Proposal Form –

Standards Development Projects

Version: 4.6

Issued: 12 April 2021

Please click [here](#OLE_SECTION_7) for guidance on the proposal submission process.

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| **Proposal title** | Deemed-to Satisfy Solutions for pump design and installation  |
| **Your name** | Neil Rech |
| **Preferred contact number**  |  |
| **Email address** | Neil.Rech@abcb.gov.au |
| **Name of employer** | Australian Building Codes Board |
| **Job title or position** | Project Officer |
| **Postal address**  | GPO Box 2‌013  |
| **Suburb** | Canberra |
| **State** | ACT |
| **Postal code** | 2601 |
| **Web address** | Abcb.gov.au |

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| **If you are submitting on behalf of an organisation that is different than your current employer, please fill out the information below.**  |
| **Nominating organisation** | Tasmania - Department of Justice |
| **Primary contact name** | Richard Harris |
| **Primary contact position** | Manager Plumbing Standards & Regulation| Consumer Building and Occupational Services |
| **Primary contact email** | Richard.Harris@justice.tas.gov.au |
| **Primary contact phone** | (03) 61664725 |

Section 1: Scope

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| **1A: Provide details of the proposed documents** |
| # | **Title***(e.g. Masonry cement)* | **Project type***(e.g. revision, amendment*1 *or new*2*)* | **Designation***(e.g. AS 1316:2003)*3 | **Product type***(e.g. AS, AS Int, SA TS, etc...)* 4 |
| 1 | Cold water services | Revision | AS/NZS 3500.1 | AS/NZS |
| 2 | Sanitary plumbing and drainage | Revision | AS/NZS 3500.2 | AS/NZS |
| 3 | Stormwater drainage | Revision | AS/NZS 3500.3 | AS/NZS |
| 4 | Heated water services | Revision | AS/NZS 3500.4 | AS/NZS |

1 An amendment is usually only possible for small changes to recently created documents. See Section 4 of Standardisation Guide [SG-003: Standards and Other Publications](https://www.standards.org.au/getmedia/d9da035d-2fbc-4417-98c1-aa9e85ef625d/SG-003-Standards-and-Other-Publications.pdf.aspx) for more details.

2 If you are proposing to create a new document, please provide a suggested Title.

3 Use the [Standards Australia Webstore](https://www.techstreet.com/sa) to obtain the full designation and name of existing documents.

4 Standards Australia mainly develops Australian Standards (AS) but it also develops the following Product types: Australian Interim Standard (AS Int), Australian Technical Specification (SA TS), Australian Technical Report (SA TR), Handbook (SA HB), Miscellaneous Publication (SA MP), Supplement (Normative), Supplement (Informative), Australian Standard Certified Reference Material (ASCRM). For guidance, see Standardisation Guide [SG-003: Standards and Other Publications](https://www.standards.org.au/getmedia/d9da035d-2fbc-4417-98c1-aa9e85ef625d/SG-003-Standards-and-Other-Publications.pdf.aspx).

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| **1B:Write a clear and concise statement of the nature of the issue to be addressed by your proposal.** Describe who is affected e.g. businesses, community organisations or individuals affected by the problem. What are the consequences of no action? |
| Plumbing systems often require pumped solutions, which need to operate efficiently and effectively, however, the design and installation of pumps is not covered sufficiently by the AS/NZ 3500 series of standards. As there are no Deemed-to-Satisfy solutions for the design and installation of pumps, technically every installation must be undertaken as a Performance Solution, however a degree of flexibility is often provided in this area from plumbing regulatory authorities. As the design and installation of pumps is common practice in industry, the AS/NZS 3500 series needs to keep pace with contemporary developments and provide the minimum requirements necessary for pumps to be installed in cold and heated water services as well as sanitary plumbing and drainage systems and stormwater systems. Consultation with stakeholders have indicated that pumps are often installed incorrectly in many installations. This suggests that the current provisions provided in the AS/NZS 3500 series may be insufficient in providing adequate guidance on the recommended practices. A common example of incorrect installation is the omission of vibration eliminators (a requirement of the PCA), isolation valves and non-return valves. Developing DTS provisions for the selection and installation of pumps will save significant time and resources for plumbing practitioners, as the need for a Performance Solution will be avoided, as well as provide safer and more consistent pumping systems for consumers. The additional time and extra administrative costs imposed as part of a performance solution could then be properly attributed to those designs and installations which require an innovative approach.There are 27 different types of pumps identified in AS/NZS 3500.0. Glossary of Terms. Whilst a complete solution may not be able to be provided within the standard, the minimum requirements for designing and installing a pump of any type and use will assist practitioners to determine the correct pump to be used. Any site specific considerations could be included in the standard as informative recommendations.  |

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| **1C: Write a clear and concise proposed scope that will outline how to address the identified issue(s).****Unless this is a proposal for a new document, this should not be a scope of the document, but a scope of the work which you propose to undertake.** Include what is going to be changed from the status quo and summarise the specific intent of the change. *If you wish to include proposed revisions as tracked changes in the Standard, or an outline of a new Standard, please summarise the scope and note the attachment here, and include the document as an appendix to this form.* |
| The proposed scope is to add Deemed to Satisfy (DtS) solutions for the design and installation of plumbing systems relating to pumps into AS/NZ 3500 Parts 1, 2, 3 and 4. These DtS solutions will:* provide plumbing practitioners with a pathway with up-to-date technical details enabling the appropriate pipe size and flow rate requirements in relation to pumped solutions;
* provide primary reference documents for the design and installation of plumbing systems relating to pumps in the Plumbing Code of Australia and New Zealand Plumbing Code; and
* provide consistency for pump installations across all jurisdictions.

Pump applications in plumbing installations include:* Circulating
* Pressure Boosting
* Pressure delivery
* Grinders/Sewer
* Submersible

Pump Types in plumbing installations include* Centrifugal
* Vertical
* Rotary
* Reciprocating
* Air-operated.
* Diaphram

It is proposed that a joint working group to be formed to work with ME-030 the Standards Australia’s technical committee for pumps to ensure alignment with the product specifications and there is appropriate expertise available to develop the minimum necessary design and installation requirements. This may also require involvement from pump manufacturers who often provide this information within the product literature.There is a need for the minimum necessary requirements for the correct choice of pump given the application and the sizing of common pumping solutions. Generally, common installations pertain to:* Rainwater pumps - delivery and pressure
* Cold water pumps – delivery and pressure
* Heated water circulatory pumps – circulation and speed
* Grey water pumps – wet well, dry well and portable submersible
* Macerating pumps for sanitary drainage - wet wells
* Small bore macerating pumps (AS/NZS 3500.2) (existing provisions need to be reviewed to keep pace with product innovation).
* Stormwater pumps – wet well and dry well.

Important supporting information on pump construction materials, application choice considerations, vibration elimination requirements, backflow prevention considerations and corrosion protection need to be included. In addition, noise minimisation and energy efficiency requirements of the National Construction Code in Australia and New Zealand Building Code would need to be included where applicable.  |

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| **1D:Are you proposing an adoption of an International Standard (i.e. ISO or IEC)?**  **If so answer the following:**5 |
| **Is it a Modified or Identical Adoption?****Note:** if Identical please use the [Proposal Form – Identical Adoption](https://www.standards.org.au/getmedia/45224a6a-e75c-497b-9967-857436086836/Proposal_Form_-_Identical-Adoption.doc.aspx) | N/A |
| **What is the designation?****e.g. ISO 10303.212-2004** |  |

5 Use the [Standards Australia Webstore](https://www.techstreet.com/sa) to obtain the full designation and name of existing documents.

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| **1E:Is the existing document referenced in Australian State, Territory or Commonwealth legislation or regulatory framework?** **For joint documents, also consider New Zealand legislation.**6 |
| *Yes (*List all legislation or regulation that refer to the existing document*.*7*)****Note****: For National Construction Code (NCC) and WaterMark proposals, the Australian Building Codes Board (ABCB) needs to be consulted prior to submission.* | Yes, primary referenced documents in the Australian National Construction Code and New Zealand Building Code.  |
| *No (Go to 1F)* |  |

**6** To search for Standards in Australasian legislation, use our search function [here](https://www.standards.org.au/standards-development/what-is-standard), under ‘Standards and the Law’.

7 Use the full formal designation for the relevant legislation, e.g. Explosives Regulation 2013 (NSW). If more than four items of legislation are affected, provide a list as an attachment to this proposal form.

**Note**: All relevant regulatory authorities must be consulted in the stakeholder consultation.

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| **1F:Is there an ISO/IEC document that also covers the issues in question?** |
| *Yes (Go to 1G)* | Yes, in part |
| *No (Go to 1H)* |  |

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| **1G:** **If there is an existing International Standard that covers the scope of this proposal, is it being adopted?** |
| *Yes (Go to 1H)* |  |
| *No (Please clarify this position explaining why the existing International Standard is not being adopted)* | ISO 9906:2012 |

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| **1H:Will the proposed document include any conformity assessment requirements?**8  |
| *Yes* | Yes, ABCB require a preliminary impact analyses.  |
| *No* |  |

8 See Standardisation Guide [SG-006: Rules for the structure and drafting of Australian Standards](https://www.standards.org.au/getmedia/1bbeb709-5dd4-41f3-a5ff-521e4f0c2958/SG-006-Rules-for-the-Structure-and-Drafting-of-Australian-Standards.pdf.aspx). Note that conformity assessment requirements are rarely permitted in a Standard. If you selected “yes,” please discuss with the relevant [Engagement Officer](https://www.standards.org.au/engagement-events/sectors) prior to submission.

Section 2: Net benefit

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| **2A:What will be the impact of the proposed project in the below categories? Explain this in terms of a positive or negative impact on the following “Net Benefit” criteria*.***9 |
| **Public health and safety (max 200 words)** |
| The introduction will enable vastly superior outcomes for practitioners, the public and regulators alike. The improved understanding and correct installations will see a reduction in overall related costs overtime due to reduce instances of re-work and premature failure due to miss-application. Energy consumption overall should also reduce as properly chosen and sized pumps will run at peak efficiency. |
| **Social and community impact (max 200 words)** |
| The public have an expectation that their plumbing practitioner is the person to call when a pump issue arises. Currently there is little DTS support for the practitioner which inevitably requires the involvement of other third parties for which the customer experiences additional costs. This can easily be resolved in the majority of cases with sufficient DTS provisions. |
| **Environmental impact (max 200 words)** |
| Clearly, the reduction in failures and the subsequent uncontrolled discharges that may occur is a good outcome particularly with sewer and grey water applications. Also the improvement in energy efficiency by the correct application of the pump working within its design duty efficiently. |
| **Competition (max 200 words)** |
| No impacts on competition.  |
| **Economic impact (max 200 words)** |
| Administrative costs for performance solutions varies between state and local government areas however can extend in excess of $1,100 for the application to submit a performance solution. Correct pump sizing can have a large impact on the energy used. This proposal will assist practitioners in correctly sizing the pump to suit the needs of the building or site.  |

9 Add specific facts and examples if possible. Refer to the [Guide to Net Benefit](https://www.standards.org.au/getmedia/c570e222-6c95-4636-b2d7-cd95241f2c3a/GU-103-Guide-to-Net-Benefit.pdf.aspx).Not all categories may be affected, in which case, leave these blank.

Section 3: Evidence of support — Stakeholder support

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| **3A: Describe the process taken to gain stakeholder support for your proposal (max 100 words)** |
| Clarification of the specific issues faced by industry were sought from the two peak hydraulic design associations through the WS-014 members (see below), however this consultation was to seek clarification on the common issues, not to support the proposal. Stakeholder support will be sought from the ABCB’s Plumbing Code Committee, the New Zealand’s Ministry of Business, Innovation and Employment and Standards Australia’s WS-014 technical committee.  |

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| **3B:Identify the Australian stakeholder organisations that you have consulted with. Evidence of stakeholder support MUST be provided in a letter (on company letterhead) or email (company email only).***At least two New Zealand-based stakeholders must be included for projects relating to joint AS/NZS Standards. Include those that do, and those that do not, support the proposal.*  |
| **Key stakeholder groups** | **Organisation Name** | **Contact name** | **Position** | **Letter or email evidence is attached: Y/N** | **Interested in membership of standards committee: Y/N** |
| *Research and academic organisations* |  |  |  |  |  |
| *Manufacturer associations* |  |  |  |  |  |
| *Testing bodies* |  |  |  |  |  |
| *Certification and auditing bodies* |  |  |  |  |  |
| *Supplier associations* |  |  |  |  |  |
| *User and purchaser associations* |  |  |  |  |  |
| *Employer and industry associations* |  |  |  |  |  |
| *Professional and technical bodies* | Liquid Hydraulics Pty Limited | David Wood | Director | N |  |
|  | Alexander & Associates Pty Ltd | Mark Alexander | Principal of Alexander & Associates | N |  |
| *Unions and employee associations* |  |  |  |  |  |
| *Consumer and community groups* |  |  |  |  |  |
| *Government and regulatory agencies* | CBOS – Department of Justice | Richard Harris | Manager Plumbing Standards and Regulation - Tasmania | Yes |  |
| *Independent experts* |  |  |  |  |  |
| *New Zealand stakeholders* |  |  |  |  |  |
| *Other* |  |  |  |  |  |

Section 4: Declaration

Please check that your proposal is complete and all fields have been filled out. Read and complete the declaration, then forward this proposal and any attached documents to Standards Australia at SEM@standards.org.au. The named proponent is deemed to have approved the information contained within this proposal and this declaration.

This declaration is a mandatory requirement and proposals will not be considered without it.

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| I consent to Standards Australia making information relating to Standards development projects public, including information contained within a proposal form I have submitted in part or in full. In the event that Standards Australia publishes proposals on its website, proponent details at page 1 and stakeholder contact details provided at Section 3 will not be included. However, with prior agreement, my contact details may be provided to interested parties wishing to contribute or comment on the proposal or the proposed project.The information provided in this application is complete, true and accurate to the best of my knowledge. I believe the proposed document will result in Net Benefit10 to Australia. I have consulted with, and have the support of, national organisations with a relevant interest in this project. |
| **Name of proponent** | Neil Rech  |
| **Date of declaration** | 09/12/2021 |

10 As defined in the [Guide to Net Benefit](https://www.standards.org.au/getmedia/c570e222-6c95-4636-b2d7-cd95241f2c3a/GU-103-Guide-to-Net-Benefit.pdf.aspx)

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See the Standards Australia [Privacy Policy](https://www.standards.org.au/privacy-policy) for more information.

Section 5: Instructions and notices

To submit this proposal for Standards Australia consideration:

1. You must complete every section of this form and then submit your initial proposal draft to an [Engagement Officer](https://www.standards.org.au/engagement-events/sectors). Use simple, non-technical and concise language and do not use jargon of any kind. For additional information, visit the “[Submitting a Proposal](https://www.standards.org.au/standards-development/developing-standards/proposal)” page on our website.
2. The Engagement Officer will conduct the preliminary review of this form and then guide you as to the next steps.
3. Final submissions, along with evidence of stakeholder support, have to be provided electronically to Standards Australia (SEM@standards.org.au). Please note: you should circulate your proposal to stakeholders and collect evidence of support before submitting this form to SEM@standards.org.au.

If you have any trouble with the form, you can contact us on (02) 9237 6000, 1800 035 822, or email us at SEM@standards.org.au.

For identical adoptions of International Standards please complete the [Proposal Form – Identical Adoptions](https://www.standards.org.au/getmedia/45224a6a-e75c-497b-9967-857436086836/Proposal_Form_-_Identical-Adoption.doc.aspx).