

AUSTRALIAN CAPITAL TERRITORY.

No. 19 of 1940.

AN ORDINANCE

To Regulate the Keeping, Conveyance and Sale of Inflammable Liquids and Dangerous Goods.*

BE it ordained by the Governor-General in and over the Commonwealth of Australia, with the advice of the Federal Executive Council, in pursuance of the powers conferred by the *Seat of Government Acceptance Act 1909-1938* and the *Seat of Government (Administration) Act 1910-1940*, as follows:—

PART I.—PRELIMINARY.

1. This Ordinance may be cited as the *Inflammable Liquids* Short title. Ordinance 1940.
2. This Ordinance shall come into operation on a date to be Commencement. fixed by the Minister by notice in the *Gazette*.
- 3.—(1.) The *Inflammable Liquid Ordinance 1917* is hereby Repeat. repealed.
(2.) The *Storage and Sale of Kerosene Restriction Act of 1871* of the State of New South Wales shall cease to apply to the Territory.
4. This Ordinance is divided into Parts, as follows:— Parts.
 - Part I.—Preliminary.
 - Part II.—Administration.
 - Part III.—Keeping of Inflammable Liquid and Dangerous Goods.
 - Part IV.—Marking of Packages.
 - Part V.—Conveyance of Inflammable Liquid.
 - Part VI.—Testing.
 - Part VII.—Legal Proceedings.
 - Part VIII.—Miscellaneous.

5. In this Ordinance, unless the contrary intention appears— Definitions.
 - “boat” means a vessel, other than a ship, which is used in navigation in any inland water or any harbour, whether moved or propelled by oars or otherwise, either at rest or in motion;
 - “carriage” includes any carriage, waggon, cart, truck, vehicle or other means of conveying goods or passengers by land, in whatever manner it may be propelled or transferred from place to place, either at rest or in motion;

* Notified in the *Commonwealth Gazette* on 3rd October, 1940.

“Chief Inspector” means the Chief Inspector of Inflammable Liquids appointed under this Ordinance;

“dangerous goods” means any highly combustible goods and any substance which the Minister, by notice in the *Gazette*, declares to be dangerous goods for the purposes of this Ordinance;

“depot”, in relation to inflammable liquid, means any pit, excavation, or enclosed place, whether situate in a building or not, which is constructed in such manner or surrounded by walls of such character that inflammable liquid stored therein cannot escape therefrom in the form of liquid, either under the action of fire or otherwise and, in relation to dangerous goods, means any building or place approved as a depot by the Chief Inspector;

“explosive”—

(a) means gunpowder, nitro-glycerine, all compounds or mixtures containing nitro-glycerine, gun cotton, fulminate of mercury or of other metals, coloured fires, and any other substance, whether similar to those above mentioned or not, used or manufactured with a view to producing a practical effect by explosion or a pyrotechnic effect; and

(b) includes fog signals, fireworks, fuses, rockets, percussion caps, detonators, cartridges, ammunition of all descriptions, and every adaptation or preparation of an explosive as above defined and any other substance, article or thing which the Minister, by notice in the *Gazette*, declares to be an explosive for the purposes of this Ordinance;

“highly combustible goods” means oil, spirit, or other liquid of an inflammable character (not being inflammable liquid to which this Ordinance applies), or any resin, tallow, paraffin-wax, celluloid, or other solid substance of like character;

“inflammable liquid” means liquid petroleum, kerosene, and any oil, liquid or spirit which is derived wholly, or in part, from any petroleum, shale, schist, coal, peat, bitumen, or any other similar substance, and which has a true flashing point of less than one hundred and fifty degrees Fahrenheit, and, subject to the Regulations, any other liquid which the Minister, by notice in the *Gazette*, declares to be an inflammable liquid for the purposes of this Ordinance;

“inspector” means an Inspector of Inflammable Liquids appointed under this Ordinance, and includes any person authorized in writing by the Minister to exercise the powers and functions of an inspector under this Ordinance;

“licence” means a licence granted under this Ordinance;

“licensed store” means a store in respect of which a licence has been granted and is in force;

“master” includes any person, other than a pilot, having command or charge of a ship; and, in reference to a boat belonging to a ship, means the master of a ship; and, in reference to any other boat, means the person having command or charge of the boat;

“occupier” includes any number of persons and a body corporate, and, in case of a building in which any manufacture or trade is carried on, includes any person carrying on that manufacture or trade;

“package” means any case, barrel, tin or other receptacle, and includes every means by which goods may be cased, covered, enclosed, contained or packed;

“protected work” means any—

(a) building in which any person dwells, or in which persons are accustomed to assemble for purposes of public concourse, public religious worship, public entertainment or amusement, education, or discussion, public offices, stores and other warehouses;

(b) building in which persons are employed for the purpose of any trade or business, and which is not situate on a licensed store;

(c) dock, wharf or timber yard, and any part of a harbour or port where it is customary for ships to berth, moor or lie;

(d) depot in which any inflammable liquid is kept; and

(e) other place which the Minister, by notice in the *Gazette*, declares to be a protected work for the purposes of this Ordinance;

“railway” includes all land and buildings under the control of the railway authorities;

“registered” means registered under this Ordinance for the keeping of inflammable liquid;

“screen wall” means wall of such substance and so constructed and placed as to be efficient for the purpose of preventing the spread of fire from any one place to any other place, and when inflammable liquid is kept in an underground depot, means the surrounding floor, walls, and covering of that underground depot, if so efficient;

“ship” includes every description of vessel used in sea navigation, whether propelled by oars or otherwise, and whether at rest or in motion;

“the Court” means any Court of Petty Sessions having jurisdiction in the Territory;

“the Minister” means the Minister of State for the Interior;

“wharf” includes any quay, landing-place, landing-stage, jetty, pier, hulk or other place at which goods are landed, loaded or unloaded.

Application of Ordinance.

6. This Ordinance shall apply only to such parts of the Territory as are specified by the Minister by notice in the *Gazette*.

Mineral spirit and mineral oil.

7. For the purpose of this Ordinance, inflammable liquid is divided into mineral spirit and mineral oil, and—

(a) “mineral spirit” means any inflammable liquid which has a true flashing point of less than seventy-three degrees Fahrenheit; and

(b) “mineral oil” means any inflammable liquid which has a true flashing point of not less than seventy-three degrees Fahrenheit.

Flashing point of inflammable liquid.

8. For the purposes of this Ordinance, the true flashing point of any inflammable liquid shall be the flashing point ascertained in the manner specified in the Schedule to this Ordinance, as modified or varied by the Regulations.

PART II.—ADMINISTRATION.

Appointment of Inspectors.

9.—(1.) The Minister may appoint a Chief Inspector of Inflammable Liquids, who shall have all the powers, privileges and immunities of an inspector, and such Inspectors of Inflammable Liquids as he thinks fit.

(2.) Inspectors appointed under the *Inflammable Liquid Act*, 1915-1931 of the State of New South Wales, may (if thereto authorized in writing by the Minister) exercise all the powers and functions of inspectors under this Ordinance.

Delegation by Minister.

10.—(1.) The Minister may delegate any of his powers and functions under this Ordinance (except this power of delegation) in relation to any matters or class of matters, so that the delegated powers and functions may be exercised by the delegate with respect to the matters or class of matters specified in the instrument of delegation.

(2.) Every delegation under this section shall be revocable at will, and no delegation shall prevent the exercise of any power or function by the Minister.

11. Any inspector may—

Powers of
inspector.

- (a) enter, inspect and examine, at all reasonable times, any place, ship, boat or carriage where or in which he has reason to believe inflammable liquid may be found;
- (b) make any general or particular inquiries as to the observance of this Ordinance;
- (c) without payment therefor, take samples of any substance which he believes to be an inflammable liquid, for the purpose of applying the tests prescribed in this Ordinance;
- (d) seize, detain or remove any inflammable liquid and any package or vehicle in which that liquid is contained, where he has reasonable cause for belief that there has been a contravention of this Ordinance in respect of that liquid; and
- (e) where he believes it necessary in the public interest, with the consent of the Minister, destroy or render harmless any inflammable liquid:

Provided that, in case of imminent danger, the inspector may so act without obtaining the consent of the Minister.

12. Any person who hinders or obstructs, or does not, upon being required so to do, assist any inspector in the exercise of his powers and duties under this Ordinance, shall be guilty of an offence.

Obstruction of
inspectors.

Penalty: Twenty pounds.

13. An inspector shall not be liable for any loss, damage, or other injury suffered by any person by reason of any act done by the inspector in the course of his duty unless the inspector has been guilty of wilful neglect or default, or has seized, detained, removed, destroyed, or rendered harmless, any inflammable liquid, without having a reasonable belief that there had been a contravention of this Ordinance in respect of that liquid.

Protection to
inspector.

PART III.—KEEPING OF INFLAMMABLE LIQUID AND DANGEROUS GOODS.

14. The Chief Inspector may, upon payment of such fees and subject to the *Building and Services Ordinance* 1924-1938 and to such conditions as are prescribed—

Licences to keep
inflammable
liquid and
dangerous
goods.

- (a) grant a licence in respect of any store specified therein for the keeping of—
 - (i) inflammable liquid; and
 - (ii) dangerous goods; and
- (b) register premises for the keeping of inflammable liquid.

Keeping
inflammable
liquid without
licence.

15.—(1.) Subject to this section, any person who keeps inflammable liquid on any land, ship or boat, except in a licensed store or in registered premises, and the occupier of that land, and the master of that ship or boat, shall be guilty of an offence.

Penalty: Fifty pounds.

(2.) The provisions of the last preceding sub-section shall not apply to the keeping of—

- (a) mineral oil in quantities not exceeding two hundred and fifty gallons, if mineral spirit is not kept by any person within a distance of fifty feet of the mineral oil, or, where the mineral spirit is so kept, if the mineral spirit or the mineral oil is kept completely surrounded with a screen wall;
- (b) mineral spirit in quantities not exceeding sixteen gallons, if the mineral spirit is kept in substantial vessels of metal or other material as prescribed, so securely closed and stopped that neither liquid nor vapour can escape therefrom;
- (c) mineral spirit in quantities not exceeding one hundred gallons, kept, for private use only, in an area declared by the Minister, by notice in the *Gazette*, to be an excluded area, if the spirit is not kept within a distance of fifty feet from any thoroughfare or building other than the building in which it is kept;
- (d) inflammable liquid in any quantity, where the inflammable liquid is being conveyed on a ship, boat or carriage in accordance with this Ordinance; and
- (e) inflammable liquid in any quantity in the fuel tank attached to or forming part of any ship, boat, carriage, aircraft or plant and used only in connexion with the propulsion or driving of the ship, boat, carriage, aircraft or plant.

Use of mineral
spirit for
industrial
purposes.

16. Notwithstanding anything in the last preceding section, a person shall not, except in a licensed store or registered premises, keep or use, for any industrial purpose, mineral spirit in quantities exceeding three gallons.

Penalty: One hundred pounds.

Registered
premises.

17.—(1.) A person shall not keep inflammable liquid in registered premises in quantities exceeding—

- (a) Eight hundred gallons of mineral oil, if mineral spirit is not kept by any person within a distance of fifty feet thereof, or, if any mineral spirit is so kept, unless either the mineral spirit or the mineral oil is kept completely surrounded by a screen wall or in a prescribed underground depot;

- (b) Three hundred gallons of mineral oil, if mineral spirit is kept by any person within a distance of fifty feet thereof, and neither the mineral spirit nor the mineral oil is kept completely surrounded by a screen wall or in a prescribed underground depot; and
- (c) One hundred gallons of mineral spirit in a depot on the surface of or above the ground, or five hundred gallons of mineral spirit, if kept in a prescribed underground depot.

(2.) If any person so keeps inflammable liquid in any quantity exceeding that prescribed in this section, he and the occupier of the premises shall be guilty of an offence.

Penalty: One hundred pounds.

18.—(1.) Any person keeping inflammable liquid in registered premises, and any person in and about those premises, shall comply with, and cause to be complied with, the following requirements:—

General rules
as to registered
premises.

- (a) All inflammable liquid kept on the premises, except so much as is withdrawn for immediate use, shall be kept in a depot exclusively appropriated to the purpose, and thoroughly ventilated:
Provided that, with the approval in writing of the Chief Inspector, other goods, of the nature and in the quantity specified in the approval, may be kept in a depot.
- (b) The depot shall not be situated within, nor be attached to, a dwelling or building in which persons assemble for the purposes of public concourse, public religious worship, public entertainment or amusement, education or discussion, unless the depot is completely surrounded by a screen wall, and has a separate entrance from the open air distinct from that of any dwelling or building in which persons assemble;
- (c) A fire, forge, furnace, explosive, highly combustible goods or other source of danger shall not be within fifty feet of the depot unless a screen wall intervenes between them;
- (d) A light, other than an artificial light of the construction and character prescribed, shall not, unless a screen wall intervenes between the inflammable liquid and the light, be brought within thirty feet of any depot or place where any vessel containing inflammable liquid is being kept, or is in course of conveyance on the premises;
- (e) All inflammable liquid shall be kept in closed vessels of metal or other prescribed material, so substantially constructed and maintained that no leakage whatever of liquid or vapour can take place therefrom;

- (f) Every package containing inflammable liquid shall be marked or labelled as required by Part IV. of this Ordinance;
- (g) All inflammable liquid received upon the premises shall be at once taken to the depot, and all inflammable liquid taken from the depot for delivery or otherwise, except so much as is for immediate use on the premises, shall be at once removed from the premises;
- (h) Inflammable liquid shall not be received or delivered from the premises except between the hours of sunrise and sunset, unless an artificial light of the prescribed construction and character is used;
- (i) A vessel containing inflammable liquid shall not be opened on the premises, except at or immediately adjoining the depot in which it is kept, and then only for the time necessary for drawing off the inflammable liquid; and, during the drawing off, every reasonable precaution shall be adopted for preventing the escape of inflammable liquid or vapour therefrom;
- (j) Inflammable liquid shall not be conveyed on or about the premises, except in closed vessels or by means of closed pipes so constructed and connected as to be entirely free from leakage;
- (k) A person under the age of fourteen years shall not be allowed inside any depot;
- (l) A person shall not smoke in, or bring matches into, any depot;
- (m) On all premises there shall be kept a sufficient number of boxes of sand or other prescribed material so distributed about the premises as to be immediately available for throwing on and checking the flow of inflammable liquid that may be spilled or ignited;
- (n) All due precautions (whether prescribed or not) shall be taken for the prevention of accidents by fire or explosion, and for the prevention of unauthorized persons having access to the inflammable liquid kept on the premises, and a person shall not do any act whatever which tends to cause fire or explosion;
- (o) There shall be kept constantly affixed to or adjacent to every depot, in such manner as to be easily read, a statement of the quantity of inflammable liquids allowed to be in the depot, and a copy of the Regulations applying to licensed premises, and of such parts of the Ordinance or Regulations as the Chief Inspector requires to be so affixed; and
- (p) Vessels which have been emptied of inflammable liquid shall be immediately closed so as to prevent the escape of vapour or removed to a safe place away from the depot.

(2.) Where any requirement of the last preceding sub-section is not complied with in respect of any inflammable liquid upon registered premises, the owner or occupier of those premises, and any person who has contravened or failed to comply with any such requirement, or who, being liable, has not caused the requirement to be complied with, shall be guilty of an offence.

Penalty: One hundred pounds.

(3.) Where any requirement of sub-section (1.) of this section is not complied with, the Chief Inspector may cancel the registration of the premises and the premises shall thereupon cease to be registered premises.

19.—(1.) A store shall not be licensed unless the following conditions are complied with:— Conditions as to licensing stores.

- (a) The store shall include one or more depots exclusively appropriated to the keeping of inflammable liquid and such goods as are specified in the licence; and all buildings and places adjoining each other and occupied together shall be deemed to be the same store, and shall be included in one licence;
- (b) Every depot shall have an effective covering or roof of metal, sand, slate, or other unflammable material, unless the depot is within another building, and that building has a roof externally unflammable;
- (c) Every depot shall be so situated as not to be within fifty feet of any fire, forge, furnace, explosive, highly combustible goods, or other source of danger, unless a screen wall intervenes between the fire, forge, furnace, explosive, highly combustible goods, or source of danger, and every place where inflammable liquid is kept;
- (d) Every depot shall be separated, as prescribed, from all protected works; and
- (e) Every depot shall be in all other respects situated and constructed as prescribed.

(2.) If any of the conditions prescribed in the last preceding sub-section are not complied with, the licence may be forfeited, and the store shall thereupon cease to be a licensed store.

20.—(1.) Any person keeping inflammable liquid in a licensed store, and any person in or about the store shall comply with, and cause to be complied with, the following requirements:— General rules as to licensed stores.

- (a) All inflammable liquid kept in the store, except so much as is withdrawn for immediate use, shall be kept in the depot appropriated for the purpose;

- (b) Except as otherwise provided in this Ordinance, the depot shall be used exclusively for the keeping of inflammable liquid and the packages in which the liquid is contained;
- (c) Explosives, or anything liable to spontaneous ignition or combustion, or a fire or light, except an artificial light of the construction and character prescribed, shall not be placed, brought, or allowed to remain within fifty feet of any depot, or of any inflammable liquid in the store, unless the depot or inflammable liquid is separated from the explosive, thing, fire, or light by a screen wall; and
- (d) The requirements specified in paragraphs (e) to (p) of section eighteen of this Ordinance.

(2.) Where any requirement referred to in the last preceding sub-section is not complied with in respect of any inflammable liquid in a licensed store, the owner or occupier of the store and any person who has contravened or failed to comply with any such requirement, or who, being liable, has not caused the requirement to be complied with, shall be guilty of an offence.

Penalty: One hundred pounds.

PART IV.—MARKING OF PACKAGES.

General rules
as to marking
of packages.

21. Any person keeping, conveying, selling or exposing for sale inflammable liquid shall comply with, or cause to be complied with, the following general rules as to the marking of the packages containing the inflammable liquid:—

- (a) The outside of every package containing mineral spirit shall be clearly marked in conspicuous letters “Highly inflammable”, together with the words “Mineral spirit”, and with the trade name under which the liquid is sold, and with any additional words prescribed; and
- (b) The outside of every package containing mineral oil shall be clearly marked in conspicuous letters “Mineral oil” and with the trade name under which the liquid is sold, and with any additional words prescribed.

Penalty: One hundred pounds.

General rules
as to conveying,
loading, and
unloading
inflammable
liquid.

PART V.—CONVEYANCE OF INFLAMMABLE LIQUID.

22.—(1.) Any person conveying, loading, or unloading inflammable liquid, or assisting in any such operation, and every

employer of any person engaged in any such operation, shall comply with, and cause to be complied with, the following general rules:—

- (a) The liquid shall be contained in tanks or other vessels of metal or other prescribed material, constructed and closed as prescribed, from which the liquid cannot escape in the form of liquid or vapour, and so substantially constructed as not to be liable, except under circumstances of negligence or accident, to be broken or to become defective or insecure in course of conveyance;
- (b) All due precautions, whether prescribed or not, shall be taken to prevent any of the liquid from escaping or being discharged into any part of a house or building, or of the curtilage thereof, or into any sewer or drain, or into any lake or lagoon, or any stream of water or the sea;
- (c) All due precautions, whether prescribed or not, shall be taken for the prevention of accidents by fire or explosion, and for preventing unauthorized persons having access to the liquid, and for the prevention of any act whatever which tends to cause fire or explosion and is not reasonably necessary for the purposes of the conveyance, handling, loading, or unloading of the liquid or of any other article carried therewith, and for preventing any other persons from committing any such act; and
- (d) The work of loading, handling or unloading inflammable liquid on or from any ship or boat shall not be carried on between sunset and sunrise without first obtaining the permission in writing of the Chief Inspector.

Penalty: One hundred pounds.

(2.) A person shall not do any act which tends to set fire to, or to cause the explosion of, inflammable liquid in the course of being conveyed, loaded on or unloaded from a vehicle.

Penalty: One hundred pounds.

PART VI.—TESTING.

23.—(1.) A standard model of the apparatus for testing inflammable liquid specified in the Schedule to this Ordinance shall be provided by, and kept in such place as is directed by, the Minister. Standard model apparatus for testing.

(2.) The Minister may, by notice in the *Gazette*, declare that any new model shall be the standard model, and that any then existing standard model shall cease to be the standard model.

Verification
with standard
model.

24. Apparatus constructed in accordance with this Ordinance may from time to time be submitted to an inspector for the purpose of being compared with the standard model and verified.

Stamping of
apparatus.

25. An inspector may, on receipt of the prescribed fees, and subject to the prescribed conditions—

(a) stamp the apparatus, if found to be accurate, with a mark, date, and number; and

(b) stamp the apparatus, if found to be inaccurate, with a statement showing the error in the apparatus and with a mark, date, and number.

Tests by
unverified
apparatus to be
deemed
inaccurate.

26. Any test made by an apparatus shall be deemed inaccurate unless the apparatus has, during the last preceding five years, been compared with the standard model, and found by an inspector to be accurate, and stamped in accordance with the provisions of the last preceding section.

PART VII.—LEGAL PROCEEDINGS.

Forfeiture on
conviction.

27. Where a person is convicted of an offence against this Ordinance or the regulations, the Court may, if it thinks fit, order the forfeiture of the inflammable liquid in respect of which the offence was committed.

Forfeiture
where owner
unknown.

28. Where an offence is alleged to have been committed in respect of any inflammable liquid, and the owner or other person liable is unknown, or cannot be found, the Court may cause a notice to be published in the *Gazette* stating that, unless cause is shown to the contrary at the time and place named in the notice, the liquid will be forfeited, and at that time and place the Court may order all or any part of the liquid to be forfeited.

Exemption of
occupier from
penalty on
proof of
another being
the actual
offender.

29.—(1.) When an occupier is charged with an offence against this Ordinance, he shall be entitled, upon information duly laid by him, to have any other person whom he charges as the actual offender brought before the Court at the time appointed for hearing the charge.

(2.) If, after the commission of the offence has been proved, the occupier proves to the satisfaction of the Court that he had used due diligence to enforce the provisions of this Ordinance, the breach of which constituted the offence, and that the person charged by him had committed the offence in question without his knowledge, consent, or connivance, that person shall be summarily convicted of the offence, and the occupier shall be exempt from any penalty.

Forfeited
property.

30. All forfeited property shall be dealt with or disposed of as the Minister directs or as prescribed.

31. In any proceedings under this Ordinance with respect to any article examined or tested in pursuance of this Ordinance, the production of the certificate of an inspector, shall be *prima facie* evidence of the facts therein stated without proof of the signature of the person appearing to have signed it. Certificate of inspector to be evidence.

32. Where proceedings are taken before the Court against a person in respect of any offence under this Ordinance, which is also an offence indictable at common law, or by some law other than this Ordinance, the Court may direct that, instead of those proceedings being continued, proceedings shall be taken for indicting the person at common law or under such other law. Removal of proceedings.

PART VIII.—MISCELLANEOUS.

33. Any person who forges or counterfeits any stamp or mark required by this Ordinance to be placed on apparatus for testing inflammable liquid, or alters any such stamp or mark placed on that apparatus, shall be guilty of an indictable offence. Forging stamp.

Penalty: Imprisonment for five years.

34. Any person engaged or employed in the business or trade of hair-dressing who uses or applies mineral spirit to the hair or person of any customer, shall be guilty of an offence. Use of mineral spirit in hair-dressers' shops.

Penalty: One hundred pounds.

35. The Minister may make regulations, not inconsistent with this Ordinance, prescribing all matters which by this Ordinance are required or permitted to be prescribed, or which are necessary or convenient to be prescribed, for carrying out or giving effect to this Ordinance and, in particular, may make regulations, prescribing matters providing for and in relation to— Regulations.

- (a) the declaration of any liquid or other substance to be an inflammable liquid and the conditions under which that liquid or substance shall be kept or used;
- (b) the charging of fees for licences and the registration of premises under this Ordinance, for testing inflammable liquid, for testing, stamping and marking apparatus for testing inflammable liquid and for any other work done for the purpose of carrying out any of the provisions of this Ordinance;
- (c) the variation of, or addition to, the conditions prescribed by this Ordinance for the keeping of inflammable liquid;
- (d) the keeping, storing, removing, conveying and marking, and the opening and closing of packages of inflammable liquid or dangerous goods, and of packages that have contained inflammable liquid or dangerous goods in registered premises, licensed stores and depots;

- (e) the conveyance, loading and unloading of inflammable liquid or dangerous goods;
- (f) altering or adding to the Schedule to this Ordinance, but so that the standard model of any apparatus made in pursuance of any such regulation shall be so constructed as to give flash points corresponding to those given by the apparatus specified in that Schedule;
- (g) the regulation of the use of fires and lights on or near any vehicles loading or unloading inflammable liquid or dangerous goods, or in which inflammable liquid or dangerous goods is being or has been recently conveyed, and prohibiting the use of any such fires or lights thereon or near thereto as may be dangerous;
- (h) the regulation of the description, construction, marking, ventilation, lighting, cleaning and general fitting up of ships, boats and carriages used for the conveyance of inflammable liquid or dangerous goods;
- (i) the regulation of the mode of storing and keeping inflammable liquid or dangerous goods during transit, and of giving notice by brands, labels, or otherwise of the nature and destination of any package of inflammable liquid or dangerous goods;
- (j) determining what notice shall be given by the master of any ship or boat of intention to convey, load or unload inflammable liquid or dangerous goods;
- (k) regulating the navigation and mooring of ships and boats conveying, loading and unloading inflammable liquid or dangerous goods;
- (l) the regulation, subject to the *Hawkers Ordinance* 1936-1938, of the hawking of inflammable liquid; and
- (m) the imposition of penalties not exceeding Fifty pounds for offences against the regulations.

THE SCHEDULE.

I.—NATURE OF THE TEST APPARATUS.

The apparatus consists of the following parts:—

1. An oil cup.
2. A cover, with slide, test lamp for oil, or test-flame arrangement for use with gas, and clockwork arrangement for opening and closing the holes in the cover, and for dipping the test flame.
3. A water bath or heating vessel.
4. A tripod (with jacket), and spirit lamp or gas arrangement for heating the water bath.
5. A round bulb thermometer for testing the temperature of the oil, with scale ranging from 55 degrees to 160 degrees.
6. A long bulb thermometer for testing the temperature of the water, with scale ranging from 90 degrees to 220 degrees.
7. A mercurial or aneroid barometer.

The oil cup is a cylindrical flat-bottomed vessel, 2 inches in diameter, 2½ inches in height (internal), made of gunmetal or brass (17 B.W.G.), and tinned or silvered inside. It is provided with a projecting rim, 5-10 inch wide, ⅛ inch from the top, and 1¼ inch from the bottom of the cup, on which it rests when inserted in the water bath. A gauge is fixed on the inside of the cup to regulate the height to which it is to be filled with the sample under examination. The distance of the point from the bottom of the cup is 1½ inch. The cup is provided with a close-fitting overlapping cover, made of brass (22 B.W.G.), which carries the thermometer, the test-lamp, or test-flame arrangement, and the adjuncts thereto. The test lamp, which has a spout, the mouth of which is 1-16 inch in diameter, or test-flame arrangement, is suspended upon two supports by means of trunnions, which allow it to be easily inclined to a particular angle and restored to its original position. The socket in the cover, which is to hold a round bulb thermometer for indicating the temperature of the oil during the testing operation, is so adjusted that the bulb of the latter is always inserted to distance of 1½ inch below the centre of the lid.

The cover is provided with three holes—one in the centre (0.2 square inch) and two smaller ones (each 0.06 square inch) close to the sides. These are closed and opened by means of a pivoted slide. When the slide is moved so as to uncover the holes, the suspended lamp, or test-flame arrangement, is caught by a projection fixed on a slide, and tilted in such a way as to bring the end of the spout or test flame just below the surface of the lid. As the slide moves back so as to cover the holes the lamp returns to its original position. Upon the cover, in front of and in a line with the nozzle of the lamp, is fixed a white bead, the diameter of which represents the size of the test flame to be used.

The water bath or heating vessel consists of two flat-bottomed copper cylinders (24 B.W.G.)—an inner one of 3 inches diameter and 2½ inches height, and an outer one of 5½ inches diameter and 5½ inches height; they are soldered to a circular copper plate (20 B.W.G.) perforated in the centre, which forms the top of the bath, in such manner as to inclose the space between the two cylinders, but leaving access to the inner cylinder. The top of the bath projects both outwards and inwards about ⅛ inch—that is, its diameter is about ⅛ inch greater than the body of bath, whilst the diameter of the circular opening in the centre is about the same amount less than that of the inner copper cylinder. To the inner projection of the top is fastened, by six small screws, a flat ring of ebonite, the screws being sunk below the surface of the ebonite to avoid metallic contact between the bath and the oil cup. The distance between the sides and bottom of the bath and the oil cup is ½ inch. The bath is therefore so constructed that when the oil cup is placed in position an air space or air chamber intervenes between the two; consequently, in applying the test to oils flashing below 115 degrees the heat is transmitted gradually to the oil from the hot water, through the air space. The water bath is fitted with a socket, set at a right-angle, for receiving a long bulb thermometer, to indicate the temperature of the water. It is also provided with a funnel, an overflow pipe, and two handles.

The water bath rests upon a tripod stand, which is fitted with a copper cylinder or jacket (24 B.W.G.) 6½ inches diameter, so that the bath is surrounded by an enclosed air space, which retains and regulates the heat. One of the legs of the stand serves as a support for a spirit lamp, which is attached to it by a small swing bracket. The distance of the wick holder from the bottom of the bath is 1 inch. The clockwork arrangement by which, during the operation of testing, the slide is withdrawn and the test flame dipped into the cup and raised again as the slide is replaced is provided with a ratchet key for setting it in action for each test, and with a trigger for starting it each time that the test flame is applied. From the beginning to the end of the movement of the slide the time taken is to be exactly 2 seconds.

N.B.—When gas is available it may be conveniently used instead of the oil lamp, and for this purpose a test-flame arrangement for use with gas may be substituted.

II.—DIRECTIONS FOR PREPARING AND USING THE TEST APPARATUS.

1. *Preparing the water bath.*

The water bath is filled by pouring water into the funnel until it begins to flow out at the overflow pipe. The temperature of the water at the commencement of each test, as indicated by the long bulb thermometer, is to be as follows:—

- (a) 130 degrees when a flashing point at or about 73 degrees is to be observed.
- (b) 160 degrees when a flashing point at or about 100 degrees is to be observed.
- (c) 180 degrees when a flashing point at or about 150 degrees is to be observed.

This is attained in the first instance by mixing hot and cold water, either in the bath or in a vessel from which the bath is filled, until the thermometer which is provided for testing the temperature of the water gives the proper indication, or the water is heated in the bath by means of a spirit lamp or gas arrangement until the required temperature is indicated.

2. *Preparing the test lamp.*

(a) The test lamp is fitted with a piece of cylindrical wick of such thickness that it fills the wick holder, but may be readily moved to and fro for the purpose of adjusting the size of the flame. In the body of the lamp, upon the wick which is coiled within it, is placed a small tuft of cotton wool moistened with petroleum, any oil not absorbed by the wool being removed. When the lamp has been lighted the wick is adjusted by means of a pair of forceps or a pin until the flame is of the size of the bead fixed on the cover of the oil cup.

Should a particular test occupy so long a time that the flame begins to get smaller through the supply of the oil in the lamp becoming exhausted, three or four drops of petroleum are allowed to fall upon the tuft of wool in the lamp from a dropping-bottle or pipette provided for the purpose. This can be safely done without interrupting the test.

(b) When using gas for testing, the jet is to be lighted and then adjusted by means of the tap controlled by means of a screw pinch cock or fine tap until the flame is the size of the bead fixed on the cover of the oil cup.

III.—FILLING THE OIL CUP.

Before the oil cup is filled the lid is to be made ready by being placed upon the cup, i.e., the round bulb thermometer is to be inserted into the socket, so that the projecting rim of the collar with which it is fitted touches the edge of the socket, and the test lamp is to be placed in position. The oil cup is to be cooled when necessary to a temperature not exceeding—

- (a) 60 degrees, when a flashing point at or about 73 degrees is being observed;
- (b) 85 degrees, when a flashing point at or about 100 degrees is being observed;
- (c) 135 degrees, when a flashing point at or about 150 degrees is being observed,

by placing it bottom downwards in water at a suitable temperature. The oil cup is now to be rapidly wiped dry, placed on a level surface in a good light, and the oil to be tested is poured in without splashing until the surface is level with the point of the gauge which is fitted in the cup. The lid is then put on the cup at once and pressed down so that its edge rests on the rim of the cup.

IV.—APPLICATION OF THE TEST.

1. The water bath, with its thermometer in position, is placed in some locality where it is not exposed to currents of air, and where the light is sufficiently subdued to admit of the size of the entire test flame being compared with that of the bead on the cover. The cup is carefully lifted, without shaking it, and placed in the bath, the test lamp is lighted, and the clockwork

wound up by turning the key. The thermometer in the oil cup is now watched, and the clockwork is set in motion by pressing the trigger, when the temperature has reached—

- (a) 60 degrees, when a flashing point at or about 73 degrees is being observed.
- (b) 90 degrees, when a flashing point at or about 100 degrees is being observed.
- (c) 140 degrees, when a flashing point at or about 150 degrees is being observed.

If no flash takes place the clockwork is at once re-wound and the trigger pressed at the next higher degree, and so on at every degree rise of temperature until the flash occurs.

2. When a flashing point at or above 115 degrees is being observed the air chamber is to be filled to a depth of $1\frac{1}{2}$ inch with cold water before the oil cup containing the oil to be tested is placed in position.

3. The temperature at which a flash occurs, if not within 8 degrees of the temperature at which the testing was commenced, is the observed flashing point of the oil, and by correction of the observed flashing point for atmospheric pressure as hereinafter described, the true flashing point is obtained.

4. If, however, the flash takes place at any temperature within 8 degrees of the temperature at which the testing was commenced, the test is to be rejected, and the whole operation of testing is to be repeated with a fresh portion of the sample, the testing, however, to begin at 10 degrees lower than the temperature at which the flash has been previously obtained. If necessary, this procedure shall be repeated with fresh portions of oil until a flash has been obtained at a temperature not within 8 degrees of the temperature at which the testing was commenced.

5. The temperature at which the last-mentioned flash occurs is the observed flashing point of the oil, and by correction of the observed flashing point for atmospheric pressure as hereinafter described, the true flashing point is obtained.

6. In repeating a test a fresh sample of oil must always be used, the tested sample being thrown away, and the cup must be wiped dry from any adhering oil, and cooled, as already described, before receiving the fresh sample.

7. If in any case no flash has occurred when a temperature has been reached which is not within 8 degrees of the temperature at which the testing was commenced, and which, after correction for atmospheric pressure, is not less than 73 degrees, and the tests are not required to be continued, the oil shall be deemed to have a true flashing point of not less than 73 degrees.

8. If no flash has occurred when a temperature has been reached which is not within 8 degrees of the temperature at which the testing was commenced, and which, after correction for atmospheric pressure, is not less than 100 degrees, and the tests are not required to be continued, the oil shall be deemed to have a true flashing point of not less than 100 degrees.

9. In the same manner, if no flash has occurred when a temperature has been reached which is not within 8 degrees of the temperature at which the testing was commenced, and which, after correction for atmospheric pressure, is not less than 150 degrees, and the tests are not required to be continued, the oil shall be deemed to have a true flashing point of not less than 150 degrees.

V.—CORRECTION FOR ATMOSPHERIC PRESSURE.

As the flashing point of an oil is influenced by changes in atmospheric pressure to an average of 1.6 degrees for every inch of the barometer, a correction of the observed flashing point is necessary whenever the barometer does not stand at 30 inches. This correction is to be made in the following manner:—

If the barometer stands at less than 30 inches (the normal height of the barometer), add to the observed flashing point 1.6 times the difference (measured in inches) between the actual and normal barometer. If the barometer stands above 30 inches, deduct from the observed flashing point 1.6 times the difference between the actual and normal barometer.

The nearest whole number to the result of this correction is to be taken as the corrected flashing point, and if the result is exactly midway between two whole numbers the higher whole number is to be taken.

For example: Suppose an oil has an observed flashing point of 72 degrees, the barometer being 27.1 inches, then the difference between 30.0 inches and 27.1 inches is 2.9 inches. This result multiplied by 1.6 is 4.64, which has to be added to 72, making 76.64. The nearest whole number to this is 77 degrees, which is to be taken as the corrected flashing point, and if the testing had been commenced at or below 64 degrees, the true flashing point is 77 degrees.

Again: Suppose the observed flashing point of an oil to be 96 degrees, and the testing had been commenced at 87 degrees and the barometer indicated 30.6 inches. The true flashing point of the oil is the nearest whole number to 96 minus the product of 0.6 multiplied by 1.6—that is, 95 degrees.

The readings of the barometer are to be corrected readings, in accordance with the corrections applicable to the instrument in use. The instrument must be compared periodically with the standard barometer at the place approved by the Minister for the purpose, and regulated thereby.

VI.—APPLICATION OF THE TEST TO VISCOUS FLUIDS OR PREPARATIONS.

If the flashing test has to be applied to substances of a viscous or semi-solid nature which cannot be poured (such as solutions of indiarubber in mineral naphtha), the mode of proceeding is as follows:—

One fluid ounce or two tablespoonfuls of the substance to be tested is placed in the cup, and the cover is put on. The air chamber in the water-bath is filled with water to a depth of $1\frac{1}{2}$ inch, and the temperature of the water-bath is raised to 90 degrees. The cup is then put into the bath, and the temperature of the water-bath maintained at 90 degrees throughout the test. After the lapse of fifteen minutes the test flame is to be applied. If no flash occurs the heating is continued for another fifteen minutes, and the test-flame again applied, and so on until a flash takes place, or the temperature in the cup has reached 90 degrees, and so on.

The temperature at which a flash occurs is the observed flashing point of the substance, and, subject to correction for atmospheric pressure as herein-before described, is the true flashing point.

VII.—INTERPRETATION.

In this Schedule the expression "oil" means any liquid to be tested for the purpose of ascertaining its character as inflammable liquid, and degrees of temperature are according to Fahrenheit's thermometer.

Dated this first day of October, 1940.

GOWRIE

Governor-General.

By His Excellency's Command,

H. S. FOLL

Minister of State for the Interior.

By Authority: L. F. JOHNSTON, Commonwealth Government Printer, Canberra.