

**MARINE AND COMMERCE DEPARTMENT.**

**(Special Rules For Vessels Carrying Fuel Oil)**

**No. 4**

**Dated Rangoon, the 26th January 1911.**

No. 4.- In exercise of the power conferred by section 50 of the Inland Steam-vessels Act, 1884, and with the previous sanction of the Governor-General in Council, the Lieutenant-Governor is pleased to make the following special rules for vessels carrying fuel oil other than astaki which has its flashing-point above 250° of Fahrenheit's thermometer. Marine and Commerce Department Notifications No. 35, dated the 21st October 1901, as amended by Notification No. 32, dated the 29th September 1909, and No. 2, dated the 16th January 1902, are hereby cancelled.

**Rules.**

**1.** No inland steam-vessel shall carry oil for fuel except-

**Special tanks only to be used.**

- (a) In tank-compartments fitted in accordance with the provisions of Rule 4;
- (b) In storage-tanks specially constructed for that purpose, with a capacity not exceeding five thousand gallons each, and properly fitted and placed in holds in accordance with the provisions of Rule 5; and
- (c) In service-tanks specially constructed for that purpose, with a capacity not exceeding eight hundred gallons each; the said tanks to be situated in accordance with the provisions of Rule 6, to be fitted in accordance with the provisions of Rule 7, and, if passengers are carried on the vessel, to be railed off so as to prevent access by the public.

Provided that on a small steam-vessel not exceeding sixty feet in length and considered unsuitable for a strict enforcement of the above provisions, oil for fuel may be carried in any tank or tanks certified as fit for that purpose by the Superintending Engineer and Shipwright Surveyor to the Local Government.

**Limits on the quantity of oil for fuel.**

**2.** The total quantity of oil for fuel carried on an inland steam-vessel at one time shall not exceed one hundred and fifty tons.

**Description of "fan-connection" and substitutes therefor.**

**3.** (1) In these rules "fan-connection" shall mean a rotary fan or other appliance capable of being worked by manual labour for mechanically forcing air through a pipe into a tank-compartment, storage-tank or hold containing storage-tanks for the purpose of ventilating the same by means of the forced draught, and shall include the pipe connecting such appliance with the hold or tank-compartment to be so ventilated.

(2) In any case in which a fan-connection is required under Rules 4 and 5, a steam-jet connection or any means of ventilation certified to be safe and suitable for the purpose by the Superintending Engineer and Shipwright Surveyor to the Local Government may be substituted and used therefor.

**Description and fittings of a tank compartment.**

4. (1) In these rules "tank-compartment" shall mean a compartment or hold of an inland steam-vessel, which is itself the oil-tank and is completely separated from all other compartments or holds by a double bulk-head filled with water and known as a "coffer-dam."

(2) Every tank compartment shall be-

- (i) Fitted with an air-tight man-hole door, which shall be kept securely fastened under lock and key;
- (ii) Well ventilated by means of two or more ventilation-pipes extending to, and fitted with, suitable cowls above the roof of the steam-vessel, so that a free and continuous current of air may be provided; and
- (iii) Fitted with a fan-connection or other connection permitted under Rule 3 for the purpose of blowing or otherwise dissipating all gas out of the tank-compartment before the man-hole door is opened.

**Fittings and ventilation of other storage-tanks and of holds containing the same.**

5. (1) Every hold in which the storage-tanks specified in clause (b) of Rule 1 are carried shall be well ventilated with two or more ventilation pipes extending to, and fitted with, suitable cowls above the roof of the steam-vessel, so that a free and continuous current of air may be provided. Every such hold shall likewise be fitted with a fan connection or other connection permitted under Rule 3 for the purpose of blowing or otherwise dissipating all gas out of the hold before the hatch is opened, and the hatch thereof shall be kept securely fastened under lock and key. Such hold may also have a glass fitted air-tight in the bulk-head, through which it can be lighted by an electric or other light placed outside.

(2) Such storage-tanks shall be so far separate from each other and the sides of the hold as to permit of the passage of a man for the purpose of cleaning all sides of each tank. Each storage-tank may be connected by a pipe at the bottom with the nearest tank or tanks, so as to permit of a free flow of oil from one tank to the other whenever required.

Provided that every such connecting-pipe between any two tanks shall be so fitted with a cock that, in a case of emergency, the oil in each tank can be shut off from every other tank.

(3) Every storage-tank shall be also fitted with an air-tight man-hole door, and shall be connected at the top with a ventilation-pipe extending to above the roof of the steam-vessel.

Provided that the storage-tanks so connected with the same ventilation-pipe shall not exceed five thousand gallons in aggregate capacity, and such ventilation-pipe shall be used only for the purpose of ventilating such tanks.

(4) Every such storage-tank having a capacity exceeding eight hundred gallons shall be also fitted with a fan-connection or other connection permitted under Rule 3 for the purpose of blowing or otherwise dissipating all gas out of the tank before the man-hole door is opened.

(5) Every storage tank shall have filling pipes connected with it from the main deck, and no storage tank shall be used until the said pipes have been tested and approved by the Superintending Engineer and Shipwright Surveyor to the Local Government.

**Situation of service-tanks.**

6. Every service-tank shall be raised from the deck on iron feet or stools sufficiently high to enable water and dirt to be drained off from the drain cock. Every tank shall also be placed in an iron tray, not less than six inches high, constructed so as to catch any leakage from the tank or, in the alternative, a coaming shall be made round each tank by means of angle-irons attached to the deck, the said angle-irons to be at least 3(1/2) inches high and 3(1/2) inches broad with a plate riveted on so as to make the total height at least 6 inches.

**Fittings of service-tanks.**

7. Every service-tank shall be fitted with an air-tight man-hole door securely fastened by a lock and key, and also with a ventilation-pipe extending to above the roof of the steam-vessel. A strainer shall be fitted to the outlet pipe from the service-tank to the burners, and precautions shall be taken to prevent impurities getting into the tank when the door is open.

**Davy lamps to be kept on board.**

8. The owner of an inland steam-vessel carrying oil for fuel shall cause two or more Davy safety lamps to be supplied and kept in a convenient place for use when required in, or in the neighbourhood of, the service-tanks, tank-compartments or holds containing storage-tanks.

**Fire and storage of inflammable materials prohibited near the oil.**

9. (1) No fire, forge, furnace or similar source of danger shall be permitted, unless a bulk-head intervenes, within ten feet, or otherwise within twenty feet, of any tank-compartment or storage-tank, or within above or below a radius of ten feet measured horizontally from any service-tank except in a properly fitted fire-place of an enclosed kitchen on the sponsons of a paddle-steamer, and except in such stokeholds or other parts of the vessel and subject to such conditions as may be specified in a certificate granted under the proviso to Rule 1.

(2) No explosive shall be stored within twenty feet, and no highly inflammable material shall be stored within ten feet, of any tank-compartment, storage-tank or service-tank.

**All gas to be blown out before opening hatch, etc.**

10. As the specific gravity of the oil-gas is almost equal to that of air, the Master or Chief Engineer shall cause a current of air from the fan-connection or a jet of steam to be created and continued sufficiently long for the purpose of blowing the gas out of the tank-compartment or hold containing storage-tanks or otherwise dissipating the gas therein before the man-hole door or hatch is opened.

**Precautions when hatch, etc., is opened.**

11. (1) The man-hole door of a tank-compartment or service-tank, or the hatch of a hold containing storage-tanks, shall not be opened except in the presence of the Master or Chief Engineer, who shall remain on board so long as such man-hole door or hatch remains open. And it shall not be opened between sunset and sunrise except in case of special necessity or for the purpose of taking oil on board when permitted under Rule 14.

(2) No person under fifteen years of age and, without the permission of the Master or Chief Engineer, no passenger or other unauthorized person shall enter or be allowed to enter any hold containing

storage-tanks, or come or remain or be permitted to come or remain near a tank-compartment or service-tank or hold containing storage-tanks whilst the man-hole door or hatch is open.

(3) No light of any kind shall be brought near the man-hole door of a tank-compartment or service-tanks, or the hatch of a hold containing storage-tanks, when such man-hole door or hatch is being opened, until a sufficient interval has elapsed for the escape of the first rush of gas, if any; and whilst such man-hole door or hatch remains open, no smoking or other light except electric lights or Davy safety lamps shall be allowed or burned in such tank-compartment or hold, or within twenty feet of the man-hole door or hatch thereof, or, in the case of a service-tank, within ten feet thereof.

Precautions shall also be taken to have this rule observed by passengers on the portion of the upper deck above the hatch or man-hole door when the same is being opened.

(4) Whenever the man-hole door of a storage-tank or service-tank is being opened, special precautions shall also be adopted to avoid danger from an accumulation of gas therein or in the connections with other tanks.

**Method of removal of oil from service-tanks.**

12. If there are any passengers on board the vessel, no oil shall be removed from a tank-compartment, storage-tank or service-tank through the man-hole door or otherwise than through the suction or other pipe provided for that purpose.

**Hatches to be kept locked.**

13. (1) When the man-hole door of a tank-compartment or service-tank or the hatch of a hold containing storage-tanks is being closed, care shall be taken that the same may be properly closed and locked to the satisfaction of the Master or Chief Engineer. The key thereof shall always remain in the custody of the Master or Chief Engineer, and duplicates of all such keys may also be kept by the Master under lock and key, but no other duplicates of such keys shall be allowed on board the vessel.  
(2) The Engine-driver having the chief control of the engines of a small steam-vessel which does not carry an Engineer shall, for the purposes of this rule and of Rules 10 and 11, be deemed to be the Chief Engineer of such steam-vessel.

**Prohibition against in-take of oil by night.**

14. Except on a steam-vessel then lighted by electric lights, no oil shall be taken on board after sunset and before sunrise.

**Before and during in-take pipes shall be watched.**

15. Before and whilst taking oil on board, great care shall be taken that all couplings and pipe-connections to tank-compartment and storage-tanks are perfectly tight and that no oil be allowed to leak on to the deck or bilges. If any leakage occurs, the oil shall be forthwith thoroughly cleaned up.

**On the completion of in-take all such connections shall be closed.**

16. When the in-take of oil is completed, all in-take pipe-connections to tank compartments, storage-tanks or service-tanks shall be carefully closed and any oil then spilt shall be thoroughly cleaned up.

**Oil-pump.**

- 17. (1) All glands, joints, valves and cocks of the oil-pump and of the pipe-connections therefrom to tanks shall be kept perfectly tight and shall be continually watched when in use.  
(2) No light other than a Davy safety lamp or electric light shall be allowed near the oil-pump, whether the same is being used or not.  
(3) The oil-pump shall be always thoroughly cleaned after use.

**Service-tanks.**

- 18. The service- tanks on deck shall be repeatedly examined, and all joints and cocks thereof and the service-pipes to the furnaces shall be kept perfectly tight, and no oil allowed to leak on to the stoke-hold plates or into bilges.

**Control of the cocks or valves opening from the service-tanks.**

- 19. All cocks or valves on pipe-connections on deck from the service-tanks to the furnaces shall be operated by means of a handle and lever on the starting platform of the engine-room within the control of the Engineer on watch and, if required, by means of a similar arrangement on the forward platform, or, in the alternative, the handle and lever may be placed in such position above the main-deck as may be approved by the Superintending Engineer and Shipwright Surveyor to the Local Government. Such handles or levers shall have an indicator showing when the cock or valve is open or shut. All such handles and levers shall be safely secured and fastened when the cocks or valves are closed.

**No inflammable materials to be used in construction of, or allowed to remain near, stokehold.**

- 20. No timber, canvas purdahs, or other inflammable materials shall be allowed to remain near the stokehold or shall be used in constructional work round or above the hatchway of the stokehold.

**Uncovered lights prohibited in stokeholds.**

- 21. When the furnaces are not burning, no lights other than electric lights or Davy safety lamps shall be used in the stokehold except for the purpose of starting the furnaces.

**Control of valves admitting oil to the burners.**

- 22. When the sprinklers are not alight, the valves admitting oil to the burners operated by the firemen shall be kept closed.

**Stokehold to be in charge of competent serang or fireman.**

- 23. During such time as the cocks admitting oil from the service-tanks are open, and for so long as the furnaces are burning, there shall be present in the stokehold, and in constant charge thereof, a competent serang or fireman, and the fires shall not be started except under the immediate superintendence of such serang or fireman. Such serang or fireman shall have had not less than two years' actual experience as a fireman on vessels burning oil-fuel; shall thoroughly understand the manipulation of the valves or cocks regulating the supply of steam and oil to the burners; shall be able to regulate the burners as required for hard or for easy firing, and shall also understand all the precautions necessary for the prevention or extinction of an oil-fire. He shall have been appointed to the charge of the stokehold, or his appointment thereto shall have been approved by,-  
(a) The Chief Engineer of the vessel, if such engineer has a certificate of competency as a first-class engineer, or

- (b) Some other engineer in the employ of the owners of the vessel, if such engineer has a certificate of competency as a first-class engineer, or
- (c) The Superintending Engineer and Shipwright Surveyor to the Local Government.

**Precautions on starting furnace.**

- 24. In starting fires with steam up in any of the boilers, steam shall be blown through the sprinklers into the furnace for a few minutes before the oil is turned on; and in lighting the oil special care shall be taken that no fire drops on the stokehold-plates or into the bilges.

**Precautions if flame goes out.**

- 25. If, while the fires are burning, the flame should go out, the fireman shall at once turn off the supply of oil at the furnace and report to the serang or fireman in charge of the stokehold.

**Precautions when shutting off furnaces.**

- 26. In shutting off the oil from the furnaces, the oil shall be first shut off at the service-tanks on deck and then at the furnace; the steam shall be continued to be blown through the sprinklers until all the oil in the pipes from the service-tanks to the furnaces has been completely burnt, to prevent any leakage of oil into the furnaces before the same are next ignited.

**Cocks and valves to be kept shut.**

- 27. Care shall be taken that all cocks and valves to tank-compartments, storage-tanks and service-tanks are shut except when open for actual use.

**Drip-pans.**

- 28. Should oil fall on to the stokehold-plates or into the bilges, it should be removed therefrom at once. Oil should not be allowed to remain in the drip-pan for any length of time, but should be removed as soon as possible, and the drip-pans should be kept dry and clean.

**Means of extinguishing oil-fires.**

- 29. (1) Not less than one half-cask of fine dry sand shall be kept in the stokehold for each boiler in a convenient place for immediate use in case of fire and a good supply of sand shall be kept on deck in a convenient place for a like use.

(2) If the stokehold is an uncovered one, one half-cask of such sand shall be kept on either side of the stokehold available for instant use if required.

If oil is used as fuel for any other engines on board, a similar half-cask of sand shall be kept at hand ready for use in case of fire.

(3) All such half-casks of sand shall have ready for use in the sand not less than two scoops or small buckets for throwing the sand. The half-casks shall always be kept full of sand.

**Copy of rules to be posted.**

- 30. The owner of the vessel shall cause two or more copies of these rules to be hung up in conspicuous places on board the vessel, and at least one such copy shall be in a language understood by the majority of the engine-room crew.

**Penalties.**

31. (a) Any owner or master of an inland steam-vessel who commits or permits on such steam-vessel a breach of Rule 1, 2, 4 (2), 5, 6, 7, 8, 9, 14, 29 or 30 of the rules,

(b) Any owner, engineer or other person exercising authority in any part of a steam-vessel, and, in the case of a vessel not carrying an engineer, any engine-driver who fails to take proper measures in matters under his control for securing the observance of the precautions enjoined by any of Rules 9 to 28 of these rules,

(c) Any person committing a breach of Rule 9, 12, 13, 17, 19, 21, 22, 25 or 27 of these rules,

(d) Any person employed on board the steam-vessel who commits a breach of Rule 11 or fails to perform any duty enjoined by any of Rules 9 to 28 of these rules, and

(e) Any passenger or other person not employed on board the steam-vessel who in disregard of any warning or request communicated to him or knowing or having reason to believe that he is acting illegally, commits a breach of Rule 9 or Rule 11 of these rules,

shall be punished with imprisonment which may extend to six months, or with fine which may extend to five hundred rupees, or with both.

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#### Footnote

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