BUILDING PERFORMANCE

Consultation submission form

TEMPERATURE LIMITED WATER HEATERS

Proposed modification to the referencing of AS 3498 in G12/AS1

MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

Te Kāwanatanga o Aotearoa
New Zealand Government

How to submit this form

This form is used to provide feedback on proposals found within the Temperature limited water heaters – Proposed modification to the referencing of AS 3498 in Acceptable Solution G12/AS1 consultation document.

When completing this submission form, please provide comments and reasons explaining your choices. Your feedback provides valuable information and informs decisions about the proposals.

You can submit this form **by 5pm, Monday, 2 September 2024** by:

- Email to: buildingfeedback@mbie.govt.nz, with subject line **'Building Code consultation - Temperature limited water heaters'**

- Post to:
  Building Code consultation - Temperature limited water heaters
  Building System Performance
  Ministry of Business, Innovation and Employment
  PO Box 1473
  Wellington 6140

Your feedback will contribute to further development of the Building Code. It will also become official information, which means it may be requested under the Official Information Act 1982 (OIA).

The OIA specifies that information is to be made available upon request unless there are sufficient grounds for withholding it. If we receive a request, we cannot guarantee that feedback you provide us will not be made public. Any decision to withhold information requested under the OIA is reviewable by the Ombudsman.

Submitter information

MBIE would appreciate if you would provide some information about yourself. If you choose to provide information in the "About you" section below it will be used to help MBIE understand the impact of our proposals on different occupational groups. Any information you provide will be stored securely.

A. About you

Name: Nick Hill

Email address: NickHill@boinz.org.nz

B. Are you happy for MBIE to contact you if we have questions about your submission?

☒ Yes ☐ No

C. Are you making this submission on behalf of a business or organisation?

☒ Yes ☐ No

If yes, please tell us the title of your company/organisation:

Building Officials Institute of New Zealand (BOINZ)

Who we are, and what we do

For nearly 60 years the Building Officials Institute of New Zealand (BOINZ) has been the peak body for building surveying in New Zealand, with over 1250 members. BOINZ has supported strong and fair regulation of the building industry

BOINZ vision is to 'Improve the Quality and Performance of the Built Environment', through advocacy via consultative member input, based on experience and best practice outcomes and with professional development programmes which aim to improve the competency of building surveyors, and unapologetically seek to improve building outcomes for building owners and occupiers.

D. The best way to describe your role is:

☐ Architect
☐ BCA/Building Consent Officer
☐ Builder or tradesperson (please specify below)
☐ Building product manufacturer or supplier (please specify the type of product below)
☐ Designer (please specify below)
☐ Engineer (please specify below)
☐ Residential building owner
☐ Commercial building owner
☒ Other (please specify below)
☐ Prefer not to say

Please specify here:

BOINZ is the membership organisation representing building surveyors whose most important role is to ensure buildings and people that occupy them are safe.

Our members work in both the public and private sector making sure elements of a building meet the New Zealand Building Code and Standards, administer Building Act including processing building consents and undertaking inspections. In

relation to this consultation Code Compliance Certificates will not be issued unless the outlet temperature at personal hygiene outlets is no more than 50°C.

E. Privacy information

☐ The Privacy Act 2020 applies to submissions. Please check the box if you do not wish your name or other personal information to be included in any information about submissions that MBIE may publish.

☐ MBIE may upload submissions, or a summary of submissions, received to MBIE's website at www.mbie.govt.nz. If you do not want your submission or a summary of your submission to be placed on our website, please check the box and type an explanation below:

I do not want my submission placed on MBIE's website because… [insert reasoning here]

F. Confidential information

☐ I would like my submission (or identifiable parts of my submission) to be kept confidential and have stated my reasons and ground under section 9 of the Official Information Act that I believe apply, for consideration by MBIE.

If you have checked this box, please tell us what parts of your submission are to be kept confidential.

Temperature limited water heaters

In May and June of 2022, MBIE consulted on proposed changes to improve the safety and reliability of new plumbing systems.[1] The consultation submissions we received informed the decision to proceed with the proposed changes to reduce the risk of scalding injuries from hot water.

On 2 November 2023, MBIE reduced the maximum hot water temperature allowed by Acceptable Solution G12/AS1 for sanitary fixtures used for personal hygiene in most buildings from 55°C to 50°C at the outlet. This change is intended to reduce the risk of scalding injuries from hot water. There is a 12-month transition period for this change, ending on 1 November 2024.

As part of this change, additional acceptable hot water delivery temperature control devices and product standards were introduced into G12/AS1 in Tables 8A and 8B.

In G12/AS1 Table 8B, instantaneous (continuous flow) TLWHs that meet AS 3498:2020 *Safety and public health requirements for plumbing products - Water heaters and hot-water storage tanks*[2] are listed as an acceptable temperature control device for limiting the water delivery temperature to a maximum of 50°C.

A temperature limited water heater (TLWH) is a water heater that limits the delivered hot water temperature at the outlet of any sanitary fixture used for personal hygiene supplied by the water heater, without the need for an additional temperature control device.

MBIE has heard from some manufacturers and suppliers that a sub-clause within AS 3498 limits flexibility for how certain ranges of instantaneous (continuous flow) water heaters available on the New Zealand market can be used. This issue has been compounded by some suppliers holding high stock levels of these products.

MBIE are now proposing to modify the G12/AS1 Table 8B reference to AS 3498 to exclude sub-clause 7.3.2.1(a) of this standard. This sub-clause limits the maximum temperature adjustment for a TLWH.

This change would mean that a temperature limited water heater set to deliver water that does not exceed 50°C could be subsequently adjusted by an authorised installer to deliver water above 50°C, if required.

In these situations, the authorised installer (e.g., licenced plumber) would be responsible for providing additional temperature control device(s) as needed to ensure the maximum temperature of hot water delivered at the outlets of sanitary fixtures used for personal hygiene does not exceed 50°C.

It is proposed that this change would come into effect on 2 November 2024, with no transition period.

Questions for the consultation

1. Do you support amending Acceptable Solution G12/AS1 Table 8B to modify the hot water delivery temperature control device provision for instantaneous (continuous flow) temperature limited water heaters (TLWH) to exclude sub-clause 7.3.2.1(a) from the citation of AS 3498?

This would mean that a TLWH set to deliver water that does not exceed 50°C could be subsequently adjusted by an authorised installer to deliver water above 50°C, if required.

☐ Yes, I support it ☒ No, I don't support it ☐ Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

[1] https://www.mbie.govt.nz/dmsdocument/20115-consultation-document-building-code-update-2022-plumbing-and-drainage

[2] AS 3498:2020 *Safety and public health requirements for plumbing products - Water heaters and hot-water storage tanks*

BOINZ does not see any reason to change Table 8A. This table is for temperature control devices that deliver a maximum hot water temperature of 50°C. Including an exception in this table will remove clarity about the intent of water temperature delivery of no more than 50°C.

BOINZ encourages MBIE to set clear consistent rules without needless exception.

If residual stock is the issue and Table 8A is changed, a further change will be needed in the future when the residual stock is sold.

BOINZ recommends that if AS 4398 must be referenced in G12/AS1 it should be added to Table 5 with a qualifying note. This means TLWHs that are set or adjusted to above 50°C will have the same status as other water heaters and downstream temperature limiting devices will be required. Consequently, Table 8A will not need amending and will continue to be for TLWH delivering safe temperatures for personal hygiene outlets of less than or equal to 50°C.

BOINZ proposes two solutions:

1) **Make no change.** No change is required because is TLWH with a delivery temperature of greater than 50°C and downstream device from Table 8 or Table 8B will need to be installed so that the temperature at the outlet of the personal hygiene fixture will be no more than 50°C.
   Temperature is verified on site using a thermometer.
2) **Change Table 5.** Should MBIE persist with making a change, then only Table 5 should be amended as follows:
   Add to Table 5 "Temperature Limited Water Heaters (TLWH) made to AS 3498"
   Add a corresponding note or additional paragraph:

   "If the TLWH is set to heat water to a temperature of greater than 50°C and the temperature at the outlet of the personal hygiene fixtures is greater than 50°C, the hot water temperature must be limited by a device from Table 8A or Table 8B."

2. What impacts would you expect for you or your business from the proposed changes?

These impacts may be economic/financial, environmental, health and wellbeing-related, or other areas.

Is there anything you would like to tell us about the reason(s) for your choice?

Building Consent Authorities are regularly being accused of taking too long to process building consents and undertake inspections. This proposal adds an unnecessary level of detail that will need checking before issuing a building consent and adds time to building consent processing.

Building Consent Officers check hot water temperatures at personal hygiene outlets using a thermometer, thereby establishing compliance with the building consent and confirming Building Code compliance. When undertaking inspections irrespective of whether an instantaneous water heater with the factory setting is altered on site, or if a thermostatic mixing valve or a tempering valve is installed, the delivery water temperature at personal hygiene outlets must be no more than 50°C.

Adding a separate paragraph or a note to Table 5, as proposed by BOINZ above, and not changing Table 8A will simplify the situation in a positive way and not create a messy exception.

3. Do you agree with this change taking effect on 2 November 2024, with no transition period?

☐ Yes, I agree ☐ No, I don't agree ☐ Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

BOINZ agrees that if MBIE decides to change Table 5, instead of Table 8B as proposed, the changes can take immediate effect.

Thank you

Thanks for your feedback, we really appreciate your insight. It helps us keep pace with modern construction methods, the needs of New Zealanders and ensures people are safe and healthy, living in durable homes and buildings.

To help us continue to improve the Building Code documents, we would appreciate any suggestions or comments you may have on what is working and how we can do better.

Please leave your feedback here:

The short consultation time frame has caused unwarranted pressure for BOINZ and likely many other submitters.

BOINZ considers that with more prior collaboration with the industry (including BCAs) to set policy objectives, an improved consultation document could have been prepared or, MBIE may have realised that the change was not required at all.