(d) All discharge pipes from starting air compressors shall lead directly to the starting air receivers, and all starting air pipes from the air receivers to main or auxiliary engines shall be entirely separate from the compressor discharge pipe system.

25. Cooling Water Systems—In every ship of Class II, VII, VIIA and VIII in which cooling water services are essential for the running of the propelling machinery there shall be at least two means of operating such water services.

26. Oil and Fuel Installations—(1) Any oil fuel used in boilers or machinery shall have a flash point of not less than 60°C, except in the case of the following:

(a) in emergency generators oil fuel with a flashpoint of not less than 43°C may be used;

(b) subject to such additional precautions as the Chief Surveyor may consider necessary and on condition that the ambient temperature of the space in which such oil fuel is stored or used shall not be allowed to rise to within 10°C below the flashpoint of the oil fuel, the Chief Surveyor may permit the general use of oil fuel having a flashpoint of less than 60°C but not less than 43°C; and

(c) subject to such additional precautions as the Chief Surveyor may consider necessary the Chief Surveyor may permit any ship of Classes IV or V which do not carry more than 12 passengers and any ship of Class IX which does not proceed beyond extended river limits to use oil or petroleum fuel having a flash point of less than 43°C in internal combustion type machinery.

The flashpoint of oils shall be determined by an approved closed cup method.

(2) The arrangements for the storage, distribution and utilisation of the oil fuel shall be such as to ensure the safety of the ship and persons on board and shall at least comply with the following provisions:

(a) As far as practicable, parts of the oil fuel system containing heated oil under pressure exceeding 180kPa shall not be placed in a concealed position such that defects and leakage cannot readily be observed. The machinery spaces in way of such parts of the oil fuel system shall be adequately illuminated.

(b) The ventilation of machinery spaces shall be sufficient under all normal conditions to prevent accumulation of oil vapour.

(c) No oil fuel tank shall be situated where spillage or leakage therefrom can constitute a hazard by falling on heated surfaces. Precautions shall be taken to prevent any oil that may escape under pressure from any pump, filter or heater from coming into contact with heated surfaces.

(d) Safe and efficient means of ascertaining the amount of oil fuel contained in any oil fuel tank shall be provided. Sounding pipes shall not terminate in any space where the risk of ignition of spillage from the sounding pipe might arise. In particular, they shall not terminate in passenger or crew spaces. The use of oil level gauges with flat glasses and self-closing valves between the gauges and oil tanks is acceptable in ships of Class IV, V, VI and IX. Other means of ascertaining the amount of oil fuel contained in any oil fuel tank may be permitted by the Chief Surveyor having regard to the ships service, fuel carried, and location of the tank.

(e) Provision shall be made to prevent overpressure in any oil tank or in any part of the oil fuel system, including the filling pipes. Any relief valves and air or overflow pipes shall discharge to a position which, in the opinion of the Chief Surveyor is safe.

(f) Oil fuel pipes and their valves and fittings shall be of steel or other approved material, except that restricted use of flexible pipes shall be permissible in positions where the Chief Surveyor is satisfied that they are necessary. Such flexible pipes and end attachments shall be of approved fire-resisting materials of adequate strength and shall be constructed to the satisfaction of the Chief Surveyor.

(g) Oil fuel shall not be carried in forepeak tanks.

27. Lubricating and Other Oil Systems—(1) The arrangements for the storage, distribution and utilisation of oil used in pressure lubrication systems shall be such as to ensure the safety of the ship and persons on board, and such arrangements in machinery spaces shall wherever practical comply with the provisions of Clause 26, subclause (2)(a), (c), (d), (e) and (f) of this Code except that this does not preclude the use of sight flow glasses in lubricating systems provided that they are shown by test to have a suitable degree of fire resistance.

(2) The arrangements for the storage, distribution and utilisation of other flammable oils employed under pressure in power transmission systems, control and activating systems and heating systems shall be such as to ensure the safety of the ship and persons on board. In locations where means of ignition are present, such arrangements shall at least comply with the provisions of Clause 26, sub-clause (2)(c) and (d) of this Code and with the provisions of Clause 26, sub-clause (2)(e) and (f) of this Code in respect of strength and construction.

(3) Lubricating oil and other flammable oils shall not be carried in fore peak tanks.

28. Ventilation Systems in Machinery Spaces—Machinery spaces shall be adequately ventilated so as to ensure that when machinery or boilers therein are operating at full power in all weather conditions including heavy weather, an adequate supply of air is maintained to the spaces for the safety and comfort of any personnel and the operation of the machinery.

29. Communication between Navigating Bridge and Machinery Space— Every ship operating with a manned main machinery space shall be provided with at least two independent means for communicating orders from the navigating bridge to the position in the machinery space or in the control room from which the engines are normally controlled: one of these shall be an engine-room telegraph which provides visual indication of the orders and responses both in the machinery space and on the navigating bridge.

30. Steering Gear—(1) Unless expressly provided otherwise, every ship shall be provided with a main steering gear and an auxiliary steering gear to the satisfaction of the Chief Surveyor. The main steering gear and the auxiliary steering gear shall be so arranged that the failure of one of them will not render the other one inoperative.

(2) The main steering gear and rudder stock shall be:

(a) of adequate strength and capable of steering the ship at maximum ahead service speed which shall be demonstrated;

(b) capable of putting the rudder over from 35° on one side to 35° on the other side with the ship at its deepest seagoing draught and running ahead at maximum ahead service speed.

(c) operated by power where necessary to meet the requirements of sub-clause (2)(b) of this clause and in any case when the rudder stock is over 120mm diameter in way of the tiller; and

(d) so designed that they will not be damaged at maximum astern speed; however, this design requirement need not be proved by trials at maximum astern speed and maximum rudder angle.

(3) The auxiliary steering gear shall be:

(a) of adequate strength and capable of steering the ship at navigable speed and of being brought speedily into action in an emergency;

(b) operated by power where the rudder stock is over 230mm diameter in way of the tiller.

(4) In ships of less than 20m in length, the provision of a hand