

Overhead lines at extra-high pressure shall not in any part thereof be at a less height than 23 ft. from the ground.

At electric-tramway crossings all electric lines shall be carried at such a height as to be out of reach of the tram-car trolley-pole when in a vertical position.

No overhead electric lines shall come within 2 ft. of any other aerial lines or cables, except where it may be permitted to pass either set of lines between other lines at a pole or support; provided that in cases where guard-wires are necessary, the clearance shall be increased to 3 ft. from the aforesaid aerial lines or cables.

Overhead electric lines shall be so erected as to be inaccessible to any person without the use of a ladder or other special appliance.

The maximum sag shall be computed on the assumption that the conductor is subject to a temperature of 122° F.

14. Supports for Overhead Line.

All metal work forming part of supports for extra-high-pressure lines shall be effectively earthed.

Every support for an aerial line shall be of durable material, and properly strengthened against forces due to wind-pressure, change of direction of line, and unequal length of span. The factor of safety of such supports, if carrying transmission-lines only, shall be such that the moment resulting from a wind-pressure of 30 lb. per square foot of plane surface and 18 lb. per square foot of diametral plane upon a cylindrical surface upon the lines and supports shall not exceed one-half the applied moment which is sufficient to cripple the support if of iron, steel, or ferro-concrete, and shall not exceed one-fourth of the breaking-stress in the case of wood. The factor of safety of supports carrying electric distribution or feeder lines shall be four in the case of steel, iron, or ferro-concrete, and five in the case of wood, calculated upon the ultimate strength of the material, assuming the wind-pressure to be 20 lb. per square foot upon a plane surface and 12 lb. per square foot upon a diametral plane upon a cylindrical surface.

All aerial lines shall be attached to suitable insulators carried on cross-arms or brackets of suitable material and cross-section, and they shall be so attached to the insulators or guarded that they cannot fall away from the supports. Conductors covered with insulating material shall be so attached that their insulation shall not be impaired where they are secured to the insulators.

Electric distribution-lines at low pressure may be carried on brackets attached to buildings; provided they are inaccessible from any window, balcony, parapet, or other portion of the building without the use of a ladder or other special appliance.

15. Maximum Length of Span.

The distance between supports carrying electric distribution or feeder lines shall not exceed 150 ft. where the direction of the line is straight, or 120 ft. where the direction is curved or where the lines make a horizontal angle at the point of support.

16. Angle of crossing Thoroughfares.

Where an aerial line crosses a street the angle between the line and the direction of the street at the place of crossing shall not be less than 45°, and the span shall be as short as possible.

17. Covering of Overhead Lines.

Electric lines at low pressure shall be covered throughout with triple braiding, thoroughly impregnated with weather-proof compound; provided that where circumstances permit the lines may, with the consent of the Minister, be bare.

Electric lines at high pressure shall be insulated with vulcanized rubber of at least 600-megohm grade; provided that where circumstances permit the lines may, with the consent of the Minister, be bare.

Electric lines at extra-high pressure shall be bare.

Earthed neutral or intermediate conductors may in all cases be bare.

18. Low, High, and Extra-High Pressure Lines on same Poles.

Where high and extra-high pressure lines are supported on the same poles or supports both lines shall be bare, and means shall be provided for automatically and effectively earthing the high-pressure line in the event of the extra-high-pressure line making contact with the high-pressure line.

Low-pressure and extra-high-pressure lines shall not be carried on the same poles or supports except with the consent of the Minister, who shall prescribe the conditions under which the electric lines shall be erected.

Where low-pressure and high-pressure lines are supported on the same poles or supports, the high-pressure line shall be insulated with vulcanized rubber of at least 600-megohm grade, and the low-pressure lines as provided in clause 17.

19. Telephone Line on Transmission-line Poles.

Telephone wire or wires supported on electric-line poles shall be of hard-drawn copper or other material, and shall not be less than No. 12 S.W.G. The minimum clearance between the lowest point of the span and the ground shall be 18 ft.

The wires shall be suitably guarded against lightning, and shall be fused. Such arrangements shall be made where the telephone is placed as will prevent the possibility of injury resulting to any person using the telephone should a power-wire come into contact with the telephone wires, or from leakage or from induction.

20. Location of Overhead Lines.

Except by permission of the Minister of Telegraphs, or subject to an agreement between the Post and Telegraph Department and the licensee, all overhead electric lines shall be placed on the opposite side of the street to that on which any telegraph lines exist; and where the erection of the electric lines necessitates the alteration of any existing telegraph lines, and such alteration is approved by the Minister of Telegraphs, the expense of the alteration shall be borne by the licensee.

In running the electric lines authorized by a license through a street where no telegraph line exists, the licensee shall keep to one side of the street, and in running electric service lines to the opposite side of the street the licensee shall arrange so as to interfere as little as possible with the route on that side of any future telegraph line.

21. Facility for Service Connections, &c.

Where electric distribution-lines are on one side of the street and telegraph lines on the other, and service is required to be given from either to the other side of the street, the licensee and the Minister of Telegraphs shall give to each other reasonable facilities as far as possible to effect supply. The Minister of Telegraphs and the licensee shall in special circumstances give to each other reasonable facilities for the joint use of poles.

22. Use of Telegraph Department's Poles.

Electric lines shall not under any circumstances be attached to the Telegraph Department's poles without the consent of the Minister of Telegraphs.

Where electric lines are permitted to be supported on telegraph poles all details of the supports and the insulation shall be approved by the Minister of Telegraphs, apart from any other provision contained in these regulations, who may require such electric lines at any time to be removed from such telegraph poles on reasonable notice, and without any compensation whatsoever.

23. Protection of Telegraph Wires, &c.

The licensee shall take all reasonable precautions in constructing, laying down, and placing the electric lines and other works of all descriptions, and in working the undertaking, so as not injuriously to affect, whether by induction or otherwise, the working of any wire or line used for the purpose of telegraphic, telephonic, or electric-signalling communication, or the currents of that wire or line, whether that wire or line is or is not in existence at the time of the laying-down or placing of the electric lines or other works.

At telegraph-line crossings the electric lines shall pass over or under the telegraph lines or cables, as may be decided by the Minister of Telegraphs, and shall be at least 2 ft. distant. Where it is impracticable to cross above or below, the electric lines may be taken through, but, when permitted to be taken through, the crossing shall be made at a pole in a manner to be approved by the Minister of Telegraphs.

In places where it may be required to cross the electric lines through any other aerial lines or cables because of the impracticability of crossing above or below—and crossing above or below shall be done if possible—all such through crossings, if permitted by the Minister, shall be effected at a pole. In every case of a through crossing, no matter whose property the lines crossed through may be, the method of carrying the electric lines across the pole, protecting them thereon, protecting other lines from coming into contact with them, and protecting persons working on the poles from danger of shock shall be to the satisfaction of the Minister. The electric lines shall be insulated with not less than 600-megohm-per-mile grade of vulcanized rubber where they pass through on the poles, and over the whole length of the span on each side of the pole crossed through. Where the electric lines cross through on the pole they shall be encased in some approved hard protecting substance for the entire length of the arm on such pole. If metal pipe is used to encase the line it shall be effectively earthed.

Where electric lines and telegraph lines intersect, the latter shall be suitably insulated if deemed necessary, and when the crossing is above and near a pole the spans of the latter on