

Version No. 001
Electricity Safety (Stray Current Corrosion)
Regulations 2009

S.R. No. 32/2009

Version as at 31 March 2009

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PART 1—PRELIMINARY

1 Objectives

The objectives of these Regulations are—

- (a) to prescribe cathodic protection systems and mitigation systems for the purposes of the **Electricity Safety Act 1998**; and
- (b) to prescribe standards for the operation of cathodic protection systems; and
- (c) to provide procedures for the registration of cathodic protection systems; and
- (d) to protect metallic structures from damage associated with stray current corrosion and interference from cathodic protection associated with other metallic structures in the vicinity; and
- (e) to prescribe certain provisions of these Regulations that create offences as provisions in respect of which infringement notices may be served; and
- (f) to make a related consequential amendment to the Electricity Safety (Infringements) Regulations 2000.

2 Authorising provisions

These Regulations are made under sections 155 and 157 of the **Electricity Safety Act 1998**.

3 Revocation

The Electricity Safety (Stray Current Corrosion) Regulations 1999¹ are **revoked**.

4 Definitions

In these Regulations—

Cathodic Protection Standard 1 means

AS 2832.1, Australian Standard 'Cathodic protection of metals—Pipes and cables' as published or amended from time to time;

Cathodic Protection Standard 2 means

AS 2832.2, Australian Standard 'Cathodic protection of metals—Compact buried structures' as published or amended from time to time;

Cathodic Protection Standard 3 means

AS 2832.3, Australian Standard 'Cathodic protection of metals—Fixed immersed structures' as published or amended from time to time;

Cathodic Protection Standard 5 means

AS 2832.5, Australian Standard 'Cathodic protection of metals—Steel in concrete structures' as published or amended from time to time;

electrolysis drainage bond means the path by which stray traction current from an underground or underwater metallic structure is returned to its originating source;

galvanic anode means an electrode used to protect a structure by galvanic action;

impressed current means direct current supplied by an external power source;

registered cathodic protection system means a cathodic protection system registered under Part 2;

stray current means current flowing through paths other than an intended circuit;

stray traction current means current flowing through the ground or water as a result of the operation of any railway by a path other than the intended circuit;

the Act means the **Electricity Safety Act 1998**.

5 Prescribed systems

- (1) For the purposes of the definition of ***cathodic protection system*** in section 3 of the Act, a prescribed system is a system that—
 - (a) uses one or more galvanic anodes connected at a single point to a structure to provide intentional cathodic protection; or
 - (b) uses impressed current connected at a single point to a structure to provide intentional cathodic protection—but does not include a system that is designed to protect the internal surfaces of a structure.
- (2) For the purposes of the definition of ***mitigation system*** in section 3 of the Act, a system that uses electrolysis drainage bonds and associated apparatus, cable and drainage equipment is a prescribed system.

6 Existing cathodic protection systems

If a cathodic protection system was registered under the Electricity Safety (Stray Current Corrosion) Regulations 1999 and that registration was in force immediately before commencement of these Regulations, the cathodic protection system is to be taken to be registered under these Regulations—

- (a) in the case of a cathodic protection system with an output greater than 2 amperes—
 - (i) until the date that is 10 years after the date the cathodic protection system was registered under the Electricity Safety (Stray Current Corrosion) Regulations 1999; or
 - (ii) until the registration is withdrawn under these Regulations—whichever occurs first; or
- (b) in the case of any other cathodic protection system, until registration is withdrawn under these Regulations.

PART 2—REGISTRATION OF CATHODIC PROTECTION SYSTEMS

7 Application for registration of cathodic protection system

- (1) The owner of a cathodic protection system who intends to operate that system, or intends to allow that system to be operated, must apply to Energy Safe Victoria to have the system registered.
- (2) An application for registration of a cathodic protection system with a total output of 250 milliamperes or less must—
 - (a) be in writing; and
 - (b) include the name and address of the owner of the cathodic protection system; and
 - (c) include the name of the operator or proposed operator of the cathodic protection system if the operator is not or will not be the owner; and
 - (d) indicate the proposed operating current of the cathodic protection system; and
 - (e) be accompanied by—
 - (i) a map showing the proposed location of the cathodic protection system, the metallic structure it is intended to protect and all metallic structures likely to be affected by the system; and
 - (ii) drawings detailing the cathodic protection system; and
 - (iii) the relevant registration fee set out in the Schedule.

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- (3) An application for registration of a cathodic protection system with a total output of more than 250 milliamperes must—
- (a) be in writing; and
 - (b) include the name and address of the owner of the cathodic protection system; and
 - (c) include the name of the operator or proposed operator of the cathodic protection system if the operator is not or will not be the owner; and
 - (d) indicate the proposed operating current of the cathodic protection system; and
 - (e) be accompanied by—
 - (i) a map showing the proposed location of the cathodic protection system, the metallic structure it is intended to protect and all metallic structures likely to be affected by the proposed system; and
 - (ii) drawings detailing the proposed system; and
 - (iii) a report on all consultations carried out between the applicant and the owners of metallic structures (*metallic structure owners*) likely to be affected by the cathodic protection system including—
 - (A) the names, addresses and telephone numbers of the metallic structure owners consulted; and
 - (B) the dates each of the metallic structure owners were consulted; and
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- (C) any known objections to the registration of the system; and
- (iv) the relevant registration fee set out in the Schedule.

8 Exemption from requirements

Energy Safe Victoria may exempt an applicant for registration of a cathodic protection system from the requirements in regulations 7(2)(e) or 7(3)(e).

9 Further information for purposes of consideration of application

Energy Safe Victoria may require the applicant for registration under regulation 7 to provide any other information relating to the application that it considers necessary to determine whether to register the cathodic protection system.

10 Registration

- (1) If Energy Safe Victoria is satisfied with a cathodic protection system, Energy Safe Victoria may register the system and grant a certificate of registration for the system to the owner of the system.
- (2) Registration of a cathodic protection system ceases—
 - (a) in the case of a cathodic protection system with an output greater than 2 amperes—
 - (i) 10 years after the date on which registration is granted, or
 - (ii) when withdrawn under these Regulations—whichever occurs first;
 - (b) in the case of any other cathodic protection system, if withdrawn under these Regulations.

11 Refusal of registration

- (1) Energy Safe Victoria may refuse to register a cathodic protection system—
 - (a) until any testing required by Energy Safe Victoria has been completed to the satisfaction of Energy Safe Victoria; or
 - (b) if it reasonably believes that any metallic structure, other than the one to which the system is or will be connected, may have its electrical potential with respect to earth changed due to the operation of the system.
- (2) If subregulation (1)(b) applies, Energy Safe Victoria may require the cathodic protection system to be modified, to its satisfaction, before it registers the system.

12 Register of certificates

- (1) Energy Safe Victoria must keep a register of cathodic protection systems registered under these Regulations.
- (2) A register kept under subregulation (1) must contain—
 - (a) the names and addresses of the owners of registered cathodic protection systems; and
 - (b) particulars of each cathodic protection system, including—
 - (i) the location of the system; and
 - (ii) the type of system (being either a system that uses galvanic anodes or impressed current);
 - (iii) the approved maximum operating current of the system; and

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- (iv) the terms of every modification contained in a determination made under regulation 16(4).

13 Details of change

- (1) The owner of a registered cathodic protection system must give Energy Safe Victoria details of a change of name or address or of ownership within 20 business days of the change occurring.

Penalty: 10 penalty units.

- (2) If Energy Safe Victoria is notified under subregulation (1) of a change in ownership of the cathodic protection system, Energy Safe Victoria may grant a new certificate of registration to the new owner of that system.

14 Withdrawal of registration

- (1) Energy Safe Victoria may withdraw the registration of a cathodic protection system if a person to whom a notice is given under section 96 of the Act fails to comply with the directions in that notice.

- (2) Energy Safe Victoria must give written notice of its intention to withdraw registration to the owner of the cathodic protection system 10 business days before it withdraws the registration.

15 Renewal of registration

- (1) The owner of a registered cathodic protection system may apply to Energy Safe Victoria to renew the registration of the system.
- (2) The application may be made at any time before the registration of the registered cathodic protection system expires or is withdrawn under these Regulations.

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Part 2—Registration of Cathodic Protection Systems

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- (3) Regulations 7(2) to 11 apply to an application under this regulation as if a reference to cathodic protection system were a reference to the registered cathodic protection system in respect of which the application has been made.
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PART 3—OPERATION OF CATHODIC PROTECTION SYSTEMS

16 Operation of cathodic protection systems

- (1) For the purpose of section 93(2) of the Act—
- (a) a cathodic protection system for the protection of a buried or submerged metallic pipe or cable must be operated in accordance with—
 - (i) Cathodic Protection Standard 1; or
 - (ii) if Energy Safe Victoria determines, under this regulation, that Cathodic Protection Standard 1 should apply as modified by Energy Safe Victoria, the applicable Standard as modified;
 - (b) a cathodic protection system for the protection of the external surfaces of a compact buried structure must be operated in accordance with—
 - (i) Cathodic Protection Standard 2; or
 - (ii) if Energy Safe Victoria determines, under this regulation, that Cathodic Protection Standard 2 should apply as modified by Energy Safe Victoria, the applicable Standard as modified;
 - (c) a cathodic protection system for the protection of the external surfaces of a fixed immersed structure must be operated in accordance with—
 - (i) Cathodic Protection Standard 3; or

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- (ii) if Energy Safe Victoria determines, under this regulation, that Cathodic Protection Standard 3 should apply as modified by Energy Safe Victoria, the applicable Standard as modified;
- (d) a cathodic protection system for the protection of steel in concrete that is exposed to air or buried or submerged must be operated in accordance with—
- (i) Cathodic Protection Standard 5; or
- (ii) if Energy Safe Victoria determines, under this regulation, that Cathodic Protection Standard 5 should apply as modified by Energy Safe Victoria, the applicable Standard as modified.
- (2) A person who owns a cathodic protection system to which a standard specified in subregulation (1) applies may, in writing, apply to Energy Safe Victoria for the relevant standard to apply to that system in a modified way.
- (3) An application under subregulation (2) must set out the terms of the modification sought.
- (4) On receiving an application under subregulation (2), Energy Safe Victoria may determine that a relevant standard specified in subregulation (1) applies to the system as modified by the determination.
- (5) A determination under this regulation must—
- (a) set out the terms of the modification; and
- (b) be given to the applicant.
- (6) The terms of a modification must be entered onto the register kept under regulation 12.
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17 Notice of operation

The owner of a registered cathodic protection system that uses impressed current must give Energy Safe Victoria at least 5 business days notice of intention to commence operation of the system.

18 Provision for testing

- (1) The owner of a registered cathodic protection system that uses impressed current must ensure that a time switch is able to be inserted in the system to enable the power supply to be interrupted for test purposes.

Penalty: 20 penalty units.

- (2) The owner of a registered cathodic protection system that uses galvanic anodes must ensure that the circuit between any anode of the system and the metallic structures to be protected is able to be readily disconnected for test purposes.

Penalty: 20 penalty units.

19 Audit by the owner

- (1) The owner of a registered cathodic protection system with a total output of more than 250 milliamperes must annually inspect and record the operating current of the system.
- (2) The owner of a registered cathodic protection system must ensure that a record prepared under subregulation (1) is available for inspection at all reasonable times by—
- (a) Energy Safe Victoria; and
 - (b) persons whose metallic structures are affected or likely to be affected by that cathodic protection system.

20 Notification of modification or removal of cathodic protection system

- (1) The owner of a registered cathodic protection system with a total output of more than 250 milliamperes who—
- (a) changes the operation of that system; or
 - (b) becomes aware of a change in the operation of that system—

must notify Energy Safe Victoria within 4 business days and give written notice within 10 business days, after that change or becoming aware of that change.

Penalty: 20 penalty units.

- (2) The owner of a registered cathodic protection system with a total output of more than 250 milliamperes who—
- (a) removes that system; or
 - (b) becomes aware of the removal of that system—

must notify Energy Safe Victoria within 4 business days and give written notice within 10 business days, after that change or becoming aware of that change.

Penalty: 20 penalty units.

PART 4—INFRINGEMENT OFFENCES

21 Provisions for which infringement notices may be served

- (1) For the purposes of paragraph (b) of the definition of *prescribed offence* in section 140A of the Act, regulations 13(1), 18(1), 18(2), 20(1) and 20(2) are prescribed provisions.
 - (2) Regulation 5(g) of the Electricity Safety (Infringements) Regulations 2000² is **revoked**.
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SCHEDULE

Regulation 7(2)(e)(iii) and
7(3)(e)(iv)

FEEs FOR CATHODIC PROTECTION SYSTEMS

<i>Item</i>	<i>Description</i>	<i>Fee</i>
1	Registration fee for a cathodic protection system with a total output up to and including 250 milliamperes	8.77 fee units
2	Registration fee for a cathodic protection system with a total output over 250 milliamperes and up to and including 2 amperes	21.95 fee units
3	Registration fee for a cathodic protection system with a total output over 2 amperes	49.57 fee units

ENDNOTES

1. General Information

The Electricity Safety (Stray Current Corrosion) Regulations 2009, S.R. No. 32/2009 were made on 31 March 2009 by the Governor in Council under sections 155 and 157 of the **Electricity Safety Act 1998**, No. 25/1998 and came into operation on 31 March 2009.

The Electricity Safety (Stray Current Corrosion) Regulations 2009 will sunset 10 years after the day of making on 31 March 2019 (see section 5 of the **Subordinate Legislation Act 1994**).

Endnotes

2. Table of Amendments

There are no amendments made to the Electricity Safety (Stray Current Corrosion) Regulations 2009 by statutory rules, subordinate instruments and Acts.

3. Explanatory Details

¹ Reg. 3: S.R. No. 50/1999.

² Reg. 21(2): S.R. No. 136/2000 as amended by S.R. No. 114/2004.

Table of Applied, Adopted or Incorporated Matter Required by the Subordinate Legislation Regulations 2004

Note that the following table of applied, adopted or incorporated matter is included in accordance with the requirements of regulation 5 of the Subordinate Legislation Regulations 2004.

Statutory Rule Provision	Title of applied, adopted or incorporated document	Matter in applied, adopted or incorporated document
Regulation 16(1)(a)	Australian Standard 2832.1 'Cathodic protection of metals—Pipes and cables', as published or amended from time to time.	All
Regulation 16(1)(b)	Australian Standard 2832.2 'Cathodic protection of metals—Compact buried structures', as published or amended from time to time.	All
Regulation 16(1)(c)	Australian Standard 2832.3 'Cathodic protection of metals—Fixed immersed structures', as published or amended from time to time.	All
Regulation 16(1)(d)	Australian Standard 2832.5 'Cathodic protection of metals—Steel in concrete structures', as published or amended from time to time.	All