

A BILL

ENTITLED

An Ordinance further to amend the Widows' and Orphans' Pension Ordinance, 1908.

BE it enacted by the Governor of Hongkong, with the advice and consent of the Legislative Council thereof, as follows :—

Short title and construction.

1. This Ordinance may be cited as "The Widows' and Orphans' Pension Amendment (No. 2) Ordinance, 1911", and shall be read as one with the Widows' and Orphans' Pension Ordinance, 1908, hereinafter called "the Principal Ordinance", as amended by the Widows' and Orphans' Pension (Amendment) Ordinance, 1909, and by the Widows' and Orphans' Pension Amendment Ordinance, 1911.

Amendment of section 18 of the Principal Ordinance.

2. Section 18 of the Principal Ordinance is amended by inserting after the words "on attaining the age of 65" the words "or on leaving the service".

Memorandum.

This Bill inserts in Section 18 of Ordinance 15 of 1908 certain words which were left out in consequence of some misunderstanding when that Ordinance was passed.

W. REES DAVIES,
Attorney General.

A BILL

ENTITLED

An Ordinance for regulating the supply of Electricity for Lighting and other purposes within the Colony of Hongkong and its Dependencies.

BE it enacted by the Governor of Hongkong, with the advice and consent of the Legislative Council thereof, as follows :—

Short title.

1. This Ordinance may be cited as the Electricity Supply Ordinance, 1911.

Definitions.

2. In this Ordinance and in any regulations thereunder, unless the context otherwise implies,—

The expression "electricity" means electricity, electric current, or any like agency.

The expression "electric line" means a wire or wires, conductor, or other means used for the purpose of conveying, transmitting, or distributing electricity with any casing, coating, covering, tube, pipe, or insulator enclosing, surrounding, or supporting the same, or any part thereof, or any apparatus connected therewith for the purpose of conveying, transmitting, or distributing electricity or electric currents.

The expression "works" means and includes electric lines, also any buildings, machinery, engines, works, matters, or things of whatever description required to supply electricity and to carry into effect the object of a company.

The expression "company" means and includes any person and any body of persons corporate or unincorporate by whom electricity is supplied.

The expression "street" includes any square, court, or alley, highway, lane, road, thoroughfare, or public passage, or place.

Regulations for securing the safety of the public.

3. The regulations for securing the safety of the public contained in the Schedule to this Ordinance shall have effect as respects any company supplying electricity within the Colony of Hongkong or its Dependencies.

Provided that nothing in this Ordinance or in any regulations thereunder shall apply to any electric line or works laid down or erected by any person or body of persons for the supply of electricity generated upon any premises occupied by such person or body to any other part of such premises.

Provided always that for such supply any electric line passing under or over any public street, pathway or place shall conform to these regulations.

4.—(1.) Where for the purposes of a supply of electricity any company has obtained or may obtain any licence or authority from the Director of Public Works to break up streets or for any other purpose, the Governor-in-Council may make regulations, which shall be applicable to all companies which have obtained any such licence or authority, for securing a regular and sufficient supply of electricity and generally for controlling and regulating such supply.

Power for Governor-in-Council to make further regulations.

(2.) The Governor-in-Council may make regulations as respects any company supplying electricity for the protection of telegraph cables, telephone lines or lines operated by any department of the Government of Hongkong, or by the naval or military authorities, or by any person or body of persons authorised by the Government of Hongkong to maintain a telegraphic service.

5. Any regulations under this Ordinance may be rescinded, modified, amended, or added to by the Governor-in-Council.

Power for Governor-in-Council to rescind or amend regulations.

6. Regulations made by the Governor-in-Council under this Ordinance and any alteration of or additions to any regulations under this Ordinance shall within three weeks from the making thereof be published in two consecutive weeks in the *Gazette* and shall not have effect until so published.

Notice of regulations.

7. Any regulation under this Ordinance may impose penalties for offences against the same not exceeding *one hundred* dollars for each offence, with or without penalties for continuing offences not exceeding for any continuing offence *one hundred* dollars for every day during which the offence continues.

Penalties may be imposed in regulations.

SCHEDULE.

REGULATIONS FOR SECURING THE SAFETY OF THE PUBLIC.

Definitions.

1. In the following regulations—

The expression "consumer's wires" means any electric lines on a consumer's premises which are connected with the service lines of the company at the consumer's terminals.

Definitions.

The expression "sub-station" means any premises in which energy is transformed or converted for the purpose of supply to consumers, and which are large enough to admit the entrance of a person after the transforming or converting apparatus is in position, provided that for the purpose of these regulations any place within any such premises which is used solely for some purpose other than such transformation or conversion shall not be deemed to form part of a sub station.

The expression "overhead line" means any electric line which is placed above ground and in the open air.

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; and—

(a.) Where the conditions of the supply are such that the pressure at any pair of consumer's terminals does not exceed 250 volts, the supply shall be deemed a low pressure supply;

(b.) Where the conditions of the supply are such that the pressure exceeds 250 volts but does not exceed 650 volts, the supply shall be deemed a medium pressure supply;

- (c.) Where the conditions of the supply are such that the pressure exceeds 650 volts but does not exceed 3,000 volts, the supply shall be deemed a high pressure supply ; and
- (d.) Where the conditions of the supply are such that the pressure exceeds 3,000 volts, the supply shall be deemed an extra high pressure supply.

Where these regulations require any metallic body to be "efficiently connected with earth", it shall be connected with the general mass of earth in such manner as will ensure at all times an immediate and safe discharge of electrical energy.

General.

Pressure of supply to consumers.

2. The pressure of a supply delivered to any consumer shall not exceed the limit of low pressure, except for special purposes, for which a medium pressure supply may be given on the consumer undertaking to comply with the following conditions :—

(a.) Where the supply is for power purposes—

- (1.) The frame of every electric motor shall be efficiently connected with earth.
- (2.) The consumer's wires forming the connections to motors, or otherwise in connection with the supply, shall be, as far as practicable, completely enclosed in strong metal casing efficiently connected with earth, or they shall be fixed in such a manner that there shall be no danger of any shock.
- (3.) The supply to every motor shall be controlled by means of an efficient cut-off switch, placed in such a position as to be easily handled by the person in charge of the motor, and connected so that by its means all pressure can be cut off from the motor itself, and from any regulating switch, resistance or other device in connection therewith.
- (4.) Switches, efficient fuses or other automatic circuit-breakers shall be provided, so as to protect the circuits from excess of current, and all switches and cut-outs shall be so enclosed and protected that there shall be no danger of any shock being obtained in the ordinary handling thereof, or of any fire being caused by their normal or abnormal action.
- (5.) A notice shall be fixed in a conspicuous position at every motor and switch board in connection with the supply forbidding unauthorised persons to touch the motors or apparatus.

(b.) Where the supply is for arc lamps in series—

- (1.) The consumer's wires forming the connections to the arc lamps, or otherwise in connection with the supply, shall be, as far as practicable, completely enclosed in strong metal casing efficiently connected with earth, or they shall be fixed in such a manner that there shall be no danger of any shock.
- (2.) The supply to every arc lamp shall be controlled by means of an efficient cut-off switch, placed in such a position as to be easily handled by the person in charge of the arc lighting, and connected so that by its means all pressure can be cut off from the arc lamp itself, and from any regulating switch, resistance or other device in connection therewith. Provided that where the arc lamps are connected in series across the outer conductors of a three-wire system, it shall be sufficient if one such switch be provided for each series of arc lamps.

- (3.) Switches, efficient fuses or other automatic cut-outs shall be provided, so as to protect the circuits from excess of current, and all switches and cut-outs shall be so enclosed and protected that there shall be no danger of any shock being obtained in the ordinary handling thereof, or of any fire being caused by their normal or abnormal action.
- (c.) Where the supply is for incandescent lamps in series, unless the Director of Public Works otherwise allows,—
 - (1.) The consumer's wires forming the connections to the incandescent lamps, or otherwise in connection with the supply, shall be completely enclosed in strong metal casing and this casing together with the switches and lamp holders, if metallic, shall be efficiently connected with earth.
 - (2.) Switches, efficient fuses or other automatic cut-outs shall be provided, so as to protect the circuits from excess of current, and all switches and cut-outs shall be so enclosed and protected that there shall be no danger of any shock being obtained in the ordinary handling thereof, or of any fire being caused by their normal or abnormal action.

Where the supply is for any special purpose other than those above-mentioned, or where the pressure of the supply exceeds the limits of medium pressure it shall be subject to such other regulations as the Governor-in-Council may from time to time prescribe.

3. When the pressure between the outer conductors of a three-wire system exceeds 250 volts and the three wires of the system or two pairs of wires are brought into a consumer's premises, the supply shall be given to two pairs of terminals arranged in such a manner that there shall be no danger of any shock, and the wiring from those terminals shall be kept distinct.

Introduction of three-wire system into consumer's premises.

4. The sectional area of the conductor in any electric line other than low tension laid or erected in any street after the date of these regulations shall not be less than that of a strand of seven wires, each of which is of No. 22 standard wire gauge, and the sectional area of every wire in a strand forming any such conductor shall not be less than that gauge, and where such stranded conductor is erected it shall be suspended from a suitable bearer wire. In the case of low tension conductors in any electric line the sectional area shall not be less than that of a single wire of No. 16 standard wire gauge efficiently insulated.

Minimum size of conductors.

This regulation shall not apply in the case of an electric line placed in a lamp-post.

5. Every low pressure and medium pressure 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 the maximum pressure to which it is intended to be subjected in use, and in any case at least 200 volts, and the company shall duly record the results of the tests of each main, or section of a main.

Insulation test of low pressure and medium pressure mains.

6. A high pressure circuit shall not be brought into use unless the insulation of every part thereof has withstood the continuous application, during one hour, in the case of every electric line, of a pressure equal to the full working pressure to which it is intended to be subjected in use, and, in the case of every machine, device, or apparatus, of a pressure equal to the full working pressure to which it is intended to be subjected.

Testing of insulation of all parts of high pressure circuit.

The company shall duly record the results of each test.

7. There shall be maintained by the company at each station or sub-station as may be necessary a leakage indicator of approved pattern and so arranged that the leakage on each main feeder can be readily ascertained

Maintenance of insulation.

at any time and a weekly test recorded. If at any time the leakage is in the opinion of the Director of Public Works excessive he shall require the company to remedy the same and it shall forthwith be remedied.

Provided that where any part of any electric circuit is connected with earth, either in accordance with these regulations or with the approval of the Director of Public Works, the provisions of this regulation shall not apply to that part of that circuit so long as the connection with earth exists.

Circuit-breaker for high pressure mains, &c.

8. Every high pressure main, conductor, or other apparatus shall be protected by a suitable fuse or automatic circuit-breaker.

Provided that it shall not be incumbent upon the company to provide such a fuse or circuit-breaker for the outer conductor of a concentric main which is, in accordance with these regulations or with the approval of the Director of Public Works, efficiently connected with earth.

Transformers.

9. In every case where a high pressure supply is transformed for the purpose of supply to one or more consumers, some suitable automatic and quick-acting means shall be provided to protect the consumer's wires from any accidental contact with or leakage from the high pressure circuit, either within or without the transforming apparatus.

Connection of transformers with earth.

10. The metallic portion of every high pressure transformer, with the exception of the conductors thereof, shall be efficiently connected with earth except in respect of transformers supported on poles at such a height as to be inaccessible by a ladder or other special appliance: Provided that in such cases such poles shall be efficiently connected with earth.

Protection from lightning.

11. 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.

Report of accidents to Director of Public Works.

12. Where any accident by explosion or fire, or any other accident of such kind as to have caused or to be likely to have caused loss of life or personal injury has occurred at any part of any electric line or work, the company shall give immediate notice thereof to the Director of Public Works.

Overhead Lines.

Overhead lines in case of low, medium and high pressure supply.

13.—(1.) The provisions of this regulation shall have effect in the case of overhead lines for low, medium and high pressure supply, and in the event of such overhead lines being situated under the verandah or balcony of any building the Director of Public Works shall determine how far and to what extent the provisions of this regulation shall apply.

(2.) The interval between any two wooden poles used singly as supports for an overhead line shall not exceed 200 feet; provided that where the line makes an angle at any such pole, the interval between that and the next pole shall not exceed 150 feet. In the case of supports other than single wooden poles the intervals between the supports shall be such as may be prescribed by the Director of Public Works.

(3.) Every support for an overhead line shall be of a durable material, and shall be properly stayed against forces due to wind pressure, change of direction of the line, or unequal lengths of span. The factor of safety shall be for overhead lines, at least 5, and for wooden poles at least 10, and for iron or steel structures at least 6, taking the maximum possible wind pressure at 40 pounds per square foot.

(4.) All overhead lines shall be attached to insulators, and in the case of lines in which the pressure exceeds 110 volts shall be so guarded that they cannot fall away from the support.

(5.) An overhead line, placed after the date of these regulations, shall not in any part thereof be at a less height from the ground than 18 feet, except with the consent of the Director of Public Works, and shall not be accessible to any person without the use of a ladder or other special appliance.

(6.) Where a supply is given by overhead lines on the three-wire system, the positive and negative conductors shall be placed side by side above the intermediate conductor. The intermediate conductor shall consist of two wires placed side by side at a distance apart greater than that between the positive and negative conductors, and connected in each span by two cross wires placed in such a manner that in the event of either the positive or negative conductor breaking it shall fall on one at least of the cross wires.

(7.) Where a supply is given by overhead lines from a two-wire system, with the negative conductor connected with earth, the positive conductor shall be placed above the negative conductor in such a manner that in the event of breakage it must fall on the negative conductor.

(8.) Service lines from overhead 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 feet from the building, shall be efficiently protected by insulating material.

(9.) Where an overhead 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, except with the consent of the Director of Public Works, and the spans shall be as short as possible.

(10.) Where an overhead line crosses, or is in proximity to, any other wire or metal, precautions shall be taken by the company against the possibility of the line coming into contact with the other wire or metal or of the other wire or metal coming into contact with the line by breakage or otherwise. In the case of all overhead lines in which the pressure exceeds 110 volts, guard wires shall be provided by the company owning such lines. All guard wires must make good electrical connection with the poles and be efficiently connected with earth.

(11.) Every overhead line, including its supports and all the structural parts and electrical appliances and devices belonging to or connected with the line, shall be duly and efficiently supervised and maintained as regards both electrical and mechanical conditions.

(12.) The company shall remove any overhead line upon ceasing to use it for the supply of energy unless upon so ceasing they satisfy the Director of Public Works that they intend to bring it into use again within a reasonable time.

14. Save as above provided overhead lines shall not be erected except in accordance with such regulations as the Governor-in-Council may from time to time prescribe.

Other overhead lines.

Electric Lines other than Overhead Lines.

15. All conduits, pipes, casings, and street boxes used as receptacles for electric lines shall be constructed of durable material, and where laid under carriage ways shall be of ample strength to prevent damage from heavy traffic, and reasonable means shall be taken by the company to prevent accumulation of gas in such receptacles.

Construction of receptacles for electric lines.

16. Where any electric line crosses, or is in proximity to, any metallic substance, special precautions shall be taken by the company against the possibility of any electrical charging of the metallic substance from the line or from any metal conduit, pipe, or casing enclosing the line.

Crossing pipes, &c.

Electric continuity of metal conduits, pipes, and casings of high pressure line.

17. All metal conduits, pipes, or casings containing any high pressure electric line shall be efficiently connected with earth, and shall be so jointed and connected across all street boxes and other openings as to make good electrical connection throughout their whole length.

Precautions to be taken when bare conductors are used.

18. Where the conductors of electric lines placed in any conduit are not continuously covered with insulating material they shall be secured in position, and no unfixed uninsulated material of a conducting nature shall be contained in the conduit. No such conductor shall be at a pressure exceeding 300 volts from earth.

Adequate precautions shall also be taken to ensure that no accumulation of water shall take place in any part of the conduit, and to prevent any dangerous access of moisture to the conductors or the insulators.

The insulators of any such electric line shall be so disposed that they can be readily inspected, but this requirement shall not apply to any such insulators which before the date of these regulations were not required by any regulation then in force to be so capable of ready inspection.

High pressure lines laid above ground or in subways.

19. Every portion of any high pressure electric line placed above the surface of the ground, or in any subway not in the sole occupation of the company, shall be completely enclosed either in a tube of highly insulating material embedded in brickwork, masonry, or cement concrete, or in strong metal casing efficiently connected with earth.

Protection for the surface of the ground and electric lines.

20. Where any high pressure electric line is laid beneath the surface of the ground, efficient means shall be taken to render it impossible that the surface of the ground or any neighbouring electric line or conductor shall become charged by leakage from the high pressure electric line.

Completion and control of high pressure lines.

21. A high pressure electric line shall not, except with the consent of the Director of Public Works, be used for the supply of energy before it has been completely laid, properly jointed, examined, and tested, or until it is in the sole charge of the company, and every such line shall during its use be in the sole charge of the company.

Sub-stations and Street Boxes.

Sub-stations.

22. Sub-stations shall be established in suitable places and shall be in the sole occupation and charge of the company. Sub-stations shall be erected above ground wherever possible, but where necessarily underground, due provision shall be made for ventilation and for drainage.

Street boxes.

23. In addition to the provisions contained in regulation 15 as to the construction of receptacles for electric lines, the following conditions shall be observed with respect to street boxes :—

(a.) The covers of all street boxes shall be so secured that they cannot be opened except by means of a special appliance.

(b.) The covers of all street boxes containing high pressure apparatus other than cables shall be connected to strips of metal laid immediately underneath the street, and efficient means shall be taken to render it impossible that the covers or other exposed parts of these boxes, or any adjacent material forming the surface of the street, shall become electrically charged, whether by reason of leakage, defect, or otherwise.

(c.) Where street boxes are used as transformer chambers, reasonable means shall be taken to prevent as far as possible any influx of water, either from the adjacent soil or by means of pipes ; and in the case of any such street box exceeding one cubic yard in capacity, ample provision shall be made, by

ventilation or otherwise, for the immediate escape of any gas which may by accident have obtained access to the box, and for the prevention of danger from sparking.

- (d.) All street boxes shall be regularly inspected for the presence of gas, and if any influx or accumulation is discovered, the company shall give immediate notice to the company whose gas mains are laid in the neighbourhood of the street box.
- (e.) Where mains at different pressures pass through the same street box they shall be readily distinguishable from one another.

24. The maximum power supplied to any underground sub-station or street box shall not, without the consent of the Director of Public Works, exceed 30 kilowatts in the case of a sub-station or street box containing a single transformer, or 75 kilowatts in the case of a sub-station or street box containing two or more transformers.

Maximum power in case of underground sub-station, &c.

Consumer's Premises.

25. The company shall be responsible for all electric lines, fittings, and apparatus belonging to them, or under their control, which may be upon a consumer's premises, being maintained in a safe condition and in all respects fit for supplying energy.

Responsibility of company for their lines, &c., on consumer's premises.

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

Fire risks.

27. 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, except in cases where the service line is protected by fuses in a street box; but no fuse or automatic circuit-breaker shall be inserted in the intermediate conductor of a three-wire system.

Main fuses or circuit-breakers.

Wherever a seal is found broken on a consumer's premises and unless the same has been broken by an employee of the company, the consumer shall be liable to a penalty not exceeding five dollars.

28. All service lines and apparatus placed on a consumer's premises shall be highly insulated and thoroughly protected against injury to the insulation or access of moisture, and any metal forming part of the electric circuit, shall not unless efficiently connected with earth be exposed so that it can be touched. All electric lines shall be so fixed and protected as to prevent the possibility of electrical discharge to any adjacent metallic substance.

Treatment of service lines and apparatus on consumer's premises.

29. Where the general supply of energy is a high pressure supply, and transforming apparatus is installed on a consumer's premises, the whole of the high pressure service lines, conductors, and apparatus, including the transforming apparatus itself, so far as they are on the consumer's premises, shall be completely enclosed in solid walls, or in strong metal casing efficiently connected with earth and securely fastened throughout.

Transformers and high pressure apparatus to be enclosed in metal, &c.

30. The company shall not connect a consumer's wires with their mains unless they are reasonably satisfied that the connection would not cause an undue leakage from those wires or fittings; and where the company decline to make such connection they shall serve upon the consumer a notice stating their reasons for so declining. The consumer may appeal to the Director of Public Works whose decision shall be final.

Connection to consumer's premises not to be made where undue leakage would result.

31. If the company are reasonably satisfied, after making all proper examination by testing or otherwise, that a leakage exists at some part of a consumer's wires or fittings of such extent as to be a source of danger, any officer of the company, duly authorised by them in writing, may, for the purpose of discovering whether the leakage exists at any part of a circuit within or upon

Discontinuance of supply on discovery of leakage on consumer's premises.

any 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 wires and fittings belonging to the consumer and forming part of the circuit.

If on any such testing the officer discovers an undue leakage from the consumer's wires or if the consumer does not give all due facilities for inspection and testing, the company shall forthwith discontinue the supply of energy to the premises in question, giving immediate notice of the discontinuance to the consumer, and shall not recommence the supply until they are reasonably satisfied that the leakage has been removed.

Appeal to Director of Public Works. 32. If any consumer is dissatisfied with the action of the company 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 shall, on his application and on payment of a fee of ten dollars, be tested for the existence of leakage by the Director of Public Works.

This regulation shall be endorsed on every notice given under the provisions of either of the two last preceding regulations.

Penalty on consumer for addition to electrical installation without notice to company. 33. Any consumer making any addition to the electrical installation on his premises without giving due notice to the company to enable them to test the same before connecting it to the existing installation shall be liable to a penalty not exceeding fifty dollars for every such addition.

Arc Lighting.

Height from ground. 34. 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 feet from the ground.

Arc lamps to be guarded. 35. 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.

Connection of Circuits with Earth.

Connection with earth of a three-wire system. 36. Where the pressure of a supply between the adjacent conductors of a three-wire system of mains exceeds 125 volts, the intermediate conductor shall be connected with earth in accordance with the following conditions:—

- (a.) The connection with earth of the intermediate conductor shall be made at one point only on each distinct circuit, namely, at the generating station, sub-station, or transformer, and the insulation of the circuit shall be efficiently maintained at all other parts.
- (b.) The current from the intermediate conductor to earth shall be continuously recorded, and, if it at any time becomes excessive, steps shall be immediately taken to improve the insulation of the system.

Connection of other circuits with earth. 37. The company shall not connect any other circuit with earth except with the approval of the Director of Public Works and subject to such conditions as he may prescribe.

Extra High Pressure.

Special regulations as to extra high pressure. 38.—(1.) This regulation shall have effect in the case of a supply at extra high pressure and shall be in addition to and not in substitution for the obligations imposed by the foregoing regulations.

(2.) An extra high pressure main shall not be brought into use unless, after it has been placed in position and before it is used for the purposes of supply, the insulation of every part thereof has withstood the continuous application, during half-an-hour, of pressure exceeding the maximum pressure to which it is intended to be subjected in use, that is to say, in the case of every electric line to be used for a pressure not exceeding 10,000

volts twice the said maximum pressure, and in the case of a line to be used for a pressure exceeding 10,000 volts, a pressure exceeding the said maximum pressure by 10,000 volts: and the company shall record the results of the tests of each main or section of a main.

(3.) Every extra high pressure main shall be protected by a suitable fuse or automatic circuit-breaker, but in the case of a concentric main that fuse or circuit-breaker shall not be inserted in any external conductor thereof which is connected with earth.

(4.) In every case where an extra high pressure supply is transformed or converted to a reduced pressure, some suitable automatic and quick-acting means shall be provided to protect the reduced pressure circuits from any accidental contact with or leakage from the extra high pressure system, either within or without the transforming or converting apparatus.

(5.) All metal conduits, pipes, or casings containing any extra high pressure electric line shall be efficiently connected with earth, and shall be so jointed and connected across all street boxes and other openings so as to make good electrical connection throughout their whole length.

(6.) Every portion of any extra high pressure electric line placed above the surface of the ground, otherwise than in a sub-station, or in any subway not in the sole occupation of the company, shall be completely enclosed either in a tube of highly insulated material embedded in brickwork, masonry, or cement concrete, or in strong metal casing efficiently connected with earth.

(7.) Where extra high pressure mains for three-phase supply consist of insulated conductors laid together, provision shall be made to ensure that neither the ground nor any neighbouring or electric line or conductor can become charged by leakage from any such main.

Where this provision is made by a copper strip under a lead sheath, that strip shall be not less than sixteen-thousandths of an inch in thickness, and where it is made by steel wires outside a lead sheath, each of those wires shall be not less than one-tenth of an inch in diameter.

Where the mains are enclosed in a lead sheath, that sheath shall be not less than one-tenth of an inch in thickness, and shall be permanently and efficiently connected with earth.

(8.) Extra high pressure mains for single phase supply and all cables connected therewith shall consist either of two concentric conductors or of separate conductors. Where concentric conductors are used the insulation shall be maintained efficiently throughout except that the outer conductor shall be connected with earth at one point, and where separate conductors are used, provision shall be made as in the case of mains for three-phase supply to ensure that neither the ground nor any neighbouring electric line or conductor can become charged by leakage.

(9.) An extra high pressure electric line shall not be brought into use for the supply of energy before it has been completely laid, properly jointed, examined, and tested, or until it is in the sole charge of the company, and every such line shall during its use be in the sole charge of the company.

(10.) Extra high pressure mains shall not pass through the same street box with other mains, unless they are enclosed in strong metal casing; and street boxes containing extra high pressure mains shall not contain pipes for water, gas, or other service, or electric mains belonging to another undertaking, provided that any such street box may contain telephone wires belonging to the company.

(11.) Sub-stations supplied at extra high pressure shall be established in suitable places and shall be in the sole occupation of the company.

(12.) Sub-stations constructed below the surface of any street after the date of these regulations to which an extra high pressure is to be given shall not contain switches or other apparatus than transformers.

(13.) The transforming apparatus at any sub-station supplied at extra high pressure shall be so arranged that there shall be no danger of any mains connected therewith being charged to any pressure beyond the limits of pressure for which those mains are intended.

(14.) In delivering the energy to a sub-station at extra high pressure the company shall exercise all due precautions so as to avoid risk of causing fire on the premises.

(15.) All extra high pressure electric lines and apparatus placed in a sub-station shall be highly insulated and thoroughly protected against injury to the insulation or access of moisture, and any metal forming part of the electric circuit shall not unless efficiently connected with earth be exposed so that it can be inadvertently touched. All such lines shall be so fixed and protected as to prevent the possibility of electrical discharge to any adjacent metallic substance.

(16.) The Director of Public Works shall be entitled to enter at all times any of the generating or sub-stations of the company supplying or supplied at an extra high pressure, and to make any such examination and tests of the mains, machines, transformers, or other apparatus in use in those stations, as may appear to him necessary, and the company shall afford all due facilities for any such examination and tests.

(17.) Where any extra high pressure circuit is connected with earth, the connection shall be made at one point only, namely, at the generating station, sub-station or transformer, and the insulation of the circuit shall except at that point be efficiently maintained throughout.

(18.) The neutral point of the star winding of each distinct three-phase circuit, used for extra high pressure, may be connected with earth, or may be insulated. If connected with earth through a resistance, that resistance shall be sufficiently low to ensure that the fuse or automatic circuit-breaker in the mains shall act.

If the neutral point is not connected with earth, a separate electrostatic voltmeter placed in a conspicuous position in the generating station shall be connected between each distinct circuit and earth; and if the indications of the voltmeters show that the insulation of any of the circuits is faulty, immediate steps shall be taken to restore the insulation.

Penalties.

Penalties
for default.

39. If the company make default in complying with any of the preceding regulations, they shall on summary conviction before a Police Magistrate be liable to a penalty not exceeding *one hundred* dollars for every such default, and in the case of a continuing offence to a further penalty not exceeding *one hundred* dollars for each day during which the offence continues.

The recovery of a penalty under these regulations shall not affect the liability of the company to make compensation in respect of any damage or injury which may be caused by reason of the default.

Objects and Reasons.

No legislation on the subject of the supply of electricity has hitherto been enacted and, as there are companies both in the City of Victoria and in Kowloon which carry on operation on a somewhat extensive scale and transmit currents of considerable strength or pressure, it has been considered advisable in the interests of the public to introduce a Bill for their regulation.

The Bill and accompanying Regulations have been based largely on the Acts and Board of Trade Regulations in force in England. Some modifications have however been made as it is considered that some of the home regulations are too stringent for application in their entirety to places which are not so fully developed as home cities.