

(e.) Such further electric lines within the area of supply as may from time to time be required within such area of supply, after compliance with the provisions of clause 48.

9. The Board shall have the right at any time or times during the continuance of this license, with the consent of the Minister, to enter upon any road or other land, whether vested in or occupied by the Crown or any other person or body corporate, and there to construct, erect, lay down, maintain, renew, or repair all such transmission-lines, poles, or other things as are required for the transmission of electricity between the generating-stations and any of the substations to which this license applies.

10. The Inspecting Engineer, both during and after the construction of the works, shall have free access to and liberty at any time to inspect the same so as to ensure that the provisions of this license are given due effect to.

11. After the said works have been completed the Board shall maintain the same in proper working-order during the continuance of this license.

12. The Board is hereby empowered to take, under the Public Works Act, 1908, as for a public work, such land as may, in the opinion of the Governor, be necessary to enable the Board to construct and maintain the various works authorized by this license.

13. Nothing herein shall prevent the Governor in Council from granting to any person or body corporate other than the Board a license to take water from any portion of the said stream except at the place where the Board is by this license empowered to take it, provided that no such license shall so operate as to reduce the volume of the water which the Board is by this license authorized to take from the said stream.

14. If the Board fails or neglects—

(a.) To use or maintain the said works after completion so as to secure the full benefit of the undertaking; or

(b.) To observe any of the conditions or obligations herein imposed—

then and in any such case the Board shall be liable to a fine of £50 for every week or part of a week during which such default or neglect continues, or the Governor may by Order in Council revoke this license.

15. Notwithstanding anything in the last preceding clause this license shall not be revoked and no proceedings shall be taken for the recovery of a fine in respect of the breach thereof unless and until notice in writing of the intention so to revoke the license or to take such proceedings has been served upon the Board or placed upon some principal or conspicuous part of the works, and default has been made by the Board in repairing or remedying the breach or breaches specified in the said notice for the following periods:—

(a.) For any breach which in the opinion of the Governor can be met by a fine, for thirty days after the service of such notice.

(b.) For any breach which in the opinion of the Governor is of such a nature as to require the revocation of this license, for ninety days after the service of such notice.

16. Nothing herein contained shall be deemed in any way to limit any rights or powers vested in His Majesty the King, or in the Governor on his behalf, or otherwise under any Act of the General Assembly authorizing the construction, management, or working of any public works, nor shall His Majesty, or the Governor, or any person on his behalf, be liable to pay to the Board any compensation for injury done to the works herein authorized by the construction, management, or working of any such public work as aforesaid, or for loss occasioned thereby, or for the exercise of any such right or power as aforesaid.

17. The Board may at any time, with the consent of the Minister, surrender this license, and shall thereupon, if so required by the Minister, remove from the ground all removable equipment, machinery, buildings, poles, transmission-lines, and other plant herein authorized to be installed or provided. If the Board neglects or fails so to remove the said plant within twelve months after being required so to do, such equipment, machinery, buildings, poles, lines, and other plant shall, without payment of compensation, vest in and become the property of the Crown.

18. The terms and conditions of this license may at any time or from time to time, at the request or with the consent in writing of the Board, be altered by the Governor by Order in Council.

19. With respect to the transmission and other lines authorized to be erected by this license, and to the transmission and supply of electricity in pursuance thereof, the following special provisions shall apply:—

System of Supply.

20. The system of supply shall be two-wire direct current, with a difference of potential not exceeding 230 volts between

the two conductors or between either conductor and the earth. The declared pressure at the consumer's terminals shall be 230 volts.

Supply to street-lighting incandescent lamps and to private consumers for lighting purposes shall be at 230 volts.

Regulation of Pressure.

21. The pressure shall be maintained within 4 per cent. on lighting-distributing circuits above or below the declared pressure at the consumers' terminals. The Board shall supply a suitable recording voltmeter for this service, and on complaint by any consumer that the variations in voltage exceed these limits, or on the instructions of the Inspecting Engineer, the Board shall connect a recording voltmeter to record the pressure between the lines at their entrance to the consumers' premises, and shall supply to the Inspecting Engineer a chart showing the variations in voltage between the lines at this point for a period of seven consecutive days. If the variations thus recorded exceed the above limits the Board shall take immediate steps to comply with this regulation. If after thirty days a similar chart shows that the above limits of variations in voltage are not complied with a breach of these regulations shall be deemed to have been committed. If the accuracy of the Board's recording voltmeter is questioned by the consumer a standard instrument shall be supplied by the Inspecting Engineer, the reading of which shall be accepted as final.

Switchboards.

22. All switchboards shall be made of and mounted on material that is not inflammable, and no switchboard conductor shall carry electric current at a density exceeding 1,000 amperes per square inch. No conductor at a pressure above 650 volts shall be exposed on the front of any switchboard, and the back of any switchboard carrying exposed conductors at a pressure over 650 volts shall be screened off and accessible only to authorized persons.

Circuit-breakers.

23. All outgoing feeders and distributors from the powerhouse shall be provided with automatic circuit-breakers or fuses set to open at 100 per cent. excess current over the rated full load of such feeder or distributor, with a time-limit not exceeding ten seconds.

Distribution.

24. The distribution may be carried out either by underground or overhead conductors. Provided that if at any time it is deemed by the Minister to be detrimental to the public safety for the conductors or any particular class of conductors to be overhead, such conductors shall, on receipt of notification to that effect from the Minister and within ten months of such notification, be laid underground, and all consequent and necessary alterations made by and at the cost of the Board.

Overhead Electric Lines.

25. The diameter of any conductor in any electric line laid or erected for the supply of electrical energy shall not be less than 0.104 in. diameter (No. 12 S.W.G. or 7/20 S.W.G.); provided that No. 14 S.W.G. may be used for service connections in spans not exceeding 66 ft. If the material of the conductor is aluminium the conductor shall be stranded.

The stress in overhead conductors shall not exceed 25,000 lb. per square inch for hard-drawn copper, 12,000 lb. per square inch for hard-drawn aluminium, 34,000 lb. per square inch for steel, and 22,500 lb. per square inch for iron in the extreme case of a temperature of 20° Fahr. and a wind-pressure of 18 lb. per square foot of diametral plane occurring simultaneously. The span between supports and the sag shall be determined to conform with the above limiting stresses.

No overhead electric lines shall come within 2 ft. of any aerial lines or cables belonging to another authority except where it may be permitted to pass either set of wires between other wires at a pole or support.

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

All overhead electric lines at low pressure shall not in any part thereof be at a less height than 18 ft. above the ground, and shall not in any part thereof be within 5 ft. measured horizontally or vertically from any building or erection other than a support for the line, except where brought into a building for the purpose of supply.

When 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°, and the span shall be as short as possible.

Where an aerial line crosses or is in proximity to any metallic substance precautions shall be taken by the Board