

## Hong Kong.

No. 354.

*Regulations made by the Governor in Council under section 3 (2) of the Electricity Supply Ordinance, 1911, Ordinance No. 18 of 1911, on the 11th day of June, 1930.*

1. Regulation 13 of the regulations for securing the safety of the public, contained in the Schedule to the Electricity Supply Ordinance, 1911, is hereby rescinded and the following regulation is substituted therefor:--

## 13. Part I.—General.

Material of line conductors. (1) Line conductors shall be copper, aluminum, or such other materials as may be approved by the Director of Public Works.

Strength of line conductors. (2) All line conductors at the time of erection shall comply, as regards elongation, breaking load and elasticity, with the specification of the British Engineering Standards Association then in force.

Minimum size of line conductor. (3) The minimum permissible size for copper and other line conductors (other than service lines) shall be such as to have an actual breaking load of not less than 1,237 pounds, the equivalent minimum cross-sectional area and weight per mile for copper being as follows:--

<i>Conductor.</i>	<i>Cross-sectional area.</i> <i>sq. ins.</i>	<i>Weight per mile.</i> <i>lbs.</i>
No. 8 S.W.G.	0.0201	409

The minimum permissible size of service line shall be such as to have an actual breaking load of not less than 816 pounds, the equivalent minimum cross-sectional area and weight per mile for copper being as follows:—

<i>Conductor.</i>	<i>Cross-sectional area.</i> <i>sq. ins.</i>	<i>Weight per mile.</i> <i>lbs.</i>
No. 10 S.W.G.	0.0129	262

Line conductors to be inaccessible. (4) Line conductors shall be rendered inaccessible to any person from any building or other place without the use of a ladder or other special appliance.

Regard shall be had to the normal use by the occupier of any premises or land and where necessary (a) the height of the line conductors shall be increased to provide sufficient clearance for safety in accordance with such use, and (b) provision as hereinafter prescribed in paragraphs 14 or 17 shall be made to prevent danger.

Line conductors crossing other lines. (5) Where a line conductor crosses over or under, or is in proximity to any other overhead wire, precautions shall be taken by the company to prevent contact, due to breakage or otherwise, between the line conductor and the other overhead wire, or between the other wire and the line conductor.

Provided that this paragraph (5) shall not be deemed to require the company to take precautions against contact between a broken line conductor and other auxiliary conductors and earth wires carried on the same support and forming part of the same overhead line.

Supports. (6) Line conductors shall be attached to suitable insulators carried on supports of iron, steel or reinforced concrete. Special precautions shall be taken to prevent the corrosion of all metal work at or below the surface of the ground.

Factor of safety of supports.

(7) The supports, in conjunction with stays or struts if provided, shall withstand the longitudinal, transverse and vertical loads due to the wind pressure hereinafter specified without damage and without movement in the ground. In no case shall the strength of a support in the direction of the overhead line be less than one-quarter the required strength in a direction transverse to the line.

The following factors of safety shall apply to each support,—

<i>Material.</i>	<i>Factor of safety.</i>
Iron or steel .....	3
Reinforced concrete .....	4

These factors of safety shall be calculated on the assumption that all line conductors, cables and wires carried by the supports are at a temperature of 70° F., and that together with the supports they are subjected to a wind pressure of 40 lbs. per square foot.

Service lines.

(8) Service lines shall be connected to line conductors at a point of support only and shall be fixed to insulators on consumers' premises. Every part of a service line (other than a neutral conductor connected with earth) which is accessible from a building with the use of a ladder or other special appliance shall be efficiently protected either by insulating material or by other means approved by the Director of Public Works.

Erection of line conductors at different voltages on same supports.

(9) Where line conductors forming parts of systems at different voltages are erected on the same poles or supports adequate provision shall be made to guard against danger to linesmen and from the lower voltage system being charged above its normal voltage by leakage from or contact with the higher voltage system; and the type of construction shall be subject to the prior approval of the Director of Public Works.

Inspection and maintenance of lines.

(10) Every overhead line, including its supports and structural parts, and electrical appliances and devices belonging to or connected therewith, shall be regularly inspected and efficiently maintained.

Materials used.

(11) All materials used shall at the time of erection conform to the specifications of the British Engineering Standards Association and the Post Office (London) for the construction of aerial lines, for the time being in force, so far as the same are applicable and are not inconsistent with this regulation.

## Part II.—Specific.

(Applicable according to the voltage between line conductors where no part of the system is connected with earth, or according to the voltage to earth where part of the system is connected with earth).

### *A.—For voltages not exceeding 650 volts direct current and 325 volts alternating current.*

Factor of safety of line conductors.

(12) The factor of safety of line conductors shall be 2. The factor of safety shall be based on the breaking load and shall be calculated on the assumption that the line conductors are at a temperature of 70° F. and that they are subjected to wind pressure of 40 lbs. per square foot.

Minimum height of conductors.

(13) The height from the ground of any line conductor (other than a service line), earth wire, or auxiliary conductor at any point of the span at a temperature of 160° F. shall not, except with the consent of the Director of Public Works, be less than 19 feet across a public road or 17 feet in other positions. A height of 15 feet may be adopted in situations inaccessible to vehicular traffic.

Where a service line is carried across or along a carriage-way, the height of the line from the ground at any part of the carriage-way shall not, except with the consent of the Director of Public Works, be less than 19 feet and 17 feet respectively.

Provision to prevent danger.

(14) Where the voltage to earth exceeds 250 volts direct current or 125 volts alternating current, precaution should be taken to prevent danger—

(I) from a broken line conductor by the provision of—

(a) a neutral or earthed conductor carried continuously from pole to pole, and so arranged in relation to the other conductors that in the event of breakage of any one of them the line conductor shall make contact with the earthed wire; or

(b) other means approved by the Director of Public Works.

(II) from leakage by the provision—

(a) in cases where metal poles are used, of

(i) an earthed wire, running from pole to pole and connected to the poles; or

(ii) a suitable metal framework to support the insulators carrying the line conductors, the framework being insulated from the pole but connected to the neutral conductor; or

(iii) other means approved by the Director of Public Works.

(b) in cases where wooden poles are used, of

(i) a bonding wire connected to the supporting metal work of all insulators, the bonding wire terminating at the lowest part of the supporting metal work; or

(ii) other means approved by the Director of Public Works.

All stay wires other than those which are connected with earth by means of a continuous earth wire shall be insulated to prevent danger from leakage. For this purpose an insulator shall be placed in each stay wire at a height of not less than 10 feet from the ground.

*B.—For voltages exceeding 650 volts direct current and 325 volts alternating current.*

Factor of safety of line conductors.

(15) The factor of safety of line conductors shall be 2. The factor of safety shall be based on the breaking load and shall be calculated on the assumption that the line conductors are at a temperature of 70° F., and that they are subjected to a wind pressure of 40 lbs. per square foot.

Minimum height of conductors.

(16) The height from the ground of any line conductor at any point on the span at a temperature of 160° F. shall not, except with the consent of the Director of Public Works, be less than the height hereunder stated :—

Voltages not exceeding 66,000 volts .....	20 feet.	Voltages exceeding 110,000 volts and not exceeding 165,000 volts .....	22 feet.
Voltages exceeding 66,000 volts & not exceeding 110,000 volts .....	21 feet.	Voltages exceeding 165,000 volts .....	23 feet.

The height from the ground of an earth wire or auxiliary conductor shall not be less than the minimum heights prescribed in paragraph (13) above.

Provision to prevent danger.

(17) Adequate means shall be provided to render any line conductor dead in the event of it falling, due to breakage or otherwise.

All metal work other than conductors shall be permanently and efficiently connected with earth. For this purpose a continuous earth wire shall be provided and connected with earth at four points in every mile, the spacing between the points being as nearly equidistant as possible, or alternatively, the metal work shall be connected to an effective earthing device at each individual support. The design and construction of the system of earth connections shall be such that when contact is made between a line conductor and metal con-

nected with earth the resulting leakage current shall not be less than twice the leakage current required to operate the devices which make the line dead.

Road-crossings,  
etc.

(18) Where an overhead line is erected along or across a public road or canal or across a railway all wires including earth wires and auxiliary conductors shall be placed at the appropriate height from the ground specified in paragraph (16) for line conductors, and the following additional precautions shall be taken to prevent danger :—

(I) In the case of a line erected along a public road or canal (or within 50 feet thereof) there shall be provided—

- (a) duplicate insulators supporting the conductors ; or
- (b) a device to ensure that in the event of a line conductor falling it shall be put to earth ; or
- (c) other means approved by the Director of Public Works.

(II) In the case of a line erected across a public road, canal or railway there shall be provided—

- (a) duplicate insulators for supporting the line conductor and a device to ensure that in the event of a line conductor falling it shall be put to earth ; or
- (b) duplicate insulators supporting duplicate conductors tied at intervals not exceeding five feet ; or
- (c) other means approved by the Director of Public Works.

Danger notices.

(19) Supports shall be numbered consecutively and each support shall have a danger notice of a permanent character securely fixed to it. Adequate provision shall also be made to prevent unauthorised climbing.

(20) All overhead lines shall be removed on ceasing to be used for the purposes for which they were erected.

2. Regulation 30 of the said regulations is hereby rescinded and the following regulation is substituted therefor :—

30. The company shall not connect with its mains or allow to remain connected with its mains consumers' wires or fittings that would cause an undue leakage, or that are constructed or arranged in such a manner as to cause a danger of shock or fire. Where the company declines to make such connexion it shall serve upon the consumer a notice stating its reasons for so declining. The consumer may appeal to the Director of Public Works whose decision shall be final.

For the purpose of ascertaining that a consumer's wires and fittings have not subsequently fallen into an unsafe condition the company shall make periodical tests at intervals of not more than five years.

3. Regulation 31 of the said regulations is hereby rescinded and the following regulation is substituted therefor :—

31. Any officer of the company, duly authorised by it in writing, may, for the purpose of discovering whether a defect exists at some part of a consumer's installation within or upon the consumer's premises, by notice require the consumer at some reasonable time after the service of the notice to permit him to inspect and test the installation.

If the consumer does not give all due facilities for such inspection and testing within a reasonable time after the receipt of the notice, the company shall forthwith discontinue the supply of energy to the consumer's premises, giving immediate notice of the discontinuance to the consumer, and shall not recommence the supply until the test has been carried out.

If after such inspection and testing the company is reasonably satisfied that a defect exists at some part of a consumer's installation of such an extent as to be a source of danger the company shall by notice require the consumer within a reasonable time, not exceeding seven days after the service of such notice, to remove the defect.

If after retesting by an officer of the company the installation is found to be still defective, the company shall forthwith discontinue the supply of energy to the premises in question. The supply shall not be reconnected until the defect has been removed and the charges for reconnection and retesting have been paid to the company.

D. W. TRATMAN,  
*Clerk of Councils.*

COUNCIL CHAMBER,  
*12th June, 1930.*

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### APPOINTMENTS, &c.

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**No. 355.**—His Excellency the Governor has been pleased to appoint, under section 4 of the Education Ordinance, 1913, Ordinance No. 26 of 1913, Mr. ALAN OERTON BRAWN to act as Inspector of English Schools, with effect from the 6th June, 1930.

*12th June, 1930.*

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**No. 356.**—With reference to Government Notification No. 316, published in the Gazette of the 23rd May, 1930, His Excellency the Governor has received information from the Secretary of State for the Colonies that Mr. GEORGE BLISS LANE has been appointed a Vice-Consul for the United States of America in Hong Kong.

*12th June, 1930.*

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**No. 357.**—With reference to Government Notification No. 279, published in the Gazette of the 9th May, 1930, His Excellency the Governor has received information from the Secretary of State for the Colonies that Senor Don PATRICIO SMART-FABRES has been appointed as Consul for Chile in Hong Kong.

*13th June, 1930.*

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**No. 358.**—The King's Exequatur empowering Mr. M. SANTIAGO LLOSA A. to act as Consul-General for Peru in Hong Kong has received his Majesty's signature.

*13th June, 1930.*