35.25.7 *Temperature Detectors*

Alternating-current generators of 500 kva and above, when access to coils is difficult, and all alternating-current propulsion generators are to be provided with means for obtaining the temperatures of the stationary windings. The temperatures are to be indicated at a convenient location, preferably the control panel.

35.25.8 *Propulsion Generators*

a ***Ventilation and Protection*** Propulsion generators are to be enclosed ventilated or be provided with substantial wire or mesh screen to prevent personnel injury or entrance of foreign matter. Dampers are to be provided in ventilating air ducts except when recirculating systems are used.

b ***Fire-extinguishing Systems*** Propulsion generators which are enclosed or in which the air gap is not directly exposed are to be fitted with fire-extinguishing systems suitable for fires in electrical equipment.

c ***Air Coolers*** Air cooling systems for propulsion generators are to be in accordance with 34.33.5 and 34.43.2.

35.27 Insulation of Windings

Armature and field coils are to be treated to resist oil and water.

35.29 Lubrication

In general all generators are to be located with their shafts in a fore-and-aft direction on the vessel and they must lubricate and operate satisfactorily when permanently inclined to an angle of 15 degrees athwartship and 5 degrees fore and aft; the bearings are to be so arranged that they will not spill oil under a momentary roll of 22½ degrees. Where it is not practicable to mount the generators with the armature shafts in the fore-and-aft direction, their lubrication will require special consideration. Generators depending on forced lubrication, unless otherwise approved, are to be provided with means to shut down their prime movers automatically on failure of the lubricating system. Provision is to be made to prevent oil or oil vapor from passing into the machine windings.

35.31 Voltage Regulation

35.31.1 *Ship's Service Generator Sets*

Ship's-service generator sets are to have voltage-regulation characteristics so that the ship's supply voltage may be maintained within $\pm 4\%$.

35.31.2 *D-C Generators*

Where automatic voltage regulators are not supplied, the d-c ship's service generators are to be approximately flat-compounded except that, if the load fluctuation does not interfere with the operation of vital auxiliaries, shunt-wound generators without voltage regulators or stabilized shunt-wound machines may be used.

35.31.3 *A-C Generators*

In general a separate regulator is to be supplied for each a-c generator. When it is intended that two or more generators will be operated in parallel,