

2. "That no local or municipal authority, company, or person shall be allowed to lay in, or erect on, or along any street or public thoroughfare, any electric light or power wires without statutory authority."
3. "That a Board of Control consisting of, say, three members, be appointed in each colony, under whose supervision all works relating to electric lighting and the transmission of power shall be carried out in accordance with the rules and regulations approved by the Governor in Executive Council; and that a central or intercolonial Board of Control, consisting of representatives from the local boards, should also be appointed to make such amended rules and regulations as may from time to time be necessary, and to deal with matters cognate thereto."

The following Regulations were agreed to by the Committee, and are recommended for adoption by the Australian colonies:—

RULES AND REGULATIONS TO BE OBSERVED IN THE ERECTION OR LAYING OF ELECTRIC LIGHT AND POWER WIRES.

DEFINITIONS.

In the following Regulations the expression "Aerial conductor" means any wire or cable for the transmission of electrical energy for light or power purposes placed above ground in the open air.

The expression "Service conductor" means any conductor used to connect any aerial conductor with a consumer's premises.

The expression "Efficient earth" means that when any casing, support for conductors, conducting wire, or other metallic body is required to be efficiently connected to earth, such casing, support, conducting wire, or metallic body shall be deemed to be so connected when it is connected to metallic mains for water supply outside of buildings, or, where these are not available, to a mass of metal having a total surface of at least four square feet, buried to a depth of at least three feet in moist earth, by means of a conductor possessing a mechanical strength, and offering a passage to electrical discharges, equal to that of a strand of seven No. 16 galvanised iron wires.

The expression "Pressure" means the difference of electrical potential between any two conductors through which a supply of energy is given, or between any part of either conductor and the earth; pressure on any alternating current system being taken to be the equivalent of pressure on a continuous current system when it produces an equal heating effect if applied to the ends of a thin stretched wire or carbon filament; and—

- (a) Where the conditions of the supply are such that the pressure cannot at any time exceed 300 volts if continuous, or the equivalent of 150 volts if alternating, the supply shall be deemed a low pressure supply;
- (b) Where the conditions of the supply are such that the pressure may exceed the limits of a low pressure supply, but cannot exceed 3,000 volts, or the equivalent of 3,000 volts, whether continuous or alternating, the supply shall be deemed a high pressure supply;
- (c) Where the conditions of the supply are such that the pressure may on either system exceed 3,000 volts, or the equivalent of 3,000 volts, the supply shall be deemed an extra high pressure supply.

Mains, services, and other conductors and apparatus are referred to as low pressure, high pressure and extra high pressure mains, &c., according to the conditions of the supply delivered through the same, or particular portions thereof.

The expression "Earth return" means that the earth is used as a passage for a return circuit solely, or is assisted by a metallic conductor.

The expression "Electrical energy" shall mean the capacity for doing work by electricity.

The expression "Constituted authorities" means the Boards of Control appointed by the several Australian Governments.

OVERHEAD CONDUCTORS.

1. *Height from ground, and distance from buildings, &c.*—An aerial conductor in any street or thoroughfare shall not, in any part thereof, be at a less height from the ground than 20 feet; or, where it crosses a street, 30 feet, or within 6 feet of any building or erection other than a support for the conductor, except where brought into a building for the purpose of supply.

2. *Aerial conductors over housetops.*—Where necessary to run aerial conductors over the top of any buildings, they shall be kept at least 7 feet clear above the buildings; and all poles placed on buildings shall be fixed in shoes or plates, so that the downward pressure may be distributed over a large surface; such poles must be properly stayed with stranded galvanised iron or steel wires, and be efficiently connected to earth.

3. *Maximum intervals between supports.*—Every aerial conductor shall be attached to supports at intervals not exceeding 200 feet where the direction of the conductor is straight, or 150 feet where this direction is curved, or where the conductor makes a horizontal angle at the point of support. If suspending wires are used, as required in Regulation 17, the span for straight lines may be increased to 250 feet.

4. *Angle of crossing thoroughfares.*—Wherever possible a conductor should cross a street at right angles, and in no case shall the angle between such conductor and the direction of the street at the place of such crossing be less than 60 degrees, and the span shall be as short as possible.

5. *Supports, construction and erection of.*—Every support of aerial conductors shall be of a durable material and properly stayed against forces due to wind pressure, change of direction of the conductors, or unequal lengths of span, and the conductors must be securely attached to insulators fixed to the