supply or deliver or cause or permit any flammable liquids to be supplied or delivered-

- to any premises in excess of the quantities specified in <u>section 42</u>, the occupier of which is not in possession of a certificate of registration issued in terms of these By-laws in respect of the said premises;
- (b) to any premises in excess of the amount specified on the certificate of registration relating to such premises.

7. Exemption and requirements: class c flammable liquids

Despite anything "contained in this Chapter-

- (a) flammable liquid must not be deemed to be stored or conveyed or transported when contained in the fuel tank of a motor vehicle or stationary engine in normal use as such;
- (b) any person may keep varnish, lacquer, vulcanizing cement or similar substances which are flammable on any premises where-
 - (i) such substances are entirely contained unsealed metal containers;
 - (ii) no container is opened on such premises except in the open air or in a store as defined in section 38;

but :-

- (a) where lkl or more of such substances are kept in any room or building-
 - (i) such room or building must be constructed of non flammable material;
 - (ii) fire appliances must be installed to the satisfaction of the Chief fire officer;

- (b) where the total quantity of such substances is in excess of 5 kl, such excess quantities must be kept in a separate nonflammable room or building in a store as defined in section 38 but-
 - where the total quantity of such substance is greater than 25 kl, but such quantity does not exceed 5 kl above such 25 kl such excess quantity must be kept as provided in proviso (a)(i) hereof;
 - (ii) where the total quantity of such substances is greater than 25 kl such excess quantity must be kept as provided in proviso (c), hereof;
- (c) where such room or building is situated in an area outside the area described in Schedule III hereto, 25 kl of such substances may be kept in such room or building, which must be constructed in such manner and surrounded by walls or bunds of such a character that the substances contained in such room or building cannot escape there from, such walls or bunds to be of sufficient capacity to contain not less than 75 per cent of the maximum quantity capable of being stored therein.

8. When plans null and void

The approval by the Council under section 41 of any plans must be null and void if the provisions of this Chapter must not have been complied with within one year after the date of such approval.

9. Conditions of certificate of registration

- (1) no person must store, use or handle or cause or permit to be stored, used or handled on any premises-
 - (a) any quantity of flammable liquid in excess of the amount stated on the certificate of registration relating to such premises;
 - (b) any flammable liquid other than the class or classes specified on the certificate of registration relating to such premises;
 - (c) any flammable liquid in a manner other than stated on the certificate of registration relating to such premises;
 - (d) a greater number of pumps, storage tanks or stores than specified on the certificate of registration relating to such premises.
- (2) Any person in lawful possession of any certificate of registration may make written application to the Council for the amendment to the total quantity or class or flammable liquid state in such certificate. The Council must only grant such application when the proposed amendment is in conformity with the provisions of this chapter. Where the Council has granted any such application, such person must surrender the certificate of registration to the Council for amendment.

10. Display of certificate of registration

Every person to whom a certificate has been issued must cause such certificate to be affixed and maintain in conspicuous position of the registered premises. Such certificate must be maintained at all time in such position and in a legible condition.

11. Renewal of certificate of registration

Application for the renewal of a certificate of registration must be made not later than the 1st day of December of the year prior to that which such renewal is required, on a form to be provided by the Council and must be accompanied by the prescribed fee as set out in Schedule III hereto. No plans of the premises in terms of <u>section 41</u> must be required in the case of renewal of a certificate of registration, unless called for by the Council.

12. Transfer of certificate of registration

- (1) A certificate of registration may be transferred from one person to another.
- (2) The person designing such transfer must make application in writing to the Council on a form to be provided by it for such purpose. Such application must be accompanied by the prescribed fee as set out in Schedule til hereto, together with the certificate of registration relating to the premises in respect of which such transfer is desired.
- (3) No certificate of registration must be transferable from one premises to another.

13. Temporary storage

- (1) The Council may, in writing, exempt from the provision of <u>section 42</u> for such period as may deem necessary any person wishing to store not more than 200 l of Class A of Class B flammable liquid or not more than 500 l of Class C flammable liquid required for or in connection with any excavation, building, road making or other like operation of a temporary nature: but-
 - (a) application is submitted, in writing to the Council on a form to be obtained from it;
 - (b) suitable provision has been to surround the containers of such flammable liquid by walls or bunds of a character that such flammable liquid cannot escape from walls or bunds either under the action of fire or otherwise;
 - (c) at least one efficient chemical fire extinguisher of the dry powder type has been provided as set out in <u>section 63</u>.
- (2) Any person to whom an exemption has been granted in terms of this section must ensure that at all relevant times-
 - (a) all reasonable precautions are taken to prevent any fire, flame or other agency likely to ignite flammable liquid or flammable liquid vapour being brought into contact with such flammable liquid or its vapour,
 - (b) such flammable liquid is not place within 4, 5m of any protective work or public thoroughfare;
 - (c) the provisions of paragraphs (a) and (b) of subsection (1) are observed.

14. Installation and erection

- (1) Immediately the installation of any pump, storage tank, filling device, dry-cleaning room, store, spray room or other premises intended for the storage, use or handling of flammable liquid has been completed, the occupier of the premises stall notify the Council, in writing on a form to be obtained from it, of the date on which the work will be ready for inspection.
- (2) No person must use or cause or permit to be used such pump, storage tank, filling device, drycleaning room, store, spray room or other premises for the storage, used of handling of flammable liquid until such person is in possession of a certificate of registration relating thereto.

15. Additions and alterations to registered premises

- (1) No additions or alterations to any existing registered premises must be make unless and until a plan of the existing premises, together with the proposed work, must have been submitted to the Council and approved by it in writing.
- (2) Such plan must be in accordance with the provisions of <u>section 41</u>.

16. Removal and dismantling

- (1) Any person who removed or causes or permits to be removed any pump, storage tank or filling device from any registered premises other than a bulk depot must give notice or such removal in writing to the council on a form to be obtained from it.
- (2) The removal of any such pump, storage tank or filling device must ipso facto cancel the certificate of registration in so far as it refers to such pump, tank or filling device, as the case may be, together with any other authority including any exemption granted under this Chapter and no such pump, storage tank, or filling device must be re -erected on such site unless and until anew certificate of registration has been obtained in the manner provided under this chapter but the provision of this section must not apply in respect of any such pump, storage tank or filling device which is temporarily removed for the purpose of effecting repairs thereto.

17. Storage, use and handling on registered premises prohibited in certain circumstance

Except as otherwise provided in this Chapter, no person must store, use of handle, or permit or cause to be stored, used or handled any flammable liquids, on any registered premises-

- (a) where such flammable liquid or its vapour comes or its likely to come into contact with any fire, flame, naked lights or other agency likely to ignite such flammable liquid or its vapour;
- (b) unless such premises are so situated or constructed or so protected by surrounding walls as not to expose any adjoining premises, roof, building, or other property to the risk of danger from fire;
- (c) so situated as to prevent or impede the escape of any person or animal in the case of fire or otherwise;
- (d) unless all equipment and apparatus used in such premises for the storage, use of handling of flammable liquid is maintained in good and proper order and free from leakage of flammable liquid;
- (e) unless such person has taken all due precautions for the prevention of accidents by fire or explosion on such premises, and for the prevention of unauthorized person, obtaining access to the flammable liquid kept thereon.

18. Prohibition of certain acts

No person who stores, uses or handles or causes or permits to be stored, used or handled any flammable liquid on any premises must do or cause or permit to be done any act which tends or is likely to cause fire or explosion.

19. Notice to discontinue dangerous method

- (1) Where on inspection of any premises it appears that any method of storage, use transport or handling of flammable liquid is in conflict with the provisions of this Chapter or is calculated to endanger the safety of the public or of any person employed in or on such premises, any duly authorized official of the Council may require the immediate discontinuance of such method or the removal of the flammable liquid to a place of safekeeping.
- (2) Any person failing to comply with instruction of any duly authorized official of the Council issued in terms of this section must be guilty of an offence under these By-laws.

20. Flammable liquid escaping into drains

No person must cause or permit flammable liquid to enter any sewer or inlet or drain communicating with any sewer or any surface water drain.

21. Prohibition against device and pumps in basements

No person must use or cause or permit to be used in any basement any device for spraying flammable liquid or any pump or other device for the issue or transfer of flammable liquid to vehicles or container.

22. Filling operations

- (1) No person must transfer, other than a bulk depot, any flammable liquid from or to any road tank wagon unless such transfer is carried out under seal, and in the case of such wagon, the engine thereof is stopped.
- (2) The re-fuelling of aircraft at an aerodrome or landing ground may be performed from a road tank wagon equipped with an approved power pump but the engine or engines of such aircraft are stopped.

23. Filling on or across public sidewalks

No person must-

- (a) take on or across any public sidewalk or cause or permit to be so taken the hose of a pump for the purpose of replenishing any vehicles or containers with flammable liquid;
- (b) so replenish or cause permit to be so replenished any vehicles container which is standing on any public sidewalk.

24. Replenishing fuel tanks

No person must-

- (a) upon registered premises strikes a match or smoke a pipe, cigar or cigarette or ignite a petrol lighter or other similar contrivance or approach with any fire, flame, naked light or other agency likely to ignite flammable liquid or its vapour within a distance of 3m of any fuel tank of any motor vehicle such full tank is being replenished or is open;
- (b) replenish or permit to be replenished any such fuel tank with the engine of such motor vehicle is in motion.

25. Replenishing of public omnibus

No person must replenish or cause or permit to be replenish the fuel tank of any motor omnibus or carry or cause or permit to be carried any flammable liquid on or on any motor omnibus, except in the fuel tank thereof whilst any person other than the driver or person responsible therefore is within or upon such omnibus.

26. Fire appliances

- (1) Except where otherwise provided in this chapter, the person to whom the certificate of registration has been issued in terms of this chapter must install or cause to be installed in all premises to which such certificate refers in an easily accessible and visible position not less than Im above the level of the floor of the premises, fire extinguishers and fire buckets on the following scale-
 - (a) for each tank or store on the premises two such fire extinguishers which must be of the dry powder type and two such fire buckets but not more than three extinguishers and 6 (six) such buckets must be required to be installed in any premises.
 - (b) for each dry-cleaning room on the premises three such fire extinguishers of the dry' powder type and two such fire buckets.
 - (c) for each spray room, two extinguishers, of the dry-cleaning type and two such fire buckets.

- (2) Such extinguishers must be efficient chemical fire extinguishers, each of capacity of 9 kg but where the Chief fire officer is of the opinion that dry powder type fire extinguishers will not service the purpose, he must permit the installation of other efficient fire extinguishers.
- (3) Such fire bucket must be a metal fire bucket of a capacity of 10 liter painted red with the word "fire" painted in white and legibly maintained thereon and filled with dry sand.
- (4) Where, in terms of this chapter, any chemical fire extinguisher is required to be installed, such extinguisher must be a vessel or appliance manufactured as a fire appliance in which the pressure necessary to project the extinguishing fluid or medium is generated automatically by chemical action and must withstand an internal hydratic test pressure of 2 068 KN/m² (20, 68 bar), which pressure must be maintained for at least five minutes without leakage or distortion.
- (5) The person to whom a certificate of registration, spray room permit or transport permit has been issued in terms of this chapter, must maintain at ail times on the premises or vehicle to which such certificate or permit refers-
 - (a) all fire extinguishers, buckets, appliances and alarms in accordance with the provisions of this chapter; and
 - (b) all such equipment in good order and ready for immediate use.

27. Examination of fire appliances

- (1) Where, in terms of this chapter, any chemical fire extinguishers, fire-fighting equipment, or fire alarm has been extinguisher, equipment or alarm to be examined once every 12 months by the makers thereof or their duly authorized representative or other qualified person.
- (2) Every such extinguisher, equipment and alarm must bear a label on which such person examining it must endorse his name, the date of examination and the condition, in his opinion, of the extinguisher, equipment or alarm at that date.

28. Reporting accidents

The occupier of any premises must immediately report to the Board any fire or accident involving flammable liquid that has occurred in connection with any such premises, where such for or accident has resulted in damage to any property or injury to any person.

29. Rules to be observed on unregistered premises

- (1) No person must store, use or handle or cause or permit to be stored, used or handled any flammable liquid on any unregistered premises unless such flammable liquid is stored, used or handled in such a position or in such a manner that-
 - (a) no flammable liquid or its vapour comes or is likely to come into contact with any fire, flame or naked light or other agency likely to ignite such flammable liquid or its vapour;
 - (b) in the case of fire the escape of person or animals with not be prevented or impeded.
- (2) No person must use or handle or cause or permit to be used or handle any flammable liquid on unregistered premises, except in a suitable place in the open air so that the fumes can escape easily, or in a room provided with adequate ventilation to remove the fumes there from and effectively prevent the accumulation of fumes therein.
- (3) On unregistered premises flammable liquid must be stored only in a substantial container which must be kept securely closed when not in immediate use.

30. Inspection of premises

- Any duly authorized official of the Council may, for any purpose connected with the carrying out of this chapter, in accordance with the provisions of section 72 of the Local Government Ordinance, 1939, enter upon any premises whatsoever, and make such examination and inquiry thereon as he may deem necessary.
- (2) The owner or occupier, or in their absence from the premises, any other person employed thereon, must upon demand disclose to such authorized official the presence of any flammable liquid in or upon such premises and must answer all enquiries relating either to the observance of this chapter or to any condition in connection with the certificate of registration.

31. Taking samples

Upon inspection of any premises by an authorized official of the Council, such official may take samples for the purpose of analysis or examination of any flammable liquid or substance, or of any liquid or substance of being flammable, which is found upon such premises but:-

- (a) any sample so taken must be taken in the presence of the owner, occupier or other person in charge, as the case may be;
- (b) the owner, occupier or other person in charge may require the member or servant taking the sample to divide it into two parts and to mark, seal and deliver to him one such part.

32. Breach of conditions

Any person who commits any breach of any condition endorsed on an approval noticed issued in terms of subsection (6) of <u>section 41</u> or on a certificate of registration must be guilty of an offence under these By-laws.

Storage tanks, pumps, pipelines and containers

33. Capacity of underground tanks

The capacity of any underground storage tank must not exceed 23 kl.

34. Construction of tanks

- (1) Every storage tank must be constructed of iron, steel or other suitable metal plates of adequate strength and properly riveted and caulked, welded, brazed or otherwise secured by some equally satisfactory process.
- (2) The top and sides of such tank must be supported and strengthened by such uprights, girders, angle-irons and ties as, having regard to the capacity, shape and situation of the tank, may be necessary to render it sufficiently strong for the purpose to which it is being put.
- (3) Every opening in any underground storage tanks, other than a vent pipe, must be securely closed by an effective and properly secured cap, cover, tap or valve
- (4) All pipes other than a ventilating pipe connected to an underground storage tank must be carried down to within 100mm of the bottom of the tank.
- (5) Every above ground storage tank must have an adequate system of ventilation so as to prevent excessive internal pressure.
- (6) Every storage tank must be maintained at all times in accordance with the respective provisions of this section.

35. Installation of storage tanks

- (1) Every underground tank must-
 - (a) be so installed that the top of the tank is not less than 600mm below the surrounding ground level, or covered with not less than 150mm concrete mat and not less 150mm of earth or sand;
 - (b) be set in firm foundations and wholly surrounded with soft t earth or sand encased in concrete;
 - (c) with the exception of any opening to the manhole, to be covered with concrete adequately reinforced in all cases where vehicular traffic passes over such tank;
 - (d) be situated within the building line of the premises;
 - (e) where such tank is situated in or within 2m of any basement, be installed in a chamber of concrete not less than 150mm thick or brick not less than 225mm thick set in cement mortar with the space within the pit surrounding the tank completely filled with closely-packed earth or sand, but the provisions of this section must not apply to any bulk depot.
- (2) Above storage tanks must only be installed within a bulk depot.

36. Ventilation of underground storage tanks

Every underground storage tank must have a ventilation pipe of not more than 50mm. with an internal diameter of not less than 25mm, which pipe must:-

- (a) be carried up to a height of not less than 4m into the open air;
- (b) have the upper end protected with a non-corrodible wire gauze of not less than 600 microns and which is secured in such a manner that such gauze may be removed for examination and cleaning;
- (c) terminate at least 6m away from any fire, flame or naked light or other agency likely to ignite flammable liquid or its vapour.

37. Installation of storage tanks in buildings

No storage tank must be installed in or below any building which is more than one story high, unless the ceiling above such tank is constructed of reinforced concrete.

38. Abandoned tanks

In the event of any underground storage tank being abandoned, the owner of such tank must cause it to be removed or filled with sand or liquid concrete.

39. Entering of storage tanks

No person must-

- (a) enter or cause or permit any person to enter any storage tank which contained flammable liquid until such tank has been totally freed from any flammable liquid vapour, unless such person is wearing an efficient gas mask;
- (b) enter any storage tank at any time unless he is bound to a lifeline which at surface level is under the control of a reliable person continuously responsible for the safety of the person in the storage tank.

40. Position of pumps

- (1) No pump or other device used or intended to be used for the issue or transfer of flammable liquid to any vehicle must be erected outside the building line of any premises or within 4m of any entrance, or exit of a building adjoining any public place but-
 - (a) where such entrance or exit is set back from such public place the pumper device must be erected not less than 4m from such public place.
 - (b) no such pump or device must be erected in such a position that a hose can be used for the issue or transfer of flammable liquid on or across any public place.
- (2) Despite anything contained in <u>section 40</u>, subsection (1) must not apply to pumps or filling device already on registered premises at the time of the coming into operation of these By-laws, in cases where a charge of control or ownership of such premises occurs, unless the position of such existing pump or filling device constitutes or is likely to cause danger or obstruction to the public or vehicular traffic.

41. Pumps on ramps

Pumps or other devices used or intended to be used for the issue of flammable liquid to motor vehicles or containers must not be erected on any ramp or within 4m of the beginning of the ramp.

42. Dipping on ramps

Dipping sticks must be made of wood or brass or other non-ferrous metal or alloy.

43. Pump hoses

Delivery of flammable liquid from any pump to the fuel tank of any vehicle must be made only through sound hose, have an earthling wire in its construction efficiently attached to the metal of the metal of the pump and to the metal nozzle. Except at an aerodrome or landing ground used by aircraft no hose attached to any such pump must exceed 4,5m in length measured from the pump to the tip of the nozzle.

44. Situation of filling pipes and pumps

Every filling pipe inlet and every pump must be:-

- (a) at surface level;
- (a) installed in such position that it will not impede the escape of any person or animal from the premises in the case of fire;
- (c) so situated or protected by surrounding walls as not to expose adjoining property to the risk of danger from fire during any filling operation or otherwise

45. Naked lights and electrical apparatus

- (1) No person must install or take or cause or permit to be installed or or taken any fire, flame, naked light or other agency likely to ignite flammable or its vapour, except an incandescent electric lamp, within 3m. of any flammable liquid pump;
- (2) No person must place or cause or permit to be placed any electrical switch, switch, fuse, motor or device is of flame-proof construction;
- (3) The electrical wiring between the distribution board or the junction box and the pump must, where possible, be in one continuous length of wire; Provided that where this is not possible flame-proof junction boxes must be used.

46. Maintenance of tanks, pipelines and pumps

- (1) All tanks, pipelines, pumps, machinery, fittings and appurtenances for the storage use or handling of flammable liquid must be:-
 - (a) of sound and proper construction;
 - (b) so installed and fixed as not to be liable to be damaged;
 - (c) efficiently electrically earthed;
 - (d) free from leakage of flammable liquids, and as far as is reasonably possible, free from leakage of flammable liquid vapour except by means of a vent pipe;
 - (e) maintained in good and proper order and at all times in accordance with the provisions of this section.
- (2) All pipelines must be below ground level at right angles to the building line when crossing a public footwalk.
- (3) All earth connections required in terms of this section] must be examined once every 12 months by a qualified person who must enter in a suitable log book, supplied by the occupier of the premises and kept solely for the purpose, the efficiency and condition of such earth connections, his name and address and the date of the examination. All such entries must be signed by such qualified person and must readily available for inspection by any duly authorised official of the Council.

47. Construction of portable containers

No person must store or convey or cause or permit to be stored or conveyed in one container any Class A or Class B flammable liquid a quantity exceeding 501 unless such container is constructed of metal not less than 1.60 mm thick.

48. Filing of containers

No person must carry on or cause or permit to be carried on the trade, business or occupation of filling containers with Class A or Class B flammable liquid other than in fireproof building used solely or such purpose, or in the open air at a distance of not less than 16m from any fire, flame, naked light or other agency likely to ignite flammable liquid or its vapour.

49. Quantity in containers

No container must be filled with flammable liquid to more than 95 per cent of its capacity.

50. Containers after delivery

No person taking delivery of any flammable liquid in containers in excess of the quantity stated in <u>section</u> <u>42</u> or under circumstances of temporary storage provided in <u>section 50</u>. must cause or permit such containers to remain unattended in any place other than a store or storage tank for a longer period than may be reasonably necessary which, in no circumstances, must exceed a period of 12 hours.

51. Storage of empty containers

(1) No person must place any empty container or cause or permit an empty container to be place in any premises other than a store:

Provided that:-

(a) such a container may be stored in the open air at a distance of not less than 6m from any fire, flame, naked light or other agency likely to ignited flammable liquid or its vapour;

- (b) no person must cause or allow any empty container to remain in or on any public place.
- (2) Every empty container so stored must at all times be securely closed with a bung or other suitable stopper.

52. Repairing of containers

No person must carry out or permit to be carried out any repairing operations to any container until all flammable l liquid and flammable liquid vapours have been removed from such container.

53. Marking of containers

No person must supply or delivery to any person any Class A or Class B flammable liquid in any container of less than 200I capacity unless such containers bears in conspicuous letters the word "flammable" in both official languages.

54.

The certificate of registration issued in respect of any store must state the class and maximum quantity of flammable liquid permitted to be kept in such store at any one time.

55. Danger notice on store

No person must use as such or cause or permit to be used as such any flammable liquid store, unless and until the words "DANGER -FLAMMABLE LIQUID - NO SMOKING OR CARRYING OF MATCHES AND LIGHTERS", in letters not less than 150mm in Height, together with the class and maximum quantity of flammable Liquid allowed to be kept in such store is legibly painted in both Official languages on the outer face of the door of such store. Such Notice must at all times be maintained in such position and in a legible condition

56. Construction and situation of store

- (1) Every store must be constructed in accordance with the following requirements:
 - (a) The walls must be constructed of brick or concrete, the floor of concrete or other impervious material, and the roof of reinforced concrete.
 - (b) The store must be filled with a 50m hardwood door, suitably covered with metal of not less than 0,9 mm in thickness, carried on a metal frame or door of not less than 3mm thickness, carried on an angle frame, and having an all-round overlap of not less than 50mm. Such door must open outwards, and be fitted with a substantial lock. The type of door fitted must be at the discretion of the chief fire officer.
 - (c) All window frames must be constructed of metal and glazed with wire woven glass, and must be of the non-opening type. Each pane must not exceed 450mm x 450mm.
 - (d) Every store must be constructed in such manner, or surrounded by walls or bunds of such a character that the flammable liquid contained therein cannot escape there from. The well formed by such walls or bunds must be sufficient capacity to contain the maximum liquid capacity of the store plus ten per cent thereof.
 - (e) The store must be ventilated by a system of ventilation of such design, construction and capacity as will adequately prevent the accumulation of flammable liquid vapour within all portions of such store an discharge such vapour into the open air ant a point or points where such vapour is not likely to come into contact with any fire, flame, naked light or other agency likely to ignite such vapour: Provided that where for any reason such ventilation can only be secured by means of a mechanical system of ventilating, such system must conform to the provisions of section 135. All ventilating openings, which are fitted into walls, must

be set in iron frames and fitted tightly to the interior faces of the walls. The low ventilating openings must be installed as near the well level as possible.

- (f) The openings must be protected by non-corrodible gauze of not less than 600 microns to the 25 mm.
- (g) A store must not be situated in such a position that it will impede the escape of any person or animal from the premises, or endanger any room, building or premises in the case of fire.
- (h) Any store with a floor area in excess of 10m2 must be provided with at least two doors, constructed as described in paragraph (b), situated at such a distance from each other as to allow the free and unimpeded escape of persons within the store from either door in case of fire or other danger.
- (2) Subject to the requirements of <u>section 4</u> i and Despite anything to the contrary contained in this chapter, a store may be constructed on non- combustible material if:-
 - (a) such store has no building nearer to it than 30m;
 - (b) It is surrounded by the necessary wall or impervious bund as in subsection (1) provided.
- (3) Every store must be maintained at all times in accordance with the provisions of this section.

57. Lighting of store

All rights installed must be of the incandescent electric type, which must be enclosed, in an outer flameproof fitting and all wiring must be armoured or enclosed in seamless metal tubes, the junctions of which are screwed together. All switches Junction boxes, fuses and other electrical equipment must be outside the store.

58. Use of store

No person must:-

- (a) se any store or cause or permit such store to be used for any purpose other than the storage of flammable liquid, oils or their containers;
- (b) engage in or cause or permit any other person to be engaged in any store unless all the doors of the store are fully open and kept entirely unobstructed.

59. Unauthorised persons entering store

No persons must enter any store or cause or permit any store to be entered without the express permission of the occupier or other responsible person in charge of such store:

Bulk depots

60. Danger notice at entrance

Prominent notice boards bearing the words "DANGER -FLAMMABLE LIQUID-NO SMOKING" in letters not less than 150mm. in all languages commonly spoken in the area of the municipality must be erected at all entrances to bulk depots and must at all times be maintained in such position and in a legible condition.

61. Storage

- (1) Flammable liquid must be stored in bulk deposits as follows:
 - (a) In underground storage tanks.
 - (b) In above-ground storage tanks.

- (c) In bulk store
- (2) (a) Every such above-ground storage tank, or group of such tanks with, with a total capacity of over 55kl, must be surrounded by either an embankment (hereinafter called a retaining embankment) or a retaining wall of brick or cement concrete, either plain or reinforced (hereinafter called a retaining wall) so designed and constructed as to form a reservoir capable of containing and retaining the quantity of liquid required to be retained in accordance with paragraph (f): Provided that the top of such retaining embankment or retaining wall must be at least 75mm higher than is necessary to contain and retain such quantity of liquid.
 - (b) The retaining embankment must be at least 600mm thick at Top with slopes on each side of 1,5 to 1. Such embankment must be constructed with a central core of concrete not less than 200mm. thick at the top with a batter on each side of 1 to 24 of the interior of the area enclosed. The core of the same thickness as at this level must be taken down to such depth, depending on the nature of the soil, as will effectually Prevent any leakage of liquid. He earthwork round the core must be composed of materials well watered and considered.
 - (c) A retaining wall must be constructed in accordance with the following requirements:
 - (i) It must be capable of resisting the full overturning movement Of the liquid in the enclosed reservoir when fdled to within 75 mm of the top with a liquid of the same specific gravity as water.
 - (ii) If such wall constituted a partition between two reservoirs, it must be capable of withstanding thrust from either side.
 - (iii) Every retaining wall must be taken down to such depth and be provided with such foundations depending on the nature of the soil, as will ensure stability in all respects effectually prevent any leakage of liquid.
 - (iv) Every retaining wall of reinforced concrete must be no less than 150mm in thickness at the top and the tensile force or the stresses must be wholly taken up by steel rods placed not nearer the surface thereof than 50mm.
 - (v) The concrete stress must not exceed 4826 KN/m2 (48 bar) and the stress in the steel 1103 16KN/M2 (1103 bar) under fully-loaded conditions.
 - (d) Adequate provisions must be made to dispose any water which may be retained by any such retaining embankment or wall. Any drain pipe through such embankment or wall. Any drain pipe through such embankment or wall must be fitted with a cast -iron valve on the outside which, except when in use, must be kept closed and adequately locked;
 - (e) The retaining capacity of such enclosed reservoir surrounding any tanks or group of tanks must be as follows;
 - (f) where there is not more than one tank within such storing place, 90 per cent of the total capacity of the tank.
 - (ii) where there are not more than two tanks within the same enclosed reservoir, 80 per cent of their total capacity.
 - (iii) (iii) where there are three or more tanks within the same enclosed reservoir, 75 per cent of their total capacity;
 - (g) the area enclosed by such retaining embankment or wall not occupied by any storage tank must, except for the purpose of carrying out repairs, alterations or additions to such tanks, be kept entirely free and unoccupied.
 - (h) The provisions of paragraphs (b) and (c) must not apply to any existing reservoir in use at the date of promulgation of this chapter.

- (3) Every bulk store must be;-
 - (a) constructed of non-combustible material;
 - (b) adequately ventilated to prevent the accumulation of flammable liquid vapour therein;
 - (c) so designed and constructed as to be capable of containing and retaining, either under the action of fie or otherwise, 50 (fifty) per cent of the total quantity of liquid contained therein.

62. Tank distances

All storage tanks must, in regard to the sizes set out in the first column hereto, be separated from the boundary of the bulk depot and from each other by the distances set out in the bulk depot and from each other by the distances set out in the second and third columns hereto respectively;

	Capacity	Distance from boundary	Distance between tanks
	Kilolitres	Metres	Metres
Up to	55	6	1
Up to	85	7,5	1
Up to	110	9	1,5
Up to	140	10	3
Up to	220	12	4,5
Up to	350	13	5,5
Up to	455	15	6
Up to	910	15	7,5
Up to	2300	15	8
Up to	4550	15	12
Over	4500	15	15

Provided that:-

(a) Where tanks of varying capacities are to be grouped, the distance from boundaries must be observed but the distances between individual tanks must be not less than the sum of the specified distances for each size of the tank divided by two;

(b) No building or structure for the filling of containers with flammable liquids must be erected within 7,5 m of the boundary of any bulk depot.

63. Electric motors

No person must place or cause or permit to be placed any electric motor position where it is likely to come into contact with any flammable liquid or its vapour, unless such motor is of flame-proof construction.

64. Fire appliances

- (1) Every bulk storage depot mus1 be connected to the Council's or diameter of not less than 100mm.
- (2) A fire pump connection for each fire service must be installed in a position approved by the Council and within easy access of a street hydrant.
- (3) A reflux valve to shut off the supply from the street mains when the pump connection is being used must be fitted between the stand boundary and the pump connection.
- (4) Standard pattern wheel valve hydrants fitted with Morn's instantaneous 6.5mm couplings must be located in positions approved by the Council an adjacent to buildings and tanks used for flammable liquid storage, at the rate of one for every 450mm2 of floor area and one within 92m of each bulk storage tank.
- (5) 65mm Plastic fire hose and branch pipes with 19mm nozzles of sufficient length for the adjacent area, which is served by such hydrants, must be provided.
- (6) Wheeled dry powder type extinguishers of not less than 45kg capacity,or other similar type of extinguishers, together with foam making branch pipes, must be installed where deemed necessary and required by the Council . Every building used for the storage of flammable liquid or flammable liquid or flammable substances must be provided with 9kg dry powder chemical fire extinguishers at the rate of two for every 450m2 of floor area.
- (7) An adequate system of alarm in case of fire (such as bells, whistles or sirens) must be installed.
- (8) All persons employed at or in the bulk depot must be periodically instructed in the use of all fire appliances.

65. Filling of road tank wagons

The filling of road tank wagon with flammable liquid must not be commenced or carried out at a bulk depot:

- (a) at a lesser distance than 8m from any storage tank or building above ground or boundary or such depot;
- (b) unless and until all pipes have been efficiently earthed;
- (c) unless good and sufficient metallic contact has been made and is maintained between such wagon and the metal pipeline to prevent the building up of a static charge of electricity on such wagon.

66. Starting of engine at filing point

No person must at a bulk depot start, or cause or permit to be started the engine of a road tank wagon or any mechanically propelled vehicle if such road wagon or vehicle is within 6m of any place filling operations are taking place not under seal or in any place in which such wagon or vehicle comes or is likely to come into contact with flammable liquid or its vapour.

67. Steam engines

(1) No person must drive or otherwise bring any road steam engine into any bulk depot.

- (2) No occupier or person authorised by the occupier to be in charge must permit such road steam engine to enter any bulk depot.
- (3) Where it is necessary for steam Locomotives to enter a bulk depot, the occupier must erect a notice board bearing the words "LOCOMOTIVES MUST NOT PASS THIS POINT" in letters not than 150mm in height in all languages spoken in the area of the municipality. The board must be placed in a conspicuous position at a distance of not less than 15m from any operation dealing with flammable liquids or storage thereof.

No flammable liquid or open container containing flammable vapour must be placed or stored at a distance of less than 15m from any portion of the track which may be traversed by a steam locomotive.

68. Admission to depots

No person must:-

- (a) enter any bulk depot without the express permission of the occupier or the person authorised by the occupier to be in charge of such depot;
- (c) enter any bulk depot while in possession of any matches, cigarette lighter or similar contrivance;
- (d) commit any act which is liable or calculated to cause fire or explosion or its contents.

70. Supervision of depots

The occupier of a bulk depot must ensure that a responsible person, duly authorised thereto, must at all times during working hours be on constant duty at such depot to ensure against fire hazards or other contingencies which may be a danger to life or property and that a reliable watchman is always on duty at the depot after normal working hours.

Transport of flammable liquids

71. Transport permit

Save as provided in <u>section 117</u>, no person must use or cause or permit to be used in any vehicle for the delivery of flammable liquid within the Council's area of jurisdiction, unless and until he is in possession of a transport permit issued to him by the Council in respect of such vehicle or a permit issued by any local authority.

72. Issue of transport permit

- (1) No transport permit must be granted in respect of any vehicle unless and until such vehicles:-
 - (a) (a) has been exhibited for examination at such place as the Council may direct and the examination fee as prescribed in Schedule IV hereto has been paid
 - (b) complies with the conditions of fitness relating to such vehicle as laid down by the National Road Traffic Act, as amended, and any regulations promulgated thereunder,
 - (c) complies with the requirements of section 109
- (2) (2) Such transport permit must:-
 - (a) continue in force for a period of six months or such period as may be stated in such permit;
 - (b) specify the maximum quantity and class of flammable liquid which such vehicle must be permitted to carry;
 - (c) be affixed to the vehicle in respect of which such transport permit was issued and to no other vehicle;

(d) be maintained on such vehicle in a good and legible condition by the owner or person in control of such vehicle in a position so as to be plainly visible.

73. Construction of vehicles

- (1) Every road tank wagon must be constructed in accordance with the following requirements:-
 - (a) The vehicle must be strongly constructed and as far as is reasonably possible must be constructed of non-combustible material.
 - (b) Where electric lighting or other electrical devices are employed the electrical circuit must be heavily insulated and the wiring so fixed and protected as to reduce as far as reasonable possible any risk of damage. The generator, battery, fuses or switches must not be4 situated in any position whereby they are likely to come into contact with any flammable liquid or its vapour.
 - (c) The tank must be constructed of iron, steel or other suitable metal and riveted, welded, brazed or otherwise made liquid tight.
 - (d) Means of cutting off the electrical current close to the battery by a double pole switch or other suitable method must be provided.
 - (e) Any tank having a capacity' exceeding 6kl must be divided into liquid tight compartments, each compartments to be of a capacity of not more than 6 kl.
 - (f) The tank must be securely attached to and be in metal contact with the vehicle.
 - (g) The draw-off pipes of the tank must be fitted with internal valves and with strong and secure taps and suitable caps. The taps and caps must be protected from damage by the frame of the vehicle or other effective means.
 - (h) Efficient ventilating openings must be fitted to each tank compartment and all such openings must be covered with fine wire gauze of not less than 600 microns to the 2500n and provided with a cock or valve.
 - (i) Adequate provision must be made to earth such vehicle efficiently so as to prevent the accumulation of a dangerous static charge of electricity in any part thereof and, in addition, which pipe connection to the tank must be so fitted as to ensure complete electrical connection between the tank and any receptacle being supplied with liquid there from
 - (j) All electrical earth connection required in terms of this section must be examined and entered in a log book required in terms of <u>section 83</u>.
- (2) Every vehicle other than a road tank wagon must bee:-
 - (a) of adequate capacity and connection to convey safely the quantity of flammable liquid, which it is desired to convey on such vehicles, the total quantity must not exceed 30kl.
 - (b) equipped with at least four wheels: Provided that a trailer forming a portion of an articulated vehicle must for the purpose hereof be deemed to be equipped four wheels;
 - (c) so constructed and equipped as not to be likely to ignite any flammable liquid, which may be conveyed in or on such vehicle.

74. Maintenance of vehicles

No person must use or cause or allow to be used in any public place any vehicle for the transport of flammable liquid, unless such vehicles is maintained in good condition and in proper working order.

75. Openings to tank

All openings to the tanks of any vehicle used for the transport of flammable liquid must be kept securely and effectively closed at all times when not in use.

76. Supervision of wagon by responsible person

Every road wagon must be under the constant supervision of a responsible person during the period such tank wagon is in use as such anywhere other than at a bulk depot.

77. Portion of road tank wagon during delivery operations

No person must:-

- (a) cause or permit a road tank wagon to stand on or across any public footpath during delivery operations.;
- (b) place the hose or cause or permit the hose to be placed across such footpath during such operations;
- (c) cause or permit a road tank wagon to reverse into or off any premises befote or after delivery operations to such premises.

78. Fire extinguishers

- (1) No person must use or cause or permit to be used any road tank wagon unless such wagon is provided with at least two efficient 9kg chemical fire extinguishers which must be of the dry powder type;
- (2) Such extinguishers must be carried on the road tank wagon in such a position and must be attached to the road tank wagon in such a manner as to be readily and easily accessible in the case offire.

79. Agencies likely to ignite flammable liquids

No person must:-

- (a) bring or cause or permit to be brought any fire, flame or other agency likely to ignite flammable liquid or its vapour within 3m of any vehicle in which flammable liquid is transported;
- (b) carry or cause or permit to be carried any matches, cigarette lighter or similar contrivance on ay vehicle used for the transport of flammable liquid;
- (c) while in attendance on such vehicle smoke or permit any other person thereof to smoke during the transport of flammable liquid or the filling of such vehicle with flammable liquid or the discharge of such liquid there from;
- (d) smoke within 3m of such vehicle during the filling of such a vehicle with flammable liquid or the discharge of such there from or while in attendance thereon permit any other person so to smoke.

80. Precautions

Every person responsible for or connected in the conveyance of flammable liquid must take all reasonable precautions for the prevention of accident by the fire or explosions and for the prevention of access by any unauthorised person to any container whilst in transit.

81. Restriction of scope of certain by-laws

- (1) The provision of <u>section 107</u> to 114 inclusive, must not apply to the conveyance of flammable liquid on a vehicle, not being a road tank wagon:-
 - (a) of a quantity not exceeding 2001 of Class A or, flammable liquid or 4001 of class C flammable liquid in securely close metal containers of a capacity not exceeding 501; or
 - (b) of a quantity not exceeding 2001 of Class A or B flammable liquid or 1 kl of Class C flammable liquid contained in securely closed metal containers of each a capacity of not less than 2001.
- (2) Such containers must be substantially constructed and packed in such manner as to prevent leakage and obviate becoming broken, defective or insecure in the course of conveyance.
- (3) No flammable liquid must be so conveyed upon or through any thoroughfare in or on any steamdriven vehicle or in on any trailer or other vehicle drawn by a vehicle so driven.

Dry clening rooms - general

82. Certificate of dry-cleaning room

- (1) No other permit use or cause or permit to be used any room as a dry cleaning room unless and until such room has been duly registered as such under this Chapter.
- (2) No certificate must be issued in respect of any premises for use as a dry cleaning room unless and until such premises comply with the requirements of these By-laws.
- (3) The provisions of <u>section 42</u> to 49, inclusive and 52 must *mutatis mutandis* apply to a certificate under this section.

83. Use of dry-cleaning room

No dry-cleaning room must be used for any purpose other than that of dry cleaning and purpose reasonably incidental thereto.

84. Installation of machinery

- (1) No person must install or cause or permit to be installed any dry-cleaning machinery such as washing machines, hydros, clarifiers, stills or setting tanks elsewhere than I the dry-cleaning room.
- (2) All machinery must be efficiently electrically earthed.
- (3) All such electrical earthed connections must be examined and entered in a log book as required in terms of <u>section 83</u>.

85. Boilers

No boiler, including the chimney thereof, must be installed within 6m of any dry- cleaning room: Provided that the boiler may be installed not nearer than 3m to any dry-cleaning room where there is an unbroken brick or concrete wall between such boiler or its chimney an such room of a height of not less than 450 mm above the top of the boiler and its chimney and not less than 2m above the floor of the dry-cleaning room.

86. Draining machinery

All containers above ground such as washing machines, clarifiers, stills or similar appliances must be drained immediately after the termination of cleaning operations each day.

87. Electrical equipment

No person must install or cause or permit to be installed in a dry -cleaning room or in any position which comes or is likely to come into contact with flammable liquid or its vapour, any electrical machinery or other electrical apparatus other than:

- (a) an incandescent electric lamp enclosed in an outer flame-proof fitting,
- (b) electric wires protected throughout by seamless metal tubes, the joint of which are screwed together;
- (c) one electrical push-button switch of flameproof construction which must be situated not less than 1.45m above the level of the floor and which must be so constructed an connected as to be of use in the case of an emergency to stop the machinery;
- (d) electric of flame-proof construction.

88. Handling of flammable liquids

The storage tank must be connected to the dry -cleaning machinery and no flammable liquid must be handled during any cleaning process: Provided that a total quantity not exceeding 20 litres at any time may be handled in one or more containers for the purpose of handwashing or spotting.

89. Danger notice at entrance

The words "DANGER - NO SMOKING" in all languages spoken in the area of the municipality must be prominently displayed in letters not less than 150mm high outside every entrance to every dry-cleaning room and must be at all times be maintained in such positions and in a legible condition

90. Removal of foreign mater and metallic substances from garments

No person must dry-clean or cause or permit to be dry-cleaned any article of clothing or other textile unless and until such article has been thoroughly examined and all materials such as matches, metallic substances, metal buttons and other matters which are liable to cause sparks have been removed therefrom.

91. Instruction to employees

The occupier must cause all person s employed in the dry-cleaning room to be thoroughly instructed as to the hazards involved in the use of flammable liquids and in the handling and method of usage of all f\ire appliances required by these By-laws to he on the premises, and must repeat such instructions quarterly.

92. Unauthorised persons or acts

- (1) No person other than a person lawfully employed on the premises must enter any dry-cleaning room without the express permission of the occupier or person in charge.
- (2) No person must commit any act. which is liable or calculated to cause fire, explosion or other danger to dry cleaning room or its contents.

93. Positions of machinery

All dry-cleaning machinery, such a washing machines, hydros, clarifies, stills and setting tanks , must be situated as near as reasonably possible to the exhaust ducts required by section 135.

94. Shafting

Every table used for washing or brushing any material with flammable liquid must comply with the following requirements:

- (a) such table must be provided with a liquid tight tip with a curb on all sides not less than 25mm high.
- (b) The top of such table must be so pitched as to ensure thorough draining by a pipe of not less than 25mm diameter directly connected to an underground tank through a trap which must prevent the return of vapour.
- (c) Metal tops must be effectively electrically earthed.
- (d) Such table must be so secured to the floor or wall as not to disturb the electrical earth lead and drain connections.

95. Portable lamps

No person must take or cause or permit to be taken nay flash lamp or any other light or lamp into any drycleaning room except an incandescent electrical lamp or safety lamp which has been fitted with an outer flameproof fitting.

Special provisions where class A and Be flammabel liquids are used for dry-cleaning

96. Construction of dry-cleaning rooms

Every dry-cleaning room must be constructed in accordance with the following requirements:

- (a) the walls must be constituted of brick orooncrete or similar suitable material, the floor of concrete or other impervious material and the roof of fireproof material.
- (b) all windows must e constructed of brick or concrete similar suitable material, the floor of concrete of other impervious material and the roof of fireproof material.
- (c) all doors and door frames must of metal and the doors must have all-round overlap of 25mm or more and must not be less than t3mm in thickness.
- (d) a sill concrete at least 150mm in height must be erected across all door openings at surface level or the floor of the room must be 150mm below adjacent surface level.
- (e) the dry -cleaning room must be situated not closer than 1,5m to any public thoroughfare or adjacent building unless the wall or walls which are exposed to such thoroughfare or building are constructed without openings: Provided that not more than tow sides of any dry-cleaning room must be without openings.
- (f) there must be provided at least two doors opening outwards directly into the open air. Such doors must be so situated and at such a distance from each other as to allow the free and unimpeded escape of the persons within the dry-cleaning room through either door in the case of fire or other danger.
- (g) cleaning room must have any opening into any other room or building; Providers that subject to compliance with the conditions hereunder set out, any room used or intended to be used solely for the purpose of drying materials which have been cleaned or treated with flammable liquid, may be constructed under the same roof the dry-cleaning room:
 - (i) such drying room must be separated from the dry cleaning room by wall constructed of noncombustible material; and
 - (ii) the entrance to such drying room must e provided with meta door an frame
- (h) no dry-cleaning room must be situated below or above any other room or building.

(i) every dry-cleaning room must be maintained at all in accordance with provisions of this section

97. Steam pipes

- (1) Every dry-cleaning room must be fitted at least on steam pipe not less than 25 min in diameter. Every such pipe must be provided with-
 - (a) Perforation or jets of at least 6mm in diameter and so spaced as to give as near as practicable an equal distribution of steam in such a manner that room can be immediate ly flooded with steam in case of fire;
 - (c) A steam trap or other effective means of preventing accumulation of water within such pipe.
- (2) An adequate steam supply for such pipe or pipes must be maintained continuously while any flammable liquid is contained in any washing machines, clarifiers, stills, or similar appliances.
- (3) Such steam supply system must be provided with a valve placed in the service line and situated outside the building in an easily accessible position in the case of fire.

98. Ventilation of dry-cleaning room

- (1) Every dry-cleaning room must be ventilated with a mechanical system of exhaust and inlet ventilation of such design, construction and capacity as will adequately remove flammable liquid vapour from such room and discharge such vapour into the open air at a point above room and not within 4,5m of any opening to any building.
- (2) Such systems of ventilation must cause the air in the dry -cleaning room to be changed at least thirty times in every hour.
- (3) The blades of the ventilating fans must be made of non-ferrous metal.
- (4) All exhaust ventilation ducts must be installed-
 - (a) as near ground level as practicable: Provided duct or any portion thereof is situated at a level which is less than 150mm above the level of the dry-cleaning room floor, adequate provision must be made to preyent the escape of flammable liquid therefrom in the case of fire or otherwise;
 - (b) as near as practicable to the points of origin of flammable liquid vapour of the dry-cleaning machinery such as washing machines, hydros, clarifiers, stills, settling tanks and such like.
- (5) Any person discovering a fire any dry-cleaining room must immediately take all possible steps to shut down the exhaust ventilating system.

Special provision where class flammable liquids is used for dry-cleaning

99. <u>Constitution</u> of dry-cleaning room

Every dry-cleaning room must be constructed and maintained in accordance with the following requirement:

- (a) The walls must be constructed of brick or concrete or other similar suitable material and the floor of concrete or other impervious material and the roof of fire proof material.
- (b) A sill of concrete at least 150mm in height must be erected across all door openings at surface level or the floor of the room must be 150mm below the adjacent surface level.
- (c) There must be provided at least two doors opening outwards directly into the open air. Such doors must be so situated and at such a distance from each other as to allow free and unimpeded escape of persons within the dry-cleaning room through either in the case of fire or other danger.

(d) No dry-cleaning room must be situated below or above any other room or building: Provided that a room or building may be constructed above a dry -cleaning room, if such room or building is not used as a habitable room and is provided with adequate means of escape to the satisfaction of the chief fire officer.

100. Ventilation of dry-cleaning

- (1) Every dry-cleaning room must be ventilated by a system of ventilation of such design, construction and capacity as will adequately prevent the accumulation of flammable liquid vapours within any portion of such room and discharge such vapour into the open air a t a point where such vapour is not likely to come into contact with any tire, flame, open light or other agency likely to ignite such vapour: Provided that where for any reason such ventilation can only be secured by means of a mechanical systems must conform to and comply with the provisions of section 135
- (2) Applicability of certain sections:
 - (a) The provisions of section 136 and subsection (1) of this section, must apply to dry-cleaning rooms only where Class C flammable liquids are used.
 - (b) The provisions of section 133, 134 and 135 must apply to dry cleaning rooms where classes A and b flammable liquids are used for dry-cleaning.

Spray rooms

101. Registration of spray room

- (1) No persons must spray or cause or permit to be sprayed any vehicle or article with any flammable liquid in any spray room unless such person is in possession of a spray room permit in respect of such room. Such permit must only be valid for the period terminating on the next succeeding 31st day of December.
- (2) The provisions of <u>sections 41</u> to inclusive and 52 must with the necessary changes apply to a point under the section.

102. Issue of spray room permit

Spray room permit must be granted in respect of any spray room unless and until such room complies with the requirements of these By-laws.

103. Construction of spray room

Every spray room must be constructed in accordance with the following requirements:

- (a) Non-combustible materials only must be used in construction thereof.
- (b) There must be installed an exhaust method of ventilation such as will adequately remove vapours from, and be capable of changing the air in the spraying room at least 30 times every hour.
- (c) Where a spray room is subdivided into spray booths as described in paragraph (d), each such booth must be ventilated in accordance with paragraph (b).
- (d) Where a part of whole of any spray room is subdivided by partitions into separate compartments or booths (herein after described as spray booths) such spray booth must be constructed of metal of other non-combustible material.
- (e) All exhaust vents leading from spray rooms or spray booths must be so designed and constructed that all vapours are expelled into open air at a point of not less than 4m above the level of the ground and at a distance of not less than 5m from the opening of any building and such vent must be constructed of non-flammable material.

- (f) All ventilation inlets and outlets must be so placed as t effect a continuous and complete change of air within any such room or spray booth. The ventilation inlets must be substantially equivalent to the exhaust capacity provided in terms of Chapter. The ventilation or spraying must be so arranged that all flammable liquid vapours must pass as near as reasonably possible directly into the ventilation outlets.
- (g) The blades of any fan used in the spray room must be of non-ferrous metal.
- (h) No electrical equipment must be installed in the spraying room other than:-
 - (i) incandescent electric lamps in outer flame proof fittings;
 - (ii) electric wires protected throughout by seamless metal tubes, the joints of which are screwed together;
 - (iii) electrical apparatus of flame-proof construction used for ventilating purposes;
- (i) The spray rooms, fans and vents must be kept clean and free from flammable deposits and all flames and vents must be kept in proper working order at all times and any scraping necessary to comply with the provisions of this subsection, must be carried out with non-ferrous instruments;
- (j) All drums, cans or similar vessels containing flammable liquids or substances or which have contained the same and have not been degassed or otherwise rendered harmless, must be kept securely closed when not in use and must, after the contents have been used, be removed from the spray room and stored in such a place that, in the opinion of the chief fire officer, they are not likely to cause danger or obstruction or obstruct or impede the escape of safely of persons or similar in the event of fire.

104. Danger notice at entrance

The words "DANGER NO-SMOKING" in all languages spoken in the area of the municipality must be prominently displayed in letters not less than 150mm high outside the entrance to every spry room, and must at all times be maintained in such position and in a clearly legible condition.

105. When permits is not required

Thing contained in sections 138 to 144 inclusive must prohibit the spraying with flammable liquid of any vehicle or article in the opinion air if such spraying is not within a distance of 15m from any fire, open light or other agency likely to ignite such flammable liquid or its vapour.

106. Mixing rooms

The provisions of sections 118, 125, 127, 132 and must apply mutates mutandis to mixing rooms.

107. Provisions where class B flammable liquids are used or handled

The provisions of section 138 must apply mutates mutandis to Class B flammable liquids.

108. Liquefied petroleum gases

- (1) No person must cause or permit:-
 - (a) the filling of any receptacle or vehicle with liquefied petroleum gas on any premises;
 - (b) the use, handling or storage of liquefied petroleum gas on any premises, or
 - (c) the use of any vehicle for the conveyance of liquefied petroleum gas in or on any public place;

unless the requirements of the Code of Petroleum for the Handling, Storage and Distribution of Liquefied Gas in Domestic, Commercial an Industrial Installation of the South African of Standards have been complied with and written permission has been obtained from the chief fire officer.

(b) The provisions of the coded of practice relating to the Handling Storage and Distribution of Petroleum including Liquefied Petroleum Gas, complied by the South African Bureau of Standard; Code SABS 087 Parts I to VIII Code SABS 089 Parts I and II, must be in force within the Council's Area of Jurisdiction and must be deemed to form a part of these By laws.

109. Gas-filled toys

- (1) No person must:-
 - (a) fill with hydrogen gas any balloon or other device without the permission of the chief fire officer, in writing;
 - (b) use or display any balloon or other device filled with hydrogen gas inside any building to which the public ordinarily has access to which is used as a club: Provided that the use and sale of balloons filled with hydrogen gas for meteorological scientific or educational purposes must not be prohibited.
- (2) For the purposes of this section the expression "hydrogen gas" includes any mixture of gases in which hydrogen is present unless the mixture is neither flammable nor explosive in air,

Carbide

110. Certificate of registration in respect of storage

- (1) No person must keep or store carbide in excess of 900 kg on any premises, unless such person is in possession of a certificate of registration in respect of such premises.
- (2) No certificate of registration must be issued in respect of any premises for the storage of carbide until the provisions of these By-laws have been complied with in respect of such premises.
- (3) Such certificate:-
 - (a) must state the maximum amount of carbide permitted to be stored on the premises
 - (b) may be issued subject to such conditions as are deemed necessary by the Council, having regard to the circumstances pertaining to each application.
- (4) Every such certificate must be valid only until the next succeeding 31st day of December.
- (5) No certificate of registration, other than a renewal thereof, must be issued in respect of any premises until the provisions of section 148 have been complied with and the application therefore has been approved by the Council.

111. Application of certificate in registration

- (1) Every application for a certificate for a certificate of registration accompanied by the charges prescribed in Schedule III hereto, must be made in writing to the Council on a form to be provided by the Council for the purpose.
- (2) Every such application must be accompanied by a plan of the premises in respect of which the certificate is required, drawn to a scale of not less than 1:100 and showing the elevation of the premises in relation to adjacent buildings above or below the ground.

- (3) Every such application must also be accompanied by a block plan drawn to a scale of not less than 1:500 which must specify:-
 - (a) the premises and all open spaces with stand numbers thereof and the materials of which such premises are constructed or are to be constructed;
 - (b) the stands with numbers thereof immediatelyadjoining;
 - (c) the names of any streets pm which the siteabuts and the township in which it is situated; and
 - (d) the north point.
- (4) Where the plan relates to existing premises in respect of which a certificate or registration has been issued in terms of section 147 and to which it is proposed to make alterations or additions, only a ground plan together with such application form and prescribed charges must be submitted. Such ground plan until must be drawn to a scale of not less than 1:100 and must show such additions or alterations in relation to such existing premises.
- (5) All plans must be:-
 - (a) signed by the owner of the prem ises or his agent;
 - (b) drawn in Indian ink on tracing linen or clear prints on cloth with white ground, and
 - (c) coloured with fixed colours as follows:

Block plan:

Proposes premises or alterations: Red

Other existing buildings: Grey or neutral colour

Open spaces uncoloured

- (6) On approval, such plan or plans must become the property of the Council.
- (7) The approval of plans of premises must in no way imply the acceptance of any responsibility' on the part of the Council in regard to such premises.
- (8) The approval by the Council in terms of these By-laws of any plans must lapse and must be until and void if the provisions of these By-laws must not have been complied with within one year after the date of such approval.

112. Conditions of certificate of registration

- (l) No person must store pr cause or permit to be stored any quantity of carbide on any premises in excess of the amount stated on the certificate of registration relating to such premise.
- (2) Any person in lawful possession of any certificate of registration may make written application to the Council for permission to increase the total quantity of carbide which may be stored in terms of such certificate. Such application must be granted by the Council only if the proposed Increases is permissible in terms of these By-laws. When the Council has granted any such application, such person must surrender his certificate of registration to the Council for amendment.

113. Renewal of certificate of registration

Application for the annual renewal of a certificate of registration must be made not later than 15th day of November of the year prior to that for which such renewal is required, on a form to be provided by the Council, and must be accompanied by the charges prescribed in Section III hereto. No plans premises in terms of section 148 must be required in the case of a renewal of registration, unless called for the discretion of the Council.

114. Transfer of certificate and registration

- (1) A certificate of registration may be transferred from one person to the other.
- (2) The person designing such transfer must make application in writing to the Council on a form to be provided by the Council for such purpose.
- (3) Such Application must be accompanied y the prescribed changes, together with the certificate of registration relating to the premises in respect of which such transfer is desired. 4
- (4) No certificate of registration is transferable from one premise to another.

115. Additions and alterations to registered premises

No additions or alterations to any existing registered premises must be made unless and until a plan prepared must have been submitted to and approved by the Council in writing.

116. Fire appliances

The person to whom a certificate of registration has been issued must install or cause to be installed in the premises to which such certificate refers, in an easily accessible and visible position on a wall or other suitable position not less than lm above the level of the floor of the premises, 6 fire buckets filled with dry sand, of a capacity of 91 each, painted red with word "FIRE" in all languages spoken in the area of the municipality painted in while and legibly maintained thereon, in terms of the provisions of Chapter 2.

117. Rules to be observed

A person must store or cause or permit to be stored any carbide on any premises whether or unregistered, unless such carbide is stored:-

- (a) in such a position that it is not in dangerous proximity to any fire, flame, open light or other agency likely to ignite flammable or explosive gas;
- (b) in a dry and well ventilated position;
- (c) in such a position that is the case of fire or explosion, the escape of persons or animals from such premises will not be prevented or impeded:
- (d) in closed metal containers.

118. Inspection of premises

- (1) Any duly authorised officer of the Council may, for any purpose connected with these By-laws at all reasonable times and without previous notice enter upon any premises whatsoever and make enquiries or examination thereon as he may deem necessary.
- (2) The owner or occupier or, failing their presence on the premises, any other person employed must upon demand disclose to such authorised officer the presence of any carbide in or upon such premises, and must answer all enquiries relating either to the observance of these By-laws or to any conditions in connection with the certificate of registration.

119. Construction of store

Every store, room or building used for the storage of carbide in excess of 200 kg must:-

- (a) be substantially constructed of non-combustible material;
- (b) be of such construction and condition that all the contents thereof must be maintained in a dry condition;

- (c) adequately ventilated to prevent the accumulation therein of flammable or explosive gas;
- (d) be so situated that any gases which may be discharged therefrom are not likely to come into contact with any fire, flame, open light or to other agency likely to ignite flammable or explosive gas;
- (e) have no opening into or communication with any other room or building in with person reside or which is used for public assembly or stabling of animals;
- (f) be so constructed and situated that there is no possibility of danger from any fire, flame, open or other agency likely to ignite flammable or explosive gas;
- (g) be situated at ground level:

Provided that any such store, room or building used for the storage of carbide in excess of 200 kg, unless situated at a distance of not less than 30m from any other building, must be constructed of brick or concrete and with a roof constructed of non-combustible material and must have no opening into or communication with any other room or building.

120. Danger notice on store

No person must use or cause or permit to be used any store, room or building or for the storage or carbide in excess of 900 kg unless and until the words "DANGER-CARBIDE" in letters not less than 150mm in height are legibly painted in both official languages on the outer face of the door of such store, room or building. Such notice must at all times be maintained in such positions in a legible condition.

121. Purity

No person must store, use, sell or expose for sale any carbide which is not commercially pure; Provided that no carbide containing any impurity liable to generate phosphorated or silicuretted hydrogen in such quantities as to render the gas generated likely to ignite spontaneously, must be considered to be commercially pure for the purpose of this section.

122. Seizure and removal of carbide

Where any authorised officer of the Council has reasonable cause to believe that any storage of carbide to the contrary provisions of these By-laws, he may seize and detain such carbide and may either require the owner or occupier or, failing their presence on the premises, any other person employed thereon to detain the carbide in those premises or in any other premises under his control, or he may remove it in such manner and to such premises as will, in his opinion, least endanger the public safely, and there detain it or take such other measures as may be necessary' for the protection of the public/

121. Breach of conditions

Any person who commits any breach of any condition endorsed on the approval notice or certificate of registration issued in terms of these By-laws, must be guilty' of an offence in terms of these By-laws.

122. Penalties

Any person contravening any provision of this chapter is guilty of an offence and liable, on conviction:-

- (a) to a fine not exceeding Rl00 or, in default of payment, imprisonment for a period not exceeding six months or to imprisonment for a period not exceeding six months without the option of a fine; and
- (b) in the case of successive or continuing offence, to a fine not exceeding R10 for every day such offence continues, or in default of payment, to a fine or in default of payment, to imprisonment for a period not exceeding six months, or to both such fine and such imprisonment.

123. Repeal of by-laws

The provisions of any By-laws relating to flammable liquids and other substances by the Municipality are repealed insofar as they relate to matters provided for in these By-laws.

124. Short title

These By-laws are called By-laws for Flammable Liquids and other Substances