

# ELECTRICITY SAFETY (CATHODIC PROTECTION) REGULATIONS 2019

## RESPONSE TO SUBMISSIONS (November 2019)

### Background

On 22 March 2019 ESV released an issues paper about the upcoming remake of the Electricity Safety (Cathodic Protection) Regulations 2009 under the *Electricity Safety Act 1998* (the Act) to approximately 200 electricity industry stakeholders.

The paper explained the operation of the regulations and key issues and questions ESV identified to enable the regulations to better support the objectives of the Act. The main comments received in submissions were:

1. Commented on the role that the Code of Practice developed by the Victorian Electrolysis Committee (VEC) could play;
2. Raised issues relating to Australian Standards and the use of up to date technologies for interrupting power supplies for the purposes of testing; and
3. Recommended the regulations be outcome-based.

Energy Safe Victoria (ESV) held a forum for relevant asset owners to a forum on 15 July 2019 and discussed the proposed regulatory changes, and initial response to the submissions. This feedback informed the drafting of the proposed regulations.

### Release of consultation documents

ESV received approval to release an exposure draft of the proposed regulations and consultation paper for public comment from the Minister on 5 September 2019. These documents were issued to > 250 industry stakeholders by email and posted on ESV's website the same day. Reminders were sent again the week before the consultation period closed. The stakeholders included operators of electricity networks, representative organisations, high voltage and complex electrical installation asset owners, other regulators, train and tram network operators, and members of the VEC.

### Matters raised in the submissions

Eleven written submissions were received on the remaking of the Electricity Safety (Cathodic Protection) Regulations. The key matters raised are included in the table below:

	<b>Stakeholder comment</b>	<b>ESV response</b>
1	Alternatives to use of time switches for testing purposes in r18 should be considered.	Changes in technology mean that means other than time switches can interrupt power supply to relevant CP systems for testing purposes. ESV supports an amendment to r18 of the proposed regulations to allow for other means to interrupt power supply (see below).
2	Adjustments up to the maximum operating current without notification to ESV under proposed r20 should be allowed.	ESV does not regard changes within the scope of the registered details of CP systems as changes to their operation. This means owners can vary the current provided it is within the maximum operating current recorded with ESV for that system. Other examples of matters that are not changes of operation include

		change of anode bed location and maintenance or upkeep.
3	The effects of stray current corrosion need to be managed to protect fire-fighters	The general duties for rail operators and VESMS holders relate to the hazards and risks to safety of any person which includes emergency service personnel.
4	Owners should be required to inspect and record the operation of anode current at least annually, rather than annually	AS 2832 recommends more frequent testing of systems above 2A, being every two months. However the statutory requirement of doing so annually provides the minimum requirement to monitor electrical safety. ESV notes owners are not prevented from inspecting and recording the operating current of CP systems on a more regular basis.
5	The definition of 'electrolysis drainage bonds' uses the term "railway", which is too restrictive. The term should cover future HV DC cabling.	Railway is defined in s3 of the Rail Safety (Local Operations) Act 2006 and includes tramways and light rail. The regulations do not preclude other forms of mitigation systems including future HV and DC cabling, so need for change is not apparent.
6	The definition of CP system should be more explicit in engineering terms.	The engineering description is correct, however, what constitutes a CP system is not in dispute. ESV's preference is to leave the definition as an activity, which also retains currency over time.
7	Definition should refer to systems that have multiple connection points to structures, not a single point of connection.	While protection of large continuous assets will be designed with multiple electrical connection points in mind, ESV needs to be able to oversee potential interference at single connection points.
8	Proposed exemption from the definition of what is a prescribed CPS for marine vessels may be too narrow by not exempting floating production facilities or seasonal vessels moored for long periods.	ESV believes the scope of the exemption is clear and that it relates to vessels not permanently moored. ESV is interpreting this to include vessels that may be moored for long periods, where they are not permanent.
9	Exemption for offshore pipelines and facilities should be qualified in respect of <i>electrical</i> connection with land above sea level.	Connection that is not of an electrical nature is not relevant to stray current. ESV agrees that the intent of the exemption revolves around electrical properties and supports a change to the proposed regulations (see below).
10	The provision enabling ESV to withdraw the registration of a CPS should specify that acceptable operation and interference levels are set by AS 2832	ESV has the responsibility to withdraw registration. It is able to seek advice on appropriate standards from the Victorian Electrolysis Committee and will continue to do so. It is currently informed by AS 2832 so it is not proposed to include this in the regulations.
11	Code of Practice should be included in the regulations so it is a binding document	The current Code goes into matters beyond statutory requirements. One of the functions of the Victorian Electrolysis Committee (VEC) is to develop and maintain standards for CP systems and mitigation of stray current. This change is not supported but ESV shall seek advice from VEC on what compulsory standards may be appropriate (under s92 of the Act).

Submissions also raised matters that fell outside the scope of regulations; were comments for noting and required no response; or were queries that could be resolved by further reading of the regulations. Some matters shall be considered further by ESV, although not in the purview of the proposed regulations.

### **Amendments to the proposed regulations following consultation**

Following review of the submissions three amendments were made to the proposed regulations.

### Amendment 1 – Exemption applying to fixed offshore structures

Draft regulation 6 defines what a prescribed cathodic protection system (CPS) is, for the purposes of the Act and includes exclusions. One new exclusion is marine vessels that are not permanently moored, and fixed offshore structures (such as those used in the petroleum / gas industries) that have CPSs not connected with land above sea level.

Feedback from stakeholders indicated that the only relevant connection that should be considered is an electrical connection through whatever means, as other forms of connection may be incapable of conducting or generating stray current.

Advice from ESV technical staff supported the clarification that the connection should be an electrical connection. This means that fixed offshore structures with CPSs that do not have an electrical connection with land above sea level will not be required to be registered, which means they will not be regulated under the Act.

For the above reason, ESV decided to amend proposed clause 6(2)(c) to clarify that the connection is electrical.

### Amendment 2 – Provision for testing of cathodic protection systems

Draft regulation 18 (Provision for testing) continues the existing requirement that owners of registered cathodic protection systems that use impressed current need to be able to ensure that a time switch is able to be inserted in the system to interrupt power supply for testing purposes.

During the consultation forum and subsequent consultation period, industry feedback suggested that new technologies enable power supply to be interrupted through means, other than by time switches.

This feedback, along with advice from ESV technical staff, confirmed that it was appropriate to enable interruptions to the power supply by other suitable means.

For the above reason, ESV decided to amend the clause to enable provision for testing to be provided by suitable means other than by a time switch for interrupting the power supply for test purposes. The option of using a time switch to achieve this remains.

### Amendment 3 – Error in fee units for registration of some CPSs

Schedule 1 contains the fees for registration of cathodic protection systems. The fees shown in the current regulations for cathodic protection systems with a total output over 250 milliamperes and up to and including 2 amperes is 21.95 fee units (approx. \$325.08). The fee shown for the corresponding cathodic protection systems in the exposure draft of the regulations is 1.95 fee units (approximately \$28.88). The difference (21.95 fee units versus 1.95 fee units) was an editing error that appeared in the exposure draft of the regulations released for consultation. The correct amount of 21.95 fee units was stated in the consultation paper.

No comments were received in relation to the fee levels in either document. Correcting the error by restoring the fees to the current level (21.95 fee units) will mean there will be no change to the fees that apply to the CPSs concerned, and the correction will not affect any current stakeholders as the fee only applies to some CPSs that are registered when the regulations come into effect.

Given the absence of commentary on the fee level and absence of justification for a change, ESV shall retain the fee level at its current level of 21.95 fee units.