



# ActivFire<sup>®</sup> Advisory Note AN-009

## Re-certification of smoke alarms to AS 3786:2023

This advisory note provides an explanation and timeline for re-certification of smoke alarm to AS 3786:2023 which have previously been certified to AS 3786:2014<sup>1</sup>. + A1:2015 + A2:2018. This Advisory Note includes important information regarding additional requirements for ongoing certification of smoke alarms to AS 3786:2023 by CSIRO's Fire Systems Laboratory and ActivFire<sup>®</sup> Scheme.

### Background

On 17 February 2023, the FP-002 committee of Standards Australia published the updated version of AS 3786, the standard smoke alarms must comply with as stated in the National Construction Code (NCC) of Australia. The standard is a modification of ISO 12239:2021 and contains several changes and additional requirements when compared to the previous version of AS 3786 (AS 3786:2014 + A1:2015 + A2:2018). The certification pathway to AS 3786:2023 for smoke alarms that are currently ActivFire<sup>®</sup> certified to AS 3786:2014 + A1:2015 + A2:2018 is detailed below.

### Changes to the National Construction Code (NCC)

AS 3786 is a referenced document in Australia's National Construction Code (NCC). On 1 May 2024, the Australian Building Codes Board (ABCB) published the Public Comment Draft (PCD) of NCC 2025 which includes proposed changes to NCC referenced documents. One of the proposed changes is to reference the 2023 revision of AS 3786 in-place of the 2014 revision currently referenced (see <https://www.abcb.gov.au/pcd/pcd-2025-ncc-referenced-documents>).

The ABCB does note that this is subject to further changes and that final confirmation will not come until closer to the finalisation of the 2025 edition of the NCC.

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<sup>1</sup> Certification criteria may have included Amendment 1 (2015) and Amendment 2 (2018) of AS 3786:2014.

## Changes to AS 3786

The significant changes and additional requirements of AS 3786:2023, when compared with AS 3786:2014 + A1:2015 + A2:2018, are detailed in Table 1 below.

**Table 1 Changes and additional requirements of AS 3786:2023**

Clause	Heading	Note
4.4	Response threshold value of detectors using scattered or transmitted light	New requirement.
4.5.2	Visual indicators	Different sections for interconnectable and non-interconnectable smoke alarms.
4.8	Visual indicator visibility	New requirement.
4.10	Test facility	New requirement for test facilities to be accessible from outside the smoke alarm when installed as specified in the installation instruction and remote test facility.
4.14	Standby power source	New requirement in clause 4.14.1.2 for when there are no suitable test procedures to verify standby power source.
4.15	External power supply equipment	New requirement.
4.22	Protection against the ingress of foreign bodies	Additional requirement to prevent rectangular probes from passing into the smoke chamber.
4.24	Alarm-silence facility – optional function	Additional requirement for interconnected smoke alarm and manual control of smoke alarm.
4.25	Temporary disablement – optional function	New requirement.
4.28	Smoke alarms using radio frequency links – optional function	New requirement.
4.29	Response to slowly developing fires (drift compensation) – optional function	New requirement.
4.30	Marking	New requirements including the following: <ol style="list-style-type: none"> <li>1. Explanation of the type designation.</li> <li>2. Nominal sound level output.</li> <li>3. Extended temperature range of the smoke alarm if applicable.</li> <li>4. All battery types shall be listed for user-replaceable battery smoke alarms.</li> <li>5. Visible information for class I apparatus in accordance with IEC 60065.</li> <li>6. Scattered threshold value band for smoke alarms using scattered and transmitted light.</li> </ol>
4.31	Packaging	New requirements include the following: <ol style="list-style-type: none"> <li>1. Number and date of the standard.</li> <li>2. Additional markings for type B smoke detectors as required by national regulations.</li> </ol>
5.1.8	Test schedule	Additional test requirements in Table 2 of AS 3786:2022 as described below: <ol style="list-style-type: none"> <li>1. Sound output (5.18 – 85 dBA and 5.19 – 70 dBA).</li> <li>2. Smoke alarms using radio frequency (5.22).</li> <li>3. Temporary disablement facility (5.24).</li> </ol>
5.4	Repeatability	Clause 5.4.3 – Has additional requirements for the lower threshold value $m_{min}$ and higher response threshold $m_{max}$ .
5.12	Vibration, sinusoidal (operational)	New requirement for the specimen to be monitored during the conditioning period.
5.19	70 dBA sound output – optional function	New requirement for smoke alarms with 70 dBA output.
5.22	Smoke alarms using radio frequency links	New requirement for smoke alarms using RF links.
5.23	Alarm-silence facility	Minor changes to the test procedure and requirements.
5.24	Temporary disablement facility	New requirement with minor similarities to the test procedure and requirements of Alarm-silence facility test of AS 3786:2014.
5.25	Variation in supply voltage	New requirements for band 2 smoke alarms and the high response threshold value $m_{max}$ .

## Requirements for certification to AS 3786:2023

Registrants seeking re-certification of existing smoke alarms are required seek re-evaluation by an ActivFire® Recognised Agency for Conformity Evaluation (RACE) to AS 3786:2023 and submit related evidence of conformity. Registrants are required to ensure that any such evaluation adequately covers the changes and additional requirements of AS 3786:2023 as detailed above, in addition to initial sensitivity testing to Clause 5.3 of AS 3786:2023, for re-certification purposes.

## Issuing Authorities

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## Issue Date

03-May-2024

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