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Separate paging is given to this Part, in order that it may be filed as a separate compilation.

PART IV.

Regulations, Orders, Notifications and Rules, of the Government of India, of the Government of Bihar, and of the High Court. Papers extracted from the *Gazette of India* and Provincial Gazettes. Orders of Commandants of Volunteers Corps.

HOME, REVENUE AND FINANCE DEPARTMENTS.

NOTIFICATIONS.

The 27th April 1937.

No. 5310-A.—The following notification, issued by the Government of India in the Home Department, is republished for general information.

By order of the Governor,

P. T. MANSFIELD,

Chief Secretary to Government.

ESTABLISHMENTS.

The 14th April 1937.

No. F. 99/36.—In exercise of the powers conferred by sub-section (1) of section 241, read with sub-section (3) of section 313, of the Government of India Act, 1935, the Governor General in Council is pleased to direct that, except as expressly provided by the said Act and subject to any direction to the contrary that may hereafter be made in exercise of the said powers, any officer subordinate to the Governor General in Council, who was authorised by any existing Indian law in force immediately before the first day of April 1937, to make appointments to the civil services of, or civil posts under, the

Crown in connection with affairs, which are now the affairs of the Governor General in Council, is authorised to make the said appointments in the like manner as, and subject to the like control by the Governor General in Council as was exercisable by him or by any Local Government, before the said date.

In exercise of the powers conferred by sub-section (2) of section 241, read with sub-section (3) of section 313 of the Government of India Act, 1935, the Governor General in Council is pleased to direct that except as expressly provided by the said Act and subject to any direction to the contrary that may hereafter be made in exercise of the said powers, any officer subordinate to the Governor General in Council, who was authorised by any existing Indian law in force immediately before the first day of April 1937, to make rules prescribing conditions of service of persons serving His Majesty in a civil capacity in connection with affairs, which are now the affairs of the Governor General in Council, is authorised to make the said rules in the like manner as, and subject to the like control by the Governor General in Council as was exercisable by him or by any Local Government, before the said date.

R. M. MAXWELL,

Secy. to the Govt. of India.

LAW AND COMMERCE DEPARTMENT.

NOTIFICATIONS.

The 13th April 1937.

No. 3525—HE-9-37-Com.—The following notification of the Government of India in the Department of Industries and Labour publishing the Petroleum Rules, 1937, is republished for general information.

By order of the Governor,
C. G. NAIR,
Secretary to Government.

New Delhi, the 23rd March 1937.

No. M-826 (6).—In exercise of the powers conferred by section 4 subsection (2) of section 5, sub-section (2) of section 14, sections 21 and 22 and sub-section (1) of section 29 of the Petroleum Act, 1934 (XXX of 1934), read with section 22 of the General Clauses Act, 1897 (X of 1897), the Governor General in Council is pleased to make the following rules which have been previously published as required by sub-section (2) of section 29 of the first-mentioned Act, namely:—

RULES.

CHAPTER I.

PRELIMINARY.

1. *Short title and application.*—(1) These rules may be called the Petroleum Rules, 1937.

(2) The application of these rules to Burma shall be subject to the modifications contained in Schedule IV;

(3) The application of these rules to Aden shall be subject to the modifications contained in Schedule V.

2. *Supersession and savings.*—(1) All notifications and rules issued, and all appointments made, by local Governments under the Indian Petroleum Act, 1899, and all rules made by the Governor General in Council under section 8 of that Act are hereby superseded, but—

(i) all licences or duplicates granted or renewed and all fees imposed or levied shall be deemed to have been respectively granted, renewed, imposed or levied under these rules; and

(ii) all approval given and all powers conferred by or under any notification or rule so superseded shall, so far as they are consistent with the Act and these rules, be deemed to have been given or conferred by or under these rules.

(2) Anything not in conformity with these rules which was permitted to be done by or under any rule in force immediately before the coming into force of these rules, and which, under these rules, may be permitted by the Chief Inspector to be done, shall be deemed to have been so permitted by the Chief Inspector, unless the Chief Inspector, after such notice of his intention as he considers reasonable, declares that it is not so permitted.

3. *Definitions.*—In these rules, unless there is anything repugnant in the subject or context,

(a) "The Act" means the Petroleum Act, 1934;

(b) "Chief Inspector" means the Chief Inspector of Explosives in India;

(c) "Conservator of the Port" includes any person acting under the authority of the officer or body of persons appointed to be Conservator of the Port under section 7 of the India Ports Act, 1908;

(d) "District Authority" means—

(i) in a Presidency-town, or its suburbs, the Commissioner of Police; and

(ii) elsewhere, the District Magistrate;

(e) "District Magistrate" includes an "Additional District Magistrate";

(f) "Heavy petroleum" means petroleum which has its flashing point not below 150°F.

- (g) "Inspector" means an officer authorised by the Governor General in Council under sub-section (1) of section 13 of the Act;
- (h) "Installation" means any premises within which any place has been specially prepared for the storage of petroleum in bulk, but does not include a well-head tank;
- (i) "Petroleum in bulk" means petroleum contained in a receptacle exceeding two hundred gallons in capacity;
- (j) "Protected works" includes—
- (a) buildings in which persons dwell or assemble, docks, wharves, timber yards and buildings or places where petroleum is stored; and
 - (b) any public road or other place which the Chief Inspector has by written order declared to be a protected work;
- but does not include any building or place which forms part of an installation;
- (k) "Sampling officer" means an officer authorized by the Governor General in Council under sub-section (1) of section 14 of the Act.
- (l) "Storage shed" means a building used for the storage of petroleum otherwise than in bulk, whether it forms or does not form part of an installation, but does not include a building used for the storage of petroleum exempt from licence under sections 7, 8 or 9 of the Act;
- (m) "Testing officer" means an officer authorised by the Governor General in Council to test petroleum under section 17 of the Act; and
- (n) "Well-head tank" means a tank into which crude petroleum flowing or being pumped from a well is first discharged.
4. *Excluded petroleum.*—Nothing in these rules, except Chapter IX, applies to petroleum which has its flashing-point not below 200°F.

CHAPTER II.

IMPORTATION OF PETROLEUM.

Part I.—General.

5. *Licence for import of dangerous petroleum.*—Save as provided in sections 8, 9 and 10 of the Act, dangerous petroleum shall not be imported except under a licence granted under these rules.

6. *Petroleum exempted.*—(1) Nothing in this Chapter applies to—

- (a) dangerous petroleum, not exceeding 6 gallons in quantity, which is not intended for sale;
- (b) dangerous petroleum contained in any fuel tank incorporated in a motor conveyance;
- (c) non-dangerous petroleum, comprised in a ship's stores and manifested as such, provided it is not of an unreasonably large amount.

(2) If any question arises as to whether any petroleum manifested as ship's stores is of an unreasonably large amount, the decision thereon of the Collector of Customs shall be final.

Part II.—Importation by sea.

7. *Importation by sea* —(1) Petroleum shall not be imported by sea except in the ports of—

Bombay.	Karachi.
Calcutta.	Madras.
Calicut.	Malpe.
Chittagong.	Mangalore.
Cocanada.	Port Blair.
Cochin.	Tellicherry.
Coondapur.	Tuticorin.
Hangarkatta.	Vizagapatam.

(2) Notwithstanding anything contained in sub-rule (1), non-dangerous petroleum not in bulk on which the duty leviable in British India has been paid may, subject to such conditions as the Collector of Salt Revenue, Bombay, may impose, be imported from Marmugao at the following ports, if the petroleum is accompanied by a certificate in Form G or by a certified copy of such certificate granted under rule 162 of these rules:—

Alibag, Revdanda, Bankot, Kelsbi, Harnai, Dabhol, Borya, Jaigad, Varoda, Ratnagiri, Purnagad, Jaitapur, Viziadurg, Deogad, Achra, Malwan, Kochra, Vengurla, Kirnapani, Majali (Tilmati), Karawar, Sadashivgad, Chendya, Belekari, Ankola, Gangavali, Kodar, Tadri, Kumta, Manki, Murdeshvar, Shirali, Bhatkal and Honawar.

(3) Nothing in rules 8 to 11 and 13 to 15 shall apply to petroleum imported under sub-rule (2).

8. *Declaration by master of ship carrying petroleum or by the ship's agent.*—The master of every ship carrying petroleum shall deliver to the pilot, before entering any of the ports mentioned in sub-rule (1) of rule 7, a written declaration in Form A under his signature:

Provided that if, in anticipation of a ship's arrival, the agent for such ship delivers to the Conservator of the Port a written declaration as aforesaid under his signature, no such declaration need be made by the master of the ship.

9. *Delivery of certificate.*—If the master or agent declares that any petroleum which it is intended to land at that port or at any other port in British India is petroleum certified in accordance with rule 11 he shall deliver to the pilot or Conservator of the Port, as the case may be, along with his declaration, the certificate relating to such petroleum.

10. *Declaration and certificate to be forwarded to Collector of Customs.*—Every declaration and certificate delivered to a pilot under rules 8 and 9 shall be made over by him without delay to the Conservator of the Port, and every declaration and certificate received by the Conservator of the Port under rule 8 or rule 9 or this rule shall be forwarded by him, with all convenient despatch, to the Collector of Customs of the Port.

11. *Certified petroleum.*—For the purposes of rules 9 and 156 and Form A, petroleum shall be deemed to be certified if it is accompanied by a certificate in Form B granted at the port of shipment or, subject to the approval of the Collector of Customs, in any other form containing the material particulars required by Form B, and has a flashing-point not below 76°F. :

Provided that the Collector of Customs may refuse to accept any certificate, if he is not satisfied as to its genuineness.

12. *Anchorage of ships carrying petroleum.*—Every ship having petroleum on board shall be anchored at such anchorage as the Conservator of the Port shall appoint in this behalf and shall not leave such anchorage without the general or special order of the Conservator of the Port and subject to such conditions as may be specified in such order. Such anchorage shall in no case be the same as that for vessels laden with explosives and shall be at such distance from the anchorage for vessels laden with explosives as to render it impossible for a fire originating at the former anchorage to affect vessels anchored at the latter.

13. *Production of certificate and licence for import.*—(1) Every person desiring to import petroleum shall furnish personally or through his agent to the Collector of Customs a certificate of storage accommodation in Form C signed by the said person or his agent :

Provided that, where the importer intends to import both dangerous and non-dangerous petroleum, separate Forms shall be furnished for dangerous and non-dangerous petroleum :

Provided further that this sub-rule shall not apply where the quantity of non-dangerous petroleum to be imported by any one consignee does not exceed 500 gallons, or where the quantity of dangerous petroleum to be so imported does not exceed 60 gallons.

(2) Every person desiring to import dangerous petroleum shall produce, personally or through his agent, before the Collector of Customs, his licence for the import and storage of such petroleum.

14. *Permission of Collector of Customs to land petroleum.*—(1) No imported petroleum shall be landed except with the permission of the Collector of Customs.

(2) If the Collector of Customs, after receiving—

(a) the testing officer's report on any petroleum or, in the case of petroleum of Burmese origin a certificate containing the particulars required by Form B granted by a testing officer appointed by the Government of Burma;

(b) the certificate required by sub rule (1) of rule 13; and

(c) the licence, if required by sub-rule (2) of rule 13; and after making such further inquiries as he deems necessary, is satisfied that the petroleum can lawfully be imported and that there is suitable accommodation for it, he shall permit it to be landed.

(3) Nothing in this rule shall affect the power of the Collector of Customs to detain the petroleum under any other law or rule for the time being in force.

15. *Landing of non-dangerous petroleum in anticipation of the testing officer's report.*—(1) Notwithstanding anything contained in rule 14, where the consignee furnishes a guarantee to re-ship the petroleum if the testing officer's report proves unfavourable, the Collector of Customs, may in anticipation of the testing officer's report, permit any petroleum which he believes to be non-dangerous to be discharged into boats or to be landed.

(2) The permission granted under sub-rule (1) shall be subject to the condition that the boats into which the petroleum is discharged shall remain at such place as the Conservator of the Port may appoint or that the petroleum shall be landed at a landing-place duly appointed for this purpose by him and stored in an installation licensed under these rules.

16. *Unloading of petroleum in bulk.*—Subject to the rules in Part II of Chapter III, petroleum imported in bulk shall be discharged into storage tanks on shore either directly or by means of barges or lighters specially constructed for carrying petroleum in bulk and only at such places as the Conservator of the Port may by general or special order direct.

17. *Unloading of petroleum otherwise than in bulk.*—(1) Subject to the rules in Part II of Chapter III, petroleum imported otherwise than in bulk shall be landed either at jetties provided for the purpose, or any barges or lighters and only at such places as the Conservator of the Port shall direct.

(2) No petroleum contained in casks, drums or other receptacles shall be landed unless such receptacles are free from leakage and of such strength and construction as not to be liable to be broken or to leak except in case of gross carelessness or extraordinary accident:

Provided that petroleum contained in casks, drums or other receptacles which do not satisfy the requirements of this sub-rule may, subject to the rules in Part II of Chapter III and to such conditions as the Conservator of the Port may impose, be landed at a separate landing place approved for the purpose.

18. *Transshipment of petroleum.*—Petroleum may be transhipped from one ship to another for conveyance to any other port, whether within or beyond the limits of British India, subject to the rules in Part II of Chapter III.

19. *Heavy petroleum.*—(1) Nothing in rules 12 to 18 inclusive applies to heavy petroleum.

(2) Notwithstanding anything contained in the preceding rules, if the master of, or agent for, a ship produces a certificate that any petroleum on board is heavy petroleum, the Collector of Customs shall allow it to be discharged in the same manner as ordinary cargo:

Provided that the sampling officer may at any time require a sample of any of the petroleum to be delivered to him, with a view to having it tested.

PART III.—IMPORTATION BY LAND.

20. *Importation by land.*—Petroleum shall not be imported by land save in accordance with rules 21, 22 and 23.

21. *Importation through Castle Rock.*—Petroleum may be imported by land from Marmugao through Castle Rock if the petroleum, unless it is declared to be dangerous, is accompanied by a certificate in Form G or by a certified copy of such certificate granted under rule 162.

22. *Importation through the Viramgam Custom Line.*—Petroleum landed at Port Okha may be imported at the land customs stations on the Viramgam custom line if the customs authority is satisfied that the petroleum, unless it is declared to be dangerous petroleum, has been tested in the manner laid down in the Act and these rules.

23. *Importation from Karikal.*—(1) Non-dangerous petroleum may be imported from Karikal with the written permission of the Chief Inspector and subject to such conditions as he may impose.

(2) No such permission shall be granted to any applicant who was not importing petroleum *via* Karikal before the 1st January, 1935.

CHAPTER III.

TRANSPORT OF PETROLEUM.

Part I.—General.

24. *Prevention of accidents.*—All due precautions shall be taken at all times to prevent an accident by fire or explosion.

25. *Prevention of escape of petroleum*—All due precautions shall be taken at all times to prevent any escape of petroleum during transport especially into any drain, sewer, harbour, river or water course.

26. *Empty receptacles.*—All empty tanks or other receptacles which have contained dangerous petroleum or which have contained non-dangerous petroleum in bulk shall, except when they are opened for the purpose of cleaning them and rendering them free from petroleum vapour, be kept securely closed unless they have been thoroughly cleaned and freed from petroleum vapour.

27. *Receptacles for dangerous petroleum.*—(1) Dangerous petroleum, if not in bulk, shall be contained in gas-tight tinned, galvanised or otherwise externally rust-proofed sheet iron or steel receptacles which shall be fitted with well-made filling apertures and well-fitting screw plugs, or with screw caps or other caps with metal air-tight under-caps. The receptacles shall be kept in proper repair.

(2) No receptacles, other than tanks on tank-carts of a type approved in writing by the Chief Inspector, shall be of more than 65 gallons capacity excluding the air-space prescribed by sub-rule (7).

(3) The receptacles, other than tanks on tank-carts, shall be of a type approved in writing by the Chief Inspector and shall have the following thickness of metal:—

Capacity exclusive of the prescribed air-space—	Not less than—
not exceeding 2 gallons	27 B. G.
exceeding 2 but not exceeding 4 gallons	22 B. G.
exceeding 4 but not exceeding 30 gallons	18 B. G.
exceeding 30 but not exceeding 45 gallons	17 B. G.
exceeding 45 gallons	16 B. G.

(4) Where the approval of the Chief Inspector is sought to a type of receptacle not previously approved, three copies of a detailed drawing thereof to scale shall be forwarded to him.

(5) The receptacles shall be so constructed and secured as not to be liable, except under circumstances of gross negligence or extraordinary accident to become defective, leaky or insecure in transit.

(6) The receptacles shall bear a stamped, embossed, painted or printed warning exhibiting in conspicuous characters the words "Petrol" or "Motor Spirit" or an equivalent warning of the dangerous nature of the petroleum.

(7) An air-space of not less than 7½ per cent of its capacity shall be left in each tank, drum or other receptacle containing dangerous petroleum.

(8) Nothing in sub-rules (1), (2), (3), (4) and (6) shall apply to receptacles in the possession of His Majesty's forces.

28. *Receptacles for non-dangerous petroleum.*—Non-dangerous petroleum, if not in bulk, shall be packed in air-tight tins or drums of steel or iron or in other receptacles not easily broken or in tanks permanently fixed to carts, wagons, boats or other means of carriage, and of types approved by the Chief Inspector:

Provided that, in the case of an unberthed passenger ship to which Part IV of the Indian Merchant Shipping Act, 1923, applies, the petroleum shall be packed either in tins enclosed in outer wooden cases or in hermetically sealed iron or steel drums or, if it is heavy petroleum, in sound well-coopered wooden casks of not more than 50 gallons capacity.

29. *Restriction on delivery and despatch of petroleum.*—(1) No person shall deliver any petroleum to anyone other than the holder of a storage licence or his authorized agent or a Port Authority or railway administration.

(2) No person shall despatch any petroleum to anyone other than the holder of a storage licence.

(3) Notwithstanding anything contained in sub-rule (2) non-dangerous petroleum not exceeding 3,000 gallons in quantity packed in sealed air-tight tins or drums of steel or iron may be despatched to a person not holding a storage licence, provided that the person despatching the petroleum has satisfied himself that prior arrangements have been made by the person to whom the petroleum is despatched for the immediate disposal in the original packages of any quantity in excess of 500 gallons.

(4) This rule shall not apply to the delivery or despatch of petroleum in quantities which are permitted by the Act or these rules to be stored without licence, or to any petroleum in the possession of His Majesty's forces.

Part II.—Transport by water.

30. *Conditions of carriage of petroleum in bulk by water.*—Petroleum in bulk shall not be carried by water except in a ship or other vessel certified annually as suitable for the carriage of petroleum in bulk by an officer appointed by the Governor General in Council in this behalf, and the petroleum shall be stored in such part of the ship or other vessel and in such manner as may be approved by general or special order, by the officer so appointed after consultation with the Chief Inspector:

Provided that—

- (a) nothing in this rule shall apply to ships importing petroleum;
- (b) petroleum in tank-wagons may, with the permission in writing of the Chief Inspector and subject to such conditions as he may specify, be transported across a river by a recognised wagon ferry.

31. *Requirements as to construction of vessels*—Every ship or other vessel carrying petroleum in bulk, other than a recognised wagon ferry permitted to transport tank-wagons under proviso (b) to rule 30, must be of steel or iron well and substantially constructed with scantlings of ample dimensions in proportion to the size of the vessel.

32. *Tank fittings on vessels.*—In petroleum tank-ships or other vessels used for the transport of petroleum other than heavy petroleum the following provisions shall apply:—

- (a) all tanks shall be fitted with independent approved filling and suction pipes and valves or with stand-pipes with blank flanges, all pipes being carried down nearly to the bottom of the tanks, and no petroleum in bulk shall be taken on board or discharged except through such pipes and valves, unless otherwise permitted by the Chief Inspector in writing;
- (b) all tanks shall be fitted with manholes having screwdown covers with petroleum-tight joints and, in the case of tanks intended for use with dangerous petroleum, with ventilators or relief valves of approved pattern properly protected with wire gauze of a mesh of not less than 28 to the linear inch; and
- (c) ventilators similarly protected shall be fitted to all spaces around tanks:

Provided that the Chief Inspector may, by order in writing, exempt from the provisions of this rule any vessel which was employed in transporting petroleum in bulk before the 1st April 1937.

33. *Self-propelled barges.*—The following conditions shall be observed in self-propelled barges transporting petroleum other than heavy petroleum:—

- (a) the whole of the machinery shall be at the stern of the barge and shall be entirely separated from the cargo by a cofferdam consisting of two transverse petroleum-proof bulkheads separated by a space of at least two feet six inches;
- (b) the barge shall be provided with a heavy wood belting; and
- (c) suitable ventilators shall be fitted to the cargo space:

Provided that condition (a) shall not be applicable to any barge which was employed in transporting petroleum before the 1st April 1937.

34. *Petroleum in bulk on barges or flats.*—(1) Petroleum in bulk shall not be transported in a barge or flat unless the barge or flat—

- (a) is self-propelled and carries at least four fire extinguishers, or
- (b) is in tow of, or otherwise attended by, a steamer or tug carrying at least four fire extinguishers.

(2) The fire extinguishers referred to in sub-rule (1) shall be of a pattern approved by the officer appointed under rule 30 and shall be fitted in positions approved by him.

35. *Inflammable cargo, or passengers.*—(1) No ship or other vessel shall carry petroleum in bulk if it is carrying passengers, or any inflammable cargo other than petroleum or coal.

(2) This rule shall not apply to heavy petroleum used as fuel and carried in cellular double bottoms under engine and boiler compartments and under ordinary holds, and in peak tanks, deep tanks or bunkers of approved construction; such oil fuel storage tanks and installations connected therewith shall comply with the provisions of rules 228 to 243 of the Indian Merchant Shipping (Construction and Survey of Passenger Steamers) Rules, 1935.

36. *Restrictions as to inflammable cargo.*—(1) No steamer or tug employed in towing or otherwise attending a barge, flat or lighter carrying petroleum, other than heavy petroleum, in bulk shall at the same time tow or otherwise attend any other vessel carrying an inflammable cargo other than petroleum or coal.

(2) No such steamer or tug shall carry any inflammable cargo other than petroleum or coal.

(3) All such steamers or tugs shall be fitted with efficient spark arresters.

37. *Ventilation and cleaning of holds and tanks*—(1) Before any petroleum is discharged from a ship or vessel the holds of such vessel shall be thoroughly ventilated:

Provided that nothing in this sub-rule shall apply to any vessel carrying dangerous petroleum not exceeding 6 gallons or non-dangerous petroleum not exceeding 500 gallons or heavy petroleum not in bulk.

(2) After all petroleum has been discharged from any such vessel the holds, tanks and bilges of the vessel shall be rendered free from inflammable vapour.

(3) Sub-rule (2) shall not apply to the tanks of a ship importing petroleum which leaves the port without delay after the discharge of cargo or remains only for the purpose of taking on board bunkers stores or ballast or for such other purposes as may be approved by the Conservator of the Port, if the tanks of every such ship are securely fastened down immediately after the discharge of the cargo.

(4) Sub-rule (2) shall not apply to barges or lighters continuously engaged in the transport of petroleum in bulk,—

(a) an interval of not more than 72 hours is likely to elapse between an operation of unloading or discharging and the next loading operation; and

(b) the tanks are securely fastened down immediately after unloading.

(5) Sub-rule (2) shall not apply to specially constructed steel tank motor vessels approved by the Chief Inspector which are engaged in transport of petroleum in bulk on such rivers and on such parts thereof as may be approved by him in areas outside port limits, or by the Conservator of the Port within port limits, if the tanks of such vessels are securely fastened down immediately after unloading and the vessels depart not later than 12 hours after completion of discharge for their next place of loading.

(6) All ships or other vessels which by sub-rules (3), (4) or (5) are exempted from the application of sub-rule (2) shall, until their holds and tanks have been rendered free from inflammable vapour, comply with all the rules applicable to ships, or other vessels when carrying petroleum in bulk.

38. *Master of vessel specially responsible.*—The master or other officer in charge of any ship with petroleum on board or of any vessel certified under rule 30 shall be responsible that—

(a) all due precautions are taken for the prevention of accident in the loading or discharge of petroleum;

(b) so long as there is petroleum or inflammable vapour in a tank, all openings from the tank to the atmosphere, except the gas escape line, are kept closed and locked or otherwise fastened in a manner certified as satisfactory by the officer appointed under rule 30; and when it is necessary to take dips or samples, the ullage plugs or sighting ports are closed immediately this has been done:

Provided that, subject to the provisions of clause (c), such master or officer in charge may cause the necessary openings to be opened or unlocked for the purpose of taking on board or discharging non-dangerous petroleum, for cleaning the tanks, or for other sufficient reason;

(c) every person entering a tank wears a safety helmet of a description approved by the Chief Inspector, unless a Conservator of the Port or other officer appointed by the Governor General in Council in this behalf has examined the tank with the aid of a vapour-testing instrument and has certified it to be free from dangerous vapour;

- (d) the vessel and any steamer or tug towing or otherwise attending on such vessel exhibits conspicuously:—
- (i) from sunrise to sunset a red flag not less than three feet square with a white circular centre six inches in diameter, if dangerous petroleum is carried, and a red flag not less than three feet square if non-dangerous petroleum is carried; and
 - (ii) from sunset to sunrise such warning lights as may be required by the Conservator of the Port;
- (e) the vessel, when carrying petroleum in bulk, at all times lies afloat unless otherwise permitted by general or special order in writing of the Chief Inspector or the Conservator of the Port;
- (f) the vessel, when carrying petroleum in bulk, is constantly under the control and personal supervision of a responsible person;
- (g) iron or steel hammers or other instruments capable of causing a spark are not used for the purpose of opening or closing the hatches or tank covers; and
- (h) footwear which exposes any iron or steel is not worn on the deck of any vessel while the loading or unloading of dangerous petroleum is proceeding.

39. *Loading and unloading by night.*—(1) Where adequate electric lighting is installed and rule 105 is complied with, tank-ships and barges may discharge or load non-dangerous petroleum at any time and tank-ships and barges which have commenced the discharge into storage tanks on shore, or loading into their own tanks, of dangerous petroleum in bulk before sunset may continue the said discharge or loading.

(2) Should anything occur during discharging or loading dangerous petroleum after sunset which necessitates a repair or disconnection of the plant pipes or connections, such discharging or loading shall be discontinued until after sunrise.

(3) Save as provided by sub-rule (1), petroleum shall not be discharged or loaded or landed between the hours of sunset and sunrise.

(4) This rule shall not apply to the refueling of aircraft by vessels certified under rule 30, subject to any conditions which the Chief Inspector may impose in this behalf.

40. *Loading and discharge of bulk petroleum.*—(1) The loading and discharge of petroleum in bulk shall be by armoured hose and metal pipes.

(2) All pipes and other appliances used in the landing or loading of petroleum in bulk shall be free from leakage.

(3) When a ship has finished discharging petroleum other than heavy petroleum, the pipe line shall be immediately emptied of petroleum by pumping water through the line.

(4) The Chief Inspector may, by written order, grant exemptions in any particular case from the provisions of sub-rules (1) and (3).

41. *Precautions on suspension of loading or discharge*—When the loading or landing of petroleum has been commenced such loading or landing shall proceed with due diligence, and, if it is discontinued, the tanks and holds of the ships or other vessels concerned and all loading or discharge valves shall be closed immediately.

42. *Naked lights, fire and smoking on board a vessel prohibited.*—No fire, naked light, fuses, matches, or other appliance for producing ignition or explosion and no smoking shall be allowed on board any barge, flat or lighter carrying petroleum in bulk, or on board any such vessel used for the transport of dangerous petroleum otherwise than in bulk or for the transshipment of petroleum to or from any vessel within the limits of any port:

Provided that nothing in this rule shall prevent the use on a self-propelled barge of the machinery of propulsion.

43. *Smoking, fire and lights prohibited during loading and unloading.*—At all times during the loading or unloading of a ship or other vessel until such time as all petroleum shall have been loaded into or removed from the holds or tanks and the holds or tanks shall have been securely closed down and, in the case of landing, rendered free from inflammable vapour, there shall be no fire or artificial light or smoking on board such ship or other vessel or within 100 feet of the place where the petroleum is being loaded or landed:

Provided that this rule shall not apply to the use of lamps, cookers or other similar apparatus electric or otherwise, so designed, constructed and maintained as to be incapable of igniting inflammable vapour or, in the case of heavy petroleum, the use of galley fires:

Provided further that this rule shall not apply to the discharging or loading of a ship, under conditions approved by the Conservator of the Port, by means of steam from her own boilers or power generated by electric motors or internal combustion engines placed in a position away from cargo holds and pump rooms or by means of electric motors so designed, constructed and maintained as to be incapable of igniting inflammable vapour and maintained in accordance with Lloyd's or any other approved classification society's requirements.

44. *Matches.*—No person engaged in landing or loading petroleum shall carry fuses, matches, or any other appliance for producing ignition or explosion.

45. *Fire-extinguishing appliances to be ready for use.*—Vessels discharging or loading petroleum shall have adequate fire-extinguishing appliances so disposed that they can be put into immediate use, and, if the petroleum is dangerous petroleum, shall have their awnings furled.

46. *Restriction on the conveyance of petroleum.*—Dangerous and non-dangerous petroleum shall not be simultaneously conveyed to the shore or to another ship on the same vessel.

47. *Restriction as to leaky tins.*—Leaky tins or other receptacles containing petroleum shall not be discharged into a vessel containing sound tins or other sound receptacles.

48. *Transport by sea of petroleum which has not been tested.*—(1) Petroleum which has been imported into any port specified in sub-rule (1) of rule 7 and which has not been tested at such port in accordance with the rules contained in Chapter IX, shall not be transported to any other port otherwise than to a port at which importation is permitted under sub-rule (1) of rule 7 and in accordance with the provisions of all the rules in Chapter II, except rule 5, when it arrives at such other port.

(2) Nothing in sub-rule (1) shall apply to petroleum of Burmese origin which is covered by a certificate in Form B granted by a testing officer appointed by the Government of Burma.

49. *Transport by sea of petroleum which has been tested.*—Petroleum which has been tested at one of the ports specified in sub-rule (1) of rule 7 and petroleum of Burmese origin which is covered by a certificate in Form B granted by a testing officer appointed by the Government of Burma, may be transported to any other port and the provisions of rules 8 to 14, 16 and 17 shall apply to such petroleum when it arrives at such other port.

50. *Transport over the Virangam Custom Line.*—(1) Petroleum which has already been imported at Bombay or Karachi and has been tested there by the testing officer in accordance with these rules, or petroleum of Indian or Burmese origin which has been similarly tested at a refinery and has been despatched to Kathiawar by sea from any customs port may be transported over the Virangam custom line, in accordance with the provisions of sub-rules (2) (3) and (4).

(2) If the consignment covered by a shipping bill from a customs port is brought as a whole, the shipping bill shall be presented with the consignment and the import application at the land customs station.

(3) If the consignment is brought in parts, the shipping bill shall accompany the first part of the consignment. Subsequent portions of the consignment shall be covered by a certificate, from the customs officer of the port of landing in Kathiawar, declaring that "the petroleum forms part of the consignment covered by shipping bill No. dated forwarded on the with the first portion of the consignment".

(4) No petroleum shall be transported over the custom line after the expiry of two months from the date of the shipping bill covering it.

(5) If the petroleum is in packages the marks, on the packages, shall be fully described in the shipping bill.

(6) The Collector of Salt Revenue, Bombay, may waive the strict enforcement of sub-rules (2), (3) and (4) in case of emergency, if he is satisfied that the petroleum sought to be transported was originally despatched from a customs port to Kathiawar.

PART III.—COASTWISE TRANSPORT OF DANGEROUS PETROLEUM OTHERWISE THAN IN BULK.

51. *Application.*—(1) The rules in this Part apply only to the transport coastwise of dangerous petroleum otherwise than in bulk.

(2) Unless otherwise expressly provided in this Part nothing contained in Part II of the Chapter, except rule 39, shall apply to any petroleum transported in accordance with this Part.

52. *Maximum quantity allowed to be carried.*—Dangerous petroleum may be transported otherwise than in bulk by country craft or steam or motor vessels other than unberthed passenger ships as defined in the Indian Merchant Shipping Act, 1923, subject to the provisions of rules 53 to 62 inclusive, if the quantity of petroleum does not exceed:—

(a) in the case of country craft, the licensed carrying capacity of the vessel after taking into account the weight of the barrels or tins in which the petroleum is carried; or

(b) in the case of steam or motor-vessels, 15 tons.

53. *Loading of barrels and drums.*—Barrels and drums shall be loaded with the bungs upwards.

54. *Carriage below decks.*—Dangerous petroleum shall not be carried below decks in decked vessels unless the hold is properly ventilated.

55. *Provision of bulkhead.*—In all vessels other than country craft a solid gas-tight bulkhead without openings, and in country craft a solid bulkhead without openings, shall be fitted between the hold and the afterdeck where the crew are accommodated; and in vessels fitted with a poop the bulkhead shall be placed immediately in front of the poop. In decked vessels the bulkhead shall reach up to the deck; in all other vessels it shall reach to within six inches of the gunwale.

56. *Fire, lights and smoking.*—(1) No fire, naked light of any description, and no smoking, shall be allowed on any part of a vessel transporting dangerous petroleum except abaft the solid bulkhead.

(2) The navigation lights on any such vessel shall be carried abaft the bulkhead.

57. *Carriage of other inflammable cargo.*—No inflammable cargo other than dangerous petroleum or other petroleum products or the dunnage used for packing purposes shall be carried on a vessel transporting petroleum.

58. *Fire buckets.*—Buckets containing dry sand shall be placed at convenient points on a vessel transporting petroleum. Not less than two such buckets shall be placed on the after-deck.

59. *Construction of steam or motor vessels.*—Steam or motor-vessels not specially constructed for the carriage of petroleum shall not carry petroleum unless they are constructed only of iron or steel.

60. *Transport in steam or motor-vessels.*—On steam or motor-vessels not specially constructed for the carriage of petroleum:—

(a) any petroleum shall either be carried in separate compartments which shall be gas-tight and shall be efficiently sealed, or in a hold in which there are efficient ventilators in accordance with clause (b), or on deck in accordance with rule 61

(b) half of the ventilators provided in accordance with clause (a) shall extend to the bottom of the space, and the other half only a short distance, below the deck; the short ventilators shall be labelled "Outlet or to Leeward" and the long "Inlet or to Windward"; such ventilators shall have large cowl heads, the openings being covered with double fine brass wire gauze;

(c) dangerous petroleum shall be contained in receptacles complying with the provisions of rule 27; and

(d) special precautions shall be taken against smoking and the use of lights or fire of any kind while the cargo is being loaded or unloaded, or while the hatches are off, or any deck openings are uncovered; before any lights are used in a compartment which contains petroleum precautions shall be taken to ensure that the space is clear of vapour; all empty receptacles which have contained dangerous petroleum shall be kept securely closed.

61. *Transport on deck.*—Petroleum may be carried on deck in steam or motor-vessels not specially built for the carriage of petroleum, subject to the following conditions:—

(a) in cargo ships dangerous petroleum shall not occupy more than 50 per cent of the open deck area and shall be so stowed as not to interfere with the navigation of the ship, or make it unseaworthy;

(b) in passenger ships a limited quantity of dangerous petroleum may be carried provided proper precautions are taken regarding stowage and keeping the packages away from passenger's promenade or deck space;

- (c) the petroleum shall be protected from the direct rays of the sun by the use of a canvas awning or otherwise; and
- (d) conspicuous notices shall be posted up drawing attention to the danger arising from smoking or striking matches near the deck cargo.

62. *Conditions of transport by country craft.*—No dangerous petroleum shall be transported in country craft except subject to the following conditions:—

- (a) subject to the provisions of rule 27, the petroleum shall be carried--
- (i) in 40/65 gallon steel barrels the screw bungs of such barrels being well-fitting and sealed; or
 - (ii) in 4 gallon sealed steel drums, not more than three tiers of which may be carried on any single vessel; or
 - (iii) in 2 gallon sealed steel tins, not more than six tiers of which may be carried on any single vessel;
- (b) all barrels or tins shall be carefully examined and no leaky barrels or tins shall be taken on board the craft; and
- (c) no barrels, drums or tins shall be placed within four feet of the after-deck where the crew are accommodated in the case of an undecked vessel or on deck in the case of a decked vessel.

PART IV.—TRANSPORT ON LAND BY VEHICLES.

63. *Prohibition of fires and smoking*—(1) No fire or other artificial light capable of igniting inflammable vapour shall be allowed on any vehicle containing petroleum in bulk.

(2) No person shall smoke while on or attending such a vehicle.

(3) No article or substance capable of causing fire or explosion shall be carried on such a vehicle.

Explanation—For the purposes of this rule any tank or other receptacle which has contained petroleum and which has not been thoroughly cleaned and freed from inflammable vapour shall be deemed to contain petroleum.

64. *Filling and discharge of tanks.*—(1) Tank-wagons, lorries or carts transporting petroleum shall only be filled or discharged by means of metal pipes or armoured hose in which the armouring is electrically continuous throughout.

(2) Tanks, other than fuel tanks on vehicles, containing dangerous petroleum shall not be filled or discharged--

- (i) within 100 feet of any fire, furnace or artificial light capable of igniting inflammable vapour;
- (ii) at any place where the lorry, wagon or cart is exposed to sparks:

Provided that the distance specified in clause (i) may be reduced to 30 feet when the petroleum is filled or discharged under seal and closed vapour return pipe lines are provided:

Provided further that the distance specified in clause (i) may be reduced to the figure prescribed in the licence in Form K where the petroleum is filled, stored and discharged into a tank in any premises licensed in that Form.

Explanation.—A pipe supplying liquid to a tank is "under seal" to that tank if it is screwed to the tank or otherwise attached so that no liquid or vapour can escape into the air except through an approved vent.

65. *Means of extinguishing fire to be carried.*—An adequate supply of dry sand or other efficient means of extinguishing fire shall be carried in an easily accessible position on every vehicle transporting petroleum in bulk by road.

66. *Prohibition as to public service vehicles.*—Petroleum shall not be transported on any public vehicle which is carrying passengers.

67. *Vehicles to be constantly attended.*—(1) Every vehicle while engaged in the transport of petroleum by road shall be constantly attended by at least one person:

Provided that such vehicles may be left unattended in places previously approved by the Chief Inspector.

(2) Every vehicle on which more than 1,000 gallons of petroleum is being transported by road, or which, while transporting any petroleum by road is being trailed by another vehicle, shall so long as it is in motion, be attended by at least two persons.

68. *Trailers attached to vehicles transporting petroleum by road.*—(1) A trailer not exclusively used for transporting petroleum shall not be attached to any vehicle transporting petroleum.

(2) A trailer transporting petroleum shall not be attached to any vehicle other than a vehicle used for transporting petroleum, and not more than one trailer shall be so attached.

(3) A trailer shall have two axles.

(4) When a trailer is attached to a vehicle, the total quantity of petroleum transported on the trailer and the vehicle combined shall not exceed 2,000 gallons.

(5) If a trailer transporting dangerous petroleum is attached to a vehicle transporting non-dangerous petroleum, the vehicle shall comply with all the provisions of these rules relating to vehicles transporting dangerous petroleum.

(6) A trailer other than a tank trailer shall not be attached to a tank-wagon. The capacity of a tank trailer shall not exceed 500 gallons, and no trailer shall be attached to a tank-wagon of greater capacity from 1,500 gallons.

(7) No trailer attached to a tank-wagon shall be employed within any thickly populated area without the permission in writing of the District Authority.

69. *Tank capacity.*—In these rules the tank forming part of a tank wagon or tank trailer shall be deemed to include any number of tank on the same chassis and any limitation herein prescribed on the capacity of a tank shall be construed so as to permit of the tank containing the amount specified under varying degrees of temperature.

70. *Employment of electric light.*—If electric lighting is employed on any vehicle, including a trailer, used in the transport of petroleum other than heavy petroleum by road, the following conditions shall be complied with:—

(i) the pressure shall not exceed sixteen volts;

(ii) the circuit shall be heavily insulated and shall be independent of the chassis, and the wiring shall be so fixed and protected as to reduce as far as possible the risk of damage;

(iii) the generator, battery, switches and fuses shall be carried in front of the fire-resisting screen and the battery shall be in an easily accessible position; and

(iv) means of cutting off the current close to the battery by a double pole switch or other suitable method shall be provided.

71. *Fuelling from vehicles.*—(1) No motor conveyance other than aircraft shall fill or replenish its fuel tanks with petroleum other than heavy petroleum directly from vehicles carrying petroleum in bulk.

(2) Aircraft may receive fuel by means of specially constructed tank lorries or wagons only if these are of a type approved by the Chief Inspector for this purpose.

(3) During the fuelling of aircraft used for the conveyance of passengers no passengers shall be allowed to remain in the machine.

(4) No person shall be allowed to smoke within 100 feet of any aircraft while it is being, or is about to be, fuelled.

(5) All aircraft engines within the distance specified in sub-rule (4) shall be stopped so long as fuelling is in progress.

(6) Nothing in sub-rules (2) and (5) shall apply to military aircraft fuelling on military aerodromes.

72. *Owner responsible for observance of rules.*—The owner of a vehicle used for the transport of petroleum who employs any person in connection with such transport, shall be responsible that all necessary measures have been taken to ensure that such person is acquainted with and carries out the provisions of these rules.

73. *Precautions to be observed during filling or emptying tank-wagons.*—During the filling, discharging or emptying of any tank-wagon or trailer transporting petroleum in bulk other than heavy petroleum the following precautions shall be observed:—

(i) if the vehicle is mechanically-driven the engine shall be stopped so long as the filling, discharging or emptying is in progress and shall not be restarted until all tanks and valves have been securely closed:

Provided that this condition may be dispensed with in the case of vehicles approved under sub-rule (2) of rule 71, which are supplying aircraft;

- (ii) adequate provision shall be made to prevent the accumulation of a dangerous static charge of electricity;
- (iii) if the wagon is drawn by an animal or animals, they shall be removed from the wagon and the wheels securely scotched before the filling, discharging or emptying of any dangerous petroleum is begun; and
- (iv) the vehicle shall be constantly attended by a competent person.

74. *Composite vehicles.*—Petroleum in cans or other receptacles shall not be transported by road on any tank-wagon used for the transport of petroleum unless the wagon is so constructed as to comply with the conditions applicable to transport on wagons other than tank-wagons as well as with the conditions applicable to transport on tank-wagons.

75. *Filling and dipping pipes to be kept closed.*—Except during the operations of filling or emptying a tank-wagon the filling and dipping pipes shall be kept securely closed. Where the filling pipes are not provided with a liquid seal, the covers shall be kept locked or properly sealed except during the operation of filling a tank-wagon, and the keys shall not be carried on the wagon.

76. *Filling and emptying by night.*—Except where approved electric lighting as specified in rule 105 is exclusively used, the filling, discharging and emptying of tank-wagons shall be performed between the hours of sunrise and sunset.

77. *Approval of vehicles for transport in bulk necessary.*—(1) Petroleum in bulk shall not be transported by land except in a vehicle of a type approved in writing by the Chief Inspector.

(2) All such vehicles other than those exclusively used for the transport of heavy petroleum shall have a stamped, embossed, painted or printed warning exhibiting in conspicuous characters the words "Petrol", "Motor Spirit", "Kerosene" or an equivalent warning of the nature of the contents.

(3) Every such vehicle and its fittings shall be maintained in good condition.

78. *Vehicles for transport other than in bulk.*—(1) Every vehicle on which petroleum not in bulk is transported shall be strongly constructed and with sides and back of adequate height and shall be maintained in good condition.

(2) In the case of an animal-drawn vehicle the requirement in sub-rule (1) regarding the sides and back of the vehicle shall not apply if the load is securely fastened to the vehicle.

(3) All receptacles shall be so packed as not to project beyond the sides or back of the vehicle.

79. *Engines of mechanically-driven vehicles.*—(1) In every mechanically driven vehicle used for the transport by road of petroleum other than non-dangerous petroleum not in bulk or heavy petroleum:—

(a) the engine shall be of an internal combustion type;

(b) the engine fuel tank and electric batteries shall be effectively screened from the body of the vehicle by a fire-resisting shield carried up above the height of the load and down to within twelve inches of the ground; and

(c) the exhaust shall be wholly in front of the fire-resisting shield.

(2) If windows are provided in the fire-resisting shield they shall be fitted with wired glass.

(3) The fuel tank of every such vehicle other than an articulated vehicle may be behind the fire-resisting shield if—

(a) a fuel feed apparatus, placed in front of the shield, is used to lift the contents from the fuel tank; and

(b) the fuel tank is protected from blows by the frame or by stout steel guards, and the filling hole cover if provided with a lock.

(4) The fuel tank of any vehicle may be behind the fire-resisting shield if the fuel used in the engine is heavy petroleum.

(5) A quick action cut-off valve shall be fitted to the fuel feed pipe of every such vehicle in an easily accessible position, which shall be clearly marked.

80. *Speed limit for vehicles.*—Without prejudice to the operation of any other provision of law for the time being in force whereby a lower limit of speed is imposed, the speed of a motor tank wagon, or a motor lorry transporting petroleum in receptacles shall not exceed 30 miles per hour if fitted with pneumatic tyres and 15 miles per hour if fitted with solid tyres.

81. *Exemptions.*—(1) If the Chief Inspector is satisfied that in respect of any class of vehicle any of the requirements of rules 68, 78 and 79 may be safely suspended or relaxed, he may authorise such suspension or relaxation for such period and under such conditions as he may think fit.

(2) Nothing in rules 68, 70, 77, 78 and 79 shall apply to vehicles and trailers in the possession of His Majesty's forces.

82. *Special provisions for motor conveyances.*—(1) Rules 63 to 80 shall not apply to the conveyance of petroleum in any motor vehicle for use only in the propulsion of such vehicle.

(2) No motor conveyance carrying passengers on hire shall carry any petroleum other than:—

(i) petroleum in the fuel tank incorporated in the conveyance, and

(ii) petroleum not exceeding 20 gallons in quantity intended to be used to generate motive power for the conveyance and kept in the manner provided in sub-section (2) of section 8 of the Act.

(3) During the filling or replenishment of the fuel tank of a vehicle licensed for the conveyance of more than six passengers on hire, no passengers shall be allowed to remain in the vehicle.

(4) All petroleum tins carried in a vehicle carrying passengers for hire shall be securely closed and shall be carried in a specially prepared receptacle which is not accessible to passengers in the vehicle, and is not on the roof.

PART V.—TRANSPORT BY PIPE LINES.

83. *Application.*—The rules in this part apply only to the transport of petroleum by means of pipe lines other than those in any area in which operations for the winning of natural petroleum or natural gas or both are carried on or within the limits of refineries and installations.

84. *Casings.*—(1) An approved casing shall be put over the pipe line where it passes under any railway or public road and an approved protective casing shall be constructed round the pipe where it crosses over any railway or protected work:

Provided that the Chief Inspector may waive this rule in the case of any specified road or roads, if he is satisfied that the safety of the public is not likely to be endangered thereby.

(2) The chief Inspector may require an extra casing to be put over the pipe line where it crosses any stream, road, railway or protected work.

85. *Patrol.*—The whole of every pipe line shall be efficiently patrolled.

86. *Prevention of excessive pressure.*—As a precaution against excessive pressure in the pipe line, an automatic bypass relief valve and a reliable pressure gauge shall be placed on the common discharge pipe at pumping stations.

87. *Telegraph and telephone.*—A telephone or telegraph line shall be provided with connections at frequent intervals along the pipe line. One telephone or telegraph line shall suffice for a series of parallel pipe lines:

Provided that this rule shall not apply to a pipe line connecting railway sidings with installations if the length of such pipe line does not exceed one mile.

88. *Gate valves.*—Gate valves shall be provided at reasonable intervals.

89. *Checking of tank gauges.*—Tank gauges shall be checked between stations at frequent intervals.

CHAPTER IV.

STORAGE OF PETROLEUM REQUIRING LICENCE.

90. *Licence for storage.*—Save as provided in sections 7, 8 and 9 of the Act and by rule 109 no one shall store any petroleum except under a licence granted under these rules:

Provided that no licence shall be necessary for storage in a well-head tank.

91. *Precautions against fire.*—(1) No person shall smoke in any installation or storage shed.

(2) No person shall carry matches, fuses or other appliance for producing ignition or explosion in any installation or storage shed which is used for the storage of dangerous petroleum.

(3) No fire, furnace or other source of heat or light capable of igniting inflammable vapour shall be allowed in any licensed installation or storage shed save in places specially authorised by the licensing authority for the purpose.

(4) An adequate supply of dry sand or earth together with the necessary implements for its convenient application, or other efficient means of extinguishing petroleum fires, shall always be kept in every installation and in or adjacent to every storage shed.

92. *Supervision of operations within an installation or storage shed.*—All operations within an installation or storage shed shall be conducted under the supervision of an experienced responsible agent or supervisor.

93. *Cleanliness of installation or storage shed.*—The ground in the interior of an installation, and the protected area surrounding any storage shed or installation, shall be kept clean and free from all inflammable material, waste vegetation and rubbish.

Explanation.—In this rule “protected area” means the area necessary for the maintenance of the distances required under the conditions of the licence to be kept clear between any installation or storage shed and any protected work.

94. *Drainage.*—(1) All enclosures surrounding tanks or buildings belonging to an installation or storage shed shall be kept drained and no water shall be allowed to accumulate in the enclosure.

(2) Where drainage is effected by means of a pipe, the pipe shall be fitted with a valve actuated from the outside of the enclosure :

Provided that this sub-rule shall not apply to storage sheds which are not required under these rules or the terms of the licence to be provided with an enclosure wall or embankment.

(3) All valves and other openings for draining off water shall be kept closed except when water is being drained off.

(4) The nature of the drainage arrangements shall be shown in the plan submitted with the application for a licence.

95. *Exclusion of unauthorised persons.*—(1) Every installation shall be surrounded by a wall or fence of at least six feet in height :

Provided that nothing in this sub-rule shall apply to an installation licensed under the rules in force immediately before these rules come into operation unless its fencing is considered by the licensing authority to be unsatisfactory.

(2) Precautions shall be taken to prevent unauthorised persons from having access to any storage shed or installation.

96. *Children.*—No person under the age of 15 years shall be employed in or allowed to enter any premises licensed under these rules.

97. *Receptacles for petroleum.*—The provisions of rules 26, 27 and 28 shall apply to petroleum stored under licence.

98. *Petroleum only to be stored.*—No installation or storage shed shall without permission in writing from the Chief Inspector be used for any purpose other than the storage and distribution of petroleum and purposes directly connected therewith.

99. *Marking of capacity of tanks.*—The capacity in gallons of every tank in an installation shall be conspicuously marked on the tank.

100. *Construction of tanks.*—(1) Every tank or other receptacle used for the storage of petroleum in bulk other than a well-head tank shall be constructed of iron or steel properly erected and designed according to sound engineering practice ; and, together with all pipes and fittings, shall be so constructed and maintained as to prevent any leakage of petroleum.

(2) The height of a storage tank shall not exceed its diameter :

Provided that, in the case of tanks of less than 30,000 gallons capacity, the height may extend to one and half times the diameter.

(3) No tank shall be more than 50 feet in height.

101. *Testing of tanks.*—(1) Storage tanks or other receptacles for the storage of petroleum in bulk other than well-head tanks, after being placed in a final position and before being brought into use, shall, unless they were in use before the 1st April 1937, be tested by water pressure by the licensee in the presence of an Engineer accepted as qualified for the purpose by the licensing authority.

(2) The water used for testing shall be free from petroleum and shall not be passed through any pipes or pumps ordinarily used for the conveyance of petroleum:

Provided that, where the licensing authority is satisfied that it is not reasonably possible to convey water by pipes or pumps other than those ordinarily used for the conveyance of petroleum, he may permit the use of a petroleum-pipe or pump for the conveyance of water subject to such conditions as he may impose.

(3) The test referred to in sub-rule (1) shall also be made before any receptacles for the storage of petroleum in bulk are brought into use after being repaired.

102. *Earthing of tanks.*—All tanks or other receptacles for the storage of petroleum in bulk, other than well-head tanks or tanks or receptacles of less than 10,000 gallons capacity containing heavy petroleum, shall be electrically connected with the earth in an efficient manner by means of not less than two separate and distinct connections placed at opposite extremities of such tank or receptacle. The roof and all metal connections of such tank or receptacle shall be in efficient electrical contact with the body of such tank or receptacle.

103. *Inspection of earth connections.*—(1) The connections and contacts required by rule 102 shall be inspected and tested at least once in every year by the licensee of the tank or receptacle in the manner prescribed by the Chief Inspector.

(2) A record of such inspections and tests shall be maintained by such licensee, and shall be produced on demand by any Inspector.

104. *Night working.*—No installation or storage shed shall be open, and no work in any installation or storage shed shall be permitted, between sunset and sunrise except where approved electric lighting as specified in rule 105 is exclusively used.

105. *Electric apparatus.*—(1) All electric wires installed at less than 15 feet from the ground in any petroleum installation or situated within 20 feet of any building or tank containing dangerous petroleum shall consist of insulated cables, enclosed in metallic coverings which shall be gas-tight, electrically and mechanically continuous throughout, and effectively earthed outside the building.

(2) No electric wire shall pass over any petroleum tank, filling, painting or storage shed.

(3) In filling, painting and storage sheds and pump rooms used for—

(i) dangerous petroleum—

(a) all electric meters, distribution boards, switches, fuses, plugs and sockets shall be placed outside the building and shall be of flame-proof construction satisfying the requirements of the British Standard Specification No. 229, and the frames shall be effectively earthed;

(b) all electric fixed lamps shall be enclosed in a well glass flame-proof fitting, either doubly enclosed with an inner and an outer well glass or singly enclosed with substantial metal protection; such lamps shall be installed at 12 feet where possible, but in no case less than 8 feet, above the floor level;

(c) all electric portable hand lamps of the self-contained pattern shall be of a type approved by the Chief Inspector;

(d) for the examination of cans and other containers, electric torches employing a separate battery may be used; these torches shall be fitted with substantially protected flame-proof globes and shall be supplied through a cable of cab-tyre or other suitable sheathing and properly constructed flame-proof connectors; and

(e) no single fixed lamp shall exceed 150 watts.

(ii) non-dangerous petroleum:—

(a) all electric meters, distribution boards, switches, fuses, plugs and sockets shall be enclosed in iron-clad, gas-tight cases and shall be fixed at least 5 feet above the floor level in well-ventilated positions close to the door;

(b) all electric fixed lamps shall be enclosed in a gas-tight well glass fitting provided with substantial metal protection;

(c) all electric portable hand lamps shall be fitted with substantially protected gas-tight globes and supplied through a flexible cab-tyre or other suitable sheathing and properly constructed gas-tight connectors; and

(d) no single fixed lamp shall exceed 200 watts and no hand lamp shall exceed 30 watts.

106. *Pumping.*—No internal combustion engine or electric motor shall be used for driving pumps for pumping petroleum save in a pump house specially constructed for the purpose and under such conditions as may be approved by the Chief Inspector:

Provided that this rule shall not apply where the motor, control switchgear and starting apparatus are of flame-proof construction satisfying the requirements of the British Standard Specification No. 229.

107. *Posting up of rules and conditions.*—Copies of the preceding rules in this Chapter and of the conditions of the licence shall be exhibited in a conspicuous place in every licensed installation and storage shed.

108. *Petroleum in possession of His Majesty's forces.*—Nothing in rules 90, 95, 98, 101 and 104 shall apply to petroleum in the possession of His Majesty's forces.

CHAPTER V.

STORAGE OF PETROLEUM NOT REQUIRING LICENCE.

109. *Exemption of heavy petroleum.*—(1) Notwithstanding anything contained in these rules, it shall be permissible to store without licence subject to the conditions of this Chapter, heavy petroleum in quantities not exceeding 10,000 gallons, which is not stored in the same installation or storage shed as other petroleum.

(2) The provisions of Chapter IV shall not apply to petroleum so permitted to be stored without licence under sub-rule (1).

110. *Storage of exempted heavy petroleum in bulk.*—(1) Heavy petroleum in bulk, if stored otherwise than under a licence, shall be stored in a tank constructed of iron or steel properly erected and designed and the tank with all pipes and fittings shall be so constructed and maintained as to prevent any leakage of petroleum.

(2) All tanks of a capacity exceeding 1,000 gallons shall be surrounded by a bank or wall, or sunk in a pit, so constructed and maintained as to be able to contain without leakage the whole of the petroleum liable to be present at any one time in the tank.

(3) A distance of not less than ten feet shall be kept clear between protected works and the enclosure walls or banks.

(4) Nothing in this rule shall apply to petroleum in the possession of His Majesty's forces.

111. *Storage of exempted heavy petroleum not in bulk.*—Heavy petroleum which is not in bulk, if stored otherwise than under a licence, shall, if the quantity exceeds 500 gallons, be stored in a storage shed of which either—

(a) the doorways and other openings shall be built up to a height of one foot above the level of the floor; or

(b) the floor shall be sunk to a depth of one foot.

112. *Prior report of storage of exempted heavy petroleum.*—Every person intending to store heavy petroleum in quantity exceeding 1,000 gallons otherwise than under a licence shall send to the Chief Inspector a prior report stating the situation of the premises on which such petroleum is to be stored.

113. *Garages and hangars.*—(1) Every garage or hangar used for housing any motor conveyance containing dangerous petroleum in bulk in any tank incorporated in the conveyance, whether such petroleum is intended to be used to generate motive power for the conveyance or not, shall be constructed of unflammable material and be effectively and safely ventilated to the open air.

(2) Every such garage or hangar shall be in charge of a competent person who shall be responsible for taking all proper precautions against fire and shall prevent unauthorised persons from having access to the building.

CHAPTER VI.

LICENCES.

114. *Application for licence.*—(1) A person wishing to obtain or to renew a licence prescribed under these rules shall submit an application in writing to the authority empowered to grant such a licence.

(2) Every application for the grant or renewal of a licence to store or to import and store petroleum shall be in Form D.

115. *Grant of licence.*—(1) Licences for importation and storage may be granted by the licensing authorities set forth in Schedule I in the forms, for the purposes, and on payment of the fees, specified therein.

(2) A licence in Form H may be granted for such period as the licensing authority may deem necessary subject to a maximum of twelve months. Every other licence granted or renewed under these rules shall remain in force until the 31st day of December of the year for which the licence is granted or renewed.

(3) Where the licensing authority is the Chief Inspector, an applicant for a new licence may apply to the District Authority for a certificate to the effect that there is no objection to the applicant receiving a licence for the site proposed and the District Authority shall, if he sees no objection, grant such certificate to the applicant who may forward it to the Chief Inspector with his application in Form D.

(4) The Chief Inspector may refer an application not accompanied by a certificate granted under sub-rule (3), to the District Authority for his observations.

(5) If the District Authority, either on a reference being made to him or otherwise, intimates to the Chief Inspector that any licence which has been applied for, should not in his opinion be granted, such licence shall not be issued without the sanction of the Governor General in Council.

(6) No licence in Form H shall be granted except to a person holding a licence in Form I.

(7) In the case of a licence granted for storage one copy of the plan or plans of the storage premises signed in token of approval by the licensing authority shall be attached to the licence and one copy shall be filed for record in the office of the licensing authority.

116. *Particulars of licence.*—Every licence granted under these rules shall be held subject to the conditions endorsed on it and shall contain all the particulars which are contained in the form prescribed for it by these rules.

117. *Power of licensing authority to alter conditions.*—(1) Notwithstanding anything contained in rule 116 the licensing authority, at the time of issuing a licence, may omit, alter or add to any of the conditions specified in the prescribed form of licence.

(2) The power conferred by sub-rule (1) shall not be exercised by the District Authority without the prior concurrence of the Chief Inspector.

118. *Amendment of licence.*—(1) Any licence granted under these rules may be amended by the authority granting such a licence :

Provided that the amendments shall not be inconsistent with any rule in this Chapter.

(2) A licensee who desires to have his licence amended shall submit it to the licensing authority with an application stating the nature of the amendment and the reasons therefor.

(3) The fee for the amendment of a licence shall be one rupee *plus* the amount (if any) by which the fee that would have been payable if the licence had originally been issued in the amended form exceeds the fee originally paid for the licence.

119. *Renewal of licence.*—(1) A licence may be renewed by the authority empowered to grant such a licence.

(2) Every application for the renewal of a licence shall be made not less than thirty days before the date on which the licence expires, and, if the application is so made, the premises shall be held to be duly licensed until such date as the licensing authority renews the licence or until an intimation that the renewal of the licence is refused has been communicated to the applicant.

(3) The same fee shall be charged for the renewal of a licence as for a licence.

120. *Refusal of licence.*—(1) A licensing authority refusing to grant, amend or renew a licence, shall record his reasons for such refusal in writing.

(2) A copy of the order containing the reasons for such refusal shall be given to the applicant on payment of a fee of one rupee.

121. *Cancellation of licence.*—(1) Every licence granted under these rules shall be liable to be cancelled by order of the licensing authority for any contravention of the Act or of any rule thereunder, or of any condition contained in such licence.

(2) A licensing authority cancelling a licence shall record his reasons for so doing in writing.

(3) A copy of the order containing the reasons for the cancellation of a licence shall be given to the holder of the licence on payment of a fee of one rupee.

122. *Appeals.*—(1) Any person may appeal to the Governor General in Council from an order of the Chief Inspector refusing to grant, amend or renew a licence or cancelling a licence.

(2) Any person may appeal to the immediate official superior of the District Authority from an order of the District Authority refusing to grant, amend or renew a licence or cancelling a licence.

(3) Every appeal shall be in writing and shall be accompanied by a copy of the order against which the appeal is made.

(4) The appeal shall be presented within 30 days when the order appealed against has been passed by the District Authority and within 60 days when the order has been passed by the Chief Inspector.

123. *Supply of rules.*—With every licence granted for the storage of petroleum, a copy of rules 90 to 107 in Chapter IV, shall be given free of charge to the licensee

124. *Certificates of safety.*—(1) Before petroleum is stored in any installation for which a licence is being granted for the first time, a certificate shall be furnished to the licensing authority to the effect that all enclosure walls and embankments constructed in accordance with the conditions of the licence are of such a nature as to ensure safety.

(2) The certificate shall be signed by an Engineer accepted as qualified for the purpose by the licensing authority.

(3) When the licence is not granted for the first time, but is being granted for an increased quantity of petroleum, a certificate shall similarly be furnished to the licensing authority before any quantity of petroleum exceeding the amount which was admissible under the former licence is stored in the installation.

125. *Transfer of licence for storage.*—(1) The holder of a licence for the storage of petroleum may, at any time before the expiry of the licence, apply for permission to transfer his licence to another person.

(2) Such application shall be made to the licensing authority who shall, if he approves of the transfer, enter upon the licence, under his signature, an endorsement to the effect that the licence has been transferred to the person named.

(3) A fee of one rupee shall be charged on each such application.

(4) The person to whom the licence is so transferred shall enjoy the same powers and be subject to the same obligations under the licence as the original holder.

126. *Procedure on death or disability of licensee.*—(1) If a licensee dies or becomes insolvent or mentally incapable or otherwise disabled, the person carrying on the business of such licensee shall not be liable to any penalty or confiscation under the Act or these rules for exercising the powers granted to the licensee by the licence during such time as may reasonably be required to allow him to make an application for a new licence in his own name for the unexpired portion of the original licence.

(2) A fee of one rupee shall be charged for a new licence for the unexpired portion of an original licence granted to any person applying for it under this rule.

127. *Loss of licence.*—Where a licence granted under these rules is lost or accidentally destroyed, a duplicate may be granted on payment of a fee of one rupee.

128. *Payment of fees.*—(1) Every application for the grant or renewal of a licence shall be accompanied by the fee payable thereon. If the licence is not granted or renewed, the fee shall be refunded.

(2) All fees chargeable under these rules in respect of licences granted by the District Authority shall be paid by means of impressed stamps or in cash.

(3) The payment of all other fees under these rules shall be made in cash or by cheque.

129. *Power to exempt from payment of fees.*—The Governor General in Council may, by general or special order, grant exemption from, or reduction of, any fee payable under these rules.

130. *Production of licence on demand.*—(1) Every person holding or acting under a licence granted under these rules shall produce it, or an authenticated copy of it, at the place to which the licence applies, when called upon to do so by any Inspector.

(2) Copies of any licence may, for the purpose of this rule, be authenticated free of charge by the authority which granted the licence.

131. *Procedure on reports of infringements.*—The District Authority shall inform the Chief Inspector of the action taken by him on any reports of infringements of the Act or of these rules which the Chief Inspector may make to him.

CHAPTER VII.

REFINING AND BLENDING OF PETROLEUM.

132. *Approval of refinery.*—(1) No person shall refine or blend petroleum unless the plans showing the general arrangement of tanks, stills, fencing, gates, and all plant and buildings at the place where it is proposed to refine or blend petroleum (hereinafter in this Chapter referred to as the refinery) have been approved by the Chief Inspector.

(2) The Chief Inspector on receiving an application under sub-rule (1) may require the submission of such particulars as he may specify regarding the materials used or to be used in the construction of stills, condensing pipes and tanks, and the method of their erection.

133. *Retention of plans*—A copy of the approved plans, which shall incorporate any alterations sanctioned under rule 135 from time to time shall be kept at the refinery.

134. *Application of rules.*—Rules 135 to 147 inclusive apply only to refineries.

135. *Alterations.*—No alteration in a refinery involving the general arrangement of tanks, stills, any other plant and buildings or the materials used in the construction or the method of erection of the stills, condensing pipes and tanks shall be carried out without the previous sanction in writing of the Chief Inspector.

136. *Use of fire-proof materials.*—All buildings in which petroleum is handled shall be built or fire-proof materials.

137. *Situation of storage tanks.*—No storage tank, the capacity of which exceeds 50,000 gallons, shall be situated nearer than 300 feet to any still, boiler or furnace.

138. *Size of service tanks.*—Unless specially permitted by the Chief Inspector service tanks (*i. e.*, tanks which contain fuel for boiler and still fires) shall not be larger than is necessary to conserve 24 hours fuel for the fire which they serve.

139. *Drainage.*—Suitable arrangements shall be made for the proper carrying off and fire-trapping of all drainage and possible leakage from a still or bench of stills.

140. *Fires and smoking.*—(1) No fire, furnace or source of heat or light capable of igniting inflammable vapour shall be allowed except in the firing spaces of stills or boilers.

(2) No smoking shall be allowed except in spaces or buildings specially approved for the purpose by the Chief Inspector.

141. *Supply of sand or earth.*—(1) An adequate quantity of dry sand or earth together with the necessary implements for its convenient application or other efficient means of extinguishing petroleum fires shall always be kept readily accessible near tanks and stills.

(2) The Chief Inspector may specify the quantity of dry sand or earth which shall be deemed to be adequate for the purposes of this rule.

142. *Hydrants and hoses*—(1) In a refinery with a still capacity exceeding on an average 1,000 gallons daily, hydrants with a minimum pressure of 40 lbs. with the necessary hose, shall be provided at suitable points. Their location shall be shown in the approved plans of the refinery.

(2) All hydrants and hose shall be kept in an efficient condition.

143. *Pumping of dangerous petroleum.*—All dangerous petroleum as it leaves the stills, with the exception of such quantities as may be pumped direct to service tanks for fuel, shall be at once pumped out of the refinery to storage tanks, and shall not be stored in the immediate neighbourhood of stills and boilers:

Provided that the Chief Inspector may permit dangerous petroleum to be disposed of otherwise.

144. *Prevention of danger from electricity.*—Adequate provision shall be made to prevent the accumulation of dangerous static charges of electricity.

145. *Plans.*—Fire walls and efficient separators for drainage shall be shown in the plans referred to in rule 132 and may be required to be erected when deemed necessary by the Chief Inspector.

146. *Reports of fires.*—The occurrence of any fire at a refinery shall be reported immediately by the person in charge of the refinery for the time being to the nearest Police Station and to the Chief Inspector.

147. *Closing of refinery.*—If a refinery is closed down, the area within the fence surrounding it shall be cleared of all petroleum having a flashing point below 200° F. as soon as possible.

CHAPTER VIII.

TETRA ETHYL LEAD MIXTURES.

148. *Addition of tetra ethyl lead.*—Tetra ethyl lead shall not be added to petroleum in such quantity as to render the proportion of tetra ethyl lead to petroleum in excess of one part in 1,000 parts by volume or one part in 450 parts by weight.

149. *Importation, transport and storage.*—No person shall import, transport or store any petroleum containing tetra ethyl lead in which the proportion of tetra ethyl lead exceeds one part in 1,000 parts by volume or one part in 450 parts by weight.

150. *Power to increase proportion.*—The Chief Inspector may by an order in writing in special cases permit the proportions of tetra ethyl lead prescribed in rules 148 and 149 to be increased.

151. *Coloration.*—Every mixture of petroleum and tetra ethyl lead shall be distinctively coloured before being sold to the public.

152. *Marking of receptacles.*—All receptacles containing a mixture of petroleum and tetra ethyl lead shall unless they are in the possession of His Majesty's forces bear a warning in the following terms—

“Warning

This spirit contains lead and should be used as a motor fuel only.”

CHAPTER IX.

TESTING OF PETROLEUM.

153. *Drawing of samples*—(1) In all cases the sampling officer shall personally superintend the drawing of the sample. Where the sample is drawn from an original unopened receptacle containing petroleum not in bulk the opening shall be sufficient to admit of the sample being rapidly transferred from the receptacle.

(2) Two bottles, each of the capacity of about 40-fluid ounces, shall be filled to three-quarters of their capacity with the sample and corked. The corks shall be driven home and cut off level with the neck; and melted sealing wax shall be worked into the corks and the bottles shall be efficiently sealed.

(3) In the case of petroleum imported by sea the bottles containing the sample shall, after being sealed, be labelled with the name of the ship, the name of the consignee, and such other distinguishing marks as may be necessary.

154. *Forwarding and retention of samples.*—One of the bottles referred to in sub-rule (2) of rule 153 shall be preserved for reference in case of need and the other shall be forwarded to the testing officer.

155. *Procedure for delivery of samples from ship's cargo.*—(1) When the master of, or the agent for, a ship has made the declaration required by rule 8, the sampling officer shall go on board the vessel and obtain samples of all the petroleum on board which it is intended to land at the port: If the importer so desires the sampling officer shall also take samples of all the petroleum on board which it is intended to land at any other port in British India:

Provided that no sample need be taken of—

(a) petroleum which is declared to be dangerous; or

(b) petroleum of Burmese origin which is covered by a certificate in Form B granted by a testing officer appointed by the Government of Burma.

(2) The master shall deliver to the sampling officer, without charge, samples of every variety of petroleum comprised in the petroleum of which samples are to be taken under sub-rule (1). Such samples shall, if the sampling officer so requires, be taken from the particular receptacles indicated by him:

Provided that when the petroleum is in cases, samples may be taken as landing proceeds.

156. *Selection of samples from ship's cargo.*—The minimum number of samples to be selected of each brand or quality contained in the cargo shall be as follows:—

(a) of petroleum certified in accordance with rule 11—

(i) in cases—one sample for every 15,000 cases or part thereof;

- (ii) in casks or drums, declared to be of uniform quality—one sample for every 120,000 gallons or part thereof;
- (iii) in bulk or in tanks—one sample from each group of tanks or tank compartments certified to be of the same brand or quality;

(b) of other petroleum—

- (i) in cases—one sample for every 10,000 cases or part thereof;
- (ii) in casks or drums, declared to be of uniform quality—one sample for every 80,000 gallons or part thereof;
- (iii) in bulk or in tanks—one sample from each tank or tank compartment.

157. *Standard Test Apparatus.*—(1) The Standard Test Apparatus and thermometers shall—

- (a) agree in every respect with the specifications laid down in Schedule III; and
 - (b) have been tested and certified by the Board of Trade or the National Physical Laboratory, London, and marked with the year of test.
- (2) The standard thermometers shall be replaced at least once in every three years.

158. *Certification of apparatus.*—(1) When any apparatus for determining the flashing point of petroleum is submitted to the officer appointed under sub-section (1) of section 15 of the Act for comparison with the Standard Test Apparatus, that officer shall examine the apparatus including the thermometers and the barometers or aneroids.

(2) No certificate shall be granted under section 16 of the Act if—

- (a) the apparatus is in any respect outside the tolerances laid down in Schedule III to these rules or is otherwise defective; or
- (b) any thermometer shows readings varying by more than 1°F. at temperatures of 76°F. and 120°F. as given by the Standard Test Apparatus; or
- (c) any barometer or aneroid shows a variation of more than half an inch from the pressure given by the Standard Test Apparatus.

(3) A certificate in Form E shall be granted in respect of any apparatus which has been found to agree with the Standard Test Apparatus within the limits mentioned in sub-rule (2).

(4) A certificate granted under this rule shall be valid for a period of three years.

159. *Register of certificates*—A register of all certificates granted under rule 158 shall be maintained in Form F by the officer appointed under sub-section (1) of section 15 of the Act.

160. *Methods of test.*—(1) The testing officer shall test the samples in the manner laid down in Schedule III to these rules.

(2) In all cases at least three samples shall be separately tested, the average of the three readings being corrected for the thermometer correction, if any, and for the barometric correction in case of dispute.

(3) If the average flashing-point is not lower than 76°F. and no one test gives a flashing-point below 73°F. the whole of the petroleum represented by the samples shall be deemed to be non-dangerous petroleum.

161. *Procedure when tests show want of uniformity.*—(1) If the testing officer, after testing samples taken from a ship's cargo, considers further tests necessary to satisfy himself that none of the petroleum is dangerous, he shall report to the Collector of Customs accordingly.

(2) On receipt of a report under sub-rule (1)—

(a) when the consignment is imported in cases or casks or drums, the Collector of Customs shall cause the petroleum in question to be landed and stacked in lots of not more than 1,500 cases or casks or drums each, or to be discharged into boats each containing not more than 1,500 cases or casks or drums, and the sampling officer shall select and deliver to the testing officer one sample from each lot;

(b) when the consignment is imported in bulk, the sampling officer shall forward a second sample and the Collector of Customs may, until the receipt of the testing officer's further report, prevent the landing of any portion of the contents of the tank in question, or may permit it to be landed as provided in rule 15;

(c) if the petroleum has been already landed and stored under rule 15—

- (i) if it is not in bulk it shall be divided into lots and samples of each lot shall be selected as provided in clause (a) ;
- (ii) if it is in bulk samples shall be drawn from each separate storage tank containing the petroleum.

162. *Certificate of test.*—(1) The testing officer shall, as soon as practicable, and ordinarily within twenty-four hours after receipt of any samples make out a certificate in Form G and shall forward it in the case of samples of petroleum taken on board a ship to the Collector of Customs and in the case of other samples to the officer submitting the sample.

(2) The testing officer shall, at the request of any person concerned, furnish him with a certified copy of the certificate in Form G on payment of a fee of one rupee.

163. *Fees for inspection and comparison.*—(1) The fee for each inspection of the Standard Test Apparatus shall be one rupee.

(2) The fees for comparing a privately owned test apparatus with the Standard Test Apparatus shall be as follows:—

	Rs.
Able Flash Point Apparatus } or Pensky-Martens Apparatus }	30
Barometer	10
Thermometer	10

164. *Fees for testing.*—(1) The fee for testing each sample of imported petroleum shall be five rupees.

Provided that the aggregate fees chargeable under this sub-rule shall not, in the case of any one ship, exceed Rs. 50.

(2) The fee for re-testing each sample under section 20 of the Act shall be five rupees. It shall be refunded if the original test is proved to be erroneous.

SCHEDULE I.

LICENCES (*vide* Rule 115).

Article No.	Form of Licence (See Schedule II).	Purpose for which granted.	Authority empowered to grant licence.	Fee.
1	2	3	4	5
1	H	To import dangerous petroleum other than petroleum which can be used in an internal combustion engine, in quantity not exceeding 60 gallons at any one time.	The District Authority	Rs. 1.
2	I	To store dangerous petroleum in quantity not exceeding 60 gallons.	The District Authority	Rs. 4. FOR ARTICLES 3, 4, 5, 6 and 7. <i>Non-dangerous petroleum.</i>
3	J	To store non-dangerous petroleum, otherwise than in bulk, in quantity not exceeding 5,000 gallons.	The District Authority	(a) When the quantity to be stored does not exceed five hundred gallons. Rs. 8. (b) When the quantity to be stored exceeds five hundred but does not exceed one thousand gallons. Rs. 12.

Article No.	Form of Licence (See Schedule II.)	Purpose for which granted.	Authority empowered to grant licence.	Fee.
1	2	3	4	5
4	K	To store petroleum in a tank or tanks in connection with a pump outfit for fuelling motor conveyances.	The Chief Inspector	(c) When the quantity to be stored exceeds one thousand but does not exceed five thousand gallons. Rs. 12 for the first one thousand gallons plus Rs. 3 for every additional one thousand gallons or part thereof. (d) When the quantity to be stored exceeds five thousand but does not exceed fifty thousand gallons. Rs. 24 for the first five thousand gallons plus Rs. 5 for every additional one thousand gallons or part thereof.
5	L	To import dangerous petroleum and to store petroleum in installations.	The Chief Inspector	(e) When the quantity to be stored exceeds fifty thousand gallons. Rs. 275.
6	M	To import and store dangerous petroleum otherwise than in bulk and to store otherwise than in bulk (a) non-dangerous petroleum in quantity exceeding 5,000 gallons or (b) partly dangerous petroleum and partly non-dangerous petroleum.	The Chief Inspector	<i>Dangerous petroleum.</i> (f) When the quantity to be stored or imported and stored does not exceed five hundred gallons. Rs. 8.
7	Special forms.	To import dangerous petroleum and to store petroleum (in cases not provided for in Articles 1, 2, 3, 4, 5 and 6).	The Chief Inspector	(g) When the quantity to be stored or imported and stored exceeds five hundred gallons. The same fees as those laid down for storage of non-dangerous petroleum.

SCHEDULE II.

FORMS.

FORM A.

[See Rule 8.]

Declaration to be made by the master of a ship carrying petroleum before entering a port or by the ship's agent.

Name of ship.....

1	2	3	4
Nature of petroleum.	Total quantity carried in the ship.	Quantity of petroleum to be landed in British India at—Name of port.	Remarks.
Dangerous petroleum which can be used in an internal combustion engine.			
Other dangerous petroleum			
Petroleum certified in accordance with rule 11 other than heavy petroleum.			
Heavy petroleum			
Other non-dangerous petroleum			
Total			

Signature of Master/Agent of ship.

Dated

FORM B.

[See Rule 11.]

Certificate of imported petroleum.

Certified that ^{sample} of petrolcum of the description given below for shipment per S.S. to ^{samples} _{has} ^{have} been tested by me and that ^{its} _{their} flashing ^{point is} _{points are} as stated against the same.

Description of petroleum whether in cases, casks, drums, tanks or in bulk.	Brand.	No. of cases, casks, drums or tanks.	Quantity.	Flashing point.

Port of shipment.....Name of Shipper.....

Dated the day of 19 .

Signature and designation of Testing Officer.

FORM C.

[See Rule 13.]

Certificate of storage accommodation.

I hereby declare that I propose to store the following consignments of ^{dangerous} _{non-dangerous} petroleum *ex* S.S.....arriving in.....on or about the.....19 at the storage tanks or sheds of which particulars are given in columns 1 and 2 of the statement below and I certify that the capacity shown as available in column 3 of that statement is available for the storage of the said petroleum, and that the said storage tanks and sheds are duly licensed for the storage of the petroleum in question.

Dated the.....19 .

Importer or Agent.

STATEMENT.

1	2	3	4
Storage tanks or sheds.	Total capacity of each storage tank or shed.	Capacity available in each storage tank or shed.	Capacity to be utilized by present consignment in each storage tank or shed.
	Gallons.	Gallons.	Gallons.
Total (gallons) ...			

FORM D.

[See Rule 114(2).]

Application for the grant/renewal of a licence to store or to import and store petroleum.

				The replies to be written in this column.
*1. Applicant's Name	...	...	...
" Calling	...	...	...
" Address	...	...	...
2. Situation of the premises where petroleum is to be stored—				
Province	...	...	...
District	...	...	...
Town or Village	...	...	...
3. Petroleum proposed to be stored—				
Nature (<i>i.e.</i> , dangerous, non-dangerous or heavy petroleum).				
Quantity	{	In bulk	...	...
	{	Not in bulk	...	...
4. Form in which licence is required	...	...	...
5. Do the premises fulfil all the conditions endorsed on the form?				
6. Petroleum already stored on the premises—				
Nature	...	...	...
Quantity	{	In bulk	...	...
	{	Not in bulk	...	...
7. Dangerous petroleum proposed to be imported—				
Quantity	{	In bulk	...	...
	{	Not in bulk	...	...
Remarks	...	...	...	...

Signature of applicant.

Postal address of applicant.

Date of application.

NOTE.—This application if it relates to a new installation or storage shed or if the applicant proposes any alterations in an existing installation or storage shed, must be accompanied by specifications and plans drawn to scale in duplicate. The plans should clearly indicate :—

- (a) the manner in which the conditions prescribed by these rules have been complied with ;
- (b) the premises to be licensed, the area of which shall be distinctively coloured or otherwise defined ;
- (c) the surroundings and all protected works ;
- (d) the position and capacity of all storage tanks, storage and filling sheds and the position of all other buildings and erections forming part of the installation ;
- (e) the areas reserved for dangerous petroleum, heavy petroleum and non-dangorous petroleum other than heavy petroleum ;
- (f) tanks and other enclosures ;
- (g) all pumps, valves, filling and discharge points, vent pipes, etc.

*In cases where the application is made on behalf of a company, the name and address of the company and the name of the manager or agents should be given.

FORM E.

[See Rule 158 (3).]

Certificate of Apparatus.

..... Apparatus.
 Marked No.
 Maker's Name
 Slide No.
 Thermometer No. Oil Cup
 No. Water Bath
 Cup No.

The above apparatus including the thermometers having been submitted for verification with the Standard Test Apparatus was compared by me on.....and found to agree with it within the prescribed limits.

The following corrections are necessary to the thermometer and barometer or aneroid readings :—

Thermometer No.
 No.
 Barometer or Aneroid No.

Date
 Reference

Signature and designation of the Officer appointed under Section 15 (1) of the Petroleum Act, 1934.

FORM F.

[See Rule 159.]

Register of Certificates of Apparatus.

Serial No.	Place at which the apparatus is intended to be used.	Number and date engraved on the apparatus.	Contents of certificate.	Date on which certificate will cease to be valid.

FORM G.

[See Rule 162.]

Certificate of tests of petroleum.

Owner.....
 Marks.....
 Test (1)
 (2)
 (3)
 Average..... Thermometer
 correction.....

The sample is.....
 petroleum and (in the case of non-dangerous petroleum) has a flashing-point of.....
 Place.....
 Date.....

Testing Officer.

FORM H.

(Article 1 of Schedule I.)

Licence to import dangerous petroleum other than petrolcum which can be used in an internal combustion engine, in quantity not exceeding 60 gallons at any one time.

No.

Fee Re. 1.

Licence is hereby granted to other than petroleum which can be used in an internal combustion engine, not exceeding sixty gallons in quantity at any one time, at the Port of provisions of the Petroleum Act, 1934, and the rules made thereunder and to the further conditions on the back of this licence. subject to the

This licence shall remain in force till the

19 .

The

19

District Authority.

Conditions of licence.

1. Dangerous petroleum shall be imported in gas-tight tinned, galvanised or otherwise externally rust-proofed sheet iron or steel receptacles which shall be fitted with well-made filling apertures and well fitting screw plugs or with screw caps or other caps with metal air-tight under-caps.

2. The receptacles shall have the following thickness of metal:—

Capacity exclusive of the prescribed air-space	Note less than—
not exceeding 2 gallons	27 B. G.
exceeding 2 but not exceeding 4 gallons	22 B. G.
exceeding 4 but not exceeding 30 gallons	18 B. G.
exceeding 30 but not exceeding 45 gallons	17 B. G.
exceeding 45 gallons	16 B. G.

3. The receptacles shall be so constructed and secured as not to be liable except under circumstances of gross negligence or extraordinary accident, to become defective, leaky or insecure in transit and shall bear a stamped, embossed, painted or printed warning exhibiting in conspicuous characters the words "Highly Inflammable" or an equivalent warning of the dangerous nature of the petroleum

4. An air-space of not less than 7½ per cent of its capacity shall be left in each receptacle at the time of filling.

FORM I.

(Article 2 of Schedule I.)

Licence to store dangerous petroleum in quantity not exceeding 60 gallons.

No.

Fee Rs. 4.

Licence is hereby granted to valid only for the storage of gallons of dangerous petroleum in the storage shed described below, subject to the provisions of the Petroleum Act, 1934, and the rules made thereunder and to the further conditions on the back of this licence.

This licence shall remain in force till the 31st day of December 19

The

19

District Authority.

Description of the storage shed referred to above.

Date of renewal.

Date of expiry.

Signature of
licensing authority.

This licence is liable to be cancelled if the licensed premises when inspected are not found conforming to the description and conditions attached hereto and contravention of any of the rules and conditions under which this licence is granted is also punishable with fine which may extend to five hundred rupees for a first offence and which may extend to two thousand rupees for any subsequent offence.

Conditions of licence.

1. Dangerous petroleum shall be stored only—
 - (i) in a storage shed constructed of suitable unflammable material: the doors and windows may be of wood; or
 - (ii) in a properly ventilated iron bin of a design approved by the Chief Inspector, placed on private ground in the open air.
2. The storage shed shall be adequately ventilated near the ground level and also near or in the roof. The ventilators shall be provided with two thicknesses of fine copper or other non-corroding metal wire gauze of mesh not less than 28 to the linear inch.
3. The storage shed shall not form part of, or be attached to, any building in which any person resides or works or where persons assemble for any purpose unless it is separated therefrom by a substantial floor or partition which is constructed of unflammable material and has no openings therein.
4. The storage shed, if in any building, shall not be situated under any staircase or under any other means of exit likely to be required to be used for escape in case of fire.
5. Any two storage sheds or bins or other storage premises not more than twenty feet apart, shall be deemed to be one storage shed.
6. No alteration shall be carried out in the storage shed or bin without the previous sanction in writing of the licensing authority.
7. If the licensing authority calls upon the holder of a licence, by a notice in writing, to execute any repairs to the storage shed, which are in the opinion of such authority, necessary for the safety of the shed, the holder of the licence shall execute the repairs within such period not being less than one month from the date of receipt of the notice, as may be fixed by the notice.
8. Dangerous petroleum other than paints, varnishes, lacquers and similar products shall not be kept in any receptacle other than the standard petrol tins of capacity not exceeding two gallons exclusive of the prescribed air-space.
9. All empty receptacles which have contained dangerous petroleum shall, except when they are opened for the purpose of cleaning them and rendering them free from petroleum vapour, be kept securely closed unless they have been thoroughly cleaned and freed from petroleum vapour.
10. No receptacles shall be repaired on the premises and no person shall repair or cause to be repaired any receptacle in which, to his knowledge, any dangerous petroleum is or has been kept until he has taken all reasonable precautions to ensure that the receptacle has been rendered free from dangerous petroleum and any inflammable vapour.
11. Adequate precautions shall be taken at all times for the prevention of accident by fire or explosion.
12. Every care shall be taken to prevent any dangerous petroleum escaping into any drain, sewer, harbour, river or water course.
13. Adequate precautions shall be taken to prevent unauthorised persons having access to any dangerous petroleum kept and to the vessel which contains or has contained petroleum.
14. Any accident, fire, or explosion occurring within the licensed premises, which is attended with loss of human life or serious injury to person or property shall be reported to the nearest Magistrate or to the Officer-in-charge of the nearest Police Station immediately and by telegraph or telephone where such means of communication are available.
15. Free access to the licensed premises shall be given at all reasonable times to any Inspector or Sampling Officer and every facility shall be afforded to such officer for ascertaining that the rules and the conditions of this licence are duly observed.

FORM J.

(Article 3 of Schedule I.)

Licence to store non-dangerous petroleum, otherwise than in bulk, in quantity not exceeding 5,000 gallons.

No.

Fee Rs.

Licence is hereby granted to _____ of _____ gallons of non-dangerous petroleum in the storage shed described below, subject to the provisions of the Petroleum Act, 1934, and the rules made thereunder and to the further conditions on the back of this licence. valid only for the storage

This licence shall remain in force till the 31st day of December 19

The 19

District Authority.

(Description and location of the storage shed referred to above.)

Date of renewal.

Date of expiry.

Signature of
licensing authority.

This licence is liable to be cancelled if the licensed premises when inspected are not found conforming to the description and conditions attached hereto and contravention of any of the rules and conditions under which this licence is granted is also punishable with fine which may extend to five hundred rupees for a first offence and which may extend to two thousand rupees for any subsequent offence.

Conditions of licence.

1. The petroleum shall be stored only in the storage shed which shall be constructed of suitable unflammable material, but the beams, rafters, columns, windows and doors may be of wood. The building shall rest on foundation walls, the walls and floors being suitably finished to form a sump or enclosure not more than 2 feet in depth and capable of receiving and retaining, in cases of accident or emergency, a volume not less than the maximum quantity of petroleum allowed in the building.

2. The storage shed shall not form part of, or be attached to, any building in which any person resides or works or where persons assemble for any purpose unless it is separated therefrom by a substantial floor or partition which is constructed of unflammable material and has no openings in it.

3. The storage shed, if in any building, shall not be situated under any staircase or under any other means of exit likely to be required to be used for escape in case of fire.

4. No alterations shall be carried out in the storage shed without the previous sanction in writing of the licensing authority.

5. If the licensing authority calls upon the holder of a licence, by a notice in writing, to execute any repairs to the storage shed, which may, in the opinion of such authority, be necessary for the safety of the shed, the holder of the licence shall execute the repairs within such period, not being less than one month from the date of receipt of the notice, as may be fixed by the notice.

6. Any two storage sheds not more than 15 feet apart shall be deemed to be one storage shed.

7. Non-dangerous petroleum shall be packed in air-tight tins or drums of steel or iron or in other receptacles not easily broken.

8. The drum or other receptacle containing petroleum shall only be opened in the licensed premises and for the time necessary for drawing off the petroleum, and during such drawing off every reasonable precaution shall be adopted for preventing the escape of petroleum or the vapour therefrom.

9. Adequate precautions shall be taken to prevent unauthorised persons having access to any petroleum kept and to any receptacles which contain or have contained petroleum.

10. Adequate precautions shall be taken at all times for the prevention of accident by fire or explosion.

11. Every care shall be taken to prevent any petroleum escaping into any drain, sewer, harbour, river or water course.

12. Any accident, fire or explosion occurring within the licensed premises, which is attended with loss of human life or serious injury to person or property, shall be reported to the nearest Magistrate or to the Officer-in-charge of the nearest Police Station immediately and by telegraph or telephone where such means of communication are available.

13. Free access to the licensed premises shall be given at all reasonable times to any Inspector or Sampling Officer and every facility shall be afforded to such officer for ascertaining that the rules and the conditions of this licence are duly observed.

FORM K.

(Article 4 of Schedule I.)

Licence to store petroleum in a tank or tanks in connection with a pump outfit for fuelling motor conveyances.

No.

Fee Rs.

Licence is hereby granted to _____ valid only for the storage of _____ gallons of petroleum in a tank (tanks) in the licensed premises described below and shown on the plan hereto attached subject to the provisions of the Petroleum Act, 1934, and the rules made thereunder and to the further conditions on the back of this licence.

*This licence shall be renewable for _____ years in the absence of contravention of the provisions of the Petroleum Act, 1934, or of the rules framed thereunder or of any condition of this licence.

This licence shall remain in force till the 31st day of December 19 .

Chief Inspector of Explosives in India

The

19 .

Plan No. _____, dated

Description of the licensed premises referred to above.

The licensed premises are situated _____ and consist of gas-tight tank (tanks) of a capacity of _____ gallons sunk underground.

Date of renewal.

Date of expiry.

Signature of
licensing authority.

*Not applicable to kerbside outfits.

Conditions of licence.

1. The petroleum shall be stored in one or more gas-tight metal tanks of a capacity of _____ gallons sunk completely underground in the position shown on the plan attached hereto and each placed in a masonry or concrete pit, the tank being packed round with sand, earth or clay so that no air-space is left between the tank and the masonry or concrete pit and the tank is not visible. Such masonry or concrete pit shall not be obligatory if the tank is a welded one tested up to a pressure of 3 lbs. per square inch and is buried and is on private, leased or rented land away from public traffic. The space over the buried tanks must not be used for any purpose.

2. There shall be no openings in any tank other than those necessary for the introduction or removal of the petroleum or for ventilating or dipping the tank. The filling and dipping pipes shall be carried down nearly to the bottom of the tank.

3. Every tank shall be fitted with a vent pipe leading into the open air. The vent pipe shall be securely supported and shall be not less than 12 feet in height. The upper opening shall be covered with fine copper or other non-corroding metal wire gauze of mesh not less than 28 to the linear inch and fitted with a hood or the upper opening shall be fitted with an inlet valve and an exhaust valve.

4. After the 1st April 1937, no pump or tank shall be erected inside a building and, if prior to that date any tank is installed inside a building, it shall only be filled from a tank-wagon through an underground filling pipe having a filling point in the open air at a distance of not less than 12 feet from the building.

5. No alteration of the position of a pump or tank and no replacement of a tank shall be effected except with the previous sanction in writing of the licensing authority. All alterations sanctioned under this condition shall be shown on an amended plan to be attached to this licence.

6. If the licensing authority calls upon the holder of a licence by a notice in writing to execute any repairs to the licensed premises which are, in the opinion of such authority, necessary for the safety of the premises, the holder of the licence shall execute the repairs within such period, not being less than one month from the date of receipt of the notice, as may be fixed by the notice.

7. Every tank, before being repaired, shall be cleared of all petroleum and of all inflammable vapours. When a tank in position is open for cleaning or repairs no electric or other lamps, electric cables or electric fans shall be brought near the manhole of the tank until the tank has been certified in writing to be 'gas free' by a qualified Chemist or Engineer. (The inside of the tank may be lighted by the use of mirrors.)

8. The petroleum shall enter a tank "under seal" and shall not be supplied to the tank between the hours of sunset and sunrise except by a motor tank-wagon of a type approved by the Chief Inspector for the purpose and with the approval in writing of the licensing authority.

NOTE.—A pipe supplying liquid to a tank is "under-seal" to that tank if it is screwed to the tank or otherwise attached so that no liquid or vapour can escape into the air except through the vent pipe fitted to the tank as required by condition 3.

9. No artificial light capable of igniting inflammable vapour shall at any time be present in the immediate vicinity of the tank-wagon during the transfer of the petroleum to the tank and no person engaged in such transfer shall smoke. When the underground tank is filled with petroleum from barrels no such light shall be allowed within a distance of 30 feet from the barrels.

10. No petroleum shall be removed from a tank except by means of the pump or pumps at the position marked on the plan hereto attached. Every pump shall together with its connections and fittings be so constructed and maintained as to be gas and petroleum-tight. The pipe connections between the tank and a pump shall be placed underground.

11. For the purpose of charging the tanks of motor vehicles the petroleum shall only be supplied by being—

(a) pumped through strong metal piping by means of approved pumps into above ground measuring tanks of a capacity not exceeding 30 gallons, fixed in approved positions, and run thence through sound hose, fitted with a secure self-closing cock and nozzle, into the tanks of motor vehicles, or

(b) pumped through strong metal piping by means of approved pumps into an above ground service tank of approved capacity, fixed in an approved position, and run thence through strong metal piping into measuring tanks of a capacity not exceeding 30 gallons fixed in approved positions and thence through sound hose, fitted with a secure self-closing cock and nozzle, into the tanks of motor vehicles,
or

(c) pumped by means of approved measuring pumps, fixed in approved positions, through sound hose fitted with a secure tap and nozzle, into the tanks of motor vehicles.

12. Petroleum may be supplied to a motor vehicle between the hours of sunset and sunrise from the pump provided that (i) lights other than the electric lights of the vehicle receiving the petroleum are extinguished, (ii) the pump and the vehicle are illuminated by electric light or failing this by some other form of lighting, and (iii) no light capable of igniting inflammable vapour is situated or brought within twelve feet of the pump or vehicle receiving the petroleum.

13. Petroleum shall not be placed in any motor vehicle while the engine is running and persons in and engaged in connection with such motor vehicle shall not be permitted to smoke.

14. Except when absolutely necessary for the purposes of condition 7 or for testing the accuracy of the pump's discharge by means of a standard capacity measure, petroleum shall not be filled from the tank or pump into any receptacle other than one clamped or fitted to a motor vehicle.

15. This licence shall be held to cover the use of a portable kerbside pump outfit for a period of not more than one month in the place of the licensed permanent outfit in the event of the latter being out of order, provided notice in writing is given to the licensing authority before the portable pump is taken into use, and the conditions of this licence which apply to a portable pump are observed. No petroleum shall be allowed above ground (except that actually in the pump) in any case where the underground tanks can be used in connection with the portable pump by making a temporary connection from the portable pump to the underground tank.

16. In cases where portable pumps are used not more than two barrels of petrolcum in reserve shall be kept within 20 feet of the pump or on public property nearby.

17. Adequate precautions shall be taken to prevent unauthorised persons from having access to the petroleum or to the vessels which contain or have contained petroleum.

18. Every person managing or employed on or in connection with the licensed premises shall abstain from any act whatever which tends to cause fire or explosion and which is not reasonably necessary and, to the best of his ability, shall prevent any other person from doing such act.

19. Every care shall be taken to prevent any petroleum escaping into any drain or sewer.

20. The licensee shall provide for each pump, whether kerbside or portable, a minimum of two tins or drums of dry sand which shall be kept ready for extinguishing fires.

21. Any accident, fire or explosion occurring within the licensed premises, which is attended with loss of human life or serious injury to person or property shall be reported to the nearest Magistrate or to the Officer-in-charge of the nearest Police-station immediately and by telegraph or telephone where such means of communication are available.

22. Free access to the licensed premises shall be given at all reasonable times to any Inspector or Sampling Officer and every facility shall be afforded to such officer for ascertaining that the rules and the conditions of this licence are duly observed.

FORM L.

(Article 5 of Schedule I.)

Licence to import dangerous petrolcum and to store petrolcum in installations.

No.

Fee Rs.

Licence is hereby granted to _____ valid only for the importation of _____ gallons of dangerous petroleum and for the storage of *gallons of petroleum in the place described below and shown on the plan attached hereto subject to the provisions of the Petroleum Act, 1934, and the rules made thereunder and to the further conditions on the back of this licence.

This licence shall remain in force till the 31st day of December 19 _____

*Dangerous petrolcum in bulk	...	...	...	...	Gallons
Dangerous petrolcum otherwise than in bulk	...	...	...	...
Non-dangerous petrolcum in bulk ...	...	...	...	...
Non-dangerous petrolcum otherwise than in bulk	...	...	...	...
			Total	...	_____

The 19 _____

Chief Inspector of Explosives in India.

Plan No. _____, dated _____

Description of the place referred to above.

Date of renewal.

Date of expiry.

Signature of licensing authority.

This licence is liable to be cancelled if the licensed premises when inspected are not found conforming to the description and conditions attached hereto and contravention of any of the rules and conditions under which this licence is granted is also punishable with fine which may extend to five hundred rupees for a first offence and which may extend to two thousand rupees for any subsequent offence.

Conditions of licence.

1. Petroleum shall be kept only in the storage tanks and storage and filling sheds or other approved places within the installation specified for the purpose on the plan attached hereto.

2. (i) The tank or tanks shall be supported on an approved foundation and shall be surrounded by a wall or embankment of substantial construction, or shall be partially sunk in an excavation. The enclosure thus formed shall contain only one of the following classes of petroleum, shall be of dimensions sufficient to contain the quantity of petroleum specified under the class to be stored and shall be so constructed and maintained as to prevent the escape therefrom of any petroleum in the form of liquid, whether under the action of fire or otherwise--

(a) *Dangerous petroleum*--10 per cent more petroleum than the tank or tanks are capable of containing;

(b) *Non-dangerous petroleum other than heavy petroleum*—the amount of petroleum the tank or tanks are capable of containing;

(c) *Heavy petroleum*—the amount of petroleum the largest tank in the enclosure is capable of containing:

Provided that heavy petroleum may be stored in the same enclosure as non-dangerous petroleum other than heavy petroleum if the dimension under (b) above is observed.

(ii) Except for the necessary pipes and valves the space within an enclosure and not occupied by the tank or tanks, shall be kept entirely clear and unoccupied. Alternatively gas-tight metal tanks may be sunk completely underground the tanks being packed round with sand, earth or clay, so that no air-space is left below ground level and the tank is not visible. Tanks so buried shall not be required to maintain the safety distances laid down in condition 8 but the space over the buried tanks must not be used for any purpose. The filling and dipping pipes in an underground tank shall be carried down to the bottom of the tank.

3. All tanks shall be fitted with a vent pipe leading into the open air, the open end being covered with fine copper or other non-corroding metal wire gauze of mesh not less than 28 to the linear inch, and fitted with a hood or the tank shall be fitted with an approved relief valve or other approved means for preventing dangerous internal or external pressures being produced.

4. Cast iron valves are not permitted on any tank and all valves in an installation must be permanently marked in a manner clearly indicating the direction of opening and shutting the valve.

5. Pumps shall be placed only in the positions shown on the plan attached hereto and they shall together with all connections and fittings be so constructed and maintained as to prevent leakage of petroleum.

6. Storage or filling sheds shall be constructed of suitable unflammable material. The building shall rest on foundation walls and shall be surrounded by a wall or embankment of substantial construction or the walls and floor shall be suitably finished to form a sump or enclosure not more than two feet deep. A combination of these methods is permissible. The enclosure or sump thus formed shall be of sufficient capacity to contain the total quantity of petroleum liable at any time to be present in the building and shall be so constructed and maintained as to prevent the escape therefrom of any petroleum in the form of liquid whether under the action of fire or otherwise. In the case of dangerous petroleum or partly dangerous and partly non-dangerous petroleum the enclosure or sump shall be capable of receiving and retaining a volume not less than 5 per cent in excess of the maximum quantity allowed in the building. The sumps and enclosures must be kept clean and free from any accumulation of inflammable liquids.

7. Every storage or filling shed in which dangerous petroleum is stored or filled shall be adequately ventilated near the ground level immediately above any walls constructed to prevent any leakage of petroleum and also near or in the roof. The ventilators shall be provided with two thicknesses of fine copper or other non-corroding metal wire gauze of mesh not less than 28 to the linear inch.

8. (a) A distance of not less than 100 feet shall be kept clear between (i) a storage tank and any other storage tank (ii) between a storage tank and a storage or filling shed, the distance being measured between the nearest points of the perimeters of the storage tanks or storage or filling sheds, as the case may be.

(b) A distance of not less than 150 feet shall be kept clear between any storage tank or storage or filling shed and any protected work.

(c) Notwithstanding anything contained in clause (a) or clause (b)—

(i) Where the quantity of dangerous petroleum or partly dangerous and partly non-dangerous petroleum not in bulk to be stored in a storage shed does not exceed 50,000 gallons, the following reduced distances may be kept clear between the shed or enclosure wall and (A) any other building forming part of the installation, (B) any protected work or (C) any storage tank containing non-dangerous petroleum having a capacity not exceeding 50,000 gallons:—

	Feet.
Not exceeding 1,000 gallons	20
Exceeding 1,000 gallons but not exceeding 10,000 gallons	30
Exceeding 10,000 gallons but not exceeding 20,000 gallons	40
Exceeding 20,000 gallons but not exceeding 30,000 gallons	50
Exceeding 30,000 gallons but not exceeding 40,000 gallons	60
Exceeding 40,000 gallons but not exceeding 50,000 gallons	70

(ii) When a storage tank containing non-dangerous petroleum has a capacity not exceeding 1,00,000 gallons, a distance of not less than 50 feet may be kept clear between it and (A) another such tank of similar or less capacity or (B) a storage or filling shed containing non-dangerous petroleum.

Such a storage tank and storage or filling shed may, where the total quantity stored does not exceed 2,00,000 gallons, keep a distance of not less than 50 feet clear between the enclosure wall or embankment and any protected works.

(iii) When a storage tank containing non-dangerous petroleum has a capacity not exceeding 50,000 gallons, a distance of—

(a) for horizontal tanks, not less than one-third

(b) for perpendicular tanks, not less than one-half

the height of the tank may be kept clear between it and (A) another such tank or (B) a storage or filling shed wherein non-dangerous petroleum is stored in quantity not exceeding 50,000 gallons.

Such a storage tank and storage or filling shed may, where the total quantity stored does not exceed 1,00,000 gallons, keep a distance of not less than 20 feet clear between the enclosure wall or embankment and any protected works.

(iv) In the case of heavy petroleum a distance of not less than 20 feet may be kept clear between a storage tank and (A) another such tank or (B) a storage or filling shed containing such petroleum and a distance of not less than 50 feet shall be kept clear between such storage tank or filling or storage shed and any protected works. When the total quantity stored in such storage tank and storage or filling shed does not exceed 1,00,000 gallons, half the distances given in clause (iii) for the like quantity of non-dangerous petroleum other than heavy petroleum may be observed.

9. The distances specified in condition 8 may be reduced by the licensing authority in cases where screen walls are provided or other special precautions taken or where there are special circumstances that, in his opinion, warrant the alteration.

10. Notwithstanding anything herein to the contrary when petroleum is stored in an installation at or near wells, pumping stations or refineries, the concessions in clause (c) of condition 8 shall not apply and no storage tank, the capacity of which exceeds 50,000 gallons, or storage or filling shed shall be placed nearer than 300 feet to any still, boiler, furnace or fire. In such an installation all tanks shall be situated in a compact area (a) under a single control (b) enclosed or capable of being enclosed by one continuous fence (c) on which there shall be no protected works.

11. No alterations shall be carried out in the installation without the previous sanction in writing of the licensing authority. Such alterations so sanctioned shall be shown on an amended plan to be attached to this licence.

12. If the licensing authority calls upon the holder of a licence, by a notice in writing, to execute any repairs to the licensed premises, which are, in the opinion of such authority, necessary for the safety of the premises, the holder of the licence shall execute the repairs within such period, not being less than one month from the date of receipt of the notice, as may be fixed by the notice.

13. The responsible agent or supervisor referred to in rule 92 shall not allow any person to enter a tank, which has contained petroleum, unless—

- (a) such person wears a safety helmet of a description approved by the Chief Inspector, or
- (b) (i) the responsible agent or supervisor has certified in writing, as the result of an examination of the tank by himself or by some other competent person, that the atmosphere in the tank is fit for persons to enter, and
- (ii) at least one safety helmet of a pattern approved by the Chief Inspector shall have been kept ready for instant use at the manhole of the tank which is being cleaned or repaired.

14. No work, involving the use of fire, welding or hot rivetting, shall be performed in or on any tank until the tank has been certified in the manner laid down in clause (b) of condition 13 to be free from petroleum vapour. When any water is pumped into or withdrawn from the tank no further work of the above description shall be done until the tank has been re-tested and a fresh certificate issued. When a tank is open for cleaning or repairs no lamps of any description either ordinary or electric, electric torches, electric cables or fans other than of a flame-proof type satisfying the requirements of the British Standard Specification no. 229 shall be brought near the tank.

15. No person shall repair or cause to be repaired any receptacle or pipe in which, to his knowledge, any petroleum is or has been kept until he has taken all reasonable precautions to ensure that the receptacle or pipe has been rendered free from petroleum and any inflammable vapour:

Provided that this condition shall not be deemed to prohibit the usual soldering operations connected with the filling and despatching of petroleum receptacles.

16. All empty receptacles which have contained dangerous petroleum shall, except when they are opened for the purpose of cleaning them and rendering them free from petroleum vapour, be kept securely closed unless they have been thoroughly cleaned and freed from petroleum and inflammable vapour.

17. Adequate precautions shall be taken at all times for the prevention of accident by fire or explosion.

18. Every care shall be taken to prevent any petroleum escaping into any drain, sewer, harbour, river or water course and enclosures or sumps must not be permanently connected with any drain or sewer.

19. Any accident, fire or explosion occurring within the area specified in the licence, which is attended with loss of human life or serious injury to person or property shall be reported to the nearest Magistrate or to the Officer-in-charge of the nearest Police Station immediately and by telegraph or telephone where such means of communication are available.

20. Free access to the licensed premises shall be given at all reasonable times to any Inspector or Sampling Officer and every facility shall be afforded to such officer for ascertaining that the rules and the conditions of this licence are duly observed.

FORM M.

(Article 6 of Schedule I.)

Licence to import and store dangerous petroleum otherwise than in bulk and to store otherwise than in bulk (a) non-dangerous petroleum in quantity exceeding 5,000 gallons or (b) partly dangerous petroleum and partly non-dangerous petroleum.

Fee Rs.

No.

Licence is hereby granted to _____ valid only for the importation of _____ gallons of dangerous petroleum and for the storage of _____ gallons of dangerous petroleum and _____ gallons of non-dangerous petroleum in the storage shed described below and shown on the plan attached hereto, subject to the provisions of the Petroleum Act, 1934, and the rules made thereunder and to the further conditions on the back of this licence.

This licence shall remain in force till the 31st day of December 19 _____

The

19

Chief Inspector of Explosives in India

	Plan No.	Dated
Description of the storage shed referred to above.		
	Date of expiry.	Signature of licensing authority.

This licence is liable to be cancelled if the licensed premises when inspected are not found conforming to the description and conditions attached hereto and contravention of any of the rules and conditions under which this licence is granted is also punishable with fine which may extend to five hundred rupees for a first offence and which may extend to two thousand rupees for any subsequent offence.

Conditions of licence.

1. The petroleum shall be stored only in the storage shed which shall be constructed of suitable unflammable material provided that, when only non-dangerous petroleum is stored, the beams, rafters, columns, windows and doors may be of wood. The building shall rest on foundation walls and shall be surrounded by a wall or embankment of substantial construction or the walls and floor shall be suitably finished to form a sump or enclosure not more than two feet deep. A combination of these methods is permissible. The enclosure or sump thus formed shall be of sufficient capacity to contain the total quantity of petroleum liable at any time to be present in the building and shall be so constructed and maintained as to prevent the escape therefrom of any petroleum in the form of liquid whether under the action of fire or otherwise. In the case of dangerous petroleum or partly dangerous and partly non-dangerous petroleum the enclosure or sump shall be capable of receiving and retaining a volume not less than 5 per cent in excess of the maximum quantity allowed in the building. The sumps and enclosure must be kept clean and free from any accumulation of inflammable liquids.

2. The storage shed, if it is used for the storage of dangerous petroleum, shall be adequately ventilated near the ground level immediately above any walls constructed to prevent any leakage of petroleum and also near or in the roof. The ventilators shall be provided with two thicknesses of fine copper or other non-corroding metal wire gauze of mesh not less than 28 to the linear inch.

3. If the licensing authority calls upon the holder of a licence, by a notice in writing, to execute any repairs to the licensed premises which may, in the opinion of such authority, be necessary for the safety of the premises, the holder of the licence shall execute the repairs within such period, not being less than one month from the date of receipt of the notice, as may be fixed by the notice.

4. No alteration shall be carried out in the licensed premises without the previous sanction in writing of the licensing authority. All alterations shall be shown on an amended plan to be attached to this licence.

5. The following distances shall be kept clear at all times between protected works and a storage shed or an enclosure wall used for the storage of dangerous petroleum or partly dangerous and partly non-dangerous petroleum:—

Quantity to be stored

Distances to be kept clear

<i>Quantity to be stored</i>	<i>Distances to be kept clear</i>
	Feet.
not exceeding 500 gallons	20
exceeding 500 gallons but not exceeding 1,000 gallons	25
exceeding 1,000 gallons but not exceeding 5,000 gallons	30
exceeding 5,000 gallons but not exceeding 20,000 gallons	40
exceeding 20,000 gallons but not exceeding 30,000 gallons	50
exceeding 30,000 gallons but not exceeding 40,000 gallons	60
exceeding 40,000 gallons but not exceeding 50,000 gallons	70
exceeding 50,000 gallons	100

6. The following distances shall be kept clear at all times between protected works and a storage shed or an enclosure wall used for the storage of non-dangerous petroleum only:—

Quantity to be stored

Distances to be kept clear

<i>Quantity to be stored</i>	<i>Distances to be kept clear</i>
	Feet.
exceeding 5,000 gallons but not exceeding 10,000 gallons	15
exceeding 10,000 gallons but not exceeding 50,000 gallons	20
exceeding 50,000 gallons	30

7. The distances specified in conditions 5 and 6 may be reduced by the licensing authority in cases where screen walls are provided or other special precautions taken or where there are special circumstances that, in his opinion, warrant the reduction.

8. Drums or other receptacles containing petroleum shall only be opened in the licensed premises and for the time necessary for drawing off the petroleum, and during such drawing off every reasonable precaution shall be adopted for preventing the escape of petroleum or the vapour therefrom.

9. All empty receptacles which have contained dangerous petroleum shall, except when they are opened for the purpose of cleaning them and rendering them free from petroleum vapour, be kept securely closed unless they have been thoroughly cleaned and freed from petroleum and inflammable vapour.

10. No person shall repair or cause to be repaired any receptacle in which, to his knowledge, any petroleum is or has been kept until he has taken all reasonable precautions to ensure that the receptacle has been rendered free from petroleum and any inflammable vapour :

Provided that this condition shall not be deemed to prohibit the usual soldering operations connected with the filling and despatching of petroleum receptacles when such operations are conducted in an approved place outside the storage shed.

11. Adequate precautions shall be taken at all times for the prevention of accident by fire or explosion.

12. Every care shall be taken to prevent any petroleum escaping into any drain, sewer, harbour, river or water course.

13. Adequate precaution shall be taken to prevent unauthorised persons having access to any petroleum kept and to any receptacles which contain or have contained petroleum.

14. Any accident, fire or explosion occurring within the licensed premises, which is attended with loss of human life or serious injury to person or property shall be reported to the nearest Magistrate or to the Officer-in-Charge of the nearest Police Station immediately and by telegraph or telephone where such means of communication are available.

15. Free access to the licensed premises shall be given at all reasonable times to any Inspector or Sampling Officer and every facility shall be afforded to such officer for ascertaining that the rules and the conditions of this licence are duly observed.

SCHEDULE III.

METHODS OF TESTING PETROLEUM.

Determination of Flashing-Point.

[See Rules 157 and 160.]

I. APPARATUS TO BE USED.

The flashing-point of petroleum and petroleum mixtures which are fluid at 50°F. and which flash not above 120°F. shall be determined by the Abel apparatus as hereinafter defined.

The flashing-point of petroleum and petroleum mixtures which are solid at 50°F. and which flash not above 120°F. shall be determined by the Abel apparatus, the test being modified as hereinafter described.

The flashing-point of petroleum and petroleum mixtures which flash above 120°F. shall be determined by the Pensky-Martens apparatus as hereinafter defined.

II. PREPARING THE SAMPLES FOR TEST.

About ten fluid ounces of the sample, sufficient for three tests, should be transferred from the bottle into which the sample has been drawn to a pint flask or bottle, which should be immersed in water artificially cooled until a thermometer, introduced into the sample, indicates a temperature not exceeding 50°F.

III. (I) ABEL APPARATUS.

The apparatus to be employed shall be the Abel petroleum testing apparatus modified by having an oil cup provided with a stirrer. It shall be constructed to the dimensions herein specified within the limits of accuracy prescribed by the tolerances set forth below.

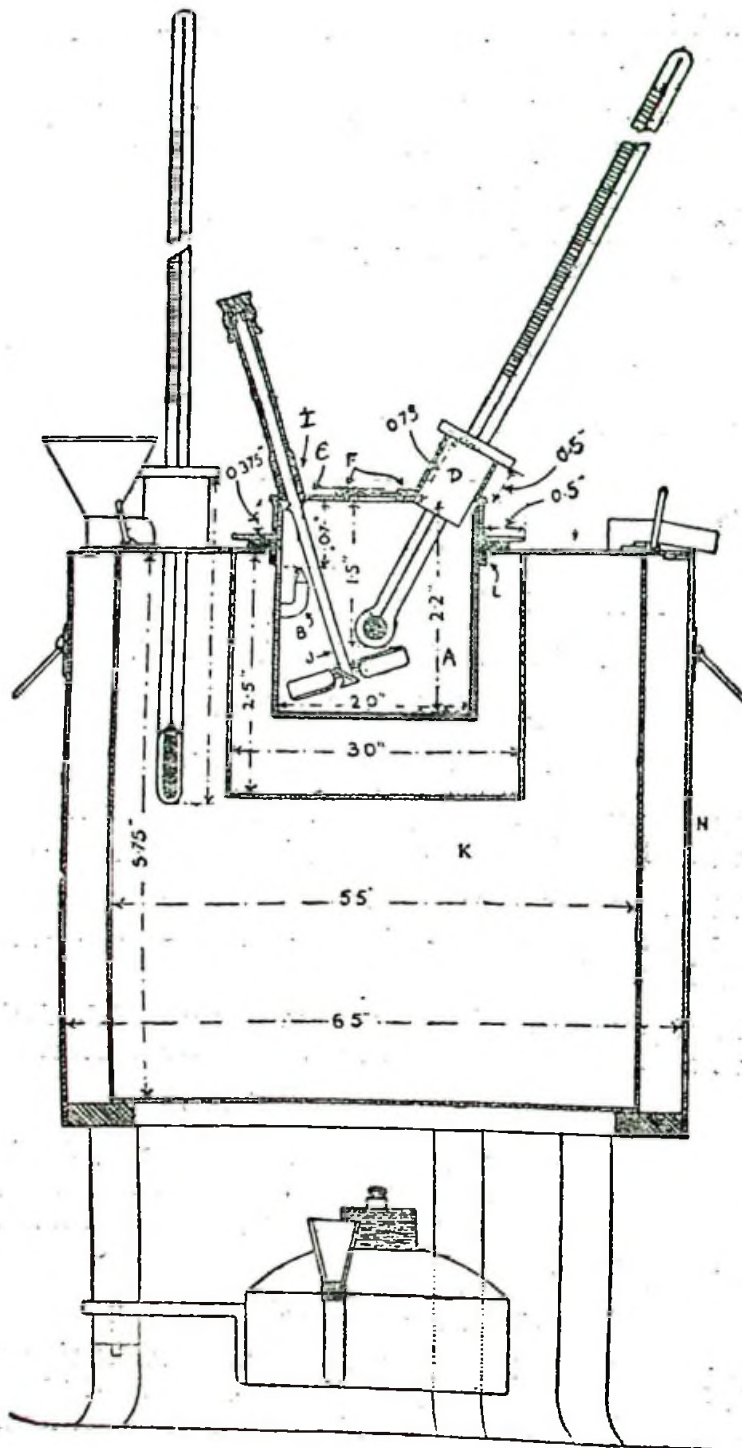
Oil Cup.—The oil cup consists of a cylindrical vessel open at the top and fitted on the outside with a flat circular flange projecting at right angles.

Within the cup, fixed through the wall and silver soldered or brazed in place, there is a gauge consisting of a piece of wire bent upwards and terminating in a point.

Material.—Brass or gun-metal.

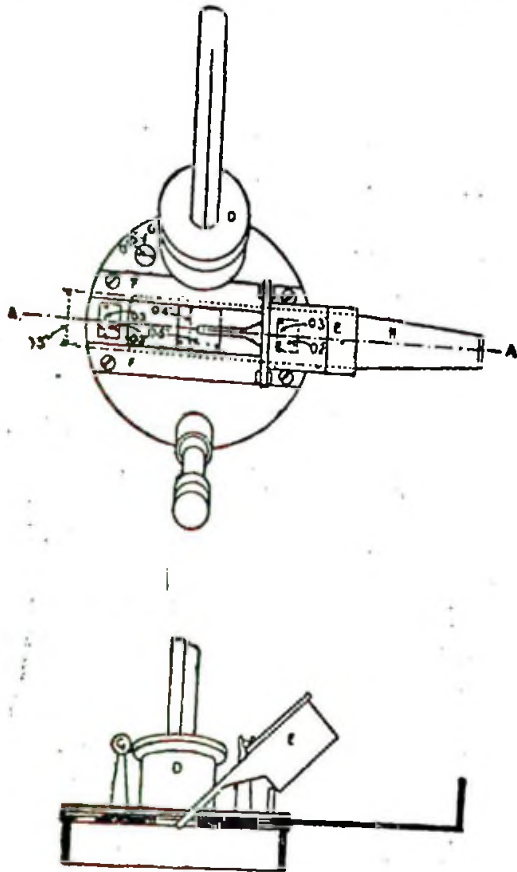
	Dimension.	Tolerance. in.
Cup, wall and bottom thickness	17 I.W.G. ...	—
Cup, internal diameter	2 in. ...	+0.05
Cup, internal depth	2.2 in. ...	+0.05
Flange, thickness	17 I.W.G. ...	—
Flange, width	0.5 in. ...	+0.05
Flange, distance of upper side from top edge of cup ...	0.375 in. ...	+0.05
Gauge, thickness, not less than	10 I.W.G. ...	—
Gauge, distance of point from level of upper edge of cup ...	0.7 in. ...	+0.005

Cover.—The cup is provided with a close-fitting cover with a downward projecting rim barely reaching the flange on the cup. The downward projecting rim is made solid with the



ABEL FLASH-POINT APPARATUS.

top or silver soldered or brazed in place. Upon the cover are mounted a thermometer socket, trunnions to support an oil test-lamp, a pair of guides in which a slide moves, and a white



SECTION ON A. A.

COVER OF ABEL FLASH-POINT APPARATUS.

(SLIDE OPEN.)

bead. The top of the cover is pierced by three rectangular holes symmetrically placed on a diameter, one in the centre and the other two as close as practicable to the inner sides of the cover-rim and opposite each other. These three holes are covered or uncovered by means of a slide moving in suitably disposed guides. The slide has two perforations, one corresponding in all particulars to the centre hole in the cover and the other to one of the holes at the side. The movement of the slide is restricted by suitable stops, and its length and the disposition of the holes are such, that at the outer extremity of the movement of the slide, the holes in the cover are simultaneously just completely opened and at the inner extremity of the movement of the slide they are completely closed.

The trunnions supporting the test lamp are fixed on the top of the guides and the lamp is mounted in the trunnions so that it is free to oscillate. The lamp is provided with a jet to contain a wick and is so arranged that when the slide is moved so as to uncover the holes, the oscillating lamp is caught by a pin fixed in the slide and tilted over the central hole in such way that the lower edge of the cover bisects the circle formed by the bore of the jet when in the lowest position. The flame then occupies a central position within the hole in both directions.

A suitably mounted gas-jet may be substituted for the lamp.

	Dimension.	Tolerance. in.
Cover, thickness	0.05 in.	+0.015
Cover, central hole, length (in direction of slide)	0.5 in.	+0.005
Cover, central hole, width	0.4 in.	+0.005
Cover, peripheral holes, length (in direction of slide)	0.2 in.	+0.005
Cover, peripheral holes, width	0.3 in.	+0.005
Slide, thickness	20 I.W.G.	—
Slide, width of upper surface	0.5 in.	+0.01

(exc:ss only).

	Dimension.	Tolerance. in.
Lamp, overall length of jet ...	Approx. 0.6 in.	To suit the requirements for the position of the jet when tilted.
Lamp, bore of jet at end ...	0.0625 in.	+0.005
Bead, diameter ...	0.15 in.	+0.01
Thermometer Socket : Internal diameter ...	0.6 in.	+0.01
Length of short side measured from under surface of cover	Approx. 0.5 in.	—
Length of long side measured from under surface of cover	Approx. 0.75 in.	—
Distance of centre of socket from centre of cover measured on the under side.	Approx. 0.7 in.	—
These dimensions are subject to the correct placing of the thermometer when in position.		
Vertical depth of lowest part of thermometer below centre of under side of cover.	1.5 in.	+0.1

The thermometer socket is in the form of a split tube, mounted on a diameter at right angles to the diameter through the centre of the holes, and fitted at such an angle as to bring the bulb of the thermometer, when in place, vertically below the centre of the cover and at the correct distance from it.

A white bead, the dimensions of which represent the size of test flame to be used, is mounted in a visible position on the cover.

Materials.—All parts excepting bead, brass or gun metal. Bead, ivory or other suitable material.

Cover fitted with stirrer.—Provision may be made in the cover for the reception of a stirrer which projects into the oil cup, for use with viscous materials only.

A bush is mounted on the cover in a position diametrically opposite the thermometer mounting, and its length is such and it is set at such an angle that the stirrer rod clears the oil-level gauge and the blades operate below the level of, and without fouling, the thermometer bulb. The bush is placed as near as practicable to the outer edge of the cover.

	Dimension.	Tolerance. in.
Stem, length, overall ...	4 in.	+0.1
Stem, length, lower end to point of attachment of blades ...	Approx. 0.1 in.	—
Stem, length, lower end to upper surface of collar ...	1.9 in.	+0.1
Stem, length, upper surface of collar to lower end of thread ...	2 in.	+0.1
Stem, diameter ...	Approx. 0.125 in.	—
Stem, diameter of collar ...	Approx. 0.25 in.	—
Stem, thread ...	7 B.A.	—
Blades, thickness ...	17 I.W.G.	—
Blades, length excluding root ...	0.5 in.	+0.01
Blades, breadth (all corners of blades rounded) ...	$\frac{5}{16}$ in. (0.3125 in.)	+0.01
Blades, angle ...	Approx. 45°	—
Sleeve, length ...	To suit stem giving free rotation with no appreciable vertical play when screwed home.	—
Diameter of bore ...	Sliding fit on stem	—
Diameter of collar ...	Approx. 0.25 in.	—

The stirrer consists of a round stem having four blades or vanes silver soldered in place at one end. A collar is fixed on the stem so that when the stem is inserted into the bush from below, it is arrested at a position such that the correct length protrudes into the oil cup. The top end of the stem is reduced and screwed.

A long sleeve having an internally screwed, knurled knob soldered to its upper end, is passed over the upper end of the stem and screwed home. The length of the sleeve is such that a flat-faced collar at its lower end just comes into contact with the upper end of the bush, leaving the stirrer free to rotate without appreciable vertical play.

A flat-headed cylindrical plug is provided for insertion in the bush when the stirrer is not in use.

Material.—Brass or gun-metal.

Heating vessel.—The heating vessel or bath consists of two flat-bottomed cylindrical copper vessels placed coaxially one inside the other and soldered at their tops to a flat copper ring, greater in outside diameter than the larger vessel and of smaller inside diameter than the smaller vessel. The space between the two vessels is thus totally enclosed and is used as a water jacket.

	Dimension.	Tolerance, in.
Inner vessel, thickness...	24 I.W.G.	—
Inner vessel, internal diameter	3 in.	+0.05
Inner vessel, internal depth	2.5 in.	+0.05
Outer vessel, thickness, not less than	24 I.W.G.	—
Outer vessel, internal diameter	5.5 in.	+0.1
Outer vessel, internal depth	5.75 in.	+0.1
Top plate, thickness, not less than	20 I.W.G.	—
Top plate, outer flange projection	0.375 in.	+0.1
Top plate, diameter of central hole	To suit ebonite or fibre ring. Clearance not to exceed 0.1 in.	—
Ebonite or fibre ring, internal diameter	Easy fit on oil cup.	—
Ebonite or fibre ring, external diameter of flange	2.75 in.	+0.02
Ebonite or fibre ring, overall depth of spigot	0.25 in.	+0.02
Ebonite or fibre ring, thickness, flange and spigot	0.08 in.	+0.005
Ebonite or fibre ring, screws, C.S.	8 B.A. × 0.15 in.	—
Thermometer socket, internal diameter	0.6 in.	±0.01
Thermometer socket, height from top of plate	0.75 in.	+0.05

An ebonite or fibre ring of right-angle section is fitted into the hole in the centre of the flat ring forming the top of the bath and, when the apparatus is in use, the oil cup fits into, and its flange rests upon, this ebonite or fibre ring so that the oil cup is centrally disposed within the heating vessel. The ebonite or fibre ring is secured in place by means of six small screws having their heads sunk below the surface of the ring, to avoid metallic contact between the bath and the oil cup.

A split socket, similar to that on the cover of the oil cup, but set vertically, allows a thermometer to be inserted into the water-space. A funnel and overflow pipe also communicate with the water-space through the top plate and two loop handles are provided thereon.

The bath rests upon a cast-iron tripod stand, to the ring of which is attached a cylindrical copper jacket not less than 24 I.W.G flanged inwards at the top, and of such dimensions that the bath, while resting firmly on the iron ring, just touches with its outward projecting flange the inward-turned flange of the jacket. Two handles are provided on the outer jacket.

Diameter of the outer jacket 6.5 inches ± 0.1 inch.

Spirit lamp.—A spirit lamp is provided for raising the temperature of the water bath, but any other suitable means may be employed for this purpose.

Thermometers.—Two thermometers are provided, the one for ascertaining the temperature of the bath, the other for determining the flashing-point.

Oil Cup Thermometer.

Type	...	Mercury in glass, nitrogen filled, graduated on the stem, enamel back.
Length	...	Approximately 9 inches.
Stem	...	Diameter 0.24 to 0.28 inch.

Bulb	...	...	Spherical; made of normal glass approved by the Board of Trade Diameter, 0.35 inch \pm 0.05 inch.
Range	...	...	50° to 150° F. with expansion chamber. Distance from the bottom of the bulb to the 50° line, 2.75 inches to 3.15 inches. Distance from the 50° line to the 150° line, not less than 4.75 inches.
Immersion	...	...	A swelling is made in the stem to ensure that the thermometer shall be fixed in its brass collar so that the distance from the top of the collar to the bottom of the bulb is 2.40 inches \pm 0.05 inch.
Graduation	...	...	Scale graduated in 1° F. divisions. Every 5° and every 10° to be indicated by longer lines. Figured at every 10° in full.
Marking	...	...	"Abel Oil Cup": Identification number, "Fahrenheit": maker's or vendor's name or trade mark.

Water Bath Thermometer.

Type	...	...	Mercury in glass, nitrogen filled, graduated on the stem, enamel back.
Length	...	...	Approximately 9 inches.
Stem	...	...	Diameter, 0.24 to 0.23 inch.
Bulb	...	...	Cylindrical, made of a normal glass approved by the Board of Trade. Length approximately 0.8 inch. Diameter, not to exceed the diameter of the stem.
Range	...	...	99° to 190° F. with expansion chamber. Distance from the bottom of the bulb to the 90° line, 3.95 inches to 4.35 inches. Distance from the 90° line to the 190° line, not less than 3.55 inches.
Immersion	...	...	A swelling is made in the stem to ensure that the thermometer shall be fixed in its brass collar so that the distance from the top of the collar to the bottom of the bulb is 3.5 inches \pm 0.1 inch.
Graduation	...	...	Scale graduated in 1° F. divisions. Every 5° and 10° to be indicated by longer lines. Figures at every 10° in full.
Marking	...	...	"Abel Water Bath": Identification number, "Fahrenheit": maker's or vendor's name or trade mark.

The brass collar of the thermometer is in each case of the following dimensions:—

Outside diameter	—	push fit in socket.
Thickness of tube	—	22 I. W. G.
Thickness of flange	—	0.1 inch \pm 0.001 inch.

III. (II) METHOD.

(1) FOR PETROLEUM FLASHING BELOW 90° E.

The test apparatus shall be placed for use in a position where it is not exposed to currents of air or draughts.

The heating vessel or water-bath shall be filled by pouring water into the funnel until it begins to flow out at the spout of the vessel. The temperature of the water at the beginning of the test shall be 130° F., and no heat shall be applied to the water-bath during the test. When a test has been completed and it is desired to make another test the water-bath shall be again raised to 130° F., which may conveniently be done while the petroleum cup is being emptied, cooled and refilled with a fresh sample to be tested. The next test is then proceeded with.

If an oil test-lamp is being used it shall be prepared by fitting it with a piece of flat plaited candle-wick and filling it with colza or rape oil up to the lower edge of the opening of the spout or wick tube. The lamp shall be trimmed so that when lighted it gives a flame of about 0.15 of an inch diameter, and this size of flame, which is represented by the projecting white bead on the cover of the oil-cup is readily maintained by simple manipulation from time to time with a small wire trimmer. A gas test-flame may be employed, and if so, the size of the jet of flame shall be adjusted to the size laid down above.

The bath having been raised to the proper temperature, the cup shall be placed on a level surface in a good light, and the oil to be tested shall be poured into it, until the level of the liquid just reaches the point of the gauge which is fixed in the cup. Before a test is begun the temperature of the oil shall be determined and shall be brought to approximately 60° F. The cover, with the slide closed, shall then be put on to the cup and pressed down so that its edge rests on the rim of the cup, and the cup shall be so placed into the bath or heating vessel, every care being taken to avoid wetting the sides of the cup with the oil. The thermometer in the lid of the cup has been adjusted so as to have the correct immersion when the brass collar of the thermometer is properly seated, and its position shall not in any circumstances be altered. When the cup has been placed in the proper position, the scale of the thermometer faces the operator.

The test-lamp shall then be placed in position upon the lid of the cup. When the temperature has reached 60° F. the operation of testing shall be begun, the test flame being applied once for every rise of one degree, in the following manner:—

The slide shall be slowly drawn open while a metronome, set at 75 to 80 beats per minute, beats three times and shall be closed during the fourth beat. A pendulum of 24 inches effective length may be used in place of the metronome, counting one beat from one extremity of the swing to the other.

The barometric pressure shall be observed and recorded. No corrections shall be made except in case of dispute, when the flashing-point figure shall be corrected according to the following rule:—

For each inch (25.4 mm.) below 29.92 in. (760 mm.) barometric reading add 1.6° F. to the flashing-point.

For each inch (25.4 mm.) above 29.92 in. (760 mm.) barometric reading subtract 1.6° F. from the flashing point.

(2) FOR PETROLEUM FLASHING BETWEEN 90° F. AND 120° F.

The air-chamber which surrounds the oil-cup shall be filled with cold water at a depth of 1.5 inches, and the heating vessel or water-bath filled as usual, but also with cold water. The lamp shall then be placed under the apparatus and kept there during the entire operation, and the temperature of the oil raised at the rate of 2° F. to 2.25° F. per minute, the testing being carried out as laid down in the previous section, except that the test flame shall first be applied when the temperature has reached 80° F.

(3) FOR SOLID PETROLEUM MIXTURES.

Solid petroleum mixtures are to be tested in the Abel apparatus in the following manner:—

The solid mixture must be cut into cylinders 1.5 inch long and 0.25 inch in diameter by means of a cork borer or other similar cutter having the correct internal diameter. These cylinders are to be placed in the petroleum cup of the testing apparatus in a vertical position in such number as will completely fill the cup. The cylinders must be in contact with one another, but must not be so tight'y packed as to be deformed in shape.

Five or six of the cylinders in the centre of the cup must be shortened to 0.5 inch to allow space for the thermometer bulb.

The air bath of the testing apparatus must be filled to a depth of 1.5 inch with water. The water bath must then be raised to, and maintained at, a temperature of about 80° F.

The cup must then be placed in the air bath, and the temperature of the sample must be allowed to rise until the thermometer in the oil-cup shows 75° F., when the test flame must be applied.

If no flash is obtained, this temperature must be maintained constant in the oil-cup for one hour, at the expiration of which time the test flame must again be applied.

If a flash is obtained, the solid mixture will be subject to the provisions of the Petroleum Act, 1934.

NOTE.—It may, in many cases, save time in testing samples of petroleum mixtures to apply the test flame after the sample has been a few minutes in the cup and while still at the temperature of the room in which the test is being carried out, provided that this temperature is below 76° F. If a flash is obtained by this means, it is unnecessary (for the purpose of the Petroleum Act) to proceed with the test at a higher temperature.

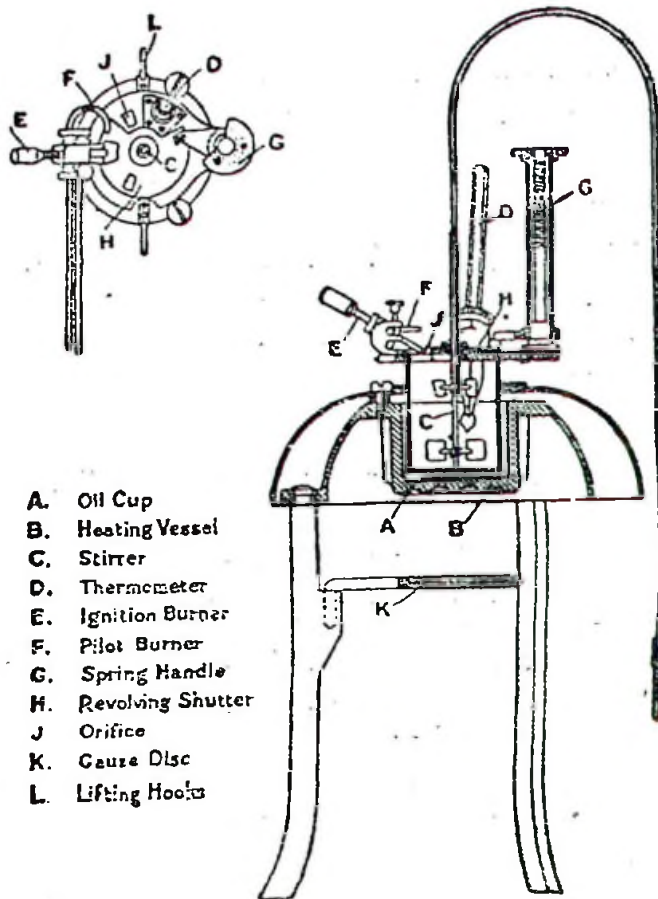
IV. (I) THE PENSKY-MARTENS APPARATUS.

The standard Pensky-Martens Closed Tester shall be used for determining the flashing-point of all petroleum products having a flashing point above 120° F.

Every instrument shall be marked with the letters I.P.T., an identification number (on the cup, cover and top plate) and the name of the maker or vendor, such stamping implying a guarantee that the instrument complies with the requirements specified below.

The Pensky-Martens Tester shall include the following major parts:—

Cup.—The cup of the standard Pensky-Martens Tester shall be made of brass and shall satisfy the following dimensional specifications —



- A. Oil Cup
- B. Heating Vessel
- C. Stirrer
- D. Thermometer
- E. Ignition Burner
- F. Pilot Burner
- G. Spring Handle
- H. Revolving Shutter
- J. Orifice
- K. Gauge Disc
- L. Lifting Hooks

THE PENSKY-MARTENS CLOSED TESTER.

Dimensions.	Normal.	Inches. Tolerances.
Inside diameter below filling mark	2.000	+0.050
Difference, inside and outside diameters below filling mark	0.125	+0.010
Inside height	2.200	+0.050
Thickness of bottom	0.095	+0.025
Distance from rim to filling mark	0.860	+0.015
Distance lower surface flange to bottom of cup	1.795	+0.015

The inside of the cup may be turned to a slightly larger diameter above the filling mark and the outside may be tapered above the flange but the wall thickness at the upper edge shall be not less than 0.04 in. The flange should be approximately 0.5 in. wide and approximately 0.125 in. thick. It shall be equipped with devices for locating the position of the lid on the cup and the cup centrally in the stove. A handle, attached permanently to the flange of the cup, is a desirable accessory.

NOTE.—If the bottom of the cup is affixed it shall be brazed or hard soldered.

Stirring device.—The lid shall be equipped with a stirring device consisting of a vertical steel shaft, not less than 0.1 in. nor more than 0.125 in. in diameter, mounted in the centre of the cup, carrying two two-bladed brass propellers, and provided with any convenient means for operating. The blades of both propellers shall be approximately 0.3 in. wide and shall be set at an angle of approximately 45°. The smaller (upper) propeller shall have an over-all diameter of approximately 0.75 in. The larger (lower) propeller shall have an over-all diameter between 1.25 and 1.75 in. The thickness of the propeller blades shall be not less than 0.048 in. nor more than 0.08 in., which limits correspond respectively to No. 18 and No. 14 S.W.G. The propeller blades shall be brazed or hard soldered to collars on the vertical shaft and the collars shall have horizontal and vertical dimensions not greater than 0.4 in.

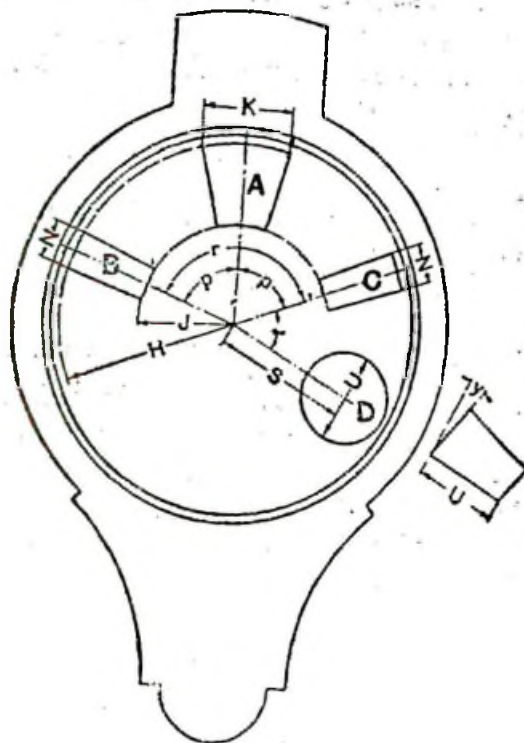
The plane of the centre of the upper propeller shall be 0.4 in. below the level of the rim of the cup. The plane of the centre of the lower propeller shall be 2.0 in. below the level of the rim of the cup. The level of the rim of the cup is in effect the level of the plane part of the portion of the lower surface of the lid inside the rim.

Cover proper.—The cover proper shall be of brass and shall have a rim projecting downward almost to the flange of the cup and fitting the outside of the cup closely. The thickness of the cover, measured just inside the rim, shall be not less than 0.03 in. nor more than 0.08 in. There shall be a proper locating device engaging with a corresponding locating device on the flange of the cup.

There shall be four openings in the cover.

Opening A is an area defined by arcs of two concentric circles and the intersected lengths of two radii. The radius of the outer circle shall be not less than 0.94 in. nor more than 0.97 in. The chord of the arc of the outer circle shall be not less than 0.5 in. nor more than 0.54 in.

Openings B and C are equal areas, each of the same general form as opening A but of approximately half the (angular) width. The radii of the defining inner and outer circles shall be within the limits specified for the radii of the two circles, arcs of which partially define opening A. The chord of the outer arc for opening B or opening C shall be not less than 0.19 in. nor more than 0.22 in. The sum of the areas of openings B and C shall be not less than 75 per cent, nor more than 100 per cent of the area of opening A.



H	Minimum	0.94 in.,	maximum	0.97 in.
J	"	0.53 in.,	"	0.56 in.
K	"	0.50 in.,	"	0.54 in.
N	"	0.19 in.,	"	0.22 in.
S	Approximately	0.75 in.		
U	"	0.5 in.		
Angles p Equal.				
Angle r	Minimum	135°,	maximum	140°.
" t	"	50°,	"	60°.
" y	"	10°,	"	15°.

COVER OF PENSKY-MARTENS TESTER.

Openings B and C shall be equally distant from opening A, and radii drawn through each of their centres shall be at an angle of not less than 135° nor more than 140°.

Openings A, B, and C need not conform exactly to the shape of geometrical figures bounded by arcs of two concentric circles and intersected length of radii. Their boundaries must, however, fall on or between the lines indicated by the limiting values of the dimensional specification of the preceding text.

Opening D is a split tube to grip the thermometer collar. It shall be set at an angle of not less than 10° nor more than 15° from the perpendicular. Its centre is approximately 0.75 in. from the centre of the lid and on a radius at an angle of not less than 50° nor more than 60° from the radius passing through the opening C. Its height shall be such that, when a standard thermometer is in position, the bottom of the bulb shall be 1.5 in., \pm 0.1 in., below the level of the rim of the cup (which corresponds to the lower surface of the portion of the lid inside the rim).

Shutter.—The lid shall be equipped with a brass shutter, approximately 0.1 in. thick, operating on the plane of the upper surface of the lid. The shutter shall be so shaped and mounted that it rotates on the surface of the lid about an axis normal to the lid, and through

its centre, between two stops so placed that when in one extreme position the openings A, B, and C of the lid are completely closed and when in the other extreme position these openings are completely opened.

Flame exposure device.—The tip of the flame jet shall have an orifice 0.027 in. to 0.03 in. diameter. The flame-exposure device shall be equipped with an operating mechanism which, when the shutter is in the "open" position, depresses the tip so that the centre of the orifice is between the plane of the under and upper surfaces of the lid proper, at a point on a radius passing through the centre of the larger opening A and approximately 0.1 in. from the outer edge of the opening.

The test flame shall be approximately spherical and shall be regulated to be of the same mean diameter as a bead 0.16 in. in diameter of some suitable material mounted on the lid.

The mechanism operating the shutter should be of the spring type and constructed so that when at rest the shutter shall completely close the three openings. When operated to the other extreme the three openings in the lid shall be fully open and the tip of the exposure tube shall be fully depressed.

NOTE.—A pilot flame for automatic relighting of the test flame should be provided.

Where gas is not available, an oil burner shall be used as the test flame, the position of which shall correspond with that of the gas flame previously specified.

Stove.—Heat shall be supplied to the cup by means of a properly designed stove which is equivalent to an air bath. This stove shall consist of (1) an air bath and (2) a top plate on which the flange of the cup rests.

Air bath.—The air bath shall have a cylindrical interior 1.625 in. to 1.6 in. deep and a diameter not less than 0.125 in. nor more than 0.156 in. greater than the outside diameter of the cup, with the minimum clearance of 0.05 in. The air bath shall be a flame-heated metal casting.

NOTE.—The casting shall be so designed and used that the temperature of bottom and walls is approximately the same. On this account it should be not less than 0.25 in. thick. The apparatus shall be designed so that products of combustion of the flame cannot come into contact with any part of the cup.

Top plate.—The top plate shall be of metal. The total distance from the upper surface of the plate to the bottom of the air bath shall exceed the distance from the under surface of the flange to the bottom of the cup by not less than 0.063 in. nor more than 0.125 in.

The top plate shall be mounted with an air gap between it and the air bath. The top plate may be attached to the air bath by means of three screws and spacing bushings. The spacing bushings should be of proper thickness to define the air gap which shall be not less than 0.125 in. nor more than 0.187 in. The spacing bushings shall be not more than 0.375 in. in diameter.

Thermometers.—A low range thermometer shall be used with the Standard Pensky-Martens tester for determining the flashing-point above 120° F. The thermometer shall comply with the specification given below.

The thermometers shall conform to the following general specification:—

Type.—Mercury in glass, except where otherwise stated. Engraved stem. Nitrogen filled.

Stem.—The stem shall be made of lead glass or other suitable glass. Enamel back.

Bulb.—The bulb shall be made of a suitable thermometric glass approved by the National Physical Laboratory. At present these glasses are:—

	Identification mark.	Approved for temperatures up to.
Normal glass made by James Powell and Sons, Ltd.	Single blue stripe ..	350°C.*
Normal glass made by Frank Toney and Co., Ltd.	Two blue stripes ...	350°C.*
Normal glass, Jena 111 made by Schott and Genossen.	Purple stripe	350°C.*
Normal glass, Gege Eff, made by Glaswerk Guxtav Fischer.	Blue and a red stripe ...	350°C.
Corning Borosilicate made by Corning Glass Co.	... ..	450°C.
Jena 59111 made by Schott and Genossen	... ..	453°C.
Jena 2954111 made by Schott and Genossen ..	Single black stripe ...	450°C.

*May be used up to 400°C, if a careful examination of the zero is made periodically.

Expansion and contraction chambers.—No contraction chamber shall be above the immersion line and no enlargement of the bore shall be within 10mm. of the immersion line or of any part of the scale.

Graduation and figuring.—The graduation lines shall be clearly etched, and of uniform thickness not exceeding 0.15 mm. The lines shall all be at right angles to the axis of the thermometer. When the thermometer is viewed from the front and in a vertical position the lines shall all finish on a line parallel to the axis on the left hand side. Certain of the graduation lines shall be extended on the right hand side but the shortest graduations shall not extend across the bore. When the diameter of the tube permits the figures shall be upright when the thermometer is viewed from the front and in a vertical position, and should preferably be placed so that they would be intersected by the line to which they refer if it were extended.

Marking.—In addition to the special markings given in the table, each thermometer shall be marked with an identification number, and the maker's, or vendor's, name or trade mark:—

Name and special marking.	"I. P. T. P. M.—Low."
Dimensions— Stem, diameter	6.7 mm.*
Bulb, shape	Round.
Bulb, length ... ..	...
Bulb, diameter	8 mm. max.
Overall length, + 5 mm.	275 mm.
Length of graduated portion	150-180 mm.
Distance, bottom of bulb to 20° mark	70-85 mm.
Range	20°F. to 230°F.
Graduation	1°F.
Longer lines at each	5°F. and 10°F.
Figured at each	10°F.
Expansion chamber	Required.
Immersion	2.2 in.
Top finish	Glass ring.

Each thermometer shall be mounted securely in a thermometer collar so that from the under-side of this collar to the bottom of the bulb the distance is 2.1 in. (+0.05 in.). The thermometer collar shall have an outside diameter of 0.5 in., +0.002 in., and a flange 0.1 in., +0.01 in., in thickness. The cement used to fasten the thermometer into the collar shall be of such a nature that it will withstand the action of oil up to the highest temperature at which the thermometer is used.

Drying of the sample.

If gas oil or fuel oil is being tested, the sample shall be dried by the following method:—

One hundred grams of well-dried granular calcium chloride is placed in a dry wide-mouth stoppered glass bottle.

*A swelling to be provided to ensure the location of the thermometer collar at the correct point.

Two hundred and fifty millilitres† of the oil is then poured upon the calcium chloride. The stopper is secured in position by tying. The bottle is then well-shaken and is stood in a vessel of water, the level of the water being up to about one-third of the height of the oil in the bottle. The water is next raised to a temperature of 50° C. (120° F.), and is maintained at this temperature for a period of seven hours, the bottle and its contents being well-shaken up at intervals of about an hour. At the end of this treatment the bottle and its contents are allowed to cool to atmospheric temperature; the bottle is then opened and sufficient of the oil for test filtered through paper on a Buchner funnel.

IV. (II) METHOD.

All parts of the cup and its accessories shall be thoroughly clean and dry before starting the test. Particular care should be taken to avoid the presence of any gasoline or naphtha used to clean the apparatus after a previous test.

The cup shall be filled with the oil to be tested up to the level indicated by the filling mark.

The lid shall be placed on the cup and the latter set in the stove. Care should be taken to have the locating devices properly engaged. The thermometer shall be inserted.

The test flame shall be lighted and adjusted so that it is of the size of a bead 0.16 in. in diameter.

Heat shall be supplied at such a rate that the temperature read on the thermometer increases not less than 9 or more than 11 degrees per minute. The stirrer shall be turned at a rate of approximately 60 revolutions per minute.

Application of the test flame shall be made at each temperature reading which is a multiple of 2° F. up to 220° F. For the temperature range above 220° F., application shall be made at each temperature reading which is a multiple of 5° F. The first application of the test flame shall be made at a temperature at least 50° F. below the actual flashing-point. Application of the test flame shall be made by operating the device controlling the shutter and test-flame burner so that the flame is lowered in one-half second, left in its lowered position for one second, and quickly raised to its high position. Stirring shall be discontinued during the application of the test flame.

The flashing-point is taken as the temperature read on the thermometer at the time of the flame application that causes a distinct flash in the interior of the cup. The true flash must not be confused with the bluish halo that sometimes surrounds the test flame for the applications preceding the one that causes the actual flash.

The barometric pressure shall be observed and recorded. No corrections shall be made except in case of dispute, when the flashing-point figure shall be corrected according to the following rule:—

For each inch (25.4 mm.) below 29.22 in. (760 mm.) barometric reading add 1.6° F. to the flashing-point

For each inch (25.4 mm.) below 29.22 in. (760 mm.) barometric reading subtract 1.6° F. from the flashing-point.

V. THE FLASHING-POINT.

If a flash takes place at any temperature below 76° F. the temperature at which it occurs is noted. Two fresh portions of the sample are then to be successively tested in a similar manner and the results recorded. If no greater difference than two degrees Fahrenheit exists between any two of the three recorded results and if in no instance the flash has taken place within eight degrees Fahrenheit of the temperature at which the testing was commenced, the average of the three readings gives the flashing-point recorded by that particular instrument, but without either apparatus correction or thermometer correction. In the event of there being a greater difference than two degrees Fahrenheit between any two of the readings, or if the flash has occurred within eight degrees of the temperature at which the testing was commenced, the series of tests is to be rejected and a fresh series of three similarly obtained.

If, however, a flash has occurred at or below 64° F. when the test was applied in the manner above described, the next test shall be commenced 10° F. lower than the temperature at which the flash had been previously obtained, and this procedure shall be continued until the results of three consecutive tests do not show a greater difference than two degrees Fahrenheit and until a flash has not occurred in any of the three tests within eight degrees

†If a smaller quantity of oil is to be dried the amount of calcium chloride must be adjusted in proportion.

Fahrenheit of the temperature at which the test was commenced. Provided always that if at the commencement of the series of tests a flash has occurred on the first application of the test-flame at 66°F. and if a flash has also occurred on the first application of the flame in each of the three successive tests in which the test-flame is first applied at 66°F. as above directed, the testing officer shall certify that the petroleum has a flashing-point below 67°F. and the sample shall be reported as "dangerous petroleum".

If a temperature of 76°F. has been reached without a flash occurring, the application of the test-flame is to be continued at every degree rise of temperature until a temperature of 89°F. has been reached. If no flash occurs up to this point, the test shall be continued on a fresh sample as in Section III (II) (2) above.

If no flash occurs up to 120°F., the flashing-point shall be determined by the Pensky-Martens apparatus and method, as described above.

SCHEDULE IV.

[SEE RULE 1 (2).]

Modifications of the rules in their application to Burma.

1 In rule 3—

(a) in clause (b) for the words "in India" the words "appointed by the Government of Burma" shall be substituted.

(b) for clause (d), the following clause shall be substituted, namely:—

"(d) "District Authority" means—

(i) in Rangoon, the Commissioner of Police;

(ii) in the Yenangyaung and Chauk Notified Oilfields, the Warden, Yenangyaung; and

(iii) elsewhere, the District Magistrate."

2. The heading "Part I—General" preceding rule 5 and the heading "Part II—Importation by sea" preceding rule 7 shall be omitted.

3. For rule 7, the following shall be substituted, namely:—

"7. *Importation by sea.*—Petroleum shall not be imported by sea except into the ports of Akyab, Bassein, Moulmein and Rangoon".

4. In rule 8 the words, figure and brackets "sub-rule (1) of" shall be omitted.

5. In rule 9 for the words "British India" the word "Burma" shall be substituted.

6. For clause (a) of sub-rule (2) of rule 14, the following clause shall be substituted, namely:—

(a) the testing officer's report on any petroleum;"

7. In rule 18 for the words "British India" the word "Burma" shall be substituted.

8. The heading "Part III—Importation by Land" and rules 20 to 23 shall be omitted.

9. In rule 30 for the words "Governor General in Council" the words "Government of Burma" shall be substituted.

10. To rule 31 the following proviso shall be added, namely:—

"Provided that this rule shall not apply to open country craft carrying such class of crude petroleum in bulk as the Warden of the Oilfields, Yenangyaung, may specify in writing and subject to such conditions as he may impose".

11. In clause (c) of rule 38 for the words "Governor General in Council" the words "Government of Burma" shall be substituted.

12. In rule 48—

(a) in sub-rule (1) the words figure and brackets "sub-rule (1) of" wherever they occur shall be omitted;

(b) sub-rule (2) shall be omitted and sub-rule (1) shall be renumbered as rule 48.

13. For rule 49, the following rule shall be substituted, namely:—

"49. *Transport by sea of petroleum which has been tested.*—Petroleum which has been tested at one of the ports specified in rule 7 may be transported to any other port and the provisions of rules 8 to 14, 16 and 17 shall apply to such petroleum when it arrives at such other port."

14. Rule 50 shall be omitted.
15. In sub-rule (1) of rule 81 after the figures "68" the figures "70" shall be inserted.
16. In sub-rule (5) of rule 115 for the words "Governor General in Council" the words "Government of Burma" shall be substituted.
17. In sub-rule (1) of rule 122 and in rule 129 for the words "Governor General in Council" the words "Government of Burma" shall be substituted.
18. "In rule 132—
 - (a) in sub rule (1) for the words "the Chief Inspector" the words "an officer appointed by the Government of Burma in this behalf" shall be substituted;
 - (b) in sub-rule (2) for the words "The Chief Inspector" the words "Such officer" shall be substituted.
19. In rules 135, 138, 140 (2), 141 (2), 143 and 145 for the words "Chief Inspector" the words "officer appointed under rule 132" shall be substituted.
20. In sub-rule (1) of rule 155—
 - (a) for the words "British India" the word "Burma" shall be substituted; and
 - (b) for the proviso the following proviso shall be substituted, namely:—

"Provided that no sample need be taken of petroleum which is declared to be dangerous".
21. In Schedule II—
 - (a) in column 3 of Form A, for the words "British India" the word "Burma" shall be substituted;
 - (b) in column 1 of Form D, in entry 2 the word "Province" shall be omitted; and
 - (c) in Forms K, L and M for the words "*Chief Inspector of Explosives in India*" the words "*Chief Inspector of Explosives*" shall be substituted.

SCHEDULE V.

[SEE RULE 1 (3).]

Modifications of the rules in their application to Aden.

1. In rule 3—
 - (a) for clause (b) the following clauses shall be substituted, namely:—
 - "(b) 'Chief Commissioner' means the Chief Commissioner of Aden;
 - "(bb) 'Chief Inspector' means any officer appointed by the Chief Commissioner in this behalf";
 - (b) for clause (d) the following clause shall be substituted, namely:—

"(d) 'District Authority' means the District Magistrate";
 - (c) in clause (h) the words "but does not include a well-head tank" shall be omitted; and
 - (d) clause (n) shall be omitted.
2. The heading "Part I—General" preceding rule 5 and the heading "Part II—Importation by sea" preceding rule 7 shall be omitted.
3. Rule 7 shall be omitted.
4. In rule 8 for the words "any of the ports mentioned in sub-rule (1) of rule 7" the words "the port of Aden" shall be substituted.
5. In rule 9 the words "at that port or at any other port in British India" shall be omitted.
6. In rule 18 for the words "whether within or beyond the limits of British India" the words "beyond Aden" shall be substituted.
7. The heading "Part III—Importation by land" and rules 20 to 23 shall be omitted.
8. Rules 30 to 38 shall be omitted.

9. In sub-rule (4) of rule 39 the words "by vessels certified under rule 30" shall be omitted.

10. For rule 42, the following rule shall be substituted, namely:—

"42. *Naked lights, fire and smoking prohibited during transhipment.*—No fire, naked light, fuses, matches or other appliance for producing ignition or explosion and no smoking shall be allowed on board any barge, flat or lighter used for the transhipment of petroleum to or from any vessel within the limits of the port:

Provided that nothing in this rule shall prevent the use on a self-propelled barge of the machinery of propulsion".

11. Rules 48 to 50, the heading "Part III.—Coastwise transport of dangerous petroleum otherwise than in bulk" and rules 51 to 62 shall be omitted.

12. In rule 83 the words "in any area in which operations for the winning of natural petroleum or natural gas or both are carried on or" and the words "refineries and" shall be omitted.

13. In rule 90 the proviso shall be omitted.

14. In sub-rule (1) of rule 100 the words "other than a well-head tank" shall be omitted.

15. In sub-rule (1) of rule 101 the words "other than well-head tanks" shall be omitted.

16. In rule 102 the words "well-head tanks or" shall be omitted.

17. In rule 115 sub-rules (3), (4) and (5) shall be omitted.

18. In rule 117 sub-rule (2) shall be omitted and sub-rule (1) shall be renumbered as rule 117.

19. For rule 122, the following rule shall be substituted, namely:—

"122. *Appeals.*—(1) Any person may appeal to the Chief Commissioner from an order of the District Authority refusing to grant, amend or renew a licence or cancelling a licence.

(2) Every appeal shall be in writing and shall be accompanied by a copy of the order against which the appeal is made.

(3) The appeal shall be presented within 30 days."

20. In rule 128, for sub-rules (2) and (3) the following sub-rule shall be substituted, namely:—

"(2) All fees chargeable under these rules shall be paid by means of impressed stamps or in cash or by cheque".

21. In rule 129 for the words "Governor General in Council" the words "Chief Commissioner" shall be substituted.

22. Rule 131 shall be omitted.

23. Chapter VII shall be omitted.

24. In sub-rule (1) of rule 155 the words "If the importer so desires the sampling officer shall also take samples of all the petroleum on board which it is intended to land at any other port in British India" shall be omitted.

25. Rules 157, 158 and 159 shall be omitted.

26. For rule 160, the following rule shall be substituted, namely:—

"160. *Methods of test.*—Petroleum shall be tested in such manner as the Chief Commissioner may from time to time direct".

27. Rule 163 shall be omitted.

28. In column 4 of Schedule I against Articles 4, 5, 6 and 7, for the words "Chief Inspector" the words "Chief Commissioner" shall be substituted.

29. In Schedule II—

(a) in column 3 of Form A the words "in British India at...Name of port" shall be omitted;

(b) in column 1 of Form D for entry 2, the following entry shall be substituted, namely:—

"Situation of the premises where petroleum is to be stored...";

(c) Forms E and F shall be omitted;

(d) in condition 14 of Form I, condition 12 of Form J, condition 21 of Form K, condition 19 of Form L and condition 14 of Form M, the words "to the nearest Magistrate or" shall be omitted;

(e) In Forms K, L and M, for the words "*Chief Inspector of Explosive in India*" the words "*Chief Commissioner*" shall be substituted; and

(f) condition 10 of Form L shall be omitted.

30. Schedule III shall be omitted.

A. G. CLOW,

Secy to the Govt of India.

The 22nd April 1937.

No. 3780—1M-3/37-Com.—The following notification of the Government of India in the Department of Industries and Labour is republished for general information.

By order of the Governor,

C. G. NAIR,

Secretary to Government.

New Delhi, 25th February 1937.

No. M.-1055.—In exercise of the powers conferred by sub-section (1) of section 46 of the Indian Mines Act, 1923 (1V of 1923), the Governor General in Council is pleased to direct that the following further amendments shall be made in the Schedule to the notification of the Government of India in the Department of Industries and Labour, No. M.-1051, dated the 1st October 1935, namely:—

In the said Schedule—

I. In column 3 against entry 1. after condition (2) the following condition shall be inserted, namely:—

“(3) The owner, agent or manager of any mine so exempted shall not permit any female to enter for purposes of employment, or be employed in, the underground workings, if any, of the mine.”

II. In column 3 against entries 4 and 9 the following condition shall be inserted, namely:—

“The owner, agent or manager of any mine so exempted shall not permit any female to enter for purposes of employment or be employed in, the underground workings, if any, of the mine.”

A. G. CLOW,

Secy. to the Govt. of India.

The 26th April 1937.

No. 3911-Com.—The following notifications of the Government of India in the Department of Industries and Labour are republished for general information.

By order of the Governor,

C. G. NAIR,

Secretary to Government.

New Delhi, 27th March 1937.

No. L-3050 (1).—In exercise of the powers conferred by sub-section (4) of section 33 of the Factories Act, 1934 (XXV of 1934), the Governor General in Council is pleased to make the following rules, the same having been previously published as required by sub-section (1) of section 79 of the said Act, namely:—

RULES.

1. *Title and application.*—(a) These rules may be called the Hazardous Occupations (Miscellaneous) Rules, 1937.

(b) They shall apply to all factories in which any operation specified in the Schedule is carried on.

2. *Declaration of operations as hazardous.*—The operations specified in the Schedule are declared to be hazardous operations when carried on in any factory.

3. *Prohibition of the employment of children and adolescents.*—(1) No child shall be employed in any factory in any of the operations specified in the Schedule.

(2) No adolescent shall be employed in any factory in any of the operations specified in items 1 to 7 inclusive of the Schedule.

(3) No female adolescent shall be employed in any factory in any of the operations specified in items 8 and 9 of the Schedule.

Schedule.

1. The manufacture or recovery of any of the following :—

(a) Carbonates, chromates, chlorates, oxides or hydroxides of potassium, sodium, iron, aluminium, cobalt, nickel, arsenic, antimony, zinc or magnesium.

(b) Ammonia and the hydroxide and salts of ammonium.

(c) Sulphurous, sulphuric, nitric, hydrochloric, hydrofluoric, hydriodic, hydrosulphuric, boric, phosphoric, arsenious, arsenic, lactic, acetic, oxalic, tartaric or citric acids and their metallic or organic salts, and

(d) Cyanogen compounds.

2. A wet process,

(a) when carried on for the extraction of metal from ore or from any by-product or residual material; or

(b) in which electrical energy is used in any process of chemical manufacture.

3. The manufacture or production of carbon disulphide or the production or use of hydrogen sulphide.

4. The manufacture of bleaching powder or the production or use of chlorine gas in any process of chemical manufacture.

5. The distillation or use of gas tar or coal tar, or any product or residue of such tars, in any process of chemical manufacture.

6. The utilization of nitric acid in the manufacture of nitro compounds.

7. The manufacture of explosives with the use of nitro compounds.

8. Melting and blowing glass and mixing, grinding and sieving glass-making materials.

9. Vitreous enamelling.

10. Handling wool, hair, bristles, hides and skins.

11. Mixing, grinding and sieving ceramic materials in the dry state.

12. Grinding materials for the manufacture of portland cement and burning and grinding cement clinker, in portland cement factories.

13. Mixing and handling yellow orpiment.

New Delhi, 27th March 1937.

No. L-3050 (2).—In exercise of the powers conferred by sub-section (4) of section 33 of the Factories Act, 1934 (XXV of 1934), the Governor General in Council is pleased to make the following rules, the same having been previously published as

required by sub-section (1) of section 79 of the said Act, namely :—

RULES.

1. *Title and application*.—(a) These rules may be called the Hazardous Occupations (Aerated Waters) Rules, 1937.

(b) They shall apply to all factories in which the manufacture of aerated waters and processes incidental thereto are carried on.

2. *Declaration of operations as hazardous*.—The manufacture of aerated waters and processes incidental thereto are declared to be hazardous operations when carried on in any factory.

3. *Fencing of machines*.—All machines for filling bottles or syphons shall be so constructed, placed or fenced, as to prevent as far as may be practicable a fragment of a bursting bottle or syphon from striking any person employed in the factory.

4. *Face guards and gauntlets*.—(1) The occupier shall provide and maintain in good condition for the use of all persons engaged in filling bottles or syphons :—

(a) suitable face guards to protect the face, neck and throat, and

(b) suitable gauntlets for both arms to protect the whole hand and arms ;

Provided that :—

(i) this rule shall not apply where bottles are filled by means of an automatic machine so constructed that no fragment of a bursting bottle can escape, and

(ii) where a machine is so constructed that only one arm of the bottler at work upon it is exposed to danger, a gauntlet need not be provided for the arm which is not exposed to danger.

(2) The occupier shall provide and maintain in good condition for the use of all persons engaged in corking, crowning screwing, wiring, foiling, capsuling, sighting, or labelling bottles or syphons—

(a) suitable face guards to protect the face, neck and throat, and

(b) suitable gauntlets for both arms to protect the arm and at least half of the palm and the space between the thumb and forefinger.

5. *Wearing of face guards and gauntlets*.—All persons engaged in any of the processes named in rule 4 shall, while at work in these processes, wear the face guards and gauntlets provided in pursuance of these rules.

New Delhi, 27th March 1937.

No. L-3050 (3).—In exercise of the powers conferred by sub-section (4) of section 33

of the Factories Act, 1934 (XXV of 1934), the Governor General in Council is pleased to make the following rules, the same having been previously published as required by sub-section (1) of section 79 of the said Act, namely:—

RULES.

1. *Title and application.*—(a) These rules may be called the Hazardous Occupations (Rubber) Rules, 1937.

(b) They shall apply to all factories in which the operations specified in rule 2 are carried on.

2. *Declaration of operations as hazardous.*—Work on a rubber mixing machine and the use of any organic solvents in the manufacture of goods containing rubber, are declared to be hazardous operations when carried on in any factory.

3. *Prohibition of the employment of children.*—No child shall be employed in any factory on any of the operations specified in rule 2.

4. *Exhaust draughts.*—An efficient exhaust draught shall be provided by mechanical means for any process in which an organic solvent is used in the manufacture of goods containing rubber. The draught shall operate on the vapour given off in the process as near as may be at the point of origin, so as to prevent it (as far as practicable under the atmospheric conditions usually prevailing) from escaping into the air of any place in which work is carried on.

New Delhi, the 27th March 1937.

No. L-3050 (4).—In exercise of the powers conferred by sub-section (4) of section 33 of the Factories Act, 1934 (XXV of 1934), the Governor General in Council is pleased to make the following rules, the same having been previously published as required by sub-section (1) of section 79 of the said Act, namely:—

RULES.

1. *Title and application.*—(a) These rules may be called the Hazardous Occupations (Chromium) Rules, 1937.

(b) They shall apply to all factories in which any operation involving the use of soluble chromium compounds is carried on.

2. *Declaration of operations as hazardous.*—Operations involving the use of soluble chromium compounds are declared to be hazardous operations when carried on in any factory.

3. *Prohibition of the employment of women, children and adolescents.*—No woman, child or adolescent shall be employed in any factory in any of the operations specified in rule 2.

4. *Protective clothing.*—(a) The occupier shall provide waterproof aprons (of a pattern approved by the Chief Inspector of Factories) or overalls in a clean condition which every person employed on any of the operations specified in rule 2 shall wear.

(b) The occupier shall provide loose fitting rubber gloves of suitable length and rubber boots or other waterproof footwear for the use of those working at any vessel in which the electrolytic plating or oxidation of metal articles by the use of an electrolyte containing chromic acid or other chromium compounds, or any process subsequent thereto, is carried on:

Provided that the Chief Inspector of Factories may grant exemption from any or all the provisions of this rule where he is satisfied that they are not necessary to secure the health of the workers.

5. *Exhaust draughts.*—An efficient exhaust draught shall be provided by mechanical means for the process of electrolytic plating or oxidation of metal articles by the use of an electrolyte containing chromic acid or other chromium compounds. The draught shall operate on the vapour or spray given off in the process as near as may be at the point of origin, so as to prevent it (as far as practicable under the atmospheric conditions usually prevailing) from escaping into the air of any place in which work is carried on.

New Delhi, the 27th March 1937.

No. L-3050 (5).—In exercise of the powers conferred by sub-section (4) of section 33 of the Factories Act, 1934 (XXV of 1934), the Governor General in Council is pleased to make the following rules, the same having been previously published as required by sub-section (1) of section 79 of the said Act, namely:—

RULES.

1. *Title and application.*—(a) These rules may be called the Hazardous Occupations (Cellulose Spraying) Rules, 1937.

(b) They shall apply to all factories in which the spraying of cellulose ester paints and lacquers is carried on.

2. *Declaration of operation as hazardous.*—The spraying of cellulose ester paints, or lacquers, is declared to be a hazardous operation when carried on in any factory.

3. *Prohibition of the employment of children and adolescents.*—No child or adolescent shall be employed in any factory on the operation specified in rule 2.

4. *Exhaust draughts.*—An efficient exhaust draught shall be provided by mechanical means for the process specified in rule 2. The draught shall operate on the vapour given off in the process as near as may be at the point of origin so as to prevent it (as far as

practicable under the atmospheric conditions usually prevailing) from escaping into the air of any place in which work is carried on. The draught shall be maintained working for a period of at least five minutes after the cessation of the operation :

Provided that the Chief Inspector of Factories may grant exemption from the provisions of this rule if he is satisfied that due to the casual nature of the operation they are not necessary to secure the health of the workers.

5. *Position of spray operators.*—Arrangements shall, as far as practicable, be made so as to render it unnecessary for the person operating the spray to be in a position between a ventilating outfit and the article being sprayed.

New Delhi, the 27th March 1937.

No. L.-3050 (6).—In exercise of the powers conferred by sub-section (4) of section 33 of the Factories Act, 1934 (XXV of 1934), the Governor General in Council is pleased to make the following rules, the same having been previously published as required by sub-section (1) of section 79 of the said Act, namely :—

RULES.

1. *Title and application.*—(a) These rules may be called the Hazardous Operations (Sand Blasting) Rules, 1937.

(b) They shall apply to all factories in which the operation of sand blasting, as defined in rule 2, is carried on.

2. *Definition.*—In these rules “sand blasting” means the use of a jet of sand, metal shot, grit or other abrasive, propelled by a blast of compressed air or steam.

3. *Declaration of operation as hazardous.*—Sand blasting is declared to be a hazardous operation when carried on in any factory.

4. *Prohibition of the employment of women, adolescents and children.*—No woman, adolescent or child shall be employed in any factory on sand blasting.

5. *Protective clothing.*—(1) No person shall be allowed to perform or to assist at sand blasting in the open air or to work within 30 feet of sand blasting apparatus in operation in the open air, unless he is wearing a suitable protective helmet and gauntlets.

(2) No person shall be allowed to work in or remain in a sand blasting chamber unless he is wearing a suitable protective helmet, overalls and gauntlets, or to insert his arm or hand into the chamber unless he is wearing a suitable gauntlet, while sand blasting is being carried on.

(3) The occupier shall provide and maintain in good condition all helmets, gauntlets and overalls necessary for compliance with sub rules (1) and (2).

(4) A protective helmet shall not be considered suitable unless it carries the distinguishing mark of the person to whom it is issued and by whom it is intended to be used and is provided with a sufficient supply of pure air for breathing and ventilation, together with suitable arrangements to permit the escape of the expired air.

(5) No person shall wear a protective helmet that has been worn by another person unless and until such protective helmet shall have been thoroughly disinfected.

A. G. CLOW,

Secy. to Govt. of India.

The 28th April 1937.

No. 3989-Com.—The following notification of the Government of India in the Department of Commerce is republished for general information.

By order of the Governor,

C. G. NAIR,

Secretary to Government.

TREATIES—COMPANY LAW.

New Delhi, the 20th February 1937.

No. 24 (24)-Tr. (C. L.).—In exercise of the powers conferred by section 151 of the Indian Companies Act, 1913 (VII of 1913), the Governor General in Council is pleased to direct that the following further amendments shall be made in the Indian Companies Rules, 1914, namely:—

In the Forms appended to the said Rules:—

1. In Form XXIV, in paragraph 7, after the words “Secretary of the Company” the following shall be inserted, namely:—

“and the changes, if any, which have occurred since the date of the incorporation.”

2. In Form XXVI, the word “Auditors” wherever it occurs shall be omitted

H. DOW,

Offg. Secy. to the Govt. of India.

The 28th April 1937.

No. 3997-Com.—The following notification of the Government of India in the Home Department is republished for general information.

By order of the Governor,

C. G. NAIR,

Secretary to Government.

New Delhi, the 15th April 1937.

No. F. 712/36-Judicial.—In exercise of the powers conferred by section 19 of the Sea Customs Act, 1878 (VIII of 1878), the

Central Government is pleased to prohibit the taking out of British India to the United Kingdom of any book, pamphlet, advertisement, public notice or announcement which is intended or calculated to promote the sale of any medicine or medicaments for the prevention, cure or relief of any venereal disease.

J. A. THORNE,

Joint Secy. to the Govt. of India.

PUBLISHED UNDER THE AUTHORITY OF THE HIGH COURT OF JUDICATURE AT PATNA.

NOTIFICATIONS.

The 20th April 1937.

No. 7-S.—It is hereby notified for general information that the Court, in the exercise of the powers vested in it by section 15 of Act

XII of 1887, is pleased to declare that all subordinate civil courts in the province of Orissa shall be closed on Wednesday, the 12th May 1937, on account of the coronation of His Majesty the King Emperor.

The 20th April 1937.

No. 8-S.—Under section 15 of the Bengal, Agra and Assam Civil Courts Act (Act XII of 1817), the Court is pleased to declare that all the civil courts within the judgeship of Ganjam-Puri except those of the Subordinate Judge and Munsifs at Puri will remain closed on the 6th May 1937, on account of "Ascension Day". The words "Ascension Day" from item no. 11 of notification no. 16-S, dated the 10th December 1936, published in Part IV of the *Orissa Gazette*, dated the 18th December 1936, are hereby deleted.

By order of the High Court,

S. K. DAS,

Registrar.