

PART 48.—CONSUMERS INSTALLATIONS.

48-01. The licensee shall be exempt from the provisions of Regulations 48-03, 51-41, 51-42, 51-43, and 52-02 hereof in so far as supply to any Government railway station, Government railway workshop, or to any apparatus on any Government railway line is concerned.

48-02. For the purpose of ensuring that the requirements of these regulations and of the Electrical Wiring Regulations, 1935, are being complied with it shall be a condition precedent to supply, or continued supply, in every instance that the consumer shall serve upon the licensee twenty-four hours notice of:—

- (a) The consumer's intention to install or have installed any electric line, wire, fitting, apparatus, and appliance on any premises; and
- (b) The consumer's intention to make or have made any addition or alteration to his installation.

48-03. The licensee shall not supply electrical energy to any person whose installation does not comply with the requirements of these regulations and of the Electrical Wiring Regulations, 1935, and of the Electrical Wiremen's Registration Act.

48-04. In the case of any electrical installation already supplied by a private plant or by some other electrical supply authority, the electrical supply authority may connect such installation to its electric lines subject to the requirements of Regulation 12-03 of the Electrical Wiring Regulations, 1935, being complied with.

48-05. A licensee declining to connect a consumer's installation to the licensee's electric lines shall, on request, serve upon the consumer notice in writing stating the reasons for so declining.

48-06. Such instructions as the Minister may from time to time issue or approve as to the treatment of persons receiving electric shocks shall be delivered to consumers to be affixed in consumers' premises at all places where electrical energy is generated, transformed, or used above medium pressure, and at such other places in such premises as the Minister may direct.

48-07. The electrical supply authority shall at least once in each year, by means of a separate printed leaflet, notify every consumer within the area of supply to the following effect:—

- "(a) Do not permit any one except a person registered or licensed under the Electrical Wiremen's Registration Act, 1925, and its amendments, to repair, alter, or make addition to your electrical installation. (Penalty under above Act £50.)
- "(b) You must notify [*Name of licensee*] of all proposed alterations and additions to the installation, and no such alteration or addition is to be effected until approved by [*Name of licensee*]. You should ascertain that your contractor has received the necessary permit.
- "(c) Any deterioration of, defect in, or damage to, electrical equipment, flexible cords, or wiring should be remedied immediately by a duly qualified person. Your co-operation in this will tend to remove any danger from fire or shock.
- "(d) Building alterations or repairs likely to affect any part of the electrical installation or require its temporary removal must be notified to [*Name of licensee*].
- "(e) Any person who, without lawful authority, tampers with electric lines or other apparatus the property of [*Name of licensee*] is liable to a fine of £20.
- "(f) You are warned against using any portable hand-lamp which does not comply with the requirements of the Electrical Wiring Regulations, 1935.
- "(g) Do not use any portable apparatus in any position where you may make contact with earthed metal or other conducting material, or in damp situations, unless the apparatus is specially protected to prevent danger from shock. Earthed metal consists of water-pipes, baths, gas-pipes, &c.; conducting material consists of damp concrete floors, brick walls, &c."

DIVISION V.—TESTING, MAINTENANCE, AND INSPECTION.

PART 51.—INSPECTION AND TESTING.

EARTHS.

51-01. All earthing-leads and earth-connections shall, before the electric lines, electrical apparatus, or other devices are lived up, be tested for electrical resistance, and if such resistance exceeds 10 ohms the licensee shall not, save with

the consent in writing of the Minister, use the electric line, electrical apparatus, or other device so earthed until the resistance has been reduced to 10 ohms or less.

51-02. (1) All earthing-leads and earth-connections, except those specified in Regulation 45-06, shall be tested not less than once every twelve months.

(2) All earthing-leads and earth-connections to which Regulations 31-34, 32-02, and 42-51 (b) hereof apply shall be tested at regular intervals of not more than six months.

(3) The tests required by this regulation shall be made by the licensee during dry months as far as possible, to ensure that all earthing-leads are intact and that the earth-connections are effective.

(4) Where the neutral of a low pressure star-connected system or the middle conductor of a low pressure three-wire single-phase system is connected to earth on the consumer's premises the aforesaid tests may be omitted on such connection.

(5) Where the resistance to earth exceeds 10 ohms, or such greater resistance as may from time to time be approved in writing by the Minister for any particular case, the necessary steps shall be taken to reduce the resistance to the required value.

51-03. A record of every earth test made and the results thereof shall be kept by the licensee for a period of not less than two years after the date of testing, and shall be available for inspection by the Inspecting Engineer and other officers of the Public Works Department and officers of the Post and Telegraph Department and Government Railways Department when required.

51-04. Not later than the 30th day of June in every year, in respect of the period of twelve months ending on the 31st day of March then last past, there shall be forwarded—

- (a) To the Chief Electrical Engineer, a certified copy of the record of all earth tests made; and
- (b) To the Telegraph Engineer, a certified copy of the record of all tests made on guards erected over telegraph wires and on all earthed metal at telegraph crossings; and
- (c) To the Signal and Electrical Engineer, a certified copy of the record of all tests made on guards and earthed metal at railway crossings.

51-05. Each earth-connection shall be given a designation number for identification purposes, and such number shall be used in all records. Should the number be changed for any reason, then both the old and new designation numbers shall be entered in the first certified copies of records forwarded pursuant to the last preceding regulation after such change.

51-06. Additional tests of any earthing-lead or earth-connection shall be made if and when required by the Minister.

CONCRETE POLES.

51-11. The Minister shall have the right of testing any concrete pole which in his opinion may not have the requisite strength and factor of safety, and the cost of such test shall be borne by the licensee, and the Minister shall not be liable for any damage to, or destruction of, a pole arising in connection with such test.

51-12. For testing purposes the portion of the concrete pole taken as the lever-arm shall be that portion above ground-line where a ground-line is defined on the pole, otherwise it shall be the upper 85 per cent. of the overall length of the pole. The test-load shall be applied at a point one foot from the top of the pole.

INSULATION AND SAFEGUARDS.

51-21. No electric line shall be brought into use until it has been tested for insulation by the continuous application for half an hour of the maximum pressure for which such line is to be used, and has withstood such application to the satisfaction of the Inspecting Engineer.

51-22. Every insulator used in any stay as required by clause (2) of Regulation 41-92 hereof shall have a minimum flashover voltage (when tested with a sphere gap), in accordance with the following table:—

Maximum Voltage (between Phases) of Lines on Support to which Stay is attached.	Minimum Dry Flashover Voltage.	Minimum Wet Flashover Voltage, 0.2 in. Rain per Minute.
650 volts	5,000	3,500
3,300 volts	10,000	6,000
6,600 volts	14,000	7,000
11,000 volts	20,000	11,000
22,000 volts	35,000	22,000
35,000 volts	50,000	35,000