

**National Standard for Commercial Vessels (NSCV)
Part C — Design and Construction
Section 5 — Engineering
Subsection 5B — Electrical**



NSCV part C — Design and Construction, Engineering, Electrical		
NSCV reference	Topic	Comment
	<p>Certificates of Compliance (CoC), design and survey, are required for new electrical work, including:</p> <ul style="list-style-type: none"> – all low voltage work – extra low voltage where calculated load exceeds 1000 W (excluding motor starting load). 	
	<p>A CoC for a LV installation submitted by an accredited person (AP) who is not an electrical licence holder must be supported by an electrical contractor's inspection statement (Form F1588). An attached inspection statement does not absolve the AP of all responsibility for their CoC. They may have need to offer guidance to, and to check the work practices of an electrical contractor who has limited marine experience</p>	
NSCV part C subsection 5B Ed 2	<p>Legislation Called up under Transport Operations (Marine Safety — Designing and Building Commercial and Fishing Ships) Standard 2006 (TOMS-DBS)</p>	<p>Preferred electrical standard since December 2005</p> <p>Called up by USL Code 2008</p>
	<p>Legislation TOMS-DBS section 34 requires compliance with the <i>Electrical Safety Act 2002</i> (ESA)</p>	<p>The ESA requires compliance with AS/NZS 3000</p>
2.10	<p>This edition of NSCV part C subsection 5B calls up AS/NZS 3000</p>	<p>In compliance with the ESA and electrical safety legislation in all states and territories. See reference to AS/NZS 3000 below.</p>
2.13	<p>Information related to earthing</p>	<p>Different earthing systems allowed:</p> <ul style="list-style-type: none"> • earth plates • bonding.
2.15.1 (a)	<p>Cables and wiring systems</p>	<p>May be difficult to comply with this clause. Only applies as far as AS/NZS 3000 7.2.7. For CoC for Queensland registration.</p>
2.21.	<p>Commissioning – inspection and testing</p>	<p>Verification is to be in accordance with AS/NZS 3000. Commissioning and verification test results are to be recorded and kept on board.</p>
4.8.2.2 (b)	<p>Generator instruments</p>	<p>This clause does not apply for earthed systems. The requirement for a means of detecting earth leakage applies to isolated systems only.</p>
4.9	<p>Inverters</p>	<p>This clause considers inverters with outputs isolated from other electrical systems and inverters used to supply a ship's power system.</p>

<p>NSCV part C subsection 5B Ed 2, 2.10</p> <p>AS/NZS 3000: 2007</p>	<p>NSCV part C subsection 5B Ed 2 calls up AS/NZS 3000 (the Wiring Rules)</p>	<p>The Wiring Rules set out the requirements for design, construction and verification of electrical installations and selection of electrical equipment. Part 1 (section 1) provides safety outcomes, the uniform essential elements that constitute the minimum regulatory requirements (mandatory). Part 2 (sections 2 to 8) provides prescriptive work practices and methods that achieve certainty of compliance with the essential safety requirements of part 1 and ensure the installation is fit for purpose. Part 2 has a degree of flexibility.</p> <p>Persons involved in the design, build and survey of the electrical part of a ship must be familiar with this standard.</p>
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