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(ii) Where the emergency source of power is a generator, there shall be provided a temporary source of emergency power from an accumulator battery of sufficient capacity—

(a) to supply emergency lighting continuously for half-an-hour; and

(b) to close the watertight doors (if electrically operated) but not necessarily to close them all simultaneously.

The arrangements shall be such that the temporary source of emergency power will come into operation automatically in the event of failure of the main supply.

(iii) Provision shall be made for the periodic testing of automatic

arrangements.

(d) Electrically operated steering gears shall be served by two sets of feeder cables from the main switchboard. Each feeder shall have adequate capacity for serving all motors which may operate simultaneously, and these feeders shall be separated throughout their length as widely as is practicable. Short circuit protection only shall be provided for these circuits and motors.

Regulation 23

Precautions for Safety of Passengers and Crew

(a) (i) All exposed metal parts of electrical machines or equipment which are not intended to be "live," but are liable to become "live" under fault conditions, shall be earthed (grounded); and all apparatus shall be so constructed and so installed that danger of injury in ordinary handling shall not exist

(ii) Metal frames of all portable lamps, tools, and similar apparatus supplied as ship's equipment and rated 100 volts or more shall be earthed

(grounded) through a suitable conductor in the supply cable.

(b) Open type switchboards shall be arranged to give easy access back and front without danger to attendants. The sides and backs of switchboards shall be suitably guarded and there shall be a non-conducting mat or grating. Exposed current-carrying parts at voltages to earth (ground) in excess of 250 volts direct current or 150 volts alternating current shall not be installed on the face of any switchboard or control panel.

Regulation 24

Precautions against Fire

(a) Hull return shall not be used for power, heat and light distribution

systems

(b) Distribution systems shall be so arranged that fire in any main fire zone will not interfere with essential services in any other main fire zone. This requirement will be met if main and emergency feeders passing through any zone are separated both vertically and horizontally as widely as is practicable.