

43-08. Where an electric line passes under a railway line it shall comply with the requirements of Regulations 46-21 to 46-24 (both inclusive) hereof.

43-09. No underground electric line shall be used for the supply of electrical energy before it has been completely laid, properly jointed, examined, and tested in accordance with Regulation 51-21 hereof.

STREET-BOXES.

43-21. The cover of every street-box shall be so secured that it cannot be opened except by means of a special appliance, and such boxes shall be inspected by the licensee from time to time for the presence of gas, and suitable action shall be taken to check the influx and accumulation of gas.

43-22. No extra-high pressure electric line shall pass through the same street-box as any other electric line unless it is enclosed in strong earthed metal casing.

43-23. No street-box containing an extra-high pressure electric line shall contain water, gas, or other service pipes.

43-24. Every street-box shall comply with Regulation 43-03 hereof.

EARTHING.

43-31. All metal conduits, pipes, or casings containing high pressure and/or extra-high pressure electric lines shall be earthed and shall be so jointed and connected across all street-boxes and other openings as to make good electrical contact throughout their whole length.

PART 44.—INSULATION OF ELECTRIC LINES.

44-01. If the insulation of any circuit of any system is faulty, immediate steps shall be taken to make good the insulation before the circuit is again placed in service.

PART 45.—PROTECTION OF TELEGRAPH-LINES AND TELEGRAPH APPARATUS.

45-01. The licensee shall take all reasonable precautions in constructing, laying down, placing, and using the electric lines so as not injuriously to affect, whether by induction or otherwise, any telegraph-line.

45-02. All apparatus shall be designed to avoid harmonics liable to cause interference to telegraph-lines, but where such harmonics cannot be avoided, then additional apparatus shall be installed to reduce the interference to a minimum.

45-03. Where one or more extra-high pressure circuits run substantially parallel with telegraph-lines or railway communication-lines or signal-wires the circuits shall, if required by the Minister, be transposed, revolved, or so arranged as to reduce inductive interference to a minimum.

45-04. Except at a crossing-place the minimum separation between a telegraph-line and a high pressure or extra-high pressure aerial electric line shall be equal to the height of the tallest pole, unless otherwise approved in writing by the Minister of Telegraphs.

45-05. Where an electric line intersects or menaces a telegraph line the following conditions shall apply:—

- (a) Every high pressure aerial electric line shall be covered with vulcanized rubber of not less than 600 megohm grade, unless the electric lines are bare, in which case the special conditions of paragraphs (l) to (o) (both inclusive) of this regulation shall apply.
- (b) Every medium pressure or any lower pressure aerial electric line (except neutral) shall be covered with good quality triple-braiding, thoroughly impregnated with waterproof compound or other approved covering, unless the electric lines are bare, in which case the special conditions of paragraphs (l) to (o) (both inclusive) of this regulation shall apply.
- (c) Where any lead-covered telegraph cable and high pressure or any lower pressure aerial electric line intersect, the high pressure electric line shall be covered with vulcanized rubber of not less than 600 megohm grade, and the lower pressure electric line (except neutral) shall be covered with good quality triple-braiding, thoroughly impregnated with weatherproof compound, or other approved covering.
- (d) The clearance at any time between a high pressure aerial electric line and a telegraph-line at any point shall not be less than 4 ft., and between a lower pressure aerial electric line and a telegraph-line shall not be less than 2 ft., except as provided in paragraph (e) of this regulation. At any intersection the minimum distance between a telegraph-line and an extra-high pressure aerial electric line up to 11,000 volts shall be 4 ft., and over 11,000 volts 8 ft. No provision as regards clearances need be made for guard-wires for telegraph-lines.

(e) Where a high pressure or any lower pressure overhead electric line and a telegraph-line intersect, the electric line shall cross above or below the telegraph-lines as may be decided by the Minister of Telegraphs, provided that a medium pressure or lower pressure overhead electric service-line, if enclosed in a pipe which is earthed or enclosed in an insulating casing approved by the Chief Engineer of the Post and Telegraph Department may cross on the same crossarm as a telephone-wire.

(f) Where a high pressure or any lower pressure aerial electric line and a telegraph-line intersect, the electric line shall, wherever practicable, cross at a pole or other support; but where crossing at a pole or other support is not practicable the crossing may, subject to the approval of the Minister of Telegraphs be made in the span.

(g) Where any aerial electric line and a telegraph-line (other than a telephone service-line) intersect, whether at a pole or in the span, such electric line shall be erected and maintained in accordance with the requirements of Regulations 41-78 and 41-93 hereof and of the following table:—

	Medium Pressure and any Lower Pressure.	High Pressure.	Extra-high Pressure.
(i) Covering ..	T.B. or other approved covering	V.I.R. in boroughs, town districts, and townships; bare outside these limits	Bare.
(ii) Vertical clearance to telegraph-line (minimum)	2 ft. (or as provided in paragraph (e) of this regulation)	4ft.	4 ft. 11,000 volts; 8 ft. over 11,000 volts.
(iii) Length of span at crossing	..	Not greater than normal span of the line.	
(iv) Length of adjoining spans	Not greater than normal span of the line	Not greater than one and a half times normal span of the line.	
(v) Construction to be provided against conductor breakage	..	(A) Strength of supports and binders to withstand one broken wire. (B) Where stranded wire is used there shall be provided at the crossing double cross-arms, each fitted with pin, strain or approved shackle insulators save that where suspension insulators are used the crossarms may be single. (C) No joint in any stranded wire having an area less than 0.085 sq. in. (7/080 in. or 7/14 S.W.G.) or in any solid wire of any size.	Same as high pressure, but no shackle insulators.
(vi) Protection to be provided against damage by broken wires	T.B. or other approved covering	(A) Earthing-guards for all solid wires. (B) V.I.R. covering in boroughs, town districts, and townships	Same as high pressure, except V.I.R. requirements.

(h) In any case where an overhead electric line is erected before the telegraph-line, the licensee, on receipt of notice from the Minister of Telegraphs that it is proposed to run a telegraph-line along or across the route, shall forthwith make all alterations necessary for the protection of telegraph-lines, and shall have the option of:—

- (i) Altering the construction of the electric line to conform to the requirements of Regulation 41-01 to 41-03 (both inclusive) hereof and of the last preceding paragraph of this regulation; or
- (ii) Providing earthing-guards under the high pressure or extra-high pressure electric line where alteration of the existing construction is not considered desirable.

This sub-paragraph shall be read in conjunction with the drawings shown on Folders Nos. 1 and 2, in Appendix III hereto.

(i) In the case of an overhead electric service-line crossing to that side of a street which is reserved for telegraph-lines, the licensee shall bear the cost of any alterations necessary to provide clearances and protection for any telegraph-line erected subsequent to the electric service-line. Conversely, in the case of a telegraph-line crossing to that side of a street which is reserved for the licensee's electric lines, the cost of any alterations necessary to the telegraph-line to provide regulation clearances will be borne by the Minister of Telegraphs.