

1972/159



**THE ELECTRICAL SUPPLY REGULATIONS 1967,
AMENDMENT NO. 1**

—
ARTHUR PORRITT, Governor-General

ORDER IN COUNCIL

At the Government Buildings at Wellington this 25th day of July 1972

Present:

THE RIGHT HON. J. R. MARSHALL PRESIDING IN COUNCIL

PURSUANT to the Electricity Act 1968, His Excellency the Governor-General, acting by and with the advice and consent of the Executive Council, hereby makes the following regulations.

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ANALYSIS

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REGULATIONS

1. Title and commencement—(1) These regulations may be cited as the Electrical Supply Regulations 1967, Amendment No. 1, and shall be read together with and deemed part of the Electrical Supply Regulations 1967* (hereinafter referred to as the principal regulations).

(2) These regulations shall come into force on the day after their notification in the *Gazette*.

2. Interpretation—(1) Regulation 2 of the principal regulations is hereby amended—

- (a) By omitting from the definition of the expression “The Act” the words “Public Works Act 1928”, and substituting the words “Electricity Act 1968”;
- (b) By omitting from the definition of the expression “Electrical Supply Authority” the words “Part XIII”, and substituting the words “Part III”;
- (c) By omitting from the definition of the term “licensee” the words “Public Works Act 1928”, and substituting the words “Electricity Act 1968”;
- (d) By omitting from the definition of the expression “General Manager” the figures “1945”, and substituting the figures “1968”.

(2) The said regulation 2 is hereby further amended by inserting, after the definition of the expression “Inspecting Engineer”, the following definition:

“‘Insulated for full working voltage’ means that a conductor or cable is so insulated that it is safe to handle when live, and, if used or intended to be used for high or extra-high voltage operation, is also provided with an effectively earthed metallic screen, sheath, or armour:”

(3) The said regulation 2 is hereby further amended by revoking the definition of the term “voltage”, and substituting the following definition:

“‘Voltage’ means the difference of potential—

“(a) In the case of any medium, low, or extra-low voltage three-phase or three-wire system of supply—

“(i) Between any unearthed conductor and earth unless the system of supply is normally earthed through a circuit-breaker or added resistance; and

“(ii) Between any 2 unearthed conductors if the system of supply is normally unearthed, or is normally earthed through a circuit-breaker or added resistance; and

“(b) In the case of a medium, low, or extra-low two-wire system of supply, between conductors; and

“(c) In the case of a high voltage or extra-high voltage three-phase system of supply, between any 2 unearthed conductors; and

“(d) In the case of a high voltage or extra-high voltage two-wire system of supply, between conductors; and

“(e) In the case of a high voltage or extra-high voltage single conductor earth return system of supply, between the conductor and earth:

“Provided that in the case of high voltage and extra-high voltage the nominal voltage shall be subject to such additional voltage, not exceeding 10 percent, as may be necessary for line and transformer regulation:”

3. Removal of unlicensed lines—Regulation 8 of the principal regulations is hereby amended by omitting the words “section 319 of the Public Works Act 1928”, and substituting the words “section 20 or section 21 of the Electricity Act 1968”.

4. Application—Regulation 9 of the principal regulations is hereby amended by omitting in subclause (1) the words “section 319”, and substituting the words “section 20 or section 21”.

5. Conditions—Regulation 10 of the principal regulations is hereby amended by revoking subclause (15), and substituting the following subclause:

“(15) In any case to which section 25 of the Act applies, the provisions of this regulation shall be read subject to that section.”

6. Assignment—(1) Regulation 13 of the principal regulations is hereby amended by omitting from subclause (1) the words “Governor-General in Council”, and substituting the words “the Minister”.

(2) The said regulation 13 is hereby further amended by omitting from subclause (2) the words “Governor-General in Council”, and substituting the words “the Minister”.

7. Voltage—Regulation 17 of the principal regulations is hereby amended by inserting in subclause (1), after the word “maintained”, the words “except for momentary fluctuations”.

8. Supply to consumers: general—(1) Regulation 19 of the principal regulations is hereby amended by omitting from subclause (4) the word “Act”, and substituting the words “Public Works Act 1928”.

(2) The said regulation 19 is hereby further amended by omitting from paragraph (a) of subclause (6) the words “in accordance with the provisions of regulation 20 hereof”, and substituting the words “or by any previous consumer”.

(3) The said regulation 19 is hereby further amended by inserting in subclause (8), after the word “behalf”, the words “including any agreement on the payment of costs”.

9. Inspection and testing of new installations, additions, and alterations—The principal regulations are hereby further amended by revoking regulation 44, and substituting the following regulation:

“44. (1) The Electrical Supply Authority shall inspect and test every new installation and, subject to paragraph (b) of subsection (1A) of section 24 of the Electricians Act 1952 (as amended by section 15 of the Electricians Amendment Act 1969), every alteration or addition to an existing installation.

“(2) Every inspection and testing by an Electrical Supply Authority under this regulation shall be carried out free of cost:

“Provided that if after the contractor has notified the Electrical Supply Authority that the installation, alteration, or addition is completed it is found necessary to reinspect or retest the new work

the Electrical Supply Authority may charge the contractor for each reinspection or retest a fee (not exceeding \$4), together with a mileage charge (not exceeding 10c a mile) each way between the address for business purposes of the servant of the Electrical Supply Authority who carried out such reinspection or retest and the installation to be inspected."

10. Reinspection of consumers' installation—Regulation 45 of the principal regulations is hereby amended—

- (a) By omitting the words "inspect and test", and substituting the words "reinspect and retest":
- (b) By omitting from paragraph (a) the words "an inspection", and substituting the words "a reinspection":
- (c) By omitting from paragraph (a) the words "the inspection", and substituting the words "the reinspection":
- (d) By inserting in paragraph (b), after the words "other than", the words "for the purposes of regulation 31 of these regulations or":
- (e) By omitting from paragraph (c) the words "an inspection", and substituting the words "a reinspection".

11. Defects to be remedied—(1) Regulation 46 of the principal regulations is hereby amended by revoking subclause (1), and substituting the following subclauses:

"(1) If as the result of any inspection or test made under regulation 44 of these regulations, any defect is found in any new installation, or in any alteration or addition to an existing installation, the Electrical Supply Authority shall immediately notify the electrical contractor who made the new installation or the alteration or addition to the existing installation in writing of the defect, and shall require him to have it remedied within a reasonable time to be stated in the notice. A copy of the notice shall be forwarded to the consumer.

"(1A) If as the result of any reinspection made under regulation 45 of these regulations any defect is found in any portion of the fixed wiring on any consumer's premises or in any equipment or appliance permanently connected to the fixed wiring, the Electrical Supply Authority shall immediately notify the consumer in writing of the defect, and shall require him to have it remedied within a reasonable time to be stated in the notice."

(2) The said regulation 46 (as amended by section 7 of the Decimal Currency Act 1964) is hereby further amended by omitting from subclause (6) the expression "\$40", and substituting the expression "\$200".

12. Fire extinguishers—The principal regulations are hereby further amended by revoking regulation 66, and substituting the following regulation:

“66. Firebuckets filled with clean dry sand, or suitable fire extinguishers filled with a non-conducting extinguishing agent, shall be kept at all powerhouses and substation buildings in convenient situations ready for immediate use and shall be conspicuously marked.”

13. High and extra-high voltage feeder protection—Regulation 67 of the principal regulations is hereby amended by adding, as subclause (2), the following subclause:

“(2) In generating stations or substations supplying high voltage or extra-high voltage overhead electric lines, earth leakage protective apparatus shall be provided so that in the event of a leakage current to earth from the lines exceeding the values set out in the following table, the leakage relays will, in not more than 5 seconds, operate to trip and deaden the faulty lines:

“TABLE

Voltage	Maximum Permissible Earth Leakage Current
Up to 36,000 volts	12½ percent of the primary current rating of the current transformer, or 2.5 amps if that be more.
Over 36,000 volts	As prescribed by the General Manager.”

14. Reclosing of circuit-breakers—(1) Regulation 69 of the principal regulations is hereby amended—

(a) By inserting in subclause (1) after the word “used” the words “for the control of transmission or distribution lines”:

(b) By inserting in subclause (2) after the words “a circuit-breaker”, the words “controlling transmission or distribution lines”:

(2) The said regulation 69 is further amended by adding the following subclause:

“(4) Notwithstanding anything in subclause (2) of this regulation, a circuit-breaker connected to lines that are already live may be immediately reclosed.”

15. Location—(1) Regulation 72 of the principal regulations is hereby amended by inserting in subclause (3), after the word “supports”, the words “(including staywires, stay anchors, and other supporting equipment)”.

(2) The said regulation 72 is hereby further amended by adding the following subclause:

“(5) Any staywire erected across the part of any street used by the general public for vehicular traffic shall have a minimum vertical clearance above ground of 18 ft.”

16. Clearances above ground—The principal regulations are hereby further amended by revoking regulation 76, and substituting the following regulation—

“76. (1) Overhead electric line conductors shall have the minimum vertical clearances above ground set out in the following table:

"TABLE

Voltage and Description of Lines	Minimum Vertical Clearance Above Ground ft
Exceeding 110,000 volts	26
Exceeding 11,000 volts but not exceeding 110,000 volts—	22
Exceeding 650 volts but not exceeding 11,000 volts—	
(a) Within any borough or town district	22
(b) Outside any borough or town district—	
(i) Along or across any road, street, foot- path, or footway	20
(ii) In any other place	18
Not exceeding 650 volts—	
(a) Distribution lines—	
(i) Along or across any road, street, foot- path, or footway	18
(ii) Across country not normally used by vehicles	16
(b) Service lines—	
(i) Along or across any part of a road or street used or liable to be used by vehicles	18
(ii) Across any footpath or footway used only by pedestrians	14
(iii) For the last span in any place other than a place to which members of the public have access—	
In places used or liable to be used by vehicles	12
Elsewhere	9

"(2) Notwithstanding anything in subclause (1) of this regulation, if neutral screened cable complying with the requirements of New Zealand Standard Specification 1580:1963 is used as the connecting lead between a consumer's installation and an overhead electric service line for which, were it not for this subclause, the minimum vertical clearance above ground would be 9 ft, the minimum vertical clearance above ground of the connecting lead shall be 8 ft 6 in."

17. Clearances between lines—(1) Regulation 79 of the principal regulations is hereby amended by revoking the proviso to subclause (1), and substituting the following proviso:

"Provided that—

"(a) Lines of a lower voltage shall not be carried above lines of a higher voltage; and

"(b) Clearances in accordance with subclauses (2) and (3) of this regulation shall be maintained."

(2) The said regulation 79 is hereby further amended by omitting from subclause (2) the words "shall, subject to the provisions of subsection (4)", and substituting the words "that are not insulated for full working voltage shall, subject to subclauses (4) and (6)".

(3) The said regulation 79 is hereby further amended by adding the following subclause:

“(6) Notwithstanding anything in subclauses (1) to (5) of this regulation, the clearance between any overhead electric line consisting of a cable or conductor insulated for full working voltage, and any other cable or conductor, shall be such that any person who may carry out any work to which regulation 111 of these regulations applies on the line, conductor, or other cable or conductor, shall be able to do so in accordance with the provisions of that regulation.”

18. Miscellaneous clearances—Regulation 81 of the principal regulations is hereby amended by omitting from subclause (3) the words “Public Works Act 1928”, and substituting the words “section 19 of the Act”.

19. Restrictions on the erection of buildings, other structures, scaffolding, etc., near overhead electric lines—Regulation 83 of the principal regulations is hereby amended by adding the following subclauses:

“(5) If any building, structure, scaffold, or other thing, or any part of a building, structure, scaffold, or other thing, is erected at a distance from any overhead electric line less than that permitted by subclause (1) of this regulation, or, if permission has been given under subclause (2) of this regulation, is erected at a distance less than that so permitted, the building, structure, scaffold, or other thing, or the part of the building, structure, scaffold, or other thing shall, on request in writing by the Electrical Supply Authority, be so removed or altered by the person responsible for its erection that the prescribed minimum clearances are obtained.

“(6) Notwithstanding anything in subclause (5) of this regulation, the Electrical Supply Authority may, at the cost of the person responsible for the erection of the building, structure, scaffold, or other thing or the part of any building, structure, scaffold, or any other thing, erected otherwise than in accordance with subclauses (1) and (2) of this regulation, remove the overhead electric line to a new position that will provide the prescribed minimum clearance.”

20. Connection of alternating current systems with earth—Regulation 91 of the principal regulations is hereby amended by revoking subclause (4).

21. Clearances between conductors—(1) Regulation 101 of the principal regulations is hereby amended—

(a) By inserting in subclause (1), after the words “lines, the”, the word “minimum”:

(b) By omitting from the table to subclause (1) the words—

“Bare electric line and bare telegraph line conductors	}	3 ft in span 4 ft at pole”,
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and substituting the words,

“Bare electric line, with a span of not more than $2\frac{1}{2}$ chains, and bare telegraph line conductors	}	3 ft in span 4 ft at pole
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“Bare electric line, with a span more than $2\frac{1}{2}$ chains, and bare telegraph line conductors	}	4 ft in span 4 ft at pole”:
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(2) The said regulation 101 is hereby further amended by revoking paragraph (b) of subclause (3) and substituting the following paragraph:

“(b) Where the voltage does not exceed 650 volts, the conductors shall have an approved covering, or, if the conductors are bare, they shall have a minimum breaking strength of 1,000 lb and double crossarms, each provided with insulators, shall be fitted to the pole on which the crossing is made or, where the crossing is made in the span, to each of the poles at the ends of the crossing span. For crossings other than on a pole the crossing span shall be not more than $2\frac{1}{2}$ chains and, where practicable, one pole shall be located within 60 ft of the crossing; but if the conductors have a minimum breaking strength of 1,000 lb and the clearance in the span is not less than 4 ft the span may exceed $2\frac{1}{2}$ chains. The poles of the overhead electric line crossing shall be blocked or guyed as necessary.”

22. Working clearances—Regulation 111 of the principal regulations is hereby amended—

- (a) By adding to the heading of the first column of the table to subclause (4) the words “(A.C. unless specified)”:
 (b) By inserting at the beginning of the table to subclause (4) the following item:
 “500,000 D.C. 8 0”.

23. Notice on switches and circuit-breakers—Regulation 115 of the principal regulations is hereby amended by omitting from subclause (1) the word “controlling”, and substituting the word “isolating”.

24. Provision of safeguards—(1) Regulation 117 of the principal regulations is hereby amended by inserting in paragraph (b) of subclause (1), after the word “work”, the words “or used solely on tower construction or tower maintenance work”.

(2) The said regulation 117 is hereby further amended by omitting from subclause (2) the words “and shall be retested at their test voltage at intervals not exceeding 6 months”.

25. Use of safeguards—Regulation 118 of the principal regulations is hereby amended by adding the following subclause:

“(4) No insulating gloves or insulating protective covers shall be used unless they have within the previous 6 months been tested and been found to insulate effectively any voltage at which they are likely to be used.”

26. Inspection and testing of safeguards—Regulation 119 of the principal regulations is hereby amended by omitting subclause (2), and substituting the following subclause:

“(2) All insulating gloves and insulating protective covers shall be tested for insulation not earlier than 6 months before being issued for use, and no glove or cover shall be issued unless it has been so tested and found to insulate effectively any voltage at which it is likely to be used.”

27. Offences—Regulation 123 of the principal regulations (as amended by section 7 of the Decimal Currency Act 1964) is hereby further amended by omitting the expression “\$40”, and substituting the expression “\$200”.

28. Failure to comply with licence or regulations—Regulation 124 of the principal regulations (as amended by section 7 of the Decimal Currency Act 1964) is hereby further amended—

- (a) By omitting from paragraph (b) the words “Public Works Act 1928”, and substituting the words “Electricity Act 1968”;
- (b) By omitting the expression “\$40”, and substituting the expression “\$200”.

29. Sundry offences—(1) Regulation 125 of the principal regulations (as amended by section 7 of the Decimal Currency Act 1964) is hereby further amended by omitting from subclause (1) the expression “\$40”, and substituting the expression “\$200”.

(2) The said regulation 125 is hereby further amended by omitting from subclause (2) the expression “\$40”, and substituting the expression “\$200”.

(3) The said regulation 125 is hereby further amended by omitting from subclause (3) the expression “\$40”, and substituting the expression “\$200”.

30. Revocation of licence—Regulation 126 of the principal regulations is hereby amended by omitting from subclause (1) the words “section 326 of the Public Works Act 1928”, and substituting the words “section 22 of the Act”.

P. J. BROOKS,
Clerk of the Executive Council.

EXPLANATORY NOTE

This note is not part of the regulations, but is intended to indicate their general effect.

These regulations amend the Electrical Supply Regulations 1967. A new definition of the expression “insulated for full working voltage” is inserted in the principal regulations, and the term “voltage” is redefined. Notice of defects in any new installation of fixed wiring or alteration or addition to fixed wiring in a consumer’s premises is to be given to the electrical contractor instead of the consumer. New clearances between overhead electric lines and the ground are prescribed. New provisions are made relating to the erection of buildings and other structures near overhead electric lines.

Issued under the authority of the Regulations Act 1936.

Date of notification in *Gazette*: 27 July 1972.

These regulations are administered in the New Zealand Electricity Department.