

11. Where the electric-light wires are on one side of a street and the telegraph wires are on the other, and service is required to be given from either to the other side of the street, the Council and the Minister of Telegraphs shall give to each other reasonable facilities as far as possible to effect supply.

12. Every main shall be tested for insulation after having been placed in position and before it is used for the purposes of supply, the testing pressure being at least 500 volts, and the Council shall duly record the results of the tests of each main or section of a main, and forthwith forward a report thereof to the District Engineer at Auckland.

13. The insulation of every complete aerial and underground circuit used for the supply of energy, including all machinery, apparatus, and devices forming part of or in connection with such circuit, shall be so maintained that the leakage current shall not under any conditions exceed one-thousandth part of the maximum supply current. Every leakage shall be remedied without delay. Every such circuit shall be tested for insulation at least once in every week, and the Council shall duly record the results of the tests, and forward a report thereof at the end of each week to the District Engineer at Auckland.

14. The sectional area of the conductor in any electric line (other than service wires or connections to street lamps) laid or erected in any street shall not be less than 7/18 standard wire gauge service wires, and connections to street lamps shall not be less than No. 12 standard wire gauge if solid or 7/20 standard wire gauge if stranded.

15. All metal pipes or coverings containing any electric wire shall be efficiently connected with earth, and shall be so jointed as to make good electrical connection throughout their whole length.

16. Arc lamps used in any street for public lighting shall be so fixed as not to be in any part at a less height than 10 ft. from the ground.

All arc lamps shall be so guarded as to prevent pieces of ignited carbon or broken glass falling from them, and shall not be used in situations where there is any danger of the presence of explosive dust or gas.

17. The variation of pressure at any consumer's terminals shall not exceed 4 per cent. above or below the normal pressure at which he is being supplied.

18. 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 of iron, steel, or ferro-concrete shall be at least four, and if of wood shall be at least six, taking into consideration all possible stresses, including wind-pressure at 30 lb. per square foot on plane surfaces and 18 lb. per square foot of diametrical plane for cylindrical surfaces. The stress in the aerial conductors shall not exceed 28,000 lb. per square inch for copper and 15,000 lb. per square inch for aluminium in the extreme case of a temperature of 12° Fahr. and a wind-pressure of 18 lb. per square foot of diametrical plane occurring simultaneously.

19. Earth-wires, where led down poles, shall be protected by casing for a distance of 8 ft. from the ground.

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

21. Any aerial wire shall not in any part thereof be at a less height from the ground than 18 ft., or within 5 ft. measured horizontally or vertically from any part of any building or erection other than a support for the line, except where brought into a building for the purpose of supply. No work of any nature shall be erected or constructed upon, over, or under any part of the Government railways until the Council has obtained the consent of the Minister of Railways thereto, as required by section 4 of the Government Railways Amendment Act, 1910 (No. 2).

22. Service lines from aerial lines shall be led as directly as possible to insulators firmly attached to some portion of the consumer's premises which is not accessible to any person without the use of a ladder or other special appliance. Every portion of any service line which is outside a building, and is within 7 ft. from any part of the building, shall be rubber-insulated.

23. 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 60 degrees, and the spans shall be as short as possible. The minimum height of the line shall be 20 ft. above the street level.

24. Where an aerial line crosses or is in proximity to any metallic substance, precautions shall be taken against the possibility of the line coming into contact with the metal-

lic substance, or of the metallic substance coming into contact with the line by breakage or otherwise.

25. Every aerial line, including its supports, its conductors, and their insulating covering, and all the structural parts and electrical appliances and devices belonging to or connected with the line, shall be duly and efficiently maintained as regards both electrical and mechanical conditions.

26. An aerial line shall not be permitted to remain erected after it has ceased to be used for the supply of energy, unless the Council intends within a reasonable time again to take it into use.

27. Where any portion of any electric line or any support for an electric line is exposed in such a position as to be liable to cause injury from lightning, it shall be efficiently protected against such liability.

28. The Council shall be responsible for all electric lines or wires, fittings, and apparatus belonging to it, or under its control, which may be upon a consumer's premises, being maintained in a safe condition and in all respects fit for supplying energy.

29. In delivering the energy to a consumer's terminals the Council shall exercise all due precautions so as to avoid risk of causing fire on the premises.

30. A suitable safety-fuse or other automatic circuit-breaker shall be inserted in each service line within a consumer's premises as close as possible to the point of entry, and contained within a suitable locked or sealed receptacle of fireproof construction.

31. All electric wires placed on a consumer's premises shall be insulated with rubber of 600-megohm grade, and shall be thoroughly protected against injury to the insulation or access of moisture. All electric wires shall be so fixed and protected as to prevent the possibility of electrical discharge to any adjacent metallic substance.

32. The Council shall not connect the wires and fittings on a consumer's premises with its mains, or, in the case of premises already connected, continue the supply from its mains, unless it is reasonably satisfied that the requirements of this license are complied with, that the wirings and fittings are suitable for the voltage at which supply is being given, that the installation generally is in accordance with the requirements of good practice, and that the connection or continuance of supply would not cause a leakage from those wires and fittings exceeding one ten-thousandth part of the maximum supply current to the premises.

For the purpose of satisfying itself that the requirements of this license are being observed in so far as they apply to wires on a consumer's premises, the Council may require that notice be served upon it of the intention to instal wires, fittings, lamps, motors, or other apparatus on any premises, and may inspect the same during any reasonable hours while the installation of such is in progress.

33. If the Council is reasonably satisfied, after making all proper examination by testing or otherwise, that the wiring and fittings are not suitable for the voltage being employed, that a leakage exists at some part of a circuit of such extent as to be a source of danger, and that such leakage does not exist at any part of the circuit belonging to the Council, or that any other requirements of this license are not being complied with, then and in such case any officer of the Council, duly authorized by it in writing, may, for the purpose of discovering whether the leakage exists at any part of a circuit within or upon any consumer's premises, or whether the wiring is suitable and the general requirements of the license are complied with, by notice require the consumer, at some reasonable time after the service of the notice, to permit him to inspect and to test the wires and fittings belonging to the consumer and forming part of the circuit.

If on such testing and inspection the officer discovers a leakage from the consumer's wires exceeding one ten-thousandth part of the maximum supply current to the premises, or that the requirements of this license are not properly conformed to, or if the consumer does not give all due facilities for inspection and testing, the Council shall either not commence the supply or shall forthwith discontinue the supply of energy to the premises in question, giving immediate notice to the consumer of its reasons for not commencing or for discontinuing the supply, and in either case supply shall not be given until the Council is reasonably satisfied that the installation is in conformity with the requirements of this license.

34. If any consumer is dissatisfied with the action of the Council in refusing to give, or in discontinuing, or in not recommencing the supply of energy to his premises, the wires and fittings of that consumer may, on his application to the Minister, and on payment of the cost, be inspected and tested by the Inspecting Engineer.

This provision shall be indorsed on every notice given under the provisions of either of the two last preceding clauses.