

and linings in accommodation spaces, service spaces, and control stations shall have low flame-spread characteristics.

51. Spaces Containing Engines Using a Fuel with a Flashpoint Below 60°C—(1) In small ships where the engine is 'boxed-in' the casing should be of steel or GRP but, if of wood, should be lined internally with fire-resistant material covered with metal sheathing not less than 22 SWG thick. The engine box is to be adequately ventilated and the controls for starting and stopping the engine are to be capable of operating without the necessity for opening the box.

(2) Fuel tanks, filling and sounding pipes, vent pipes and fuel supply piping are to comply in full with this code as to materials, construction, workmanship, and in installations where flexible filling pipe sections are necessary and are non-conductors of electricity, the metallic sections of filling pipes separated thereby are to be joined by a conductor for protection against static spark when filling.

52. Heating and Cooking Installations—(1) Electric radiators shall be fixed in position and so constructed as to reduce fire risks to a minimum. No such radiator shall be fitted with an element so exposed that clothing, curtains or other similar materials can be scorched or set on fire by heat from the element.

(2) Heating by means of open fires shall not be permitted. Heating stoves and other similar appliances shall be firmly secured and adequate protection and insulation against fire shall be provided beneath and around such appliances and in way of their uptakes. Uptakes of stoves which burn solid fuel shall be so arranged and designed as to minimise the possibility of becoming blocked by combustion products and shall have a ready means for cleaning. Dampers for limiting draughts in uptakes shall, when in the closed position, still leave an adequate area open. Spaces in which stoves are installed shall be provided with ventilators of sufficient area to provide adequate combustion-air for the stove. Such ventilators shall have no means of closure and their position shall be such that no closing appliances are required.

(3) Where gaseous fuel is used for domestic purposes, the arrangements, storage, distribution and use of the fuel shall be to the satisfaction of the Chief Surveyor and in accordance with this part of this code.

(4) Open flame gas appliances, except cooking stoves and water heaters, shall not be permitted. All pipes conveying gas from container to stove or water heater shall be of steel or other approved material. Automatic safety gas shut-off devices shall be fitted to operate on loss of pressure in the gas main pipe or flame failure on any appliance.

(5) Continuous burning pilot lights and other continuous flame devices are prohibited.

(6) Compartments containing gas burning appliances or gas cylinders shall be well ventilated. Where mechanical ventilation is not fitted, an effective system of natural ventilation is to be provided which will adequately prevent a dangerous accumulation of gas. The ventilation should provide for extraction of any gas which might leak from the system, as well as provide a fresh-air supply under all weather conditions.

(7) All cooking and heating stoves shall be well secured and installed well clear from all woodwork and other combustible materials and all such adjacent woodwork shall be protected by approved heat resistant material, so arranged as to provide an air space between the material and the woodwork it protects. Such insulating material should be impervious to fat or faced with a material impervious to fat.

(8) Permanent safety guards should be fitted around cooking stoves to retain cooking utensils.

(9) Petrol, white spirit, or liquids having a flashpoint below 23°C are not to be used for cooking.

53. Storage of Gas Cylinders and Dangerous Materials—

(1) Gas cylinders, regulating and relief valves, supply piping

and fittings, are to be of substantial construction suitable for the purpose and the manufacture and materials are to be to standards acceptable to the Chief Surveyor.

(2) Cylinders containing flammable or other dangerous gases and expended cylinders shall be stored properly secured, on open decks and all valves, pressure regulators and pipes leading from such cylinders shall be protected against damage. Cylinders shall be protected against excessive variations in temperature, direct rays of the sun, and accumulation of snow. However, such cylinders may be stored in compartments complying with the requirements outlined in sub-clauses (3), (4) and (5) of this clause.

(3) Spaces containing highly flammable liquids, such as volatile paints, paraffin and benzole, and, where permitted, liquefied gas, shall have direct access from open decks only. Pressure-adjusting devices and relief valves shall exhaust within the compartment. Where boundary bulkheads of such compartments adjoin other enclosed spaces they shall be gastight.

(4) Except as necessary for service within the space, electrical wiring and fittings shall not be permitted within compartments used for the storage of highly flammable liquids or liquefied gases. Where such electrical fittings are installed, they shall be to the satisfaction of the Chief Surveyor for use in a flammable atmosphere. Sources of heat shall be kept clear of such spaces and "No Smoking" and "No Naked Light" notices shall be displayed in a prominent position.

(5) Separate storage shall be provided for each type of compressed gas. Compartments used for the storage of such gases shall not be used for storage of other combustible products nor for tools or objects not part of the gas distribution system. However, the Chief Surveyor may after consideration of the characteristics, volume and intended use of such compressed gases relax this requirement.

(6) The piping between the gas cylinders and any appliances shall be properly protected against damage, heat, and the sun's rays and shall be readily accessible for inspection and maintenance. A non-return valve should be fitted in the supply line near the stop valve for each cylinder where a multi-cylinder supply arrangement is adopted, and such a system should not be put into use with a cylinder removed.

54. Ventilation systems—(1) Means shall be provided to stop fans and close main openings to ventilation systems from outside the space served; other than those installed to provide combustion air for stoves.

(2) Ventilation ducts for machinery spaces of Category A or galleys shall not in general pass through accommodation spaces, service spaces or control stations unless the ducts are constructed of steel or equivalent material and arranged to preserve the integrity of the divisions.

(3) Ventilation ducts of accommodation spaces, service spaces or control stations shall not in general pass through machinery spaces of Category A or through galleys unless the ducts are constructed of steel or equivalent material and arranged to preserve the integrity of the divisions.

(4) Store-rooms containing appreciable quantities of highly flammable products shall be provided with ventilation arrangements which are separate from other ventilation systems. Ventilation shall be arranged at high and low levels and the inlets and outlets of ventilators shall be positioned in safe areas and fitted with spark arresters.

(5) Ventilation systems serving machinery spaces shall be independent of systems servicing other spaces.

(6) In ships of Class II, III, VII, VIIA and VIII of 24m in length or over ventilation openings may be fitted in the lower parts of the doors in corridor bulkheads but shall not be fitted in doors in bulkheads of stairway enclosures. Ventilation grills are to be of non-combustible material. The total net area of any such openings shall not exceed 0.05m².