



Submission Form for Timber Treatment Consultation

Submissions can be sent by post or hand delivered to:

Consultation Feedback – Timber Treatment Consultation
Department of Building and Housing – Building Standards
L6, 86 Customhouse Quay
PO Box 10-729
Wellington

or by email to: consulting@dbh.govt.nz (please put 'Timber treatment consultation' in the subject line)

or by fax to: + 64 4 494 0290

The **closing date for submissions is 29 October 2010**. Please note that all responses will be public information and may be the subject of requests for information under the Official Information Act 1982 (OIA).

First Name:	John	Last Name:	Albert
Position:	Professional Services Manager	Organisation:	New Zealand Institute of Architects Inc.
Contact details	Phone 09 623 6083 Email jalbert@nzia.co.nz		

Industry/Sector you represent:

Design Professional:

- Architect
 Chartered engineer
 Other designer
 Remediation specialist

Policy/regulatory/quality assurance:

- BCA
 IQP (Independently Qualified Person)
 Government agency

Owners/developers:

- Commercial building owner
 Developer
 Researcher/academic

Constructors:

- Builder
 Subcontractor

Product manufacturer:

- Timber miller
 Timber treater
 Timber processor

Product supplier:

- Timber merchant
 Chemical supplier

Industry Association:

- Design Professional
 Construction
 Product
 Regulatory/policy/quality assurance
 Property owners

If you are a timber supplier/manufacturer which treatment quality mark do you use:

- Woodmark
 Assure quality
 Other

Other (please specify): _____

Timber consultation



1. Do you support the proposal for all framing timber inside the building envelope, including roof trusses and internal wall framing, being treated to a single hazard class?

(please indicate your level of support and add any reasons or comments below)

- Strongly
 Somewhat
 Neutral
 Opposed
 No Opinion

Comments We favour a single hazard class for housing because it simplifies documentation and on-site observation. The boron treatments have relatively little toxicity to mammals/aquatic life and therefore offcuts/sawdust are easy to dispose of.

We support H1.2 Boron single hazard class because the high risk cladding systems are no longer prevalent and historically there has been few decay problems with boric treated framing even in weatherboard homes with higher risk scorings.

There are sustainability issues with the use of boron that should be considered. The main one of these is that boron is a relatively rarest element with finite world reserves. There are better uses for this resource than as a timber preservative. Currently there is no methodology for the recovery of boron from waste timber and doing this economically appears difficult.

Boron treatment is not ideal and that other alternatives should be explored to eliminate the use of finite non recyclable resources.

We believe that untreated Radiata is a suitable alternative for office fitout work where partitions are non structural and the expected life of the fitout is typically 5 -10 years. However this could be submitted as an alternative solution.

2. Taking account of the evidence provided, do you consider that the H1.2 hazard class as a minimum provides adequate protection from decay inside the building envelope?

- Yes
 No
 Other (please state)

Comments Referring to the cited research: Is the loss of boron over the 6 year trial period equivalent or greater to an expected 50 year loss in real building situations? If not, what happens when the boron levels fall further as after 6 years they appear marginal for offering continued protection. The evidence provided indicates that for higher risk exposures H1.2 boron may not be adequate for 50 year durability in all cases.

On balance we accept that for most situations and risks H1.2 Boron treatment is more than adequate



for 50 year durability inside the building envelope.

3. Do you support the proposal to allow the use of untreated Douglas fir for simple designs in low risk situations?

(please indicate your level of agreement and add any reasons or comments below)

- Strongly
 Somewhat
 Neutral
 Opposed
 No Opinion

Comments While the research shows a significant decline in structural strength in Douglas Fir sapwood when it is subject to prolonged wetting and moderate borer resistance, most of the Douglas Fir supplied is heartwood and this shows good resistance to both rot and borer. Therefore in low risk situations it will perform well as a structural timber, being environmentally friendly, safe to work with, easily disposed of and having much better stability and appearance than Radiata.

Historically untreated Douglas Fir has proven durability. Given the environmental cost of using treated timber and the reduced risks in the building envelope then perhaps there can be a heart grade of Douglas Fir that can be used as an equivalent to the H1.2 single hazard class.

It would be useful to have an update on the B2 roadmap going forward. This should include:

Review/LCA of CCA use to in comparison with alternative treatments (CuAz, CBA, ACQ and perhaps CuN. This should include all environmental impacts.

Possible future untreated timber options such as Totara.

Use of spray on boron treatments inside the building envelope to optimize the use of boron.

Review the potential use of other (commoner) salts to augment the resistance of Radiata and Douglas Fir.

Elimination of LOSP treatments for cavity battens.

4. What will be the positive and/or negative impacts of the proposals on your business, eg costs and benefits?

They will simplify document checking and reduce the risk of incorrectly specifying the wrong timber treatment. The cost of changing our specifications will be low as this is a simplification and therefore straight forward.



5. The Department is proposing slightly different transitional arrangements to previous consultations. Do you agree with the proposed transitional arrangements?

- Yes
 No

Comments What is proposed is reasonable given that in this case the superceded Acceptable Solution requires higher levels of treatment in most cases and for complex projects which have a longer documentation period than the transition period there is no risk that expected durability will not be achieved.

6. How would you prefer to receive information and education on this issue if the changes are adopted?

(please indicate)

- email
 Website
 Print eg newsletter
 Seminars
 Other (please specify)

Comments We prefer email with links to the website as this allows the information to be easily passed on. Build magazine should also be used to educate on the changes. As the changes are well researched and clear there would be little to be gained by having seminars.

7. Do you have any other comments?

We support H1.2 boron single hazard class as an improvement because high risk cladding systems are no longer permitted and historically there has been few decay problems with boron treated framing.

While we support the proposed Option 4 which is to proceed with updating the B2 Acceptable Solution to expedite the change, we believe that the update of both NZS3602 and NZS3640 should be funded as a limited technical review. This will allow any outstanding technical issues to be addressed including QA and Identification and these documents can be kept in step with the AS and industry.

We do have some reservations about the research to date. You state that there is evidence that for enclosed framing H3.1 offers no greater resistance to decay than H1.2. This is based on 6 years of accelerated testing, but how does this relate to 50 year durability for high risk areas such as bathrooms? In these areas wetting can go undetected for extended periods. There may be many designers who will still prefer to use higher treatment classes such as H3.2 for these areas. It would be good to be able to provide evidence that these concerns are unjustified. Also in stating that H3.1 offers no greater protection do we know that this is still true further into the exposure cycle, given that there has been significant loss of the boron preservative at 6 years in the Scion study. We feel that ongoing research is justified.

Conversely, you are still requiring H3.1 for cavity battens along with the inherent health/disposal issues when you have accepted that H1.2 is equivalent to H3.1 for framing. We assume this is because of greater leaching with boron treatment. But cladding durability is only 15 years and the risks much lower than for structure so



H1.2 boron would appear to be appropriate for cavities as well. We have tended to use H3.2 for battens because LOSP treatments are not as penetrative as pressure treatments and untreated cut ends are more susceptible to decay. It is our experience that these cut ends are seldom if ever post treated. Cut ends may be less of a problem with boron treated timber than H3.1 LOSP because of greater penetration. We would like to see more research on using boron treatments for cavities including additives to boron treatments (waxes?) to decrease leaching and improve durability in cavities.

We support the review of CCA treatments in future revisions of this clause. There are real concerns with the production and disposal of CCA timber. On the one hand industry has cleaned itself up and that leaching is at very low rates from landfills. The arsenic used is a by product of the copper industry, and the copper/chromium uses is low compared with other industrial uses. Overall background environmental levels of arsenic from volcanic activity are more significant than the levels introduced by CCA treatment. However both arsenic and hexavalent chromium are carcinogenic and any reduction in environmental exposure will have significant health benefits. The high copper treatments (ACQ/CuAz) are arguably better overall despite their potential greater impact on aquatic organisms and the need to use stainless steel for fixings. Ultimately we need to find durable sustainable timbers for in ground use.

Acetylated timber is now commercially available in New Zealand but this should be readily accepted as an alternative solution accompanied by the technical data. DBH should provide guidance on the use of such timber to facilitate consenting.

Thank you for your submission. Please phone 0800 242 243 if you have any queries.