WaterMark Certification Scheme

Notice of Direction 2021/4.2

Certification transition arrangements for Lead Free plumbing products

Intent

This notice is to provide direction on the certification transition arrangements for the Lead Free requirements for plumbing products, as outlined in the National Construction Code (NCC) 2022 Volume Three (the Plumbing Code of Australia). This is one of several notices relating to the Lead Free certification transition arrangements.

Background

This Notice of Direction is provided in accordance with clause 5(c) of the Rules for the WaterMark Certification Scheme.

The Australian Building Codes Board (ABCB) decided to limit the allowable lead content in plumbing products, which contain copper alloys and are intended for use in contact with drinking water, to a weighted average lead content of not more than 0.25%.

A5G4 of NCC 2022 (at **Attachment 1**) outlines new requirements for any plumbing product containing copper alloy and intended for use in contact with drinking water, as well as the means for demonstrating evidence of suitability to those requirements.

A 3 year transition period was provided in NCC 2022, from 1 September 2022 to 1 September 2025, for A5G4(2) of NCC Volume Three to take effect. However, due to delays in the registration of the Lead Free WaterMark trademark and ongoing supply chain constraints, the ABCB subsequently redetermined the transition period to commence on 1 May 2023 and cease by 30 April 2026.

From 1 May 2026 only products WaterMark certified as conforming to the Lead Free requirements of NCC Volume Three, where required, will be authorised for use in plumbing installations. Products that do not conform to the Lead Free requirements will no longer have valid certification and will not be authorised for use in contact with drinking water.

This notice details arrangements for stakeholders of the WaterMark Certification Scheme during the transition of certification from the current material requirements to the new Lead Free requirements outlined in A5G4 of NCC 2022.

These arrangements ensure the continuity of certification and authorisation for use of new products, products that have already been certified and products that will fall due for re-certification, from the date of this notice.

Lead is currently permitted in small proportions in the raw materials used to manufacture some plumbing products. Whilst the allowable lead levels permitted in these products ensures compliance with the Australian Drinking Water Guidelines, the use of Lead Free products will contribute to improved public safety.

Reference Documents

- National Construction Code Volume Three (NCC 2022), and any subsequent editions
- Manual for the WaterMark Certification Scheme
- WaterMark Schedule of Products
- ABCB Notice of Direction 2022/1.1 Acceptable copper alloys for Lead Free plumbing products
- ABCB Notice of Direction 2022/2.0 Marking requirements for Lead Free plumbing products
- ABCB Lead in Plumbing Products Implementation Plan
- NSF/ANSI/CAN 372.

Direction

The directions are as follows:

1.0 The Lead Free requirements of the National Construction Code 2022 are shown at **Attachment 1** of this notice. Transition arrangements to comply with these requirements by 1 May 2026 commenced on 1 May 2023.

2.0 The meaning of words used in this notice are as per the Manual for the WaterMark Certification Scheme clause 1.3 Definitions.

3.0 Documentation

3.1 WaterMark Schedule of Products

A review of all products listed on the WaterMark Schedule of Products (WMSP), to determine if they would be included or excluded from the Lead Free requirements of NCC Volume Three, was undertaken by the ABCB office, in consultation with industry representatives, in September 2021.

A rationale for the review is provided in the Lead in Plumbing Products Implementation Plan and the outcomes of the review are published in the WaterMark Schedule of Products. Both documents are published on the WaterMark website.

Transition

3.1.1 From the date of this notice, industry stakeholders (manufacturers, WaterMark Conformity Assessment Bodies [WMCABs], Approved Users and Accredited Testing Laboratories) may commence adjusting operations to test, certify and supply Lead Free products for which the requirements of NCC Volume Three apply.

3.1.2 From 1 May 2023, or from when the WMSP noted in 3.1 above was published on the WaterMark website, industry stakeholders shall review the WMSP and commence adjusting operations to test, certify and supply Lead Free products for which the requirements of NCC Volume Three apply.

3.1.3 From 1 May 2026, industry stakeholders shall review the WMSP and shall test, certify and supply Lead Free certified products, for which the requirements of NCC Volume Three apply.

3.2 Applicable Specifications

All applicable specifications used to certify plumbing products containing copper alloy, and intended for use in contact with drinking water, will be listed on the WMSP noted in 3.1 above.

Transition

3.2.1 From the date of this notice, if the product is being certified, or re-certified, to comply with the Lead Free requirements of NCC Volume Three, the

requirements used to certify plumbing products containing copper alloy, which are intended for use in contact with drinking water, shall include conformance to the applicable specifications and NSF/ANSI/CAN 372.

3.2.2 From 1 May 2026, the requirements used to certify plumbing products containing copper alloy, which are intended for use in contact with drinking water, shall include conformance to the applicable specifications and NSF/ANSI/CAN 372.

3.3 Development of Product Specifications

The ABCB will continue to publish new and amended WaterMark Technical Specifications and stakeholders will have the opportunity to have product specifications published through a third party considered for acceptance into the Scheme. In both scenarios, public consultation will be undertaken for new, amended or revised product specifications, including peer review via the WaterMark Technical Advisory Consultants and the Plumbing Code Committee, prior to Administering Body acceptance for inclusion in the Scheme.

Transition

3.3.1 From the date of this notice until 30 April 2026 all new, amended or revised product specifications, used to certify plumbing products containing copper alloy that are intended for use in contact with drinking water, may include provisions to achieve compliance with the Lead Free requirements outlined in A5G4 of NCC 2022.

3.3.2 From 1 May 2026 all new, amended or revised product specifications, used to certify plumbing products containing copper alloy that are intended for use in contact with drinking water, shall include provisions to achieve compliance with the Lead Free requirements outlined in A5G4 of NCC 2022.

4.0 Certification

All plumbing products that are intended for use in contact with drinking water and require certification or re-certification to the Lead Free requirements of NCC Volume Three, must be evaluated in accordance with the procedure for Lead Free certification outlined at **Attachment 2** of this Notice – Amended Manual for the WaterMark Certification Scheme – Section 8 | Procedure for Certification (Clauses 8.5 to 8.7.2) and **Attachment 3** of this

Notice – Amended Manual for the WaterMark Certification Scheme – Appendix 6 | Protocol for the evaluation of products containing copper alloy intended for use in contact with drinking water.

Note: for reference **Attachment 2 (A)** of this Notice shows the amendments made (in tracked changes) to Manual for the WaterMark Certification Scheme – Section 8 | Procedure for Certification (Clauses 8.5 to 8.7.2). Attachments 2 and 3 will be incorporated into an updated version of the Manual for the WaterMark Certification Scheme.

WaterMark Conformity Assessment Bodies are responsible for determining if a plumbing product is subject to, or excluded from, the Lead Free requirements of NCC 2022, in accordance with the Manual for the WaterMark Certification Scheme and the WaterMark Schedule of Products.

Transition

4.1 From 1 May 2023, where an existing certified product is re-certified to meet the Lead Free requirements of NCC Volume Three, it may be issued with a new Model Name and Model ID. The new Model Name and Model ID shall be added to the WaterMark Certificate of Conformity and the WaterMark Product Database and be identified as Lead Free.

4.2 From 1 May 2023, where an existing certified product is re-certified to meet the Lead Free requirements of NCC Volume Three, it may retain the original Model Name and Model ID. The original Model Name and Model ID shall be identified as Lead Free on the WaterMark Certificate of Conformity and the WaterMark Product Database.

4.3 From 1 May 2026, any existing certified plumbing product containing copper alloy and intended for use in contact with drinking water that is required to meet Lead Free requirements of NCC Volume Three, that was not manufactured to meet the Lead Free requirements and recertified as a Lead Free product, or added to the WaterMark Certificate of Conformity and the WaterMark Product Database as a Lead Free product, shall no longer be authorised for installation.

5.0 Marking

Refer to **Notice of Direction 2022/2.0 Marking requirements for Lead Free plumbing products**, published by the ABCB, for marking requirements and recommendations for Lead Free plumbing products.

6.0 Materials

Refer to **Notice of Direction 2022/1.1 Acceptable copper alloys for the manufacture of Lead Free plumbing products**, published by the ABCB, for materials requirements and recommendations for Lead Free plumbing products.

7.0 Enforcement at point of installation

Enforcement of the requirements of the WaterMark Certification Scheme and the NCC Volume Three is undertaken at the point of installation by the state or territory plumbing administration having jurisdiction.

All certified plumbing products, whether manufactured in compliance with the current requirements outlined in the applicable specification or the Lead Free requirements of NCC Volume Three, must have a current WaterMark Licence and be listed in the WaterMark Product Database to be authorised for use in a plumbing and drainage installation.

Transition

7.1 From the date of this notice until 30 April 2026, any certified plumbing product containing copper alloy and intended for use in contact with drinking water that was not manufactured to meet the Lead Free requirements of NCC Volume Three but has a current WaterMark Licence and is listed in the WaterMark Product Database, shall remain authorised for installation until the WaterMark Licence has been cancelled or expired. This will enable the phasing out of such products from the supply chain.

7.2 From 1 May 2026, any certified plumbing product containing copper alloy and intended for use in contact with drinking water, that was not manufactured to meet the Lead Free requirements of NCC Volume Three, shall no longer be authorised for installation.

8.0 Lead free products that are not required to comply with the lead free requirements of ncc volume three

Plumbing products that are intended for use in contact with drinking water, that are inherently Lead Free and/or otherwise not required to be certified or re-certified to the Lead Free requirements of NCC Volume Three, may voluntarily be evaluated as a Lead Free product in accordance with this Notice and the procedure for certification outlined at Section 8 of the Manual for the WaterMark Certification Scheme. Such products must

comply with all Directions 1.0-7.0 above as for products that are required to be certified or re-certified to the Lead Free requirements of NCC Volume Three.

Further Information

Should any WaterMark Certification Scheme stakeholder require further clarification, they should contact the ABCB office directly for further advice on 1300 134 631 or email watermark@abcb.gov.au.

Change history of this Notice

1. Version 2021/4.0 published December 2021.
2. Version 2021/4.1 published May 2022. Updates to amendments to certification transition arrangements (clause 4.0), marking (clause 5.0), materials (clause 6.0) and voluntary Lead Free certification (clause 8.0).
3. Version 2021/4.2 published May 2023. Inclusion of new dates for the 3 year transition period; deletion of Attachment 2 (WaterMark Schedule of Products); inclusion of Attachment 2 Amended Manual for the WaterMark Certification Scheme – Section 8 | Procedure for Certification (Clauses 8.5 to 8.7.2) and inclusion of Attachment 3 Amended Manual for the WaterMark Certification Scheme – Appendix 6 | Protocol for the evaluation of products containing copper alloy intended for use in contact with drinking water.
4. Version 2021/4.2 updated to include both a clean and tracked changes version at Attachment 2 and 2(A).

Date of publication: June 2023

ATTACHMENT 1

A5G4 Evidence of suitability – Volume Three (PCA) 2022

(2) Any product that contains copper alloy and is intended for use in contact with drinking water must have a weighted average lead content of not more than 0.25% verified in the form of either—

a) a test report provided by an Accredited Testing Laboratory, in accordance with NSF/ANSI/CAN 372; or

b) a WaterMark Licence issued in accordance with (3), if it includes compliance with NSF/ANSI/CAN 372.

Notes:

1. A5G4(2) does not take effect until 1 September 2025. [Redetermined by ABCB to 1 May 2026]
2. Note 1 does not prevent use of products certified in accordance with A5G4(2) prior to 1 September 2025. [Redetermined by ABCB to 1 May 2026]

Applications:

Products subject to the requirements of A5G4(2) are specifically nominated in the WaterMark Schedule of Products and the WaterMark Schedule of Excluded Products.

Exemptions:

1. Products that are used exclusively for non-drinking uses such as manufacturing, industrial processing, irrigation, or other uses where water is not anticipated to be used for human consumption are excluded from the requirements of A5G4(2).

Explanatory information:

Some examples of products subject to A5G4(2) include the following:

(a) Copper alloy fittings.
(b) Stainless-steel braided hoses.
(c) Valves (such as valves used for isolation, backflow prevention, alteration of pressure and temperature).
(d) Taps and mixers.
(e) Water meters.
(f) Pumps (for use with cold and heated water services).

(g) Water heaters.
(h) Residential water filtration equipment.
(i) Water dispensers (such as boiling and cooling units, drinking fountains and bottle fillers).
(j) Fire sprinkler systems connected to the cold water service that are not isolated from fixtures and fittings intended to supply water for human consumption

Some examples of products excluded from the requirements of A5G4(2) include the following:

(a) Shower heads for bathing.
(b) Emergency showers, eye wash and/or face wash equipment.
(c) Pumps used for irrigation, fire-fighting or other non-drinking purposes.
(d) Fire-fighting water services and equipment including residential fire sprinklers.
(e) Appliances, including washing machines and dishwashers.
(f) Commercial boilers associated with heating, ventilation and air-conditioning systems.
(g) Sanitary fixtures (such as toilets, cistern inlet valves, bidets and urinals).
(h) Non-drinking water services (such as recycled water systems).

Product certification transition arrangements are outlined in Notices of Direction issued though the WaterMark Certification Scheme.

Lead is currently permitted in small proportions in the raw materials used to manufacture some plumbing products. Whilst the allowable lead levels permitted in products manufactured prior to 1 September 2025 [Redetermined by ABCB to 1 May 2026] ensures compliance with the Australian Drinking Water Guidelines, the use of products compliant with the lead levels in A5G4(2) is encouraged, to avoid the potential for adverse effects on human health.

ATTACHMENT 2

Amended Manual for the WaterMark Certification Scheme

Section 8 | Procedure for Certification (Clauses 8.5 to 8.7.2)

8.5 Initial Evaluation, Certification and Licence Issue, and Recertification

8.5.1 Initial evaluation, certification, licence issue and recertification of a product shall be conducted by an Approved Certifier as follows, and, for a product to be certified to the Lead Free requirements outlined in the National Construction Code Volume Three, also in accordance with Appendix 6 | Protocol for the evaluation of products containing copper alloy intended for use in contact with drinking water:

I. Selection – including planning and preparation activities and specification of requirements such as normative documents and sampling as well as:

a) on-site assessment of manufacturing quality management system and production process (i.e. factory/factories have and follow a manufacturing Quality Plan and the relevant requirements of the Scheme and applicable specification) at each and any new location. Where manufacture of products seeking certification has not commenced, initially the on-site assessment shall be of capability, then once certification has been issued and production is underway, another on-site inspection shall take place within the next 12 months; and

b) approval of a type test plan and batch release testing regime covering the product(s) submitted for certification as follows:

i. the scope of testing shall not be less than that defined in the applicable specification for type testing and batch release testing, or where not specified, a scope developed by the Approved Certifier;

NOTE: This includes NSF/ANSI/CAN 372 and AS/NZS 4020 testing as applicable.

ii. the scope of testing shall include all testing requirements applicable to the range of products / families of products;

iii. in the case of a family of products linked by common characteristics, the test plan should identify the worst-case scenario for a specific test in order to qualify the whole family;
NOTE: Requirements of NSF/ANSI/CAN 372 and AS/NZS 4020 shall be considered in determining the worst case scenario.

iv. Type testing shall be conducted by an accredited testing laboratory;

v. The weighted average lead content of products containing copper alloy shall be not more than 0.25% when tested in accordance with NSF/ANSI/CAN 372.

vi. NSF/ANSI/CAN 372 evaluation of products containing copper alloy shall be conducted by the Approved Certifier.

vii. NSF/ANSI/CAN 372 testing of products containing copper alloy shall be conducted by an accredited testing laboratory;

viii. Batch release testing may be conducted by an Approved Certifier approved laboratory (such as a manufacturer's laboratory) or by an accredited testing laboratory;

ix. Batch release testing shall confirm ongoing conformance with NSF 372/ANSI/CAN for products containing copper alloy materials;

x. a manufacturer's capability for batch release testing shall be verified by an Approved Certifier at initial and ongoing factory audits by witnessing the batch release testing process.

Note: a) and b) apply to all new manufacturing sites.

II. Determination of characteristics – including testing, inspection, design appraisal as a minimum. Other determination activities such as verification may also be undertaken if required.

III. Review – including examination of evidence of conformity obtained during step II. above to establish whether the specified requirements have been met.

IV. Decision on certification – including granting, maintaining, extending, reducing, suspending, withdrawing certification (based on steps I.-III. above). Certification has a maximum term of 5 years.

a) The Approved Certifier shall commence re-evaluation of certification no later than three months prior to the expiry of the certificate.

b) Re-evaluation shall comprise product testing and factory assessment as follows:

Re-evaluation testing

i. samples for product testing shall be selected by the Approved Certifier from the factory/factories, warehouse or from the market;

ii. samples shall be representative of the range of products / families of products included on the WMCC;

iii. for products that have been added to the WMCC after initial certification, re-evaluation testing shall commence within three months of the fifth anniversary of the certification decision;

iv. the scope of testing shall not be less than that defined in the applicable specification for re-evaluation testing or, where not specified, for batch release testing or, where not specified, a scope developed by the Approved Certifier; NOTE: This includes NSF/ANSI/CAN 372 and AS/NZS 4020 testing as applicable.

v. re-evaluation testing shall be conducted by an accredited testing laboratory, and

Factory assessment

vi. on-site assessment of manufacturing quality management system and production process at each location. The scope shall be as per the initial assessment.

V. Attestation and licensing – including issuing a WMCC (attestation), granting the right to use certificates and granting the right to use Marks of Conformity (licensing). A Licence has a maximum term of 1 year.

VI. Surveillance – throughout the term of the certificate, the Approved Certifier shall conduct annual product conformity surveillance including:

a) review type testing undertaken as per the product specification and when one or more of the following occurs: a change in specification, design, material, manufacturing process or location. The Approved Certifier is to confirm with the Approved User that the type testing report is unchanged from that already held by the Approved Certifier. If the type testing report is different, the Approved Certifier is to request a copy and review; and

NOTE: This includes NSF/ANSI/CAN 372 and AS/NZS 4020 testing as applicable.

b) as a minimum annually, product inspection of product samples from, or intended for, the Australian market:

i. samples for product inspection shall be selected by the Approved Certifier from the factory/factories, warehouse or from the market;

ii. samples shall be representative of the range of products / families of products included on the WMCC;

iii. the scope of inspection shall not be less than that defined in the applicable specification for product inspection or, where not specified, a scope developed by the Approved Certifier;

NOTE: This includes NSF/ANSI/CAN 372 and AS/NZS 4020 testing as applicable.

iv. examination shall include reviewing the product markings, claims associated with a product; installation instructions and WaterMark Scope of Use included with the product; characteristics/critical attributes of the product against specifications and drawings; individually certified integral components against Licence details; and any other aspects identified by the Approved Certifier;

v. dis-assembling the product if required; and

c) as a minimum annually, a desktop review of:

i. batch release test results;

ii. any complaints;

iii. any non-conformities;

iv. consistency with applicable specifications;

v. certification currency of individually certified integral components; and

vi. the Approved User's declaration of conformity with the WaterMark Licence; and

d) ensuring the Approved User's declaration includes that there is no change to design, material, manufacturing process or location, integral products with individual certification, etc. or to provide details where there is a change; and

e) if the Approved Certifier has concerns arising from the annual review, those concerns shall be investigated and resolved by the Approved Certifier prior to re-issuing of the WaterMark Licence. This may require follow up activities including but not limited to factory inspection and re-testing.

8.6 Extension of Scope of Certification

8.6.1 If an Approved User wishes to extend the scope of certification to additional types of products, to the same specified requirements as the products for which a certification is already granted, the Approved User should apply to the relevant Approved Certifier.

8.7 Maintenance of Certification

8.7.1 The Approved User shall renew the certification of a product certified under the Scheme every 5 years or when there have been changes to the product or applicable specification.

NOTE: This includes NSF/ANSI/CAN 372 and AS/NZS 4020 testing as applicable.

8.7.2 When there has been a change in the applicable specification, the Approved Certifier shall advise the Approved User of this change. It is the Approved User's responsibility to renew certification of their product and ensure that products are manufactured to comply with all amendments to the applicable specifications referred to in the WMSP. Modifications shall be completed within a period of 12 months from the date of notification by the Administering Body that the applicable specification has been listed on the WMPD. This period may be extended in exceptional circumstances at the discretion of the Administering Body.

NOTE: This includes NSF/ANSI/CAN 372 and AS/NZS 4020 testing as applicable.

ATTACHMENT 2 (A) showing amendments in tracked changes

Amended Manual for the WaterMark Certification Scheme

Section 8 | Procedure for Certification (Clauses 8.5 to 8.7.2)

8.5 Initial Evaluation, Certification and Licence Issue, and Recertification

8.5.1 Initial evaluation, certification, licence issue and recertification of a product shall be conducted by an Approved Certifier as follows, and, for a product to be certified to the Lead Free requirements outlined in the National Construction Code Volume Three, also in accordance with Appendix 6 | Protocol for the evaluation of products containing copper alloy intended for use in contact with drinking water:

VII. Selection – including planning and preparation activities and specification of requirements such as normative documents and sampling as well as:

a) on-site assessment of manufacturing quality management system and production process (i.e. factory/factories have and follow a manufacturing Quality Plan and the relevant requirements of the Scheme and applicable specification) at each and any new location. Where manufacture of products seeking certification has not commenced, initially the on-site assessment shall be of capability, then once certification has been issued and production is underway, another on-site inspection shall take place within the next 12 months; and

b) approval of a type test plan and batch release testing regime covering the product(s) submitted for certification as follows:

i. the scope of testing shall not be less than that defined in the applicable specification for type testing and batch release testing, or where not specified, a scope developed by the Approved Certifier;
NOTE: This includes NSF/ANSI/CAN 372 and AS/NZS 4020 testing as applicable.

ii. the scope of testing shall include all testing requirements applicable to the range of products / families of products;

iii. in the case of a family of products linked by common characteristics, the test plan should identify the worst-case scenario for a specific test in order to qualify the whole family;
NOTE: Requirements of NSF/ANSI/CAN 372 and AS/NZS 4020 shall be considered in determining the worst case scenario.

iv. Type testing shall be conducted by an accredited testing laboratory;

v. The weighted average lead content of products containing copper alloys shall be not more than 0.25% when tested in accordance with NSF/ANSI/CAN 372.

vi. NSF/ANSI/CAN 372 evaluation of products containing copper alloys shall be conducted by the Approved Certifier.

vii. NSF/ANSI/CAN 372 testing of products containing copper alloys shall be conducted by an accredited testing laboratory;

~~v.~~viii. Batch release testing may be conducted by an Approved Certifier approved laboratory (such as a manufacturer's laboratory) or by an accredited testing laboratory;

ix. Batch release testing shall confirm ongoing conformance with NSF 372/ANSI/CAN for products containing copper alloys materials;

~~vi.~~x. a manufacturer's capability for batch release testing shall be verified by an Approved Certifier at initial and ongoing factory audits by witnessing the batch release testing process.

Note: a) and b) apply to all new manufacturing sites.

VIII. Determination of characteristics – including testing, inspection, design appraisal as a minimum. Other determination activities such as verification may also be undertaken if required.

IX. Review – including examination of evidence of conformity obtained during step II. above to establish whether the specified requirements have been met.

X. Decision on certification – including granting, maintaining, extending, reducing, suspending, withdrawing certification (based on steps I.-III. above). Certification has a maximum term of 5 years.

c) The Approved Certifier shall commence re-evaluation of certification no later than three months prior to the expiry of the certificate.

d) Re-evaluation shall comprise product testing and factory assessment as follows:

Re-evaluation testing

i. samples for product testing shall be selected by the Approved Certifier from the factory/factories, warehouse or from the market;

ii. samples shall be representative of the range of products / families of products included on the WMCC;

iii. for products that have been added to the WMCC after initial certification, re-evaluation testing shall commence within three months of the fifth anniversary of the certification decision;

iv. the scope of testing shall not be less than that defined in the applicable specification for re-evaluation testing or, where not specified, for batch release testing or, where not specified, a scope developed by the Approved Certifier; NOTE: This includes NSF/ANSI/CAN 372 and AS/NZS 4020 testing as applicable.

v. re-evaluation testing shall be conducted by an accredited testing laboratory, and

Factory assessment

vi. on-site assessment of manufacturing quality management system and production process at each location. The scope shall be as per the initial assessment.

XI. Attestation and licensing – including issuing a WMCC (attestation), granting the right to use certificates and granting the right to use Marks of Conformity (licensing). A Licence has a maximum term of 1 year.

XII. Surveillance – throughout the term of the certificate, the Approved Certifier shall conduct annual product conformity surveillance including:

f) review type testing undertaken as per the product specification and when one or more of the following occurs:
a change in specification, design, material, manufacturing process or location. The Approved Certifier is to confirm with the Approved User that the type testing report is unchanged from that already held by the Approved Certifier. If the type testing report is different, the Approved Certifier is to request a copy and review; and
NOTE: This includes NSF/ANSI/CAN 372 and AS/NZS 4020 testing as applicable.

g) as a minimum annually, product inspection of product samples from, or intended for, the Australian market:

vi. samples for product inspection shall be selected by the Approved Certifier from the factory/factories, warehouse or from the market;

vii. samples shall be representative of the range of products / families of products included on the WMCC;

viii. the scope of inspection shall not be less than that defined in the applicable specification for product inspection or, where not specified, a scope developed

by the Approved Certifier;
NOTE: This includes NSF/ANSI/CAN 372 and AS/NZS 4020 testing as applicable.

ix. examination shall include reviewing the product markings, claims associated with a product; installation instructions and WaterMark Scope of Use included with the product; characteristics/critical attributes of the product against specifications and drawings; individually certified integral components against Licence details; and any other aspects identified by the Approved Certifier;

x. dis-assembling the product if required; and

h) as a minimum annually, a desktop review of:

vii. batch release test results;

viii. any complaints;

ix. any non-conformities;

x. consistency with applicable specifications;

xi. certification currency of individually certified integral components; and

xii. the Approved User's declaration of conformity with the WaterMark Licence; and

i) ensuring the Approved User's declaration includes that there is no change to design, material, manufacturing process or location, integral products with individual certification, etc. or to provide details where there is a change; and

j) if the Approved Certifier has concerns arising from the annual review, those concerns shall be investigated and resolved by the Approved Certifier prior to re-issuing of the WaterMark Licence. This may require follow up activities including but not limited to factory inspection and re-testing.

8.6 Extension of Scope of Certification

8.6.1 If an Approved User wishes to extend the scope of certification to additional types of products, to the same specified requirements as the products for which a certification is already granted, the Approved User should apply to the relevant Approved Certifier.

8.7 Maintenance of Certification

8.7.1 The Approved User shall renew the certification of a product certified under the Scheme every 5 years or when there have been changes to the product or applicable specification.

NOTE: This includes NSF/ANSI/CAN 372 and AS/NZS 4020 testing as applicable.

8.7.2 When there has been a change in the applicable specification, the Approved Certifier shall advise the Approved User of this change. It is the Approved User's responsibility to renew certification of their product and ensure that products are manufactured to comply with all amendments to the applicable specifications referred to in the WMSP. Modifications shall be completed within a period of 12 months from the date of notification by the Administering Body that the applicable specification has been listed on the WMPD. This period may be extended in exceptional circumstances at the discretion of the Administering Body.

NOTE: This includes NSF/ANSI/CAN 372 and AS/NZS 4020 testing as applicable.

Protocol for the evaluation of products containing copper alloy intended for use in contact with drinking water

Version 2023.1

INTRODUCTION

This protocol for the evaluation of products containing copper alloy intended for use in contact with drinking water (protocol) was produced by the Administering Body to assist Approved Certifiers when evaluating a product that must satisfy the Lead Free requirements as identified on the WaterMark Schedule of Products.

The objective of this protocol is to ensure that the evaluation of products is aligned with the intent of the Lead Free provisions contained in the National Construction Code (NCC) and the evaluation of products is consistent between Approved Certifiers.

This Protocol was first published in 2023 (versions 2023.1) as Appendix 6 of the Manual for the WaterMark Certification Scheme (Manual).

There is a requirement in the National Construction Code (NCC) Volume Three – Plumbing Code of Australia (PCA) for products that contain copper alloy and intended for use in contact with drinking water must not have a weighted average lead content of more than 0.25% in accordance with NSF/ANSI/CAN 372.

These products are certified and authorised through the application of the Scheme.

The Scheme is governed by the Rules for the WaterMark Certification Scheme (Scheme Rules), which outlines the requirements for the use of the Mark of Conformity, and the Manual, which outlines the requirements for product evaluation and certification, risk assessment and developing product specifications. Certified products are identifiable by the WaterMark, which must be marked on the product upon the granting of a WaterMark Licence.

The Administering Body administers the review and approval of the existing, new or amended product specification for inclusion on the WaterMark Schedule of Products. Once the product specification is included on the WaterMark Schedule of Products, the Approved Certifier can undertake an evaluation of the new product to be listed on the WaterMark Product Database. The WaterMark Schedule of Products and WaterMark Schedule of Excluded Products are dynamic lists which change on a regular basis and are located on the WaterMark website (watermark.abcb.gov.au).

For further information about the role of product specification development within the Scheme, refer to Section 8 | Procedure for Certification in the Manual.

This protocol provides guidance and specific requirements for evaluating a product containing copper alloy intended for use in contact with drinking water.

Abbreviations and definitions

Abbreviations are listed in the Manual at paragraph 1.2. In addition the following abbreviations are used in this document:

Acronym	Meaning
AS	Australian Standard
AS/NZS	Australian/New Zealand Standard
NSF/ANSI/CAN	National Science Foundation/American National Standards Institute/Canadian Standard
PCC	Plumbing Code Committee

Words with special meanings are defined in the Manual at paragraph 1.3.1 and appear in italics throughout this document.

Terminology in this document

The words “shall” and “must” are to be construed as being mandatory.

The words "is to" and "are to" are to be construed as being directory.

The word "may" is to be construed as being discretionary or enabling, as the context requires.

The word “should” is to be construed as a recommendation.

TABLE OF CONTENTS

To be inserted in version included in updated Manual for the WaterMark Certification Scheme

1.1 Introduction

1.1.1 This protocol describes the procedure and requirements for products being certified or re-certified to the Lead Free requirements of NCC Volume Three.

1.1.2 The objective of this protocol is to provide guidance and specific requirements for the certification of products conforming to NSF/ANSI/CAN 372 by ensuring that:

a) the intent of the NCC is satisfied;
b) consistent and transparent processes are used; and
c) parties involved in the certification of products are fully informed about their involvement.

1.2 Application

1.2.1 For a product that is being certified, or re-certified, to comply with the Lead Free requirements of NCC Volume Three, the requirements used to certify products containing copper alloy, which are intended for use in contact with drinking water, shall include conformance to the applicable specifications, this protocol and NSF/ANSI/CAN 372.

1.2.2 Non-copper alloy material components of products, for the purposes of satisfying the Lead Free requirements of the NCC, shall be included in any wetted surface area calculation with an assumed lead content of 0% only for the components of materials other than copper alloy.

1.3 Initial Evaluation, Certification, Licence Issue, and Recertification of a Product containing copper alloy and is intended for use in contact with drinking water

1.3.1 Any product that contains copper alloy and is intended for use in contact with drinking water shall demonstrate conformance with its applicable specification and NSF/ANSI/CAN 372.

1.3.2 Initial Evaluation, Certification, Licence Issue, and Recertification of a product containing copper alloy to demonstrate compliance with NSF/ANSI/CAN 372 shall be conducted by an Approved Certifier as follows:

I. Where all components contain no more than 0.25% lead, the lead content of copper alloy components shall be verified by:
    a) a Lead Free WaterMark certification; or
    b) an accredited testing laboratory that has NSF/ANSI/CAN 372 included within its scope.

NOTE: The method of testing shall be determined by the accredited testing laboratory.

II. Where the manufacturer uses more than one copper alloy material supplier, the manufacturer shall demonstrate to the WMCAB that all materials contain no more than 0.25% lead. This is required at initial evaluation and annual product conformity surveillance.

III. Where the manufacturer uses more than one material supplier and is unable to demonstrate that all materials contain no more than 0.25% lead, each supplier's material shall be tested by an accredited testing laboratory in accordance with NSF/ANSI/CAN 372.

IV. Where any component contains more than 0.25% lead:

a) the lead content shall be verified by an accredited testing laboratory that has NSF/ANSI/CAN 372 included within its scope; and

b) the wetted surface area of the product shall be calculated in accordance with NSF/ANSI/CAN 372.

NOTE: The wetted surface area may be provided by the manufacturer so long as a declaration is signed stating that the information obtained is true and accurate.

c) components manufactured from materials other than copper alloy shall be included in the evaluation in accordance with Clause 1.2.2 above.

V. Where the product is part of a family of products, the product may be evaluated in accordance with the family of products provisions of Section 8.

VI. Where specific processes are adopted in the manufacturing of a Lead Free copper alloy product, those processes form part of the manufacturing process and shall be inspected during site visits.

NOTE: Lead free manufacturing processes may include lead washing. Refer to Clause 8.5.1 of the Manual for the WaterMark Certification Scheme.

VII. A product shall be recertified every 5 years and shall include evaluation to NSF/ANSI/CAN 372, including testing.

NOTE: A test report shall not be more than 12 months old.

VIII. A test report shall satisfy the requirements of AS ISO/IEC 17025.

NOTE: A flowchart of the certification process is included in Appendix A of this protocol.

1.4 Initial Evaluation, Certification, Licence Issue, and Recertification of a product that does not contain copper alloy

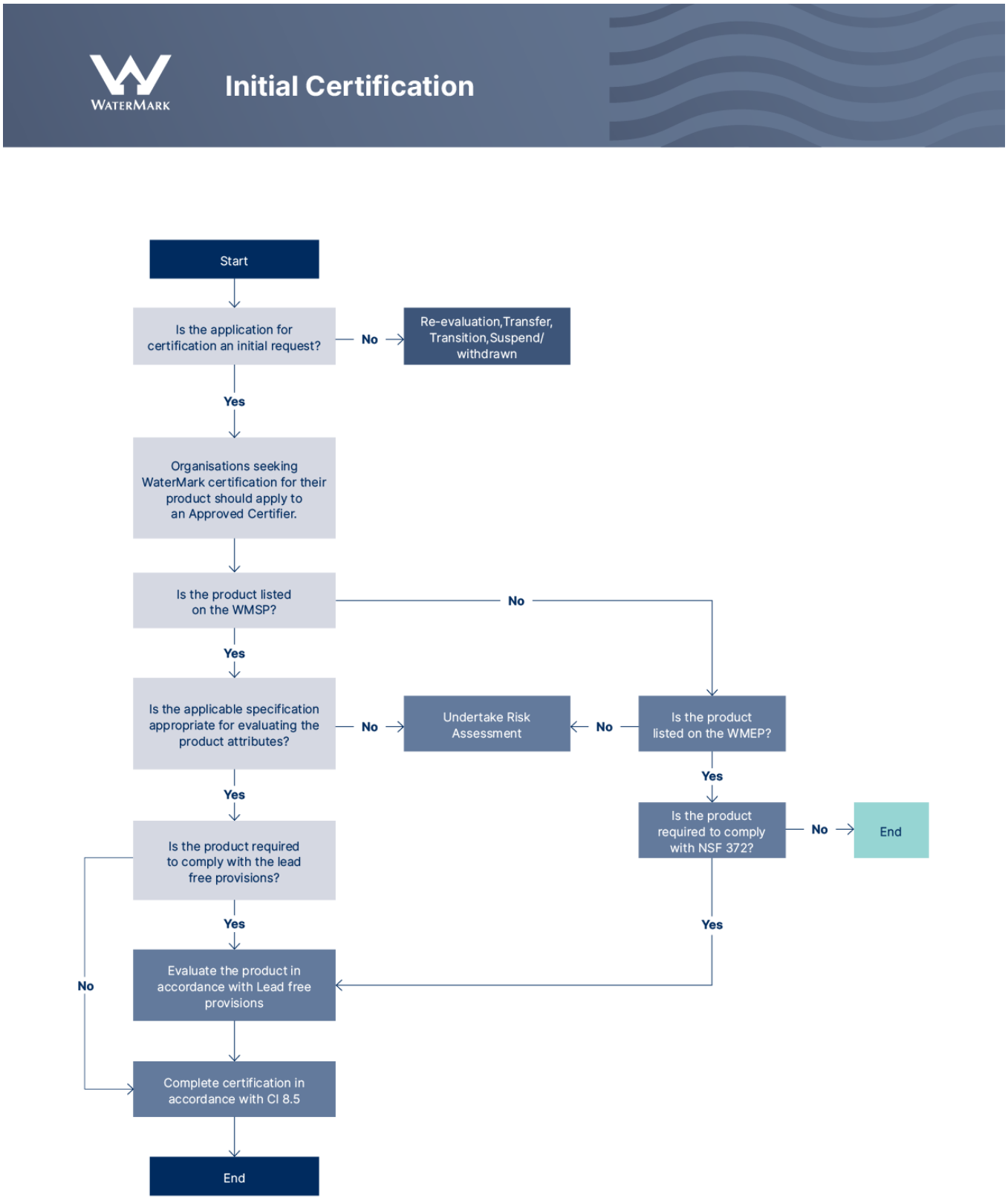
1.4.1 Any product that does not contain copper alloy shall demonstrate conformance with its applicable specification and may elect to demonstrate conformance with NSF/ANSI/CAN 372.

1.4.2 Initial Evaluation, Certification, Licence Issue, and Recertification of a product that does not contain copper alloy to demonstrate compliance with NSF/ANSI/CAN 372 shall be conducted by an Approved Certifier as per 1.3.2 above.

1.5 Products eligible to use the Lead Free Mark of Conformity

A product is only eligible to be marked with the Lead Free Mark of Conformity when the product has demonstrated conformance to NSF/ANSI/CAN 372 and the Approved Certifier has granted a Licence for use of the Lead Free Mark of Conformity.

APPENDIX A – CERTIFICATION FLOWCHARTS



NSF 372 Evaluation