

THE INDIAN ELECTRICITY RULES, 1956

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INTRODUCTION

The Central Electricity Board had made **IE rules** in exercise of the powers conferred by section 37 of the Indian Electricity Act, 1910 (9 of 1910) for regulating the generation transmission supply and use of electrical energy and generally to carry out the purposes and Objects of the said act .

The salient provisions of the Indian electricity rules are briefly discussed here in :-

Chapter I – Contains definitions

Chapter II-Provides required qualifications for appointment of inspectors and officers to assist the inspector under rule 4 and 4A

Chapter III- provides the procedure for licence

Rule 3

Provides provision for **authorization** by a supplier or a consumer, or the owner, agent or manager of a mine, or the agent of any company operating in an oil-field or the owner of a drilled well in an oil field or a contractor for the time being under contract with a supplier or a consumer to carry out duties incidental to the generation, transformation, transmission, conversion, distribution or use of energy.

Chapter IV - General safety requirements

Rule 29

Stipulates that “All electric supply lines and apparatus shall be of Indian Electricity Rules, 1956 sufficient ratings for power, insulation and estimated fault current and of sufficient mechanical strength, for the duty which they may be required to perform under the

environmental conditions of installation, and shall be constructed, installed, protected, worked and maintained in such a manner as to ensure safety of human beings, animals and property”

Rule 30

Stipulates that “The supplier shall ensure that all electric supply lines, wires, fittings and apparatus belonging to him or under his control, which are on a consumer’ s premises, are in a safe-condition and in all respects fit for supplying energy and the supplier shall take due precautions to avoid danger arising on such premises from such supply lines, wires, fittings and apparatus.”

It also provides that:

- (1) Service-lines placed by the supplier on the premises of a consumer which are underground or which are accessible shall be so insulated and protected by the supplier as to be secured under all ordinary conditions against electrical, mechanical, chemical or other injury to the insulation.
- (2)The consumer shall, as far as circumstances permit, take precautions for the safe custody of the equipment on his premises belonging to the supplier.
- (3) The consumer shall also ensure that the installation under his control is maintained in a safe condition.

Rule 31

Stipulates **requirement to provide Cut-out on consumer’s premises**

- (1)The supplier shall provide a suitable cut-out in each conductor of every service-line other than an earthed or earthed neutral conductor.

Where more than one consumer is supplied through a common service-line, each such consumer shall be provided with an independent cut-out at the point of junction to the common service.

- (2)Every electric supply line other than the earth or earthed neutral conductor of any system or the earthed external conductor of a concentric cable shall be protected by a suitable cut-out by its owner.

Rule 32

Stipulates **Identification** of earthed and earthed neutral conductors and **position** of switches and cut-outs therein and conditions required to be complied with.

Rule 33

Stipulates that the supplier shall provide and maintain **earthed terminal** on consumer's premises near the point of commencement of supply as defined under rule 58.

Rule 35

Stipulates that the owner of every medium, high and extra-high voltage installation shall affix permanently in a prominent position **a danger notice** in Hindi English or local language of the district, with a sign of skull and bones.

Rule 36

Stipulates to ensure adequate safety **precautions** before handling of electric supply lines and apparatus .

Rule 41

Stipulates that distinction of different circuits shall be ensured by means of **indication of permanent nature**.

Rule 44

Stipulates **requirement of affixing instructions** for restoration of persons suffering from electric shock in English or Hindi and the local language of the district.

Rule 44 A

Provides that **"If any accident occurs** in connection with the generation, transmission, supply or use of energy in or in connection with, any part of the electric supply lines or other works of any person and the accident results in or is likely to have resulted in loss of human or animal life or in any injury to a human being or an animal, such person or any authorised person of the State Electricity Board/Supplier , not below the rank of a junior Engineer or equivalent shall send to the Inspector a telegraphic report within 24 hours of the knowledge of the occurrence of the fatal accident and a written report in the form set out in Annexure XIII within 48 hours of the knowledge of occurrence of fatal and all other accidents. Where practicable a telephonic message should also be given to the Inspector immediately the accident comes to the knowledge of the authorised officer of the State Electricity Board/Supplier or other person concerned."

Rule 45

Stipulates **precautions** to be adopted by consumers, Owners, occupiers, electrical contractors, electrical workmen and suppliers for electrical installation work.

ChapterV- General conditions relating to supply and use of energy

Rule 48

Precaution against leakage before connection

Rule 49

Stipulates **the requirement of notice** in writing to be given to the consumer to inspect and test the consumer's installation for Leakage on consumer's premises .

Rule 50

Stipulates **the provisions to be observed for the supply and use of energy-**

(a)The following controls of requisite capacity to carry and break the current are to be placed after the point of commencement of supply to the installation, such equipment being in addition to any equipment installed for controlling individual circuits or apparatus:-

- (i) a linked switch with fuse(s) or a circuit breaker by low and medium voltage consumers.
- (ii) a linked switch with fuse(s) or a circuit breaker by HV consumers having aggregate installed transformer/apparatus capacity up to 1000 KVA to be supplied at voltage upto 11KV and 2500 KVA at higher voltages (above 11 KV and not exceeding 33KV).
- (iii) a circuit breaker by HV consumers having an aggregate installed transformer/apparatus capacity above 1000 KVA and supplied at 11 KV and above 2500 KVA supplied at higher voltages (above 11 KV and not exceeding 33KV)

Rule 51

Stipulates the Provisions applicable where energy at medium, high or extra-high voltage is supplied, converted, transformed or used:

Rule 54

Stipulates that **a supplier shall not permit the voltage at the point of commencement of supply to vary from the declared voltage:**

- (i) in the case of low or medium voltage, by more than 6 per cent, or;
- (ii) in the case of high voltage, by more than 6 per cent on the higher side or by more than 9 percent on the lower side, or;
- (iii) in the case of extra-high voltage, by more than 10 per cent on the higher side or by more than 12.5 per cent on the lower side.

Rule 55

Stipulates that Declared frequency of Ac supply to consumer to vary from the declared frequency by more than 3%.

Rule 56

Stipulates that the supplier **may affix** one or more **seals** to meters and cut outs and no person other than the supplier shall break any such seal.

Rule 57

Stipulates **the provision to ensure correctness** of Meters, maximum demand indicators and other apparatus on consumer's premises

Rule 58

States the **Point of commencement of supply**- "The point of commencement of supply of energy to a consumer shall be deemed to be the point at the incoming terminal of the cut-outs installed by the consumer under rule 50."

Rule 59

Provides **Precautions** to be taken against failure of supply and notice of failures to be given .

Rule 76

Stipulates **Maximum stresses "Factors of safety"** -

(i) for metal supports - 1.5

(ii)for mechanically processed concrete supports - 2.0

(iii)for hand-moulded concrete supports - 2.5

(iv)for wood supports - 3.0

(b) The minimum factor of safety for stay-wires, guard-wires or bearer-wires shall be 2.5

(c) The minimum factor of safety for conductors shall be 2.

Rule 77

Stipulates Clearance above ground of the lowest conductor of an overhead line, including service lines,

(1) Erected across a street shall at any part thereof be at a height of less than-

(a) for low and medium voltage lines 5.8 metres

(b) for high voltage lines 6.1 metres

(2) Erected along any street shall at any part thereof be at a height less than-

(a) for low and medium voltage lines 5.5 metres

(b) for high voltage lines 5.8 metres

(3) **Erected elsewhere** than along or across any street shall be at a height less than -

(a) for low, medium and high voltages lines upto and including 11,000 volts,if bare 4.6 metres

(b) for low, medium and high voltage lines upto and including 11,000 volts, if insulated 4.0 metres

(c) for high voltage lines above 11,000 volts 5.2 metres

(4) **For extra-high voltage lines** the clearance above ground shall **not be less than 5.2 metres plus 0.3 metre** for every 33,000 volts or part thereof by which the voltage of the line exceeds 33,000 volts; *Provided that the minimum clearance along or across any street shall not be less than 6.1 metres.*

Rule 79

Clearance from buildings of low and medium voltage lines and service lines-

(1)Where a low or medium voltage, overhead line passes above or adjacent to or terminates on any building, the following minimum clearances from any accessible point, on the basis of maximum sag, shall be observed:-

(a) for any flat roof, open balcony, varandah roof and lean-to-roof-

(i) when the line passes above the building a vertical clearance of 2.5 metres from the highest point

(ii)when the line passes adjacent to the building a horizontal clearance of 1.2 metres from the nearest point, and

(b)for pitched roof-

(i) when the line passes above the building a vertical clearance of 2.5 metres immediately under the lines, and

(ii) When the line passes adjacent to the building a horizontal clearance of 1.2 metres.

Rule 80

Clearances from buildings of high and extra-high voltage lines

Where a high or extra-high voltage overhead line passes above or adjacent to any building or part of a building it shall have on the basis of maximum sag

(1) **Vertical clearance** above the highest part of the building immediately under such line, of not less than-

(a) for high voltage lines upto and including 33,000 volts 3.7 metres

(b) for extra-high voltage lines 3.7 metres plus 0.30 metre for every additional 33,000 volts or part thereof.

(2) **Horizontal clearance** between the nearest conductor and any part of such buildings shall, on the basis of maximum deflection due to wind pressure, be not less than-

(a) for high voltage lines upto and including 11,000 volts 1.2 metres

(b) for high voltage lines above 11,000 volts and up to and including 33,000 volts 2.0 metres

For extra-high voltage lines 2.0 metres plus 0.3 metre for every additional 33,000 volts for part thereof.

Rule 81

Conductors at different voltages on same supports- Where conductors forming parts of systems at different voltages are erected on the same supports, the owner shall make adequate provision to guard against danger to linesman and others from the lower voltage system being charged above its normal working voltage by leakage from or contact with the higher voltage system and the methods of construction and the clearances between the conductors of the two systems shall be subject to prior approval of the Inspector.

Rule 85

Stipulates Maximum interval between supports.-All conductors shall be attached to supports at intervals not exceeding the safe limits based on the ultimate tensile strength of the conductor and the factor of safety prescribed in rule 76.

Rule 87

Lines crossing or approaching each other:-

Minimum clearances in metres between lines crossing each other

Sl No.	Nominal system voltage	11-66 KV	110-132KV	220KV	400KV
1	. Low & Medium	2.44	3.05	4.58	5.49
2	11-66KV	2.44	3.05	4.58	5.49
3	110-132KV	3.05	3.05	4.58	5.49
4	220KV	4.58	4.58	4.58	5.49
5	400 KV	5.49	5.49	5.49	5.49

Chapter XI (miscellaneous)

Rule 138

Penalty for breaking seal-

(a) The person breaking the seal shall be punishable with fine which may extend to two hundred rupees; and

(b) The consumer when he has not himself broken the seal shall be punishable with fine this may extend to fifty rupees unless he proves that he used all reasonable means in his power to ensure that the seal should not be broken.

Rule 138A.

Penalty for breach of rule 44A. – Where, in contravention of rule 44A, any person responsible for the generation, transformation, transmission, conversion, distribution, supply or use of energy fails to report to the inspector and other authorities concerned the occurrence of accidents, such person shall be punishable with fine which may extend to 300 rupees .

Rule 139

Penalty for breach of rule 45

(a) under the direct supervision of a person holding a certificate of competency issued by the State Government under that rule; and
(b) in the absence of any applicable exemption under the proviso to sub-rule of that rule, by an electrical contractor licensed by the State Government in this behalf, the consumer owner or occupier, the contractor (if any) or the person through whom the work is being or was carried out and the person under whose immediate supervision the work is being or was carried out, shall each be punishable with fine which may extend to three hundred rupees.

Rule 140

Penalty for breach of rule 82. – (a) Where no notice is given under rule 82(1) or the amount of estimate as demanded under rule 82(2) is not deposited, both the persons proposing and the contractor engaged for erecting a new building or structure whether permanent or temporary or for making in or upon any building or structure any permanent or temporary additions or alterations, shall be deemed to have committed a breach of rule 82(1) and shall be punishable with a fine which may extend to three hundred rupees.

(b) If any person commences or continues any work in contravention of rule 82(3), in or upon any such building, structure, flood bank, road or carries out addition or alteration thereto, the person contravening the same shall be punishable with a fine which may extend to three hundred rupees.

In addition to this, the supplier shall, after obtaining the concurrence of the Inspector discontinue the supply, if any, to such building, structure, flood bank, or road etc. but only after giving forty-eight hours notice to the person concerned in writing of disconnection of supply and shall not commence the supply until he and the inspector are satisfied that the cause has been removed.

Rule 140 A

Penalty for breach of rule 77, 79 or 80. – Where a person is responsible for any construction which is or which results in contravention of the provisions of rule 77, 79 or 80, he and the contractor whom he employs shall be punishable with a fine which may extend to three hundred rupees, and in the case of continuing breach, with a further daily fine which may extend to fifty rupees.

Rule 141

Penalty for breach of rules. – Any person other than an Inspector or any officer appointed to assist the Inspector who being responsible for the observance of any of these rules commits a breach shall be punishable with a fine of rupees 300 per breach. And in case of continuing breach with a further fine which may extend to fifty rupees for seven day after first during which the breach has continued.